UNIVERSITY
OF WOLLONGONG
AUSTRALIA

Understanding the next generation of leaders:

An exploratory study of constructions of leadership during childhood

Claudia Escobar Vega

Supervisors:

Principal Supervisor: Senior Professor Jon Billsberry

Co-Supervisor: Associate Professor Ann Rogerson

External Supervisors: Dr John Molineux (Deakin University)

External Advisor: Honorary Professor Susan Wright (The University of Melbourne)

This thesis is presented as part of the requirement for the conferral of the degree:

Doctor of Philosophy

This research has been conducted with the support of the Australian Government

Research Training Program Scholarship and

the Department of Education and Training Victoria

University of Wollongong

School of Management and Marketing

November 2020

Abstract

This thesis looks at how constructions of leadership develop, by investigating children's implicit representation of characteristics of leaders (Implicit Leadership Theories – ILTs) between five and 12 years old. ILTs refer to beliefs held by followers and leaders about how leaders behave in general, and what is expected from them (Eden & Leviatan, 1975; Shondrick, Dinh, & Lord, 2010; Sy et al., 2010). The examination of this area will enlighten the understanding of how future leaders perceive this social role and its characteristics (Ayman-Nolley & Ayman, 2005), and also contribute to research on leadership development.

Considerable strides have been made in the study of leadership aimed at understanding ILTs in the context of adult forms and emergence of leadership (Edwards, 1994; Trawick-Smith, 1988), and even though it has been found that ILTs develop early in life (Keller, 1999; Offermann & Coats, 2018; Shondrick et al., 2010), limited research can be found on ILTs antecedents, including children's ILTs (Lord, Epitropaki, Foti, & Hansbrough, 2020; Shin, Recchia, Lee, Lee, & Mullarkey, 2004). It has been established that children as young as five have a concept of a leader, can distinguish between leaders and non-leaders, that ILTs can be positive or negative, and can be task-oriented, level-of-involvement-oriented, or relationship-oriented (Ayman-Nolley & Ayman, 2005; Matthews, Lord, & Walker, 1989). Hence, children's ILTs may vary both in their content and structure and also in the way they make decisions about leaders in their own

groups (Ayman-Nolley & Ayman, 2005).

On the other hand, children's conceptions of leadership have been studied for a century or so (e.g., Broich, 1929; Parten, 1933; Pigors, 1933). From this work, it has been found that children's representations of leaders in primary school develop from a physical and spatial notion (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960; Sacks, 2009; Selman, Jaquette, & Lavin, 1977), towards a functional (Broich, 1929; DeHaan, 1962) and socio-emotional notion (Ayman-Nolley & Ayman, 2005; Nemerowicz & Rosi, 1997; Oliveira, 2016; Salmond & Fleshman, 2010; Selman et al., 1977; Yarrow & Campbell, 1963). Also, that children's perceptions of leaders are contextual and sensitive to factors such as family, school, entertainment, media, political, and religious contexts (Antonakis & Dalgas, 2009; Ayman-Nolley & Ayman, 2005; Broich, 1929; Hess & Easton, 1960; Liu, Ayman, & Ayman-Nolley, 2012; Okamura, 1968; Oliveira, 2016).

By exploring children's ideas and perceptions, this study aims to contribute to our understanding on how our ideas of leaders emerge, how they are learned, and how they evolve over time. Subsequently, the present research aims to further explore the following research questions: *RQ1 How do children's ILTs develop?* and *RQ2 How do children's ILTs relate to adult ILTs?* It reports on data from 251 children in a public primary school in Australia. The method asked the children to *'draw a leader doing what they do, draw a leader leading'* before asking them to verbally describe their drawing, and followed by asking each child the question *What is a leader?* to explore the image of a leader in the minds of children.

Acknowledgments

I acknowledge the Wurundjeri Woi-wurrung people who are the Traditional Owners and custodians of the land where this research was developed. I recognise their continuing connection to land, water and culture. I pay my respects to Elders past, present and emerging.

I also acknowledge the future generations of this world and acknowledge the responsibility I have to make every effort to ensure, with due regard to human rights and fundamental freedoms, that the needs and interests of present and future generations are fully safeguarded, guided by UNESCO's Declaration on the Responsibilities of the Present Generations Towards Future Generations.

This thesis is dedicated to my five year old daughter Luna and my partner Jorge, whom I thank for their love, ongoing support, and patience during the intense years developing this research. And also to my parents Fernando and Beatriz, for their love and support always.

I would like to express my sincere gratitude to my supervisors Jon and John for their scientific enthusiasm, sharp and inspirational insights, and for always being responsive to my ideas and queries. Your guidance was *fuera de serie*[1]. Thanks also to Honorary Professor Susan Kay Wright - Chair of Arts Education Melbourne Graduate School of Education The University of Melbourne, for her thorough advice on researching children's thinking through drawings.

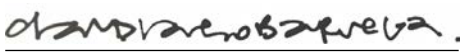
[1] Unique, one of a kind in Spanish.

I also want to thank the school Principal, Bruce, art teachers Jorge, Daniela, and Wes, and other directives, teachers, and staff, for opening your doors and supporting this research in such a generous way. And to each of the 268 children who excitingly responded to my invitation to be part of this research, both in the pilot and in the main study. Thank you for letting me travel into your minds, explore deeply your creative drawings, and listen to your ideas about leaders. I hope the findings of this thesis are enlightening for you as a group and welcomed by adults who are interested in children's thinking, and those who make decisions about your future and who can apply this new knowledge positively. Thanks to their parents and caregivers for providing consent, it required an extensive read! Also, to my aunty Merita for helping so much during the data collection. And to Professor Ruth Rentschler for her guidance during the beginning of this journey, and her ongoing support throughout my professional life.

I also acknowledge the financial and academic support of the University of Wollongong, School of Management and Marketing, the Australian Government Research Training Program Scholarship, Elite Editing Thesis Write-up Scholarship, and Deakin University. I want to specially thank the Department of Education and Training Victoria for supporting this research.

Certification

I, Claudia Escobar Vega, declare that this thesis submitted in fulfilment of the requirements for the conferral of the degree Doctor of Philosophy, from the University of Wollongong, is wholly my own work unless otherwise referenced or acknowledged. This document has not been submitted for qualifications at any other academic institution.



Claudia Escobar Vega

16h November 2020

List of Names or Abbreviations

CBD	Central Business District
ILT	Implicit Leadership Theory
ILTs	Implicit Leadership Theories
NESB	Non-English-Speaking Background
Prep	Preparatory year - First year of school in Victoria, Australia, including four year old children who turn five by April 30 of that year and up to six year old children
Primary school	In the Australian school system, primary school students are aged between five and 12 years old. There are seven years of primary school 'Prep' to year 6
Public school	Government-funded schools free to attend
Victorian School Year	Schools in Victoria, Australia, start in January and finish in December

Table of Contents

List of Appendices

List of Tables and Figures

Tables

Figures

1

Introduction

1.1 Purpose

The purpose of this study is to improve our understanding of how children's implicit leadership theories (ILTs) develop between the ages of five and twelve.

1.2 Background

This thesis looks at how constructions of leadership develop, focusing on the early signs of leadership in children, to contribute to the literature on the development of leadership thinking. This study focuses solely on the understanding of the mental model of 'leader' and is focused on ILTs, that look at lay theories of what leaders are.

ILTs refer to beliefs held by followers and leaders about how leaders behave in general and what is expected from them (Eden & Leviatan, 1975; Shondrick et al., 2010; Sy et al., 2010). The study of ILTs has grown over the last 45 years and has become a major area of the study of leadership, providing insight into the way individuals collectively process perceptions of leadership which are determinant when granting leadership status (DeRue & Ashford, 2010) or responding to leadership milieus and stimuli.

Recent research has demonstrated that ILTs develop early in life and that early leadership perceptions and reactions may affect these social constructs (Frost, 2016; Shondrick et al., 2010). Research has also determined that early childhood experiences may impact individual differences in implicit leadership theories and may explain variations in adult ILTs (Hunt, Boal, & Sorenson, 1990; Ligon, Hunter, & Mumford,

2008). Anecdotal evidence suggests that emergent leadership is common among children in the classroom and on the playground (Yamaguchi, 2001; Yamaguchi & Maehr, 2004).

However, to date, there have been fewer than a dozen published studies looking at children's ILTs in the United States (US), Costa Rica, China, and Philippines, which were published in the period 1989 to 2016. In conjunction, these studies found evidence that children as young as five years old can differentiate leaders from non-leaders (Matthews et al., 1989), already have ILTs (Ayman-Nolley & Ayman, 2005), and by eight-years-old, can recognise the leadership-followership relationship (Ayman-Nolley & Ayman, 2005). Additionally, children's ILTs are different across developmental stages and gender (Ayman, 1993; Ayman-Nolley & Ayman, 2005; Ayman-Nolley, Ayman, & Leone, 2006; Leffler, Ayman, & Ayman-Nolley, 2006; Liu et al., 2012; Oliveira, 2016), the impact of early relationships or experiences with leaders is fundamental in establishing leadership traits in children (Ayman-Nolley & Ayman, 2005; Liu et al., 2012; Oliveira, 2016), and they are sensitive to familiar, educational, political, cultural, and religious contexts (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Liu et al., 2012; Oliveira, 2016; Sacks, 2009). However, little is known about how the content of children's ILTs develops across childhood, and from naïve conceptions of leaders into adult ILTs. These questions are important because ILTs formed during this period shape the adult leader and adult follower.

Since children's leadership is an under-theorised and under-researched topic (Lee, Recchia, & Shin, 2005; Mawson, 2011), further work is needed to study the

emergence of lay theories of leadership in early years, to highlight actual behaviours of young leaders, and thus provide more holistic descriptions of the leadership styles of young children (Shin et al., 2004). The proposed research aims to contribute to this area of research and help advance our understanding of leadership development. Understanding the developmental process should provide insight in the various levers that can be used to influence this developmental process.

To do so, it has reviewed almost 100 years of research both on children's perceptions of leaders within the disciplines of psychology, learning, and social development and also, on children ILTs, emerging from leadership studies. Additionally, it has examined the leader mental models of 251 children between five and 12 years old from a public primary school in Australia.

1.3 Research questions

With this in mind, the following are the research questions of this study.

RQ1 How do children's ILTs develop?

RQ2 How do children's ILTs relate to adult ILTs?

1.4 Outline of the thesis

The document is outlined in the following chapters:

1. Research questions: The thesis first explores in detail each of the research questions and explains how each is going to be addressed.
2. Literature review: This chapter is divided in two parts. The first part explores the theory of ILTs, and the second part investigates children's perceptions of leadership including the children ILT literature.

3. Methodology: This chapter presents the methodological approach to the study, research design, sample, procedure, and analysis of the data.
4. Results: The results section presents the results and analysis associated with each research question.
5. Discussion: This section explores the study's major findings and observations, directions for future research, the study's limitations, and its major contributions to theory and practice
6. Conclusion: This last section presents the final opinion reached after conducting this research.

Lastly, the thesis includes a list of references and appendixes with detailed information about the method and results.

2

Research Questions

Nearly 100 years of research have been directed towards understanding how children conceptualise leadership. It has been found that adult ILTs initiate in early life (Borman, 1987) and are established in the early years (Ayman-Nolley & Ayman, 2005; Matthews et al., 1989; Oliveira, 2016). Additionally, early interactions mould adult leadership styles and expectations (Keller, 1999), and individuals endorse caregiver attributes in adult representations of ideal leaders (Keller, 1999; Shondrick et al., 2010). But we have scant understanding of these important processes, so this thesis explores the antecedents of ILTs, how they development during infant and primary age-childhood, and how they relate to adult ILTs. Hence,

RQ1: *How do children's ILTs develop*?

RQ2: *How do children's ILTs relate to adult ILTs?*

RQ1: How do children's ILTs develop?

To answer the first research question, the thesis will explore how children develop their understanding of leadership. The literature has consistently pointed out that children define their understanding and expectations of leaders differently at different ages and grades (Broich, 1929; Chauvin & Karnes, 1984; DeHaan, 1962; Hess & Easton, 1960; Okamura, 1968; Pigors, 1933; Selman & Jaquette, 1977; Selman et al., 1977). Specifically, dimensions have been found to be linked to specific stages throughout their schooling. Spatio-temporal and physical in early primary school (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960; Sacks, 2009; Selman et al., 1977),

functional (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960) and socio-emotional (Ayman-Nolley & Ayman, 2005; Nemerowicz & Rosi, 1997; Oliveira, 2016; Salmond & Fleshman, 2010; Selman et al., 1977; Yarrow & Campbell, 1963) in middle primary school. Then, relational (Sacks, 2009) and socio-emotional (Ayman-Nolley & Ayman, 2005; Selman et al., 1977; Yarrow & Campbell, 1963) in late primary school and lastly, humanitarian in early high school (DeHaan, 1962; Sacks, 2009; Selman & Jaquette, 1977). In addition, this thesis will examine whether and how children's ideas of leaders become more sophisticated, and whether such development is dependent on age (Broich, 1929; DeHaan, 1962), social-cognition (Hess & Easton, 1960; Selman et al., 1977), and/or experience (Sacks, 2009; Salmond & Fleshman, 2010).

Additionally, the study will examine children's ILTs developmental cues, such as gender preferences, leader's ethnicity, social role content, and gender stereotypes (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Frost, 2016; Liu et al., 2012; Oliveira, 2016) and explore U-shaped or J-shaped patterns across grades, as proposed by Ayman-Nolley and Ayman (2005). By exploring these theories of development, the research can contribute towards the understanding of how does the content of children's ILTs form, develop, and what influences such development.

RQ2: How do children's ILTs relate to adult ILTs?

To answer the second research question, the present research wants to test the extent to which ILTs are different to children and adults. To identify children's content structures and notions of leadership that resemble adult-like ILTs, the study will explore if adult ILTs develop from children's naïve conceptions of leaders into the adult ILT

profiles revealed by (Offermann, Kennedy, & Wirtz, 1994), (Epitropaki & Martin, 2004), and (Offermann & Coats, 2018). To compare the content of children's ILTs to those of adults, the research will look both for direct comparisons with similar terminology and explore conceptual similarity when children use different, but related, language to express their leadership conceptualisations. This way, the research should provide insight to ILTs antecedents, including developmental commonalities, and their increasing complexity (or otherwise) and the various levers that can be used to influence this developmental process.

3

Literature Review

This research aims to gain insight into the nature and content of children ILTs and how these constructions develop during childhood. The literature review includes a section exploring the theory of ILTs, how they are stored, factors linked to people's perceptions of ILTs, and the stability and generalisability of these cognitive structures. Secondly, it investigates children's perceptions of leadership including the sparse children ILTs literature exploring traits, categories, content of leadership conceptions, and developmental trends.

3.1 Implicit Leadership Theories (ILTs)

Social perception amongst human behaviour is a complex area of research within the social sciences. Its vast literature addresses, amongst many other issues, researchers' interest in understanding how people read and understand the actions of 'the other' (Plaks, Levy, & Dweck, 2009). Specifically, cognitive information processing in humans has been found to depend on lay beliefs or traits that shape perception of 'the other' and the environment and minimise mental work (Hong, Levy, & Chiu, 2001; Levy, Chiu, & Hong, 2006; Molden & Dweck, 2006). These cognitive processes, known as social cognition, include all information gathered from perceptive cues that are accurately interpreted for emotional, behavioural, and interpersonal communication (Suchy & Holdnack, 2013). These processes determine everyday working frameworks for social interaction and the phenomenon of leadership, which is social in its core, and is subject to these processes of social cognition.

As far back as 1948, it had been observed that factors associated with leadership traits are relevant to followers. Stogdill (1948) literature review gathered features describing leaders and structured them into personal factors including capacity, achievement, responsibility, participation, and status. He also acknowledged the relevance of the mental level, status, skills, and needs of followers and their role within the phenomenon of leadership (DeHaan, 1962; Stogdill, 1948). However, it was not until 1975 that the study of traits was conceptually defined under the appellation of Implicit Leadership Theories (ILTs).

The concept was first introduced by Eden and Leviatan (1975), referring to beliefs held by individuals about how leaders behave in general and what is expected from them (Eden & Leviatan, 1975). They derived the concept from Schneider (1973) implicit personality theories and as a response to developments in social cognitive theory. Since then, there has been a growing interest and increasing research activity in the study of significance of personality and traits for leadership (Felfe & Schyns, 2014).

ILTs are cognitive structures that hold the traits and behaviours of leaders (Eden & Leviatan, 1975; Epitropaki & Martin, 2004; Kenney, Blascovich, & Shaver, 1994; Offermann et al., 1994; Schyns & Schilling, 2011). In other words, ILTs are conceptualised as everyday images of what leaders are like (Foti, Keller Hansbrough, Epitropaki, & Coyle, 2014; Lord & Maher, 1991; Lord & Shondrick, 2011; Offermann et al., 1994; Schyns & Schilling, 2011). Hence, ILTs can be defined as lay images of leadership that everyone holds individually as an idiosyncratic theory about the traits and behaviours of leaders (Eden & Leviatan, 1975; Offermann et al., 1994; Schyns &

Meindl, 2005; Schyns & Schilling, 2011). These observer-centric images are used by perceivers to help them read and codify 'the other' and respond correspondingly to leadership processes with minimal cognitive effort (Billsberry et al., 2018; Lord, 2005; Shondrick et al., 2010). In short, perceivers use ILTs in a dynamic and integrative way that employs the use of mental categories and schemas "that affect both perception and memory" (Lord et al., 2020, p. 51) to make rapid sense of another's intentions and behaviours (Shondrick et al., 2010).

Subsequently, ILTs are reflected in the prospects that followers bring to the leader-follower relationship (Offermann et al., 1994). So, the acceptance of someone as a leader is only possible if there is a match between potential followers' prototypical mental model of the leader and their tangible perception of that person (Billsberry et al., 2018; Van Quaquebeke & Van Knippenberg, 2012). Successively, ILTs help guide perceptions and the active construal of others by providing a set of generic assumptions and beliefs as what to expect and how to respond in an adaptive manner to various individuals (Brown, Scott, & Lewis, 2004; Fiske & Taylor, 1984; Shondrick et al., 2010). When ILTs match situational perception, the process of claiming and granting leader distinctiveness is ignited (DeRue & Ashford, 2010; Schyns, Kiefer, Kerschreiter, & Tymon, 2011) and followership behaviour emerges (Swanson, Skinner, Mueller, Billsberry, & Kent, 2019).

Therefore, ILTs are thought to ignite the very beginning of the leadership process and mark the groundwork for the progression of the leader-follower interaction as they are first and foremost when mutual perception and awareness is initiated. Consequently,

ILTs study the mental model of leadership from the observer's point of view (Billsberry & Meisel, 2009) and are thought to be central in the leadership process because they determine the leader's expected attributes, roles, and privileges (Lord & Maher, 1991), and which leaders will be more likely to be accepted and allowed to exert influence (House, Javidan, Hanges, & Dorfman, 2002; Junker & van Dick, 2014; Kenney, Schwartz-Kenney, & Blascovich, 1996). Once leaders are compared and subsequently matched to an ILT, the individual is labelled as a leader and other related constructs such as the ability to influence others are also activated (Lord & Shondrick, 2011).

Even though ILTs are held individually and ignited through the perception of 'the other' based on the perceiver's implicit ideas of what leaders are (Den Hartog, House, Hanges, Ruiz-Quintanilla, & Dorfman, 1999; Lord, Foti, & De Vader, 1984; Lord & Maher, 1991), ILTs can also be collective and socially determined. This means that in a group, even if the potential leader matches one person ILTs, leadership status will not be achieved if other group's members don't hold comparable ILTs (Eden & Leviatan, 1975; Schyns et al., 2011). In other words, ILTs influence both one-on-one interactions between two people, as well as one-and-all interactions between a potential leader and a group of people. Since leadership stands within the spectrum of behaviours within groups of people, it explains why groups often possess multiple, contextually based schemas and categories of leaders (Lord & Brown, 1999; Lord, Foti, & Phillips, 1982; Phillips & Lord, 1982; Shondrick et al., 2010). For example, Lord et al. (1984) study on leader content prototypes finding that the group of study, even when rating different types of leaders, considered intelligent, outgoing, understanding, and dedicated as

leadership attributes (Lord et al., 2020). In other words, people's ILTs work congruently alongside each other, responding to the variability of contexts and nature of social groups creating patterns of features, attributes and behaviours which result in leadership syntality, a collective mental image of leadership (Shondrick et al., 2010).

So, only when the ILTs of leaders match sufficiently across patterns in a group, or group leadership structures (Lord et al., 2020), are leaders granted leader identity, the relationships become clear, and leaders be collectively recognised (DeRue & Ashford, 2010). Hence, the concept of ILTs is complex as it is not a unitary construct. On one hand, it is collectively moulded and on the other hand, it works to unchain other constructs that can only appear once the ILTs are activated to help perceivers simplify social processes so that they can attend to other matters, such as solving problems or coordinating activity within a team (Shondrick et al., 2010).

3.1.1 ILTs and memory. Implicit leadership theories are thought to be stored in people's memory and activated when the individual enters into a leader-follower relationship (Epitropaki & Martin, 2004). Subsequently, memory is considered to be a factor linked to the development of people's ILTs (Offermann et al., 1994), as perceivers use categorisation processes (Rosch, 1978) for matching an observed person against an abstract prototype stored in memory. Furthermore, ILTs actively are capable of adaption to everchanging contexts while clinging strongly to persistent memory schemas (Lord et al., 2020, p. 58).

Neurological research has found that certain brain areas show specialisation in the types of memory storage that they support (Shondrick et al., 2010). It has been found

that there are two types of memory systems within individuals: (1) declarative, and (2) non-declarative, as different parts and functions within the human brain are responsible for each system (Tumarkin, 2013). According to J. Davis (2001), declarative memory describes the remembering of whole bodies of conceptual information, which underlie general knowledge about the world (otherwise known as semantic memory), and accessing all information gathered through life, that is available for conscious retrieval (otherwise known as autobiographical or episodic memory). In contrast, non-declarative memory systems process patterns of perception, emotion, and action, without representing the past in terms of any consciously accessible content (J. Davis, 2001), but it is still unclear where ILTs are stored.

Lord et al. (2020) recent review of ILTs and Implicit Followership Theories (IFTs) explores declarative memory structures and their role in organizing and storing leadership information in detail. The authors believe that ILTs held in semantic memory are general abstract constructs that permeate contexts and create leader prototypes that are long-lasting and carry behaviour expectations. Subsequently, such structures are activated only when the perceiver recognises the other's presence without impressions of behaviour (Lord et al., 2020). These attributions of leadership (Lord & Maher, 1991) are retained as cognitive categories in memory, organised hierarchically (Den Hartog et al., 1999). On the other hand, Lord et al. (2020) propose that ILTs can also been found to be stored within episodic memory structures, that specialise in momentary, contextualised, event-based behaviour that over time, can become semantic, loosing behavioural specificities.

In some situations, ILTs are thought to be stored in non-declarative memory. For example, Squire and Zola (1997) found that the capacity for non-declarative (non-conscious) learning could be studied in prototype abstraction. In the same way, the ILTs matching process of an observed person against an abstract prototype stored in memory could be the result of a non-conscious learning process. Furthermore, non-declarative memory dimensions such as perception, emotion, and action, have increasingly been recognised as holding leadership embodied embedded views of cognition. For example, Lord et al. (2020) note that ILTs studies have found that people rate leaders based on emotional cognition, which is stored in the non-conscious affective memory system (Lord et al., 2020, p. 59). Furthermore, they also report that often, when rating ILTs, "people may access affective or semantic memories rather than explicit behaviours stored in episodic memory, in part because it is faster and less effortful to rely on these more general memory stores" (Lord et al., 2020, p. 61).

In conclusion, cognitive scientists (Eichenbaum, 2002) have long tried to distinguish between declarative and non-declarative processes and memory systems within individuals. They have found that different parts and functions within the human brain are responsible for these systems (Tumarkin, 2013), but it is still unclear where prototypic abstraction is stored in the brain (Lord et al., 2020). Perhaps ILTs exist in a dynamic between both declarative and non-declarative processes (Shondrick et al., 2010).

3.1.2 Information-processing models. The study of how ILTs are stored and processed in the brain is observed within the domains of social cognition and gathered

through verbal and non-verbal cues (Beer & Ochsner, 2006). Lord and Shondrick (2011) argue that the study of leadership processes should involve multiple types of knowledge including symbolic views such as verbal and non-verbal symbol structures (Lord et al., 1984), connectionist views such as imagery including identities and emotion (Lord et al., 1984), and the embodied, embedded views such as sensitivity to social environments, as it can provide a holistic understanding of leadership cognitive modes and its development, and may explain variations in leadership perception (Giessner & Schubert, 2007).

Correspondingly, there are three dimensions for understanding how ILTs are stored and processed based on knowledge structure theory. These dimensions work together to respond rapidly to multiple stimuli and provide the necessary information so the individual can either engage with or abandon the follower-leadership interaction. These views are contextually sensitive so, once the environment sprouts information, elements spread across all these forms of knowledge allowing the perceiver to transition dynamically, adapt to the situation, and register knowledge for future interaction (Sparrowe, 2014).

One dimension is based on symbolic views of knowledge or abstract representations of concepts such as words (Shondrick et al., 2010), and is known as categorisation theory. The second one is based on connectionist views or network-based dynamism, where unknown representations of leadership can be assessed due to prior experience creating new knowledge (Thomas & Mareschal, 2001), known in ILTs literature as the connectionist model (Foti et al., 2014). The third one, based on

embodied embedded views of knowledge, recognise the dynamic between neural and non-neural cognition, acknowledging the perceiver's body role as a constrainer, distributor, or regulator of information processing (Lord & Shondrick, 2011; Wilson & Foglia, 2017). The next three subsections explore in detail each of these processes for further understanding.

Categorisation theory. Rosch (1978) explains how people use categories of behaviour to differentiate a leader from a non-leader, or leadership behaviour from non-leadership behaviour, in order to simplify social interaction (Kenney et al., 1994; Lord et al., 1984; Phillips & Lord, 1982; Shondrick et al., 2010). According to this theory, experiences with leaders gradually build a person's general knowledge about leadership, developing fixed prototypic ideas or as Rosch (1978) puts it, abstract schemas made up of leadership attributes that, put together, form the most recognised category member of a particular kind (Lord et al., 1984, p. 346). These prototypic ideas include how a leader is meant to be and behave (Shondrick et al., 2010) and are shaped by the perception of features that transform information into categories (Lord & Maher, 1991), which allow ILTs to be quickly applied so that perceivers can transform leadership input into behavioural output (Lord et al., 2020).

This process, as discussed by Lord et al. (2020), adjusts to contexts and can either have a prototypic approach or an exemplary view. In the first one, perceivers compare the individual with their idea of a prototypic leader held within traits and attributes; and in the second one, perceivers search for resemblance between the individual and the person that most resembles the leadership category (Lord et al., 2020). For example, in

a simplistic scenario, a person in the prototypic approach would search for cues on sensitivity, intelligence, creativity, assuming those would be their ILTs. In the exemplar view, the individual would compare the person to Barack Obama, assuming this would be the more representative leader in the political context within this person's level of social cognition.

Regardless, the use of categories follows a three-step matching process and is enacted by individuals as a strategic response to the numerous and simultaneous perceptual displays of information people receive every day (Hartog, Muijen, & Koopman, 1997; Lord et al., 1984; Lord et al., 1982; Offermann & Coats, 2018). By comparing stimuli with established patterns, prototypes are activated categorising 'the other' with labels (Engle & Lord, 1997; Lord, Brown, Harvey, & Hall, 2001), and providing independent mental exemplars (Swanson et al., 2019). This serial process of ongoing perceptual amalgamation causes these knowledge structures to be the most stable and enduring in comparison with connectionist models or embodied embedded views (Sparrowe, 2014). These ideas are contextually-based and rely on general impressions (Engle & Lord, 1997), so the perceiver is able to match, understand, and plan behaviour in leadership interaction (N Cantor & W Mischel, 1979), relying on the many mental representations of leaders depending on the setting and situation (Lord et al., 1984; Lord et al., 1982; Shondrick et al., 2010). Additionally, "once categories are learned, they allow the perceiver to represent a highly complex external world in terms of a more abstract, but simpler, cognitive representation" (Lord et al., 1984, p. 347).

Since these symbolic models of cognition are used for "cognitive processing, representation and learning" (Rosch, 1978, p. 46) and are activated depending on situations and environments (Lord et al., 1984; Lord et al., 1982), they are resolved when a person processes the information by accessing the knowledge structures associated with the particular circumstance (Swanson et al., 2019). Subsequently, ILTs provide contextually sensitive understandings about the world through perceived qualities of leadership to fit a specific framework e.g., business leaders, Japanese business leaders, religious leaders, and female leaders (Lord et al., 1984; Lord & Shondrick, 2011; Offermann et al., 1994).

Lord et al. (1984) and Phillips and Lord (1982) propose that there are three levels of leader categorisation depending on the level of abstraction (Shondrick et al., 2010). These levels group the multiple representations of leaders in context, behaviour, and characteristics (Shondrick et al., 2010). The first one, known as the *superordinate* level, helps individuals distinguish leaders from non-leaders, provides generalisation, and is the most inclusive and abstract (Shondrick et al., 2010). The second level, known as *basic* category, is situational and contextually sensitive and helps categorise leaders horizontally, by type of group or organisation e.g. political, religious, military (Frost, 2016; Schyns et al., 2011). For example, Solano (in Shondrick et al., 2010) found that people have different expectations of military leaders compared to democratic leaders. The third level is the *subordinate* level and contains behavioural patterns and traits (Shondrick et al., 2010) that are contextually dependent (Alipour, Mohammed, & Martinez, 2017). Furthermore, it includes subdivisions or moderators within the basic

level that are mediated by gender or hierarchical perception (Shondrick et al., 2010). Its exact nature is yet to be determined due to its high dependency on perceivers' contextual cues, experience with leaders, bias and cognitive capacity (Lord et al., 1984). However, this category can be divided in what Lord et al. (1984) called *abstract representations,* that aid specific role distinctions within a category and carry unique relational traits, or can also be *exemplar representations* that are linked to specific people. For example, military leaders' *abstract representations* can include navy, army, or air force leaders and political leaders' *exemplar representations* can include Barack Obama or Kevin Rudd if these are shining examples of political leaders in an individual's mind (Frost, 2016; Kenney et al., 1994; Schyns & Schilling, 2011).

Categorisation theory proposes that leadership mental models emerge separately, depending on the context, and stand fixed as mental islands that are visited only when the right context is perceived, so there are no links or connections with other exemplars (Swanson et al., 2019). However, it has been found that ILTs at times are dynamic, sudden, and can surface in the moment, making the ILT available on-time for the perceiver (Lord et al., 2001; Shondrick et al., 2010), especially when individuals encounter a new representation yet to be stored (Lord et al., 2001). These dynamic qualities have been explained by the connectionist models of leadership, developed from categorisation theory to improve ILTs recognition (Shondrick et al., 2010).

Connectionist theory. The connectionist model (Hanges, Lord, & Dickson, 2000; Lord et al., 2001; Lord & Shondrick, 2011; Swanson et al., 2019), developed from categorisation theory to improve ILTs recognition (Shondrick et al., 2010), responds to

the dynamic qualities of these mental models (Lord et al., 2001). This perspective proposes that knowledge can be stored across neuronal-like processing units, retrieved unconsciously and processed very quickly (Lord & Shondrick, 2011, p. 208). These parallel units stay dormant but once stimulated, they activate, creating patterns or 'neural nests' that have different weights (Lakomski, 2001). Subsequently, connectionist systems can dynamically adjust category prototypes to fit contexts (Foti et al., 2014), providing a combinatory platform where the individual, the group, and the context can inter-connect (Lord et al., 2001). The connectionist model works based on perceptive cycles, that feedback the exemplars contained within memory, and update patterns of meaning, so it is possible for equal inputs to lead to different interpretations (Lord et al., 2001, p. 315). Subsequently, instead of following a step-based model for processing information located in isolated cognitive islets, it works to activate the entire network and seize the necessary patterns to ignite connections rapidly (Hanges et al., 2000).

Through this process, it simultaneously combines individual, task, and social factors to create contextually sensitive leadership categories of behavioural scripts (Lord et al., 2001). These social librettos are stored in memory and later serve leadership action and reaction (Lord et al., 2020). Hence, prototypes mutate with new inputs and variation of situational factors (Brown & Lord, 2001b; Tavares, Sobral, Goldszmidt, & Araújo, 2018). As a result, information processing is distributed towards positive or negative constraints of leadership perception based on prior knowledge, producing meaningful interpretation (Lord et al., 2001). Subsequently, people learn to

activate connections and not necessarily static prototypes as per categorisation theory. So, it allows for knowledge structures within the mind and also within affection (Lord & Shondrick, 2011), that are guided by memory and judgement (Bower & Forgas, 2000; Hilgard, 1980).

The connectionist model allows flexibility, because it takes stimulus and uses it to feedback onto the networks, creating immediate knowledge that adapts to specific situations (Shondrick et al., 2010). This is because meaning is created by networks and not a single unit, so even if the weight of a single attribute shifts by new experience, the overall schema fights change and modification happens slowly (Lord et al., 2001). Subsequently, cognitive structures for leaders in general adapt to context and situations creating varied patterns of activation (Brown & Lord, 2001b; Shondrick et al., 2010). This means that people don't need to learn all the different variations particular to hierarchical levels of leader categorisation, but they can appeal to networks that translate the information to new contexts and situations (Lord et al., 1984).

Embodied notions of cognition. The kernel of this theory is that "cognition is not just in the head" (Ellis, 2019, p. 39), "it is interactive, embodied and embedded" (Calvo & Gomila, 2008, p. 3). According to Varela, Rosch, and Thompson (1993) as quoted in Wilson and Foglia (2017), an individual's physique and functioning, including the sensory and motor controls that are in constant interaction with the environment, take part in information-procession of stimuli of the actions of what the authors call *situated living bodies*. In this dynamic view, leadership impressions are formed initially by the corporal immersion of an individual within an environment which frames cognition

prior to accessing cognitive knowledge mandated by previous experience or conceptual categories and schemas as those proposed by the connectionist and categorisation theories (Wilson & Foglia, 2017).

Further to the categorisation and connectionist models, this third model expands cognition beyond the brain's capacity for abstraction and connection (Calvo & Gomila, 2008) bringing to the table the stimuli that can be registered in the body as part of cognitive processing (Lord & Shondrick, 2011; Malley, Ritchie, Lord, Gregory, & Young, 2018). Subsequently, the embodied embedded notions of cognition focus on how individuals interact with the environment and how environmental-based information feeds the brain with conceptual knowledge based on motor- and self-examination rather than symbolic or connectionist notions (Malley et al., 2018). From an embedded body point of view, the emotional, perceptual and motor reactions to leaders are embedded in the network of patterns that make a person's leadership knowledge, which are accessed for sensemaking processes and influence follower behaviour (Naidoo, Kohari, Lord, & DuBois, 2010). These embodied, embedded processes act congruently and dynamically, with symbolic structures and emotional notions during the leadership process (Loue, 2007), and act complementarily to balance the process of perception both through the mind and also through corporality (Sparrowe, 2014). In conclusion, an individual's corporal reflexes and directed movement take part in the conceptual processing of leadership because leadership is gathered throughout body- brain-world perception (Wilson & Foglia, 2017).

3.1.3 ILTs and language. Theories of language look at its "inextricable link with human cognition" (Perszyk & Waxman, 2018, p. 232). Modern theories of language see both agents as contextualised players that, through language, create collective and dynamic cognition dependent on each individuals' knowledge structures as well as on contextual frames such as socio-cultural and environmental (Kopytko, 2001). Subsequently, usage mutates language (Ellis, 2019, p. 39) and so, language enables humans to build, in partnership, representations within knowledge structures that in connection, give way to an increasing capacity for abstraction (Perszyk & Waxman, 2018) both throughout live and throughout evolution. Furthermore, Ellis (2019) summary of the essential components of theory of language shows that language is distributed cognition, in other words, it is scattered across categorisation, connectionist, and embodied knowledge structures. Consequently, the significance of constructs are a result of an individual's construction of meaning and knowledge in light of social interrelations and environments, which results in an ongoing negotiation of sensemaking within the individual, but also with the other, and with the social domain (Simina & Hamel, 2005, p. 220).

Hence, the important role of language in determining and establishing meanings, expectations, identities, and images associated to constructs, has been noted across the literature on ILTs (Fairhurst & Grant, 2010; House et al., 2002; Kenney et al., 1994; Schyns et al., 2011). Since language is "ever situated, either in the moment and the concrete context or by various means of mental extension to reflect prior or imaginary moments" (Ellis, 2019, p. 45), it is believed to constitute reality (Fairhurst & Grant,

2010) and represent meaning (Malavâe-Lâopez & Duquette, 1991) by a dynamic movement between the individual and the social context.

This inward – outward dynamic between individual development and social understanding has been reflected in the development of ILTs. In this sense, and according to Calder's (1977) attributional theories, leadership traits are used by individuals in everyday language for sensemaking objectives. So leadership becomes "a common language label applied to behaviours congruent with the observer's ILT" (Calder, 1977) in Kenney et al. (1994, pp. 410-411). In other words, the perception of leadership relies on its translation within categories or labels that exist in the individual's language sphere. These categories and labels within language make up an important component of leadership perceptions and behavioural ratings provided by the knowledge structures held by perceivers (Shondrick et al., 2010). These knowledge structures contain the perceived traits and behaviours of leaders (Kenney et al., 1996; Schyns & Schilling, 2011) and allow for the classification of individuals into leader or non-leader categories (Lord et al., 1984; Shondrick et al., 2010), which can permit further subcategorization. Subsequently, the making of such meaning will belong to the specific individual and social environment in which leadership happens and hence, analysis based on language will result in contextually sensitive "ordered category systems and framing typologies" (Fairhurst & Grant, 2010, p. 179).

3.1.4 Influences on ILTs. Each individual builds their own social cognition within unique 'neural nests' that have different weights and establish different conceptual networks, patterns, and hierarchies (Lakomski, 2001). The construction of

this social cognition varies because each individual has distinctive exposure to, and experiences with leaders (Shondrick et al., 2010) and also, because individuals are immersed in diverse demographic, cultural, educational, or interest-based groups. Subsequently, several factors have been found to impact or mediate the perceptions of leadership and behaviour. ILTs are shaped by an inward process linked to the perceivers' self-concept (Catrambone, Beike, & Niedenthal, 1996; Catrambone & Markus, 1987; Engle & Lord, 1997; Fong & Markus, 1982; Offermann et al., 1994), through an ongoing comparative process by which individuals simultaneously process information and search for similarity of characteristics and behaviour in 'the other' (Byrne, 1971; Dulebohn, Wu, & Liao, 2016; Engle & Lord, 1997).

Subsequently, people follow leaders that are similar to them demographically, culturally or ethically (Byrne, 1971; Dulebohn et al., 2016; Engle & Lord, 1997; Greenwald & Banaji, 1995). Additionally, factors such as early interactions (Bass, 1990; Brungardt, 1997; Gardner, 1990), gender (N Cantor & W Mischel, 1979; Den Hartog, Koopman, Schyns, & Meindl, 2005; Offermann et al., 1994), culture (Den Hartog et al., 1999; Gerstner & Day, 1994; Hofstede, 1976; House, 2004; Offermann et al., 1994), race (Rosette, Leonardelli, & Phillips, 2008), power (Konst & van Breukelen, 2005; Palich & Hom, 1992; Yukl, 1989), hierarchical level (Baumgardner & Lord, 1990; Shondrick et al., 2010), and stereotypes (Kenney et al., 1996; Schyns & Schilling, 2011) have been found to impact ILTs.

Self-concept. The way individuals measure aspects of both themselves and others may be linked to factors that affect the development of ILTs (Offermann et al., 1994).

People often use the same categories in describing others that they use in describing themselves (Catrambone et al., 1996; Catrambone & Markus, 1987; Engle & Lord, 1997; Fong & Markus, 1982). This supports leader categorisation theory (Rosch, 1978) and the idea that the primary driver for how followers evaluate leaders is based on their cognitive comparisons to a particular ILT (Lord & Maher, 1991). Subsequently, as DeRue and Ashford (2010) argue, a match between a person's ILT and his or her self-concept facilitates the taking on of a leader identity (Schyns et al., 2011).

Additionally, self-construal also appears to play a big role in how individuals react to different leadership styles (Ehrhart, 2012). In this sense, it is important to note how the individual views and evaluates him/herself (i.e., self-esteem), as well as how the individual views the self-relative to others (i.e., as independent from or interdependent with others) because it "can explain preferences towards styles of leadership such as charismatic, relationship-oriented, or task-oriented" (Ehrhart, 2012, pp. 231-232). In this sense, the relationship between individual self-concept, self-construal, and preferences for leadership, will mould ILTs (Offermann et al., 1994) and also, mediate the relationship between leader and follower affecting positively or negatively performance behaviour and organisational outcomes (Pradhan & Jena, 2019).

Similarity. According to Engle and Lord (1997), behavioural expectations and interpretations of behaviour are critical components of all social processes. Subsequently, when similarity exists, the actual behaviour of both members is likely to align with expectations, and both parties are prone to interpret behaviour similarly. These perceptions of similarity lead an individual to identify with 'the other' and

produce an affective reaction that has a direct effect on social relationships (Engle & Lord, 1997; Greenwald & Banaji, 1995).

Subsequently, similarity in ILTs is relevant as it influences perceived congruence and identification with 'the other' providing a basis for common understanding (Engle & Lord, 1997). This allows perceivers' resources to be directed towards other tasks, permitting more automatic, intuitive social interactions, and implicitly confirming an individual's definition of reality (Engle & Lord, 1997). According to Dulebohn et al. (2016), a number of studies have demonstrated that liking represents a strong determinant of important work related outcomes and perceptions such as performance ratings, organisational commitment, job satisfaction, and leader-member exchange.

Additionally, it has been found that perceived similarity is a variable that consistently impacts on liking 'the other' (Byrne, 1971) as quoted in Engle and Lord (1997). And, because liking plays a dominant role in the development of relationship and interactions between leaders and followers (Engle & Lord, 1997; Liden, Sparrowe, & Wayne, 1997), affective reactions will mediate the effects of implicit theories on social judgments (Engle & Lord, 1997). This can be a fluctuating process which explains why claiming or/and granting leadership is not always immediate, and can require several attempts along with diverse perceptual input (DeRue & Ashford, 2010) to become established.

Early interactions. According to Salmond and Fleshman (2010), the content of ILTs changes across individuals because of their early social interactions (e.g. parents or caregivers). For example, it has been generally found that followers who perceive

their parents as tyrannical or oppressive (e.g., manipulative and power-hungry) tend to endorse similar attributes in their ILTs of an ideal leader, whereas non-representative traits (e.g., sensitivity, compassionate) are not usually contained in such representation (Keller, 2003). Conversely, individuals who describe their parents as dedicated, inspiring, and dynamic are more likely to include these attributes in their ILTs than not (Keller, 1999; Shondrick et al., 2010). Therefore, the development of ILTs in the early years seems to be connected to the experiences children have with leaders or descriptions of leaders (Offermann et al., 1994, p. 45), and also to parental and caregiver models of leadership. Consequently, early social relations are significant to the development of ILTs because they provide individuals with a model from which an ideal leader can be defined (Ayman-Nolley & Ayman, 2005; Keller, 1999; Shondrick et al., 2010).

Furthermore, early year experiences may affect adult constructs and leadership potential (Bass, 1990; Brungardt, 1997; Gardner, 1990). Frost (2016) demonstrated that ILTs in people as young as 16 years of age are very similar to those of working adults. Offermann et al. (1994) found similar ILT factors in undergraduate students and working adults, and Sacks (2009) found that children and adolescents have similar leadership role models. Consequently, early models and experience of leadership seed and shape both initial and future expectations, behaviours, and ideas of leadership (Keller, 1999; Shondrick et al., 2010).

Gender. Men and women structure their perceptions of leaders similarly as human beings, for example, preference for humane-orientated leadership is found equally

across both genders (Paris, Howell, Dorfman, & Hanges, 2009). Offermann et al. (1994) study of factors underlying leadership traits found that there were not significant differences between genders when rating ideal leaders across eight factors (*sensitivity, dedication, tyranny, charisma, attractiveness, masculinity, intelligence,* and *strength*). Nevertheless, a person's gender affects perception of the others' behaviour (N Cantor & W Mischel, 1979).

Due to differences in socialisation and leadership experiences (Offermann et al., 1994), men and women have different preferences over the importance of specific traits and behaviours in leaders (Den Hartog et al., 2005, p. 139). For example, women place importance in leaders being diplomatic and participative, whereas men give more importance to the leader being rational and inspirational (Den Hartog et al., 2005, p. 152). Similarly women express more concern for followers' interests, whereas men focus more on the leader being persuasive (Den Hartog et al., 2005, p. 152). Furthermore, men define a leader in more functional ways and women describe leaders in more sensitive ways (Schyns & Meindl, 2005). These differences can also be found within cultural settings, so more masculine cultures prefer strong, task-focused leaders, whereas more feminine cultures prefer more sensitive, communicative leaders (Koopman, Hartog, Konrad, & al, 1999, p. 504)

Further to differences on perceptions, the effect *think manager-think male* (Schein, Mueller, Lituchy, & Liu, 1996, p. 33) has been widely studied in the ILT literature. The masculinity trait in people's ILTs is a strong bias that has come as a result of history, where male figures have most often occupied leadership roles across

social settings, including government, military, religion, and royalty (Lord & Shondrick, 2011; Shondrick et al., 2010; Swanson et al., 2019). This power gap affects the capacity for female leaders to obtain leadership status and influence others (Lord & Shondrick, 2011, p. 214), and creates a scission in people's perceptions of leaders that inhibits the structures or categories utilised to understand leadership (Malley et al., 2018). Hence, female prototypes cannot compete with male exemplars of leaders and the cultural masculinity of leadership (Koenig, Eagly, Mitchell, & Ristikari, 2011).

Offermann and Coats (2018), Koenig et al. (2011), and Schyns and Meindl (2005) have noted a growing tendency towards more androgynous perceptions of leadership due to more women appearing in leadership roles (Koenig et al., 2011; Schyns & Meindl, 2005). However, they report in their studies that the *think leader think male* predisposition still stands strong. Lord and Shondrick (2011) support this finding. Offermann and Coats (2018) recent study on stability and generalizability of ILTs shows masculinity as a factor, with similar dominance as in previous studies (Epitropaki & Martin, 2004; Offermann et al., 1994).

Culture. Some ILTs can be globally endorsed, but others have content and factor structures that vary as a result of their environment (Hofstede, 1976; Offermann et al., 1994). For example, characteristics such as the leader being loud and paternalistic can be associated with ideal leadership in some countries, but not in others. This is explained by the fact that ILTs are conceptually-sensitive. In addition, there are important differences across cultures (Den Hartog et al., 1999) due to distinctive historical developments (House et al., 2002, p. 4), contextual cues, and due to concepts

and values being passed on by older generations through culture (Den Hartog et al., 2005; Lord et al., 1982; Rosch, 1978).

ILTs are sensitive to social and cultural groups (Offermann & Coats, 2018), so regions and societal subgroups share distinctive characteristics of prototypical leaders (Felfe, 2005). For example, Ojeda, Ree, and Carretta (2010) found that business leaders in Mexico value characteristics such as warmth, emotional stability, social boldness, and openness more than their US counterparts, whereas a leader's abstractedness and self-reliance are more valued in the Unites States. Furthermore, Gerstner and Day (1994) found that Western and Eastern countries have different prototypical traits, for example, the leader's determination was prototypical in France, Germany, Honduras, India, and the US, whereas the leader's intelligence was prototypical in Taiwan, China, and Japan.

However, some ILTs can be globally endorsed. The major GLOBE project (House et al., 2002) looked at ILTs of 'ideal leaders' in 62 nations around the world and found that there are factors that are universally endorsed: Charismatic/value-based, team-oriented, participative, autonomous, humane, and self-protective. However, each is valued differentially in each culture (House et al., 2002) though charismatic and team-oriented leadership are highly valued across cultures (Schyns & Meindl, 2005) and the highest variances found are between preferences for "high power distance versus egalitarianism in society" (Den Hartog et al., 2005, p. 138). Additionally, Den Hartog et al. (1999) reported in a follow up study as part of GLOBE, common

characteristics such as communicative skills, trustworthiness, decisiveness, and dynamism across cultures.

Furthermore, as reported by Lord et al. (2020), more recent studies present an increased trend towards cultural convergence due to findings of consistency in leadership traits across cultures. They refer to Lankau and Chung (2009) study including North American, European, Asian, and Latin American managers resulting in high levels of correspondence between general profiles across cultures. Additionally, Ford and Ismail (2006) study looking at values of effective organisational leaders from eight Central Eurasian countries also found a profile of effective leadership and a cultural convergence towards Western cultures. Also, Aycan (2013) cross-cultural comparative study of paternalistic leadership prototypes (PLP) in countries with low and high levels of power found similarity of correspondence between the PLP and transformational and participative leadership. William and Taylor (2012) study of leadership competencies supporting convergence versus divergence across forty countries, found evidence that resourcefulness, change management, and building and mending relationships were "highly valued among managers across countries, and cultural values did not seem to influence this endorsement" (William & Taylor, 2012, p. 15).

Such tendencies are explained by corporate globalisation, multinational environments, and international management programs developed by business schools (Lankau & Chung, 2009; Lord et al., 2020; William & Taylor, 2012). However, these recent studies supporting cultural convergence, also consistently report cultural

differences in weights given to specific characteristics or correlations between a prototype and a specific style of leadership. For example, Asian managers give significant higher ratings to characteristics such as flexible, creative, and good listener than the North American managers (Lankau & Chung, 2009). This evidence supports House (2004) GLOBE project findings that some ILTs can be universally endorsed and others are culturally contingent.

Race. Rosette et al. (2008) found a connection between race and leader categorisation which has a biasing effect on ILTs (Shondrick et al., 2010) and influences the cognitive connection to leader prototypes. Implicit leadership biases alter the process of ILTs, blocking cognitive connections towards leader traits and prototypes (Lord & Shondrick, 2011). Besides the *think manager think male* bias, the *White leader bias* (Rosette et al., 2008, p. 772) has been found to be within prototypical preferences of effective leadership perceptions and hence, is rated more favorably than non-White leadership perceptions (Hekman, Johnson, Maw-Der, & Wei, 2017; Rosette et al., 2008).

This has caused less representation of non-White leaders in the highest positions of social power (Hekman et al., 2017). However, globalisation, migration, and workplace growth has seen more racial diversity in workplaces which has been linked to higher levels of satisfaction in employees (Singh, Bhullar, & Sankaran, 2019), due to principles of similarity (Engle & Lord, 1997; Greenwald & Banaji, 1995). Subsequently, there has been encouragement of diversity and inclusion within many organisations (Singh et al., 2019), which may lead to a lessening of this bias.

Power and hierarchical level. Power has an impact on ILTs because interactions between leaders and followers involve a degree of influence if compliance and commitment are to follow (Yukl, 1989; Yukl & Falbe, 1991). The act of leading is an act of social power which results in "a change in the belief, attitude, or behaviour of a person – the target of influence" (Raven & Erchul, 1997, p. 138). So a leader without implied or ascribed power finds it difficult to gain followership (Palich & Hom, 1992). Subsequently, implied power cues can open cognitive avenues towards leadership categorisation (Palich & Hom, 1992) and even before power is performed, bias can happen due to labelling (Konst & van Breukelen, 2005).

Hence, the content of ILTs varies depending on the level of organisational hierarchy. For example, labels such as CEO, team leader, or supervisor, can inhibit perceptions of power and subsequently of leadership (de Vries & van Gelder, 2005). It can also ignite association with specific characteristics, for example, Den Hartog et al. (2005) found that people prefer charismatic leaders in top level roles and sensitive leaders in lower levels. Furthermore, people often associate power with men and powerlessness with children and women (Eagly & Heilman, 2016; Konst & van Breukelen, 2005). At a macro level, there are differences in societies, with some societies having tendencies to low power distance versus those with preference for higher power distance, which can impact leader-team member exchange and expectations (Den Hartog et al., 1999; Koopman et al., 1999).

The more experiences that people have with leaders will signify more experience with the leader's power and the capacity to alter and pilot the decisions of one-self and

of others. Hence, perceived leader traits go hand-in-hand with power structures (Palich & Hom, 1992). Since ILTs are studied from the eye of the observer (Swanson et al., 2019), and are based on categorisation or patterns of cognition, the label ‘leader’ is thought to ignite power and dependency concepts (Konst & van Breukelen, 2005).

Stereotypes. The idea that ILTs function similarly to stereotypes has prompted research on the influence of ILTs on the perception of actual leaders. More specifically, research assessing individuals’ ILTs has shown that the mental images individuals hold will influence how they see a person labelled ‘leader’, including their own supervisors (Schyns, Felfe, & Blank, 2007; Schyns et al., 2011; Shamir, 1992). Similar to stereotypes, ILTs serve to explain the other person’s behaviour and also the observer’s reaction toward that person (Kenney et al., 1996; Schyns & Schilling, 2011). This means that when meeting or observing a ‘leader’, certain leader images are activated, and the behaviour of this ‘leader’ is interpreted in line with these images (Schyns et al., 2011). Similarly to ILTs, when individuals begin to form an impression of another person, the incoming pattern of behavioural and character information is compared to stereotypes in the memory that can match it in a parallel search process (Shondrick et al., 2010).

To further understand this process, Ayman-Nolley and Ayman (2005) reviewed the similarities and differences of stereotyping and ILTs. Both of these phenomena are representations of mental structures of social experiences, but in the case of ILTs, the mental structure is about the attributes and beliefs about a leader, while stereotypes are structured sets of beliefs about the personal attributes of a group of people (Ashmore &

Del Boca, 1979). Furthermore, stereotypes have been found to be activated alongside prejudice, which involves judgement and emotional response towards 'the other' and 'others' influencing social interaction (Amodio, 2014). In their review, Ayman-Nolley and Ayman (2005) cite Wegner and Vallacher (1977), who identified stereotypes as a form of implicit theories, so when an individual's implicit leadership theory and stereotype of a group overlap, this may be known as a stereotypic ILT (Ayman-Nolley & Ayman, 2005) and this can take the form of bias that functions subliminally influencing behaviour, attitude, motivation, social norms, and emotions (Amodio, 2014).

3.2 Generalisability and stability of ILTs

The discussion above examined how static and dynamic information-processing models in the brain and body represent ILTs. It also explored how ILTs have developed both flexibility (Shondrick et al., 2010) and stability (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994). Furthermore, evidence from extensive research has noted similarities of leadership perceptions across a number of factors (Epitropaki & Martin, 2004, p. 295), supporting ILTs generalisability across gender (Offermann et al., 1994; Paris et al., 2009), age (from young people to students to working adults) (Offermann et al., 1994; Sacks, 2009), and across cultures (Gerstner & Day, 1994; House et al., 2002). Generalisability has also been found across hierarchical levels (Palich & Hom, 1992) and employee groups (Epitropaki & Martin, 2004). However, these studies have looked at generalisability only at a specific point in time, leaving a gap in the literature looking at stability over time.

Taking Offermann et al. (1994) eight-factor scale of distinct factors or primary dimensions of ILTs (sensitivity, dedication, tyranny, charisma, attractiveness, masculinity, intelligence, and strength) found to be stable across several organisational settings (Epitropaki & Martin, 2004, pp. 44-53), Epitropaki and Martin (2004) and Offermann and Coats (2018) set out to discover if ILTs would stay stable over time and still be generalisable. Epitropaki and Martin (2004) and Offermann and Coats (2018) were observant of Offermann et al.'s (1994) study because it included both pre-working young people as well as working adults and was, at the time, one of the few studies exploring ILTs factors including a connectionist perspective (Epitropaki & Martin, 2004, p. 294). Applying Offermann et al. (1994, p. 43) laborious method exploring "systematic variation across leader stimuli and perceiver characteristics" Epitropaki and Martin (2004) and Offermann and Coats (2018) explored ILTs stability and factor variability over time.

Epitropaki and Martin (2004) found stability of ILTs over a ten year span by cross-validating the Offermann et al. (1994) eight-factor structure in several organisational settings, "assessing the generalizability of ILTs across employee groups, and evaluating ILTs change over time" (Epitropaki & Martin, 2004, p. 293). Their results suggested a shorter six-factor ILTs structure (sensitivity, intelligence, dedication, dynamism, tyranny, and masculinity), and pejoratively categorised their dimensions in positive (sensitivity, intelligence, dedication, dynamism) and negative (tyranny and masculinity) leadership traits. The results provided evidence that ILTs are consistent across organisations and are stable over time, since adults at the same workplace, with

different employment durations, presented similar leader representations in content and structure (Epitropaki & Martin, 2004).

Twenty four years later, Offermann and Coats (2018) also studied adults' naïve conceptions of leaders in the light of the Offermann et al. (1994) study with undergraduate students and working adults. They also discovered that the generalisable ILT structures discovered earlier by Offermann et al. (1994) are stable over time, even across organisational, social, and contextual change (Offermann & Coats, 2018). They found that the factors in the original study by Offermann et al. (1994) remained largely unchanged (sensitivity, dedication, tyranny, charisma, attractiveness, masculinity, intelligence, and strength) and discovered the emergence of a new factor: creativity, resulting on a nine-factor scale (sensitivity, dedication, tyranny, charisma, attractiveness, masculinity, intelligence, strength and creativity) (Offermann & Coats, 2018).

Table 1

ILTs Factors from 1994 (left), 2004 (centre) and 2018 (right)

	ILTs study		
ILTs Factor	Offermann et al. (1994)	Epitropaki and Martin (2004)	Offermann and Coats (2018)
Sensitivity	x	x	x
Dedication	x	x	x
Tyranny	x	x	x
Charisma	x		x
Attractiveness	x		x
Masculinity	x	x	x
Intelligence	x	x	x
Strength	x		x
Dynamism		x	
Creativity			x
Well-groomed			x

*Note: This table shows the factor structure representing ILTs in organisational settings in the studies by Offermann et al. (1994), Epitropaki and Martin (2004), and Offermann and Coats (2018).

Table 2

ILTs Items from 1994 (left), 2004 (centre) and 2018 (right)

		ILTs study		
Factors	Sample items or manifest variables	Offermann et al. (1994)	Epitropaki and Martin (2004)	Offermann and Coats (2018)
Sensitivity	Sympathetic	x	x	x
	Sensitive	x	x	x
	Compassionate	x	x	x
	Understanding	x	x	x
	Sincere	x	x	x
	Warm	x	x	x
	Forgiving	x	x	x
	Helpful	x	x	x
	Caring			x
	Kind			x
	Empathetic			x
	Selfless			x
	Friendly			x
Dedication	Dedicated	x	x	x
	Disciplined	x		
	Prepared	x		

	Hard-working	x	x	x
	Motivated	x	x	x
	Goal-oriented	x		x
	Focused			x
	Determined			x
	Good decision-maker			x
	Handles stress			x
Tyranny	Domineering	x	x	x
	Power-hungry	x		x
	Pushy	x	x	x
	Manipulative	x	x	x
	Dominant	x	x	x
	Conceited	x	x	x
	Loud	x	x	x
	Selfish	x	x	x
	Obnoxious	x		x
	Demanding	x		x
	Controlling			x
	Intimidating			x
	Coercive			x
	Risky			x
Charisma	Charismatic	x	x	x
	Inspiring	x		x
	Involved	x		
	Dynamic	x	x	x
	Energetic	x	x	x
	Enthusiastic	x		x
	Bold			x
	Sociable			x
Attractiveness	Attractive	x		x
	Classy	x		
	Well-dressed	x		x
	Tall	x		x
	Well-groomed	x		x
	Classy	x		x
Masculinity	Male	x	x	x
	Masculine	x	x	x
	Tall	x		x
	Attractive	x		x
Intelligence	Intelligent	x	x	x
	Clever	x	x	x
	Knowledgeable	x	x	
	Wise	x	x	
	Intellectual	x	x	x
	Educated	x	x	x
Strength	Strong	x	x	x
	Forceful	x		
	Bold	x	x	x
	Powerful	x		
	Commanding			x

	Assertive		x
	Authoritative		x
	Tough		x
	Firm		x
Dynamism	Bold	x	x
	Dynamic	x	
	Strong	x	x
	Energetic	x	
	Charismatic	x	
Creativity	Creative		x
	Innovative		x
	Clever		x
	Courageous		x
Well-groomed	Well-groomed		x
	Well-dressed		x
	Classy		x

*Note: This table shows the sample items within each factor representing ILTs in organisational settings in the studies by Offermann et al. (1994), Epitropaki and Martin (2004), and Offermann and Coats (2018). Items in grey were listed in the study but shifted towards another factor.

Offermann et al. (1994), Epitropaki and Martin (2004), and Offermann and Coats (2018) have indicated, by investigating differences or similarities in adult ILTs across two decades, that in diverse organisational settings, the generalisable structure of adult ILTs that captures factors that appear to be common to people, mostly stay stable over time and can be generalized into factor scales of distinct factors or primary dimensions of ILTs. However, they found that generalisable ILTs factor change exists, persists, and can happen both gradually and drastically. Gradual change can shift factor associations, for example, at one point a person may think that if a leader speaks loudly, it means that the leader is strong, but with more experience or perhaps, in a different context, the same person may change their perception and associate being loud with the

leader being a tyrant. Gradual change was also found across time. For example, the trait bold was associated with the strength factor in 1994, but in 2018, it was associated with the charismatic factor (Offermann & Coats, 2018). This type of gradual change can also be found within organisational settings, where employees show change in the value given to each factor depending on the task they perform, or if they experience different employment environments within the same organisation (Epitropaki & Martin, 2004). According to Offermann and Coats (2018), these changes are possible in the contextual view of leaders (basic or subordinate levels), though less probable in the general or superordinate views of leaders. This means that the individual would not drastically change their perception of what is a leader and what is not a leader.

However, drastic change can also happen. Occasional change in response to incidents, can confront established cognitive schemas, weakening core beliefs (Padesky, 1994) and causing fundamental change in leadership thinking and behaviour (Epitropaki & Martin, 2004). It is a robust process that needs a series of contradictory evidence for a shift to take place (Padesky, 1994). Subsequently, several mismatches between perceivers' ideas of leader and actual experience can eventually cause a significant change in an individual's general conception of ILTs (Offermann & Coats, 2018). Subsequently, factors can be discarded over time: e.g. attractiveness in (Offermann et al., 1994), or can emerge: e.g. creativity in (Offermann & Coats, 2018). Nevertheless, these superordinate changes happen slowly (Offermann & Coats, 2018), partly because the most resonant experiences with leaders are believed to be registered in long lasting memory (Shondrick et al., 2010) giving them an enduring quality (Sparrowe, 2014). In

addition, knowledge built by memorable experience becomes resident in people's neurology, combating change. With age, the brain becomes less plastic, meaning that only highly impactful events are likely to have the power to transform established ILTs (Epitropaki & Martin, 2004).

From this literature review, it is proposed that ILT stability is provided by a cognitive categorisation that superimposes leadership-matching experiences to build fixed and lasting resonant structures of perception. On the other hand, flexibility can be triggered by dynamic and embodied models, ignited by new unparalleled experience that can permeate static structures of cognition, developing unpredictable traces of leadership perceptions that are contextually-sensitive and/or motor-sensitive. In either case, while being moulded simultaneously by introspection, ongoing experiences with leaders and distinctive social environments, ILTs present stability across factors in diverse groups and in time (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994).

This section has explored the theory of ILTs and their central role in the formation of leadership perceptions and behavioural ratings in adults (Lord et al., 2001; Lord et al., 1982; Lord & Maher, 1991; Naidoo et al., 2010). It has also provided evidence of how the distinctive and contextually sensitive prototypes of leadership cognition (Sparrowe, 2014) can be both stable and dynamic. In conclusion, mental representations of leadership need to be dynamic and context-sensitive in responding to flexible social systems, as well as being able to explain dynamic changes in perception (Lord et al., 2001). Additionally, ILTs provide stability by providing a foundation

where knowledge structures can be built from individual and collective experience (Shondrick et al., 2010). In the next chapter, the literature will turn to one hundred years of research on children's leadership perceptions, exploring knowledge on ILTs content, structure, and factors that impact their development.

3.3 Children's ideas of leaders and ILTs

As discussed previously, children's ILTs have been overlooked by ILT research. The study of ILTs has focused almost exclusively on adults' ideas of leaders. However, as mentioned earlier, ILTs initiate in childhood (Ayman-Nolley & Ayman, 2005; Borman, 1987; Matthews et al., 1989; Oliveira, 2016) and form throughout the school years (Frost, 2016; Shondrick et al., 2010). Also, early childhood experiences impact individual differences and may explain variations in adult ILTs (Hunt et al., 1990; Keller, 1999; Ligon et al., 2008). Furthermore, adults tend to rework childhood leadership scenarios in the workplace (Keller, 1999) and also, managerial styles have been found to relate to CEOs' life experiences such as childhood relationships (Bernile, Bhagwat, & Rau, 2017; Hutton, Jiang, & Kumar, 2014; Malmendier, Tate, & Yan, 2010; Schoar & Luo, 2011).

All this evidence suggests that people's expectations and preferred styles of leadership can emerge in childhood and prevail until entry into the workplace, creating expectations for management and supervision during employment (Frost, 2016). Hence, it is necessary to further advance our understanding of ILTs' antecedents, their early formation, and development (Lord et al., 2020).

Even though ILTs theory dates back to Eden and Leviatan (1975), up until the late 1980s most of the research done in the realm of children and their conceptions of leadership was conducted within the disciplines of psychology, learning, and social development. This would change in 1989, when leadership researchers began to take an interest in children's' ILTs. Since then, children ILTs studies have been conducted in the US, Costa Rica, China, and Philippines. This section brings together nearly 100 years of research including work on children's ILTs as well as prior research looking at children's conceptualisations of leaders.

3.3.1 First signs. The leadership schemata has been found to emerge sometime during the early years of schooling. Children in kindergarten and, as young as five, hold a concept of a leader (Ayman-Nolley & Ayman, 2005; DeHaan, 1962; Lord & Maher, 1991), and often can distinguish between leaders and non-leaders (Matthews et al., 1989). According to Selman and Jaquette (1977), before five years of age, all children's conceptions of leaders are based on physical power. Additionally, kindergarten experiences of play (*follow the leader, Simon says*) or being helpful to adults by being trusted with given tasks, influence the early notions of children's leadership (Sacks, 2009). Lastly, children as young as eight hold a concept of 'effective leadership behaviour' (Yarrow & Campbell, 1963), meaning they can relate the concept of leader to task, relational, or group performance outcomes (Yukl, 2012).

3.3.2 Notions of development. Evidence shows that children's ILTs develop across childhood. Most of the early literature demonstrates that once the leadership schemata is ignited in cognition, children advance throughout perceptual leadership

dimensions across age and also, across social awareness development (Broich, 1929; Chauvin & Karnes, 1984; DeHaan, 1962; Selman et al., 1977). From this point of view, children define their understanding and expectations of leaders differently at different ages (Broich, 1929; Chauvin & Karnes, 1984; DeHaan, 1962; Hess & Easton, 1960; Okamura, 1968; Pigors, 1933; Selman & Jaquette, 1977; Selman et al., 1977). Hence, children's concept of leadership is transformed across the school years, where younger children most often use physical and emotional characteristics (Broich, 1929; Hess & Easton, 1960); children in middle elementary school describe task-oriented traits of leaders (Broich, 1929; Chauvin & Karnes, 1984; DeHaan, 1962; Hess & Easton, 1960; Okamura, 1968; Pigors, 1933) and older children have a more complex conception of leadership, which involves social-emotional features (Chauvin & Karnes, 1984; DeHaan, 1962; Pigors, 1933; Selman & Jaquette, 1977). Furthermore, towards the end of schooling, the leadership concept progresses towards notions of humanitarianism (DeHaan, 1962; Pigors, 1933).

However, by looking more specifically at children's ILTs content, the Ayman-Nolley and Ayman (2005) series of children ILTs studies across 15 years in collaboration with colleagues, found that children's ILTs are not dependent on age progression. They consistently found that the features of ILTs stay the same across primary school, both in orientation and in social role content with no clear age trend (Ayman-Nolley & Ayman, 2005). In summary, they found that children's ILTs can be either task-oriented, level-of-involvement-oriented, or relationship-oriented, and are also held within four main categories of role prototypes (generic person, military,

entertainment, and child). Subsequently, they suggested that the developmental trend of ILTs across age, could be more often a U-shaped relationship between grade and ILT, or J-shaped in variation across grades (Ayman-Nolley & Ayman, 2005). This means that, in primary school, younger children's ILTs are similar to the oldest children's ILTs and not so much to the ILTs of children in middle primary school.

For example, Ayman-Nolley and Ayman (2005) found that children, in the middle grades of primary school, draw more followers than any other group. Additionally, Liu et al. (2012) and Oliveira (2016) found that the youngest and the oldest children in primary school refer more often to male leaders than to female leaders in comparison to children in the middle grades. Similarly, the youngest children in primary school and in high school name more often role models from their family, friends, or school while ten-year-old children name more often celebrities, famous leaders (Sacks, 2009), and political figures (Nemerowicz & Rosi, 1997). Additionally, children in middle primary school tend to represent violent views of leadership more often (Ayman-Nolley & Ayman, 2005) than younger and high school children, who often present more peaceful views of leaders (DeHaan, 1962; Okamura, 1968).

Moreover, Salmond and Fleshman (2010) found that self-perception as a leader behaves in a U-shaped manner, being highest in mid-primary school and dropping towards the end of primary school, then rising again at the end of schooling (Salmond & Fleshman, 2010). Interestingly, this phenomenon has also been found in language learning and acquisition. For example, McClelland and Jenkins (2014) found that younger children (early primary school) and older children (end of primary school and

later) get passive construction of sentences correct while children in middle childhood tend to interpret them incorrectly. Even though the authors did not identify an in-depth explanation of such phenomena, they attributed such finding to the implications of connectionist models for cognitive development.

Additionally, these contradictory trends in the progression of leadership conceptualisations and ILTs have been explained by theories on social-cognition. According to these theories, children progress on their understanding of leadership with a growing capacity of abstraction of social standards (Pigors, 1933), as well as increased awareness of their interpersonal dimensions and social structures (Selman et al., 1977). Subsequently, biological, psychological, and emotional development are not the only factors that affect such progression. Furthermore, additional to social-cognition justifications, the conceptualisation of leadership in children and development of ILTs has also been found to be interrelated to experiences with leaders and leadership (Sacks, 2009; Salmond & Fleshman, 2010) and also, with an individual's social and economic status, gender, or capacity for social interaction (Ayman-Nolley & Ayman, 2005; Selman et al., 1977). These aspects of human existence have increasingly been recognised by recent children ILT theory as influencers in the development of the leadership construct, which may cause different trends in the relationship between age and ILTs development. Furthermore, they can also explain children's ILTs variation, both in their content and structure, and also, in the way they make decisions about leaders in their own groups (Ayman-Nolley & Ayman, 2005).

In the next section, I review each notion of development.

Age-related development. Age-related leadership cognition has been explained by intelligence growth, increased language and verbal ability, emotional capability, and more capacity to differentiate leadership extents (Broich, 1929; DeHaan, 1962). Perhaps the most significant study exploring the developmental progression of children's perceptions of leaders across age is the DeHann (1962) study of leadership in school age children (five years old to 18 years old). DeHaan (1962) found that in the early years of school, "children's definitions can be characterized as developing from realistic, concrete, immediate, experiential definitions toward activistic, functional definitions, and finally toward idealistic, vicarious, and abstract definitions" (DeHaan, 1962, p. 12).

The extract below from DeHaan (1962) exemplifies such variation showing comparative answers to the question *What is a leader?* across different grades:

Kindergarten	The leader of a band or the leader of an Army.
2nd Grade	It's something like when you lead a parade.
4th Grade	One who takes charge of everything; tells other people what to do.
6th Grade	A person who leads and directs; one who tells people what to do, like a boss or a band leader; a person who takes charge of something like the president of our country.
8th Grade	One who sets an example and tries to help others. Somebody that everyone else can trust, who accepts responsibility.
10th Grade	One who sets an example for others to follow; having qualities which set a leader apart from his followers.
12th Grade	One who gets others to follow him; a person who influences people, one who is understanding (DeHaan, 1962, p. 5)

To visualise this progression, DeHaan (1962) proposed three conceptual dimensions of leadership across age-developmental stages:

1. Spatio-temporal dimension of leadership in kindergarten,

2. Task maintenance and saliency dimensions in middle primary school, and

3. Idealist and humanitarian dimensions of leadership in high school.

Additionally, Sacks (2009) found that between middle primary school and the end of high school, children move from a functional understanding of leadership, towards a relationship-based trait dimension. Subsequently, the literature can be structured in four phases of development across age frames building on DeHaan (1962)'s conceptual dimensions of leadership and Sacks (2009) relational views.

1. Physical and spatial dimension of leadership. In kindergarten and the early years of primary school, children hold a physical, spatial understanding of leadership, linked to observable roles of leaders (the one in front) (Broich, 1929; Hess & Easton, 1960), or to specific role models (Lord & Maher, 1991). Furthermore, the youngest children tend to associate the leader with a grown-up, and not often grant another child leadership status (Sacks, 2009). Additionally, they have more positive views of leaders (Ayman-Nolley & Ayman, 2005) presenting higher judgements for political figures than older kids (Okamura, 1968).

Moreover, younger children do not give high levels of importance to the leader-non-leader distinction in comparison to older children, probably because they hold a definition of leader based on their response to stimulus provoked by their observable level of perception (Lord & Maher, 1991). Or perhaps, because according to Piaget

(1932), children in this age are in the *egocentric* stage, where they are exposed and observant to rules by the outside world, focus on the joys of the situation, and are not knowingly interested in innovation or collaboration (Piaget, 1932). This can explain why younger children's leadership perception is linked to noticeable roles of leaders (DeHaan, 1962), as well as physical power (Selman et al., 1977), and are often unable to discern between good or bad leadership (Selman et al., 1977).

2. Functional dimension of leadership. Between eight and 10 years old, children embody a key developmental shift in their understanding of leadership. During this age, children develop the idea of common cause (Pigors, 1933) and hence, begin to acknowledge the leader's functionality in terms of task and performance (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960). During this stage, children can recognise the leadership-followership relationship (Ayman-Nolley & Ayman, 2005; Selman et al., 1977), and move from idealised ideas of leaders towards realistic conceptions within a context (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960; Okamura, 1968; Pigors, 1933). Subsequently they become aware of effective leadership behaviour (Yarrow & Campbell, 1963). Furthermore, Nemerowicz and Rosi (1997) found that during this age, children associate leadership with a top down dynamic, referring to authority figures or tasks, hence, the leader tells others what to do, and is somewhat unreachable (Ayman-Nolley & Ayman, 2005). In connection, Sacks (2009) found that up until 10 years old, children's memories of leadership emphasize more on tasks achieved over personality traits.

Accordingly, by looking at the constituents of Piaget (1932)'s *cooperation* stage in children's development of understanding of the rules of the game, during this time, children become interested in the sociality of the game, in the set rules defined by older peers or adults, and enjoy the idea of collaborative play. Subsequently, children become allocentric, are no longer self-centred, and understand a group's shared interest becoming capable of granting leadership status to a peer, and not only to adults, though still dependent on adult's approval (Sacks, 2009). Additionally, children appreciate the discussion of the commonality of procedures, understanding that groups can achieve objectives, which in consequence, ignites their capacity of judging the acts of others (Piaget, 1932), or in this case, the leader's conduct. This explains their capacity to measure leader effectiveness and develop positive and negative notions of leadership, and the tendency of children having a more sceptical view of leaders than any other group during this time (Massey, 1975). Additionally, it explains why some words associated with positive connotations of leadership in the younger children, begin to have negative connotations around this age (for example, the word 'rich') (Okamura, 1968).

3. Relationship and socio-emotional based dimension of leadership. According to Sacks (2009), children's understanding of leadership moves from a task-based skilled notion towards a relationship-based dimension within personality traits, sometime between 10 and 13 years old, marking the 'real' beginning of the foundation of adult's ideas of leadership. Subsequently, during this time, children have both functional and socio-emotional ideas of leadership (Ayman-Nolley & Ayman, 2005; Selman et al.,

1977; Yarrow & Campbell, 1963) involving the relational aspects of the leadership phenomena (Sacks, 2009). Subsequently, children believe their own leadership is contextual and situational and is linked to the development of responsibility and autonomy (Sacks, 2009).

This developmental shift can be explained by Piaget (1932)'s *codification of rules* stage, when children begin to become interested in the rules; they see them as a code common to all of the social group. Subsequently, they see society as a system of interrelations, give significance to collective consent, and develop a sense of reciprocity in their social cognition, causing a shift in their reason to submit to, or be obedient to others (Piaget, 1932). Such a shift turns the tenet of compliance from adult regulation towards personal judgement (Piaget, 1932), which, as Piaget (1932) puts it, is aligned with moral ideas of righteousness and empathy, as opposed to obedience guided by spatial, physical, or functional notions in the younger years. However, they still value positively the relationship with the adult as a source of experience-based knowledge (White & Lippitt, 1960), which explains why children, during this age, tend to agree, more than younger children, with their parents' or caregivers' ideas of leaders (Ayman-Nolley & Ayman, 2005).

Subsequently, this moment in childhood marks another key developmental moment in the leadership cognizance, as it denotes the emerging principles of self-reliant followership motivation and its dynamics with granting leadership status (Stogdill, 1948). Furthermore, developing personal judgement towards others' actions, may explain the turn of attention towards socio-emotional processes and increased

critical, and sometimes negative views leaders (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960; Okamura, 1968). It can also explain children's awareness of leadership styles and preference for democratic leadership above autocratic and non-interventionist forms of leadership (White & Lippitt, 1960) and why at the end of primary school, children become more interested in making their own decisions and having a voice within the school setting (Sacks, 2009). Furthermore, it explains why, during this age frame, being asked to do tasks and 'help out' are no longer considered leadership symbols; and children associate opportunities making their own decisions in planning or implementing tasks with their ideas of being a leader in the school setting (Sacks, 2009).

4. Humanitarian dimension of leadership. Later on, beyond 13 years of age, once children develop a sense of mutuality, righteousness, and empathy (Piaget, 1932), leadership views become idealist and humanitarian (DeHaan, 1962). Subsequently, from this age forward, children give more importance to the leader/non-leader division (Lord & Maher, 1991). This could be explained by research supporting that throughout schooling, there is growing attention to the leader's interaction with followers and its functionality and responsibility (Chauvin & Karnes, 1984; DeHaan, 1962; Pigors, 1933). Hence, it explains why they give greater accountability to the roles played by the performers in the leadership phenomena. Subsequently, the concept evolves to a more public spirited role of leaders (trustworthy, understanding), expanding to a humane notion of leadership towards the end of schooling (DeHaan, 1962). This can explain why children at this time, tend to denote positive community involvement as a key

feature in leadership value, and nominate as role models, leaders who have stood up to a cause, led change for good, and/or have made positive social impact (Sacks, 2009).

This final shift in increased humanitarian perceptions of leadership in high school students (DeHaan, 1962) can be explained by children's increased capacity to differentiate leadership gradations (Broich, 1929; DeHaan, 1962) and their higher awareness of goodness and compassion (Piaget, 1932) in a worldly scale. Subsequently, younger adults can see the complexity of social systems, realising that leadership plays a key role across functions, set to achieve common goals and society's well-being (Selman & Jaquette, 1977).

When looking at children's progression of the understanding of leadership across these phases, the literature shows discrepancies in the specific age when children shift from one phase into the other. For example, several studies (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960; Okamura, 1968; Pigors, 1933; Sacks, 2009) found that children don't become knowledgeable of followership until they are 10 years old. On the other hand, Ayman-Nolley and Ayman (2005), Nemerowicz and Rosi (1997), Selman and Jaquette (1977), and Yarrow and Campbell (1963) found this shift earlier, at around eight years of age, when children can also have socio-emotional ideas of leadership regarding the relationship of the leader with followers. Furthermore, Oliveira (2016) proposed that even by eight years old, children already have moved from a physical notion of leadership into a task-based conception, and that by 10 years old, they already give importance to relationship-based attributes of leaders.

These discrepancies can be attributed to the development of social cognition but also, can be explained by the different methods used to gather data. For example, several studies (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960; Okamura, 1968; Pigors, 1933; Sacks, 2009) that found the key developmental trend around ten years of age used questionnaires as part of their research method, sometimes mixing it with interviews or focus groups. In contrast, those who found the developmental trend was around eight years old (Ayman-Nolley & Ayman, 2005; Nemerowicz & Rosi, 1997; Yarrow & Campbell, 1963), applied drawings and interviews with children as part of their method, but did not use questionnaires. Nevertheless, regardless of the studies' divergences of the exact age when this key developmental shift takes place, it can be concluded that during primary school, from an age-development point of view, the perception of leadership shifts from a spatial-physical conception towards a functional and task-based notion, that can sometimes also be socio-emotional. Later, during high school, adolescents and young adults develop a humanitarian notion of leadership.

Social-cognitive development. Children's leadership understanding has also been explained by theories on social cognition and political socialisation, where children's development of social and moral concepts, including that of leadership, is attributed to their perception of self and 'the other' (Selman et al., 1977), and their escalating knowledgeability about their social structure (Ayman-Nolley & Ayman, 2005; Hess & Easton, 1960; Selman et al., 1977), religious affiliation, and cultural beliefs (Oliveira, 2016). From this point of view, besides children's physical and emotional advancement, leadership cognition is also dependent on children's early

interactions with caregivers and family environments (Massey, 1975; Oliveira, 2016; Pigors, 1933; Rosenblith, 1959; Walters & Stinnett, 1971) and later on, through peer group dynamics (Ahlbrand & Reynolds, 1972), school and religious education (Oliveira, 2016), and simultaneous immersion in media, political settings, and entertainment contexts (Ayman-Nolley & Ayman, 2005; Hess & Easton, 1960; Massey, 1975; Okamura, 1968). Subsequently, as children's inner self becomes more complex, and their networks expand, their social and moral constructs transmute, taking part in the outer development of collective constructs and social patterns (Selman et al., 1977). Hence, these social interactions are critical for the development of children's individual and collective version of social reality, including their perception of leadership.

This expansion of awareness about their social structure, results in children's ongoing increased capacity to recognise more elements of leadership, categories of leaders, leader roles with increased level of detail (Ayman-Nolley & Ayman, 2005; Sacks, 2009), as well as socially recognisable exemplars of leaders, and contextually renowned leader stereotypes such as famous people (Ayman-Nolley & Ayman, 2005; Nemerowicz & Rosi, 1997). Furthermore, the transformation of a positive to a sceptical view of leaders during primary school has also been attributed to social-cognition development where less social awareness may cause more positive views of leaders (Massey, 1975; Okamura, 1968) and possibly, increased social awareness may cause more idealist or humanitarian views of leadership in young adults (DeHaan, 1962).

The most structured study exploring the developmental progression of children's perceptions of leaders across social cognition is the work by Selman and Jaquette

(1977) on children's interpersonal awareness, integrating clinical and developmental approaches. They developed their study based on the social awareness developmental stages by Piaget (1932). In this theory, during the *heteronomous* stage (ages five to eight), children's social interaction is based on authority and is ruled by physical power, then, during the *autonomous* stage (ages eight to 12), children's social interaction is guided by a sense of mutuality and common interest (Selman & Jaquette, 1977). By analysing children, adolescents and adults' interpersonal awareness and ideas of leadership, the authors found that before five years old, all children's conceptions of leaders are based on physical power. From this point onwards, conversely to Piaget (1932), Selman and Jaquette (1977) proposed that between five and 14 years old, children escalate, at an individual pace, through their understanding of leadership, so that by the time they reach young adulthood, their conception is multi-dimensional and based on the leader's potential for social impact.

This escalation, according to the authors, begins in a temporal-spatial notion of leadership, which shifts towards a notion based on top-down authoritarian interactions including perception of leadership excellence, functionality, and knowledgeability. And lastly, young adolescents reach an understanding of the mutuality of leadership. To further visualize this phenomena, Selman et al. (1977) proposed that children reach conceptual milestones, as they develop their social awareness, guided by the ongoing interaction between their inner self and their societal structures. Firstly, across three domains of interpersonal consciousness: 1. Awareness of their individuality; 2. Awareness of their relationships with close friends; and 3. Awareness of group

structures and functionality. Secondly, across a social-cognitive map, that includes five stages of logic, including a progression of leadership understanding:

Stage 0: Egocentric or undifferentiated perspectives. In this early stage, Selman et al. (1977) found that children can recognise feelings and ideas in themselves and in the other but are not aware that there may be different interpretations of the same thought or feeling by themselves and by the other. Additionally, during stage zero, children have a general conception of leadership, based on physical power only.

Stage 1: Subjective or differentiated perspectives. In the subsequent stage, children are aware of the uniqueness of each individual, and can understand that both, the other and themselves, can hold similar or divergent perspectives on a matter. Specifically, leadership is associated with excellence, functionality, knowledgeability, and top-down authoritarian interactions. However, during this stage, children cannot envisage the existence of diverse leadership structures.

Stage 2: Self-reflective or reciprocal perspectives. During stage two, according to Selman et al. (1977), children develop a sense of mutuality and cooperation and can see situations through someone else's eyes, embracing the thoughts and feelings in the other. Subsequently, children can perceive the mutuality of leadership, where there are benefits and responsibilities in both leaders and followers (Selman & Jaquette, 1977).

Stage 3: Third person or mutual perspectives. At this stage, children can abstract themselves away from the interaction with the other, and manage simultaneously their self-perspectives, and the other's perspectives. Here, according to Selman and Jaquette

(1977), children see the responsibility of the leader within their social structure and its capacity to facilitate common goals.

Stage 4: Societal or in-depth perspectives. When reaching this last stage of interpersonal awareness, individuals can administer complex forms of communication, applying various levels of significance to the self and the other, both in verbal and non-verbal format, and as part of a complex social system. According to Selman and Jaquette (1977), this level is achieved by young adults regardless, who perceive the functional complexity of leadership and its role in society's well-being.

These stages, from early childhood through to adulthood, are an interpretative guide for everyday social interaction, depending on their social-cognitive developmental level (Selman et al., 1977). Additionally, each person migrates to next the stage through experience, and not necessarily through age advancement, and can always draw on perceptions from the lower stages as needed (Selman et al., 1977). This free-form escalation is hence attributed to each child's capacity for social interaction (which can sometimes be influenced by gender), and their social and economic environment (Selman et al., 1977). For example, Selman and Jaquette (1977) found that girls tended to attain a more advanced level of interpersonal development, between five and eight years old, than boys (Selman & Jaquette, 1977). Also, that children with inabilities coping with their social environment, move slower across the proposed stages (Selman et al., 1977). Additionally, they found that working class children between seven and 14 years old, reach a functional understanding of leadership later than middle class children (Selman & Jaquette, 1977). This suggests that children in the same age

range may have different ways of managing interpersonal processes and hence, may differ in the way they think about leadership. Regardless of differences in escalation, "membership in task performing groups and exposure to adult and same-age role models form the basis of socialisation into leadership expectations" (Frost, 2016, p. 565).

By leaving age specificities on the side, and looking at the dimensional aspects of development, it is visible that these stages of children's progression of the understanding of leadership within social-cognition (from egocentric and power based, to top-down authoritarian and functional, then to social-emotional, and lastly, to socially conscientious), portray a similar advancement as the phases proposed in age-related development in the former section (from physical and spatial, to functional, then to relationship based, then socio-emotional and lastly, humanitarian). Table 3 compares these social-cognitive leadership development notions of Selman and Jacquette (1977) with the age-related notions of DeHaan (1962) and Sacks (2009).

Table 3

Comparative chart of age-related and social-cognitive notions of development of the leadership construct across childhood

Age-related notions (DeHaan, 1962; Sacks, 2009)	Age	Age similarity	Social-cognitive related notions (Selman & Jaquette, 1977)	Age*
Phase 1 Physical and spatial dimension of leadership.	Kindergarten	=	Stage 0 Egocentric or undifferentiated perspectives	Six years old
Phase 2 Functional dimension of leadership	Between 8-10 years old	≠	Stage 1 Subjective or differentiated perspectives.	Seven years old

Phase 3 Relationship and socio-emotional based dimension of leadership.	Between 10-13 years old	≠	Stage 2 Self-reflective or reciprocal perspectives.	Between 8-10 years old
-	-	≠	Stage 3 Third person or mutual perspectives.	Between 13-15 years old
Phase 4 Humanitarian dimension of leadership.	Beyond 13 years old	≠	Stage 4 Societal or in-depth perspectives.	Beyond 26 years old

* Note: Age indication for each stage, as per the samples in Selman and Jaquette (1977) study. Noting that Selman and Jaquette (1977) theory is non-age dependent.

This comparison further supports incongruities in the specific age when children shift from one phase or stage into the other. For example, Selman and Jaquette (1977) found that a six-year old is already aware of the leader's functionality, and children as young as eight are already attentive to the leader-follower relationship. These findings oppose prior research based on age progression, such as children only reaching the functionality understanding of leadership at eight years old (Piaget, 1932; Yarrow & Campbell, 1963), or even later, by 10 years of age (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960; Okamura, 1968; Pigors, 1933). Contrastingly, Selman and Jaquette (1977) report awareness of societal perspectives of leadership in young adults, while DeHaan (1962) found that even by the age of 13, children already have humanitarian notions of leadership.

By turning to studies on political socialisation it is possible to give a complementary view to the development of this progression. Within political socialisation theory, it has also been found that younger children's initial perception of political leaders begins in a physical and emotional dimension moving towards a functional dimension guided by demands and expectations, during the primary school years (Hess & Easton, 1960). Also, around the age of ten, children's conceptions become more functional, focusing on the purpose of the leader rather than the leader's physical or emotional attributes (Okamura, 1968). This progression has been attributed to children's exposure to more information as they grow, for example, Hess and Easton (1960) found that children's ideas of the President evolve as children gather more information from the political context.

Subsequently, studies on children's development of political constructs have found that even children as young as seven have a political orientation (Hess & Easton, 1960; Okamura, 1968), presenting attitudes and beliefs towards leadership in the context of public affairs. This means that seven-year-old children can recognise a wider social structure beyond their family, school, and friends. Additionally, by the time they are adolescents, around fifteen years old, they have fully developed political stances (Hess & Easton, 1960), are aware of their political sphere, and are critical to corruption, even cynical (Massey, 1975). This is consistent with Selman et al. (1977)'s socio-cognition theory, where adolescents see the responsibility of the leader within their social structure.

When compared to age-related notions and social-cognitive notions, studies on political socialisation also show age discrepancies in children's level of understanding of the leadership construct. However, both these theories and those on social cognition present further insight into the transformation of children's ideas of leadership across social developmental milestones. Subsequently, this notion of development gives further prominence to the contextual sensitivity of children's ILTs (Ayman-Nolley & Ayman, 2005; Hess & Easton, 1960; Massey, 1975; Okamura, 1968; Selman & Jaquette, 1977; Stogdill, 1948) and how the environment, including family, school, books, media, and political settings, have a direct impact on children's development of leader's constructs (Hess & Easton, 1960; Massey, 1975; Okamura, 1968; Stogdill, 1948). Furthermore, it explains positive-sceptical-negative trends in children's views of leadership, as formerly described, by progression in social-cognition as well as age advancement (Ayman-Nolley & Ayman, 2005; Broich, 1929; DeHaan, 1962; Hess & Easton, 1960; Massey, 1975; Okamura, 1968). Additionally, exploratory data suggests that children's understanding of leadership is linked to their capacity for social interaction, their gender, social environment, and economic capacity (Selman & Jaquette, 1977). Subsequently, ILTs are affected by children's social systems, and this can explain why studies have consistently found different levels of understanding of the leadership construct in same age children. Hence, children in the same age frame, can be at a different level of understanding of how themselves and others relate and interact, and subsequently, can hold a different notion of leader and leadership.

In conjunction, both age-dependent and social-cognitive dependent theories agree that children's earliest notion of leadership is egocentric and that it is transformed during childhood, so that by early adolescence, it has developed into a sociocentric notion. To get there, it first embraces the functionality of leadership, and then expands to relationship-based and socio-emotional notions. Additionally, as children reach a new level of understanding in this evolutionary journey, they can always access perceptual structures stored in the prior stages as needed (Selman & Jaquette, 1977). For example, Sacks (2009) found that young people give more importance to socio-emotional traits than functional skills, though they think they all are relevant. Furthermore, Selman and Jaquette (1977) inconclusively wondered if the same individual applies a different stage of leadership awareness depending on the social situation. Whichever is the case, children's perceptions of leadership develop dynamically across age, while becoming more complex and nuanced throughout childhood and into adulthood.

Leadership-experience related. Children's leadership conceptualisations can become more sophisticated as they relate to leaders, but also, as they witness or exercise leadership themselves (Sacks, 2009; Salmond & Fleshman, 2010). The literature has provided evidence that early relationships or experiences with leaders and parent-child relationships influence, determine and establish leadership traits in children (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Chauvin & Karnes, 1984; Keller, 1999; Liu et al., 2012; Massey, 1975; Pigors, 1933; Rosenblith, 1959; Shondrick et al., 2010; Walters & Stinnett, 1971; White & Lippitt, 1960). Additionally, variation in ILTs has been linked to perceived parental or primary caregiver traits (Ayman-Nolley &

Ayman, 2005; Hunt et al., 1990; Jablin & Kron, 1994; Keller, 1999; Liu et al., 2012). Furthermore, role models during childhood serve as a crucial antecedent to leadership development (Bandura, 1986; Hofstede, 1991; Keller, 1999). These early relationships also include friends and peers, often older, because younger children have a tendency to look up to older children (Ahlbrand & Reynolds, 1972), who also influence the leadership values and role models of children and young adults (Sahgal & Pathak, 2007; Triandis, 2004). Moreover, social and moral encouragement by socialising agents, such as caregivers or older peers, in a specific social class or context, can influence leadership behaviour in children who try to fit in, concurring to social beliefs and demands (Selman et al., 1977).

Perhaps the most extensive research looking at the development of ILTs from this point of view is the Sacks (2009) study of the understanding of leadership and role models in children and adolescents. By studying children's earliest memories of leadership, the study found that children believe their leadership development is both contextual and situational, and intrinsically associated with their sense of responsibility. In this study, *contextual* means that children believe that each environment where they experience leadership influences their understanding in a different way. For example, leadership experiences in play with peers inform their understanding differently than leadership experiences at school with a teacher. On the other hand, *situational*, refers more specifically to the type of leadership activities they experience. For example, following, leading, and voting are situations that affect their understanding of leadership in unique ways, and these situations can all happen in one same context. Subsequently,

the leadership construct develops alongside leadership opportunities, level of confidence, encouragement, and challenges. The author found that such progression is recalled in children's relationships with adults or older children, and also through play, school initiatives, and learning environments. Hence, experiences of leadership in these contexts, influence children's development of leadership and their perception and understanding of leaders.

Sacks (2009) also suggests that children's understanding of leadership develops in phases, and that its conceptualisation becomes more sophisticated as they encounter more opportunities and experiences for leadership. So, its development is not only age or social-cognitive dependent, it is also influenced by direct experiential leadership. The phases provided in the study are grade related, which grants the opportunity to gather insight in age-development across accumulation of leadership experience (Sacks, 2009; Selman & Jaquette, 1977).

1. Task-based understanding of leadership. Sacks (2009) proposes that the leadership concept emerges sometime in the first grade of school, through the earliest experiences of leadership play or of being helpful to adults, as these have been reported by children as having an impact on their ideas of leaders (Sacks, 2009). The author found that children between 10 and 13 years old associate their first leadership memories with situations where they successfully responded to a task assigned by their teacher or being trusted with responsibility. These initial recollections of memory are linked to a spatial notion or to the relationship with a grown-up, are task-based, and do not relate to personality, social or emotional traits of leaders (Sacks, 2009).

Additionally, according to the children in Sacks (2009)'s study, these early experiences of leadership are not 'real', since they are not about decision-making and are more about being given responsibility.

2. Responsibility and role-oriented based understanding of leadership. Sacks (2009) found that children's leadership schemata develops alongside the allocation of more leadership tasks and responsibility at school. According to adolescents in Sacks (2009) study, 'real leadership' experience comes when children are assigned, or chosen to perform a specific leadership role and take charge (Sacks, 2009). This notion emerges between nine and 10 years old, when schools start introducing formal leadership roles like student leader or class representative, and value participation in teams and groups, and experiences where they represent their peers. Subsequently, Sacks (2009) found that during this age frame, children expand their cognition of leader categories, with a tendency to refer to various leadership roles within the school such as class leader, the sport leader, or the fundraising leader. This enrichment of the leadership cognition linked to their growing sense of autonomy, is a result of experience with the leadership process, through their interaction with leadership models, and the appearance of clearly defined leadership roles at school. Hence, self-efficacy, the capacity of stepping up, and recognition of talent are associated with leadership achievement during this time (Sacks, 2009).

3. Identity-oriented based understanding of leadership. Sacks (2009) concludes that the 'real' beginning of the foundation of adult's ideas of leadership appears sometime towards the end of primary school or beginning of high school, as children

experience “authority or influence, and are able to integrate those concepts into a new mental representation of leadership” (Sacks, 2009, p. 61). With less involvement from their teachers in decision making towards the end of primary school, children experience more power which enhances their notion of responsibility. This new mental representation aches for more freedom of choice, while also embracing societal dimensions of leadership such as the act of voting or being elected by vote. During this stage, according to the author, children grant added value to the leaders’ community involvement in their leadership assessment. Hence, their role models are leaders who cause considerable positive social impact and change for good. According to Sacks (2009), the emerging notion that leaders can ‘make a difference’ during this time, demonstrates the foundation of adult’s ideas of leadership.

Lastly, according to Sacks (2009), elements contained in the school environment can also influence children’s perception of leadership. For example, students in her study reported that posters promoting a set of approved character behaviour endorsed by the local government reflected on their perception on leadership traits such as: respect, responsibility, honesty, amongst others, guiding them toward their understanding of leadership (Sacks, 2009).

In conclusion, the experiential notion of the development of the leadership construct, from children’s point of view, moves across phases in a similar way as the age-dependent and social-cognitive theories. It also denotes that younger children have an initial understanding of leadership within a spatial, power-based, task-based notion, that evolves towards functional and social role-based notions within a sense of

responsibility, and by the end of school, escalates towards social dimensions. Nevertheless, the most innovative contribution to the literature from this point of view, is that the school context can have a deliberate impact on children's ILTs.

Collective development of the meaning of leadership. All previous notions of development have found similar dimensional trends by looking specifically at how ILTs develop in the individual. However, from a collectivist point of view, DeHaan (1962) proposed a developmental theory where the individual and the social sphere interact to develop a collective meaning of leadership. This notion of development is guided by age frames that, in a three-stage format, progressively reveal the most advanced notion of leadership when groups collectively reach early adulthood. Subsequently, according to DeHaan (1962), each stage is designed to help same age groups make sense of leadership, congruently, and in conjunction with the group's capacity of leadership understanding. This means that, parallel to an individual's childhood progression, the leadership phenomenon develops collectively guided by shared social purpose across three collective stages of leadership development throughout generations.

Stage 1 - Pre-leadership. According to DeHaan (1962), this stage takes place in the primary grades and marks children's initiation into leadership schematisation. The core social functions of this stage are to help perceivers' primary knowledge of a person's potential for leadership through noticeable observable cues (physical or spatial) and first-hand experiences of the provision of leadership status to 'the other'. Subsequently, this initial experience of the leadership construct in groups of younger children is set to develop a collective understanding of what it looks like and what it

feels like. Subsequently, children develop the capacity to identify leadership potential in a basic physical or spatial dimension, both in oneself and in the other. Additionally, they start to schematise what it feels like to give or/and receive leadership, positively and idealistically (DeHaan, 1962).

Stage 2 - Functional Leadership. Once groups master a pre-leadership level of understanding, the understanding of leadership is able to move towards the next level of collective meaning. According to DeHaan (1962), this stage takes place during middle and final primary school grades. Its social purpose is to develop a relationship between an individual's conceptualisation of a leader and the group's dynamic, including its objective and functionality. Subsequently, the leadership concept is transformed from being undifferentiated to being discriminated between task and maintenance roles (DeHaan, 1962). Task and maintenance roles are a classification of group member roles proposed by Benne and Sheats (1948) where task roles focus on the jobs or chores aimed at solving a common problem that has been defined by the group. Maintenance roles focus on the dynamics between the group, so it can be functional. Hence, children are able to see leadership's purposefulness, in other words, they discover what leadership is for, what it can do, and how it can be used to achieve common and personal goals (DeHaan, 1962; Hess & Easton, 1960; Pigors, 1933). Subsequently, leadership perception lies around demands and expectations and so, social understanding of leadership shifts from a physical, emotional or spatial conception, towards an action-based dimension.

Stage 3 - Institutionalised leadership. Lastly, once leadership perception has uncovered its physical, spatial, emotional, and functional nature, it is able to disclose what DeHaan (1962) called the institutionalised leadership stage during high school. Subsequently, the leader schemata moves beyond a functional dimension towards what DeHaan (1962) called championship. Collectively, at this stage, leadership is publicly owned, expected to champion change and stand for humanitarian beliefs and wellbeing (DeHaan, 1962). Hence, the leadership concept is collectively linked to the leader's capacity to uphold or defend a cause, in other words, to becoming more prominent and noticeable for standing for something (DeHaan, 1962). Subsequently, children form a judgemental notion of what leadership could do or should do, which can explain extensive findings of increased negativity and criticism during this age-frame (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960; Okamura, 1968).

In conclusion, from this point of view, leadership cognition takes children collectively throughout a perceptual trajectory, which helps them develop implicit ideas of leaders, firstly within the leader's prominence and potential in early primary school; followed by the leader's effectiveness in regard to task and function in middle primary school; and lastly, towards a leader's championship within humanitarian dimensions towards the end of schooling.

Summary notions of development. After reviewing the different notions of development, including age-related, social-cognitive related, experience-based, and collectively-guided, it is evident that there is a progression in the development of ILTs in children across dimensions and across four points in time (early primary school,

middle primary school, late primary school, and early high school). This progression has been consistently reported across the literature in these specific points in time, however, some children can escalate quicker or slower than others across this development, depending on both internal and/or external factors (Selman & Jaquette, 1977). This is consistent with Robson (2006)'s notion that scholars' view of children's cognitive development has moved from an orderly sequential notion towards a tangled mode "typified by the metaphor of a spider's web" (Robson, 2006, p. 20). Nevertheless, summarising the key findings within each notion of development across points in time throughout schooling gives a succinct view of the progression of the leadership concept across childhood and provides evidence towards how children process leadership information and respond to leadership stimuli.

Early primary school. In its earliest stage, children's information processing takes place in a spatio-temporal and physical dimension of leadership (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960; Sacks, 2009; Selman et al., 1977). This early general conception of leadership is based on physical power (Selman et al., 1977) and is linked to the relationship with a grown-up (Sacks, 2009). During this stage, children are unable to discern between good or bad leadership (Selman & Jaquette, 1977) and not often grant another child leadership status (Sacks, 2009). Subsequently, children in this level do not give high levels of importance to the leader-non-leader distinction (Lord & Maher, 1991) since they are not knowingly interested in innovation or collaboration (Piaget, 1932).

Middle primary school. Information processing often takes place in a functional (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960) and socio-emotional dimension (Ayman-Nolley & Ayman, 2005; Nemerowicz & Rosi, 1997; Oliveira, 2016; Salmond & Fleshman, 2010; Selman et al., 1977; Yarrow & Campbell, 1963). For example, Ayman-Nolley and Ayman (2005) found that half of the children in their sample believed the leader should mostly focus on getting the tasks done, while the other half focused more on maintaining a happy environment in the group. Children can recognise a wider social structure beyond their family, school, and friends (Selman et al., 1977) and develop a connection between the leader and the group's dynamic, including its objective and functionality (DeHaan, 1962). Additionally, they value the leader's receptibility, awareness of others, and teamwork approach (Ayman-Nolley & Ayman, 2005). Subsequently during this stage children can recognise the leadership-followership relationship (Ayman-Nolley & Ayman, 2005; Selman et al., 1977) within a context (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960; Okamura, 1968; Pigors, 1933) and can measure the leader effectiveness within positive and negative notions of leadership (Yarrow & Campbell, 1963).

Late primary school. Information processing often takes place in a relationship (Sacks, 2009) and socio-emotional dimension of leadership (Ayman-Nolley & Ayman, 2005; Selman et al., 1977; Yarrow & Campbell, 1963). Children have a reciprocal perspective of leadership within the principles of mutuality and cooperation (Selman & Jaquette, 1977). Hence, followership is no longer adult regulated, personal judgement is

aligned with moral ideas of righteousness and empathy, and give significance to collective consent (Piaget, 1932).

Early high school. Information processing often takes place in a humanitarian dimension of leadership (DeHaan, 1962; Sacks, 2009; Selman & Jaquette, 1977) with increased capacity to differentiate leadership structures (Broich, 1929; DeHaan, 1962) and see the complexity of social systems (Selman et al., 1977). Children realise that leadership plays a key role across functions, set to achieve common goals and society's well-being (Selman & Jaquette, 1977). During this phase, children form a judgemental notion of what leadership could or should do, expected to champion change and stand for humanitarian beliefs and wellbeing (DeHaan, 1962).

3.3.3 Children's ILTs and knowledge. According to Murray (2017), children are expert researchers in matters that concern them; the former section on notions of development shows that children are concerned with leadership (Elman, 2005). Children's interest in leadership encourages the acquisition of knowledge, which is key to its conceptual development and understanding (Robson, 2006). Consequently, children's knowledge is attributed to their experience, which can be guided by their own agenda (Elman, 2005) and conducted by their ability to learn, as well as by the social input and direction (Seidenberg, 1994). As with adults, children think in multiple ways (Siegler, 2000) including categorisation, connectionist, and embodied models of information-processing for dynamic cognitive apprehension (Mareschal, 2003). So as children process more information through these cognitive structures, they develop more functional capacity for accessing knowledge (Smith, Sera, & Gattuso, 1988).

Increasingly, children then expand the "processes by which they learn to think in more advanced ways" (Siegler, 2000, p. 26) causing developmental changes. Subsequently, due to their interest in leadership and exposure to the phenomena, a child can be capable of more leadership abstraction than another, based on their capacity to differentiate and elaborate on knowledge about the world (Robson, 2006). These notions of knowledge acquisition, support Selman et al. (1977)'s findings of children's non-linear development. Next, I review each model of information processing.

Categorisation model. To develop conceptual understanding, children must group ideas together in categories based on characteristics in the same ways as adults do. Children acquire perceptual categorisation following a three-step matching process across levels, first in the form of basic level categories, then superordinate, and lastly subordinate (Mervis & Crisafo, 1982; Robson, 2006; Rosch, 1978). These categories become progressively more and more differentiated across childhood as they gather further knowledge of what characteristics and behaviours apply to a particular category (McClelland & Jenkins, 2014). Looking specifically at adult ILTs categorisation theory, these are the same levels used by adults in a serial manner (Shondrick et al., 2010), however, adults first process leadership information in the super-ordinate level, then basic, and lastly subordinate (Lord et al., 1984; Phillips & Lord, 1982).

This means that even though children and adults' highest level of abstraction of the leadership construct is within the subordinate level, they differ in how they categorise leaders in the first and second level of implicit perception. The basic category has been found to be the first one acquired by children as they start talking, as it permits

greater differentiation across categories and is recognised as most useful for everyday interaction (Kenney et al., 1994; Rosch, 1978). Similarly, according to Robson (2006), children first classify concepts guided by consistency of characteristics across contexts and situations in the *basic* level. For example, they identify characteristics that are uniform or similar to leaders from their family, their friendship circle, leaders from school, or leaders from politics. Successively, children process information in a second level, *superordinate*, which according to Shondrick et al. (2010), monitors the distinction between leader and non-leader, grouping the basic level representations (Robson, 2006). In other words, if the perceived individual does not hold the leadership traits, expectations, or behaviours identified as leadership-type in the basic level, the individual perceived by the child is not often categorised as a leader.

Adults, on the other hand, first go through a superordinate process to categorise if the individual is a leader or non-leader in their general conception of ILTs, which is non-dependent on a context or situation (Offermann & Coats, 2018). Subsequently, once the perceiver categorises the individual as a leader, this proceeds to the basic category, helping the perceiver determine the type of leader, for example, religious, political, or environmental (Frost, 2016; Schyns et al., 2011), which in turn prompts specific expectations in the perceiver's ILTs that are situational or contextually sensitive.

Lastly, both adults and children develop a third level, *subordinate*, for advanced discrimination of the basic level and typification (Lord et al., 1984; Phillips & Lord, 1982; Robson, 2006). This level helps them discern, what Lord et al. (1984) nominated

in adult theory, abstract representations of specific roles and relational traits within a category, for example in a school setting: principal, teacher, or school captain. Additionally, this level also helps them identify exemplar representations of leaders, in other words, specific leaders such as celebrities or famous leaders, for example Queen Elizabeth or Jesus.

These differences found in the way children and adults process leadership information in the first two levels of perception, is critical for the study of ILTs because it shows that children's perception of leadership is highly guided by the characteristics of the leaders they interact with or know of, during their childhood. Since the younger children don't have the knowledge and experience of leadership that older children and adults have, they identify and classify features that enable boundaries between categories or more categories to be formed (Robson, 2006). Nevertheless, some children may follow an adult-like categorisation process if exposed to substantial knowledge and experience in leadership phenomena.

While adults have widely applicable ILTs (superordinate) that aid them into knowing what is a leader or a non-leader within the first level of perceptual categorisation, young children, on the other hand, require contextual based knowledge (basic) before being able to determine if an individual is a leader or non-leader in the second level. This means that adults' general distinction between leader and non-leader grows out of the development of knowledge structures guided by input from the contexts and relationships with leaders throughout childhood. Furthermore, this view explains why the superordinate view of leaders is the most stable structure and hardest

to change in adulthood (Offermann & Coats, 2018) and why adult followers tend to attribute similar qualities to the ideal leader as the ones found in the parenting style they experienced in childhood (Keller, 2003). Conclusively, the earliest notions of leadership in an individual can be determinant in who they view and accept as leader in the latter years.

Connectionist model. Connectionist models of cognition are fundamental for the development of new knowledge and children's learning (Elman, 2005; McClelland & Jenkins, 2014; Seidenberg, 1994; Thomas & Mareschal, 2001). Connectionist models of cognition are also designed to respond rapidly to perceptive input that may overlap or disassociate from static hierarchical structures, such as those found in categorisation models of cognition (basic, superordinate, and subordinate) (Mareschal, 2003). This is due to their dynamic nature, which allows cognitive networks to allocate different weights to perceptual input (McClelland & Jenkins, 2014). They do this to reduce discrepancy between expected and observed events by performing parallel research-like procedures in the brain (McClelland & Jenkins, 2014, p. 45; Meadows, 1993). Initially, infants' "connectionist networks develop internal representations that reflect statistical distribution (correlation) of features in the environment they encounter" (Mareschal, 2003, p. 370), and as children grow older, these representations become more abstract thanks to an increasing capacity for neural information processing such as associative and correlation-based learning, or distributed representations (Gopnik & Schulz, 2007; Mareschal, 2003).

This is because these dynamic representations rely on children's knowledge of the specific domain and their experience (Brown & Lord, 2001a; Elman, 2005; McClelland & Jenkins, 2014; Seidenberg, 1994). For example, according to Seidenberg (1994), by learning to add, first with number one, then with number two, then with number three and so on, children's connectionist networks train, leading to improved simulations of the process of adding, so when numbers with multiple figures are to be processed, networks are more relaxed thanks to the development of patterns capable of diverting weights in prior learning and adding experience (Seidenberg, 1994). This example shows, when transferred to the leadership domain, that with more experience, children's patterns of recognition train and improve simulations of the phenomenon, as well as the perception of its members and its processes, so patterns of features of leaders can be increasingly flexible and abstract, to respond to a novel or incompatible stimulus (Mareschal, 2003). Additionally, contextual stimuli (Den Hartog et al., 1999), a leader's behaviours and attributes (Braun, Peus, & Frey, 2018), and the perceiver's uniqueness (Duehr & Bono, 2006) determine the patterns that unfold when perceiving and judging leaders (Braun et al., 2018).

While helping children determine leadership members and processes, this model of cognition also aids them in establishing the perceptual boundaries of a prototype, including its positive and negative thresholds (Hinton, 1989), so it helps children exemplify and judge leaders, good leaders, and bad leaders (Mareschal, 2003). Initially, young children (between early and middle primary school) with less leadership experience, are inclined to judge leaders based on exemplars and, as they encounter

more leadership experience that brings more knowledge, they tend to judge leaders guided by abstract prototypes (Brown & Lord, 2001b; Matthews et al., 1989). This is explained by McClelland and Jenkins (2014) based on Siegler's theories that, depending on the age, children apply different procedures to weight input from experience. However experience, (Brown & Lord, 2001b; Elman, 2005; McClelland & Jenkins, 2014; Robson, 2006; Seidenberg, 1994), more than age, is the main reason for this progress in connectionist models, since sometimes younger children can hold more sophisticated, abstract, understanding of some concepts, than older children (Robson, 2006).

In conclusion, these nondeterministic networks are prepared to deal with unknown representations of leadership, or conflicting information about leaders that children encounter day to day, and while doing this, patterns of understanding get more profound and strengthen with experience (Lakomski, 2001; Meadows, 1993).

Embodied cognition. Even though human beings' perceptual journey begins "with a body richly endowed with multiple sensory and action systems" (Smith & Gasser, 2005, p. 25), embodied cognition theories have focused predominantly on the study of adult cognition, leaving developmental findings aside (Wellsby & Pexman, 2014). The key tenet of this view is that the body, static and in movement, filters and calibrates external stimuli (Gapenne, 2014). Specifically in children, this dynamic is essential for cognitive development and for the eventual acquisition of abstract ideas (Montessori, 1983) as the child becomes embodied in physical and emotional progression, and in the wider social context and environment (Smith & Gasser, 2005).

According to Wellsby and Pexman (2014), sensorimotor experience is a key player for the development of conceptual knowledge, which has been noted in developmental studies and more widely in studies of language acquisition. For example, Cowely (2014) in Dove (2016) found that children with high performance in language acquisition are virtuous at managing the dynamics between movement coordination, development of verbal patterns, and social experience. However, even though studies on embodied cognition in children have become influential over the last decade because ongoing interactions with the environment contribute to the acquisition and representation of conceptual knowledge (Wellsby & Pexman, 2014), its role and impact in the development of children's ILTs or perceptions of leadership is an area yet to de researched.

3.3.4 Children's ILTs and language. As proposed by Vygotsky, "language is both the medium through which culture can be transmitted and also a tool for thought" (Robson, 2006, p. 975). The development of social constructs is fuelled by social interaction, where language acts as the ignitor (Robson, 2006). Subsequently, children are meaning makers (Wells, 2009) of leadership, who continuously test their own hypotheses in search of explanations within their cultural and contextual spheres (Chouinard, 2007; Robson, 2006; Wells, 2009). Abstraction in children ILTs has sometimes been linked to language learning and verbal skills (DeHaan, 1962). However, Selman and Jaquette (1977) show that an understanding of leadership is dynamic and evolves across stages of intellectual development and becomes more complex with mastery of composite forms of communication, both verbal and non-

verbal, but also, with the development of social skills. Hence, language learning, plus advancement in verbal and non-verbal skills, are not independently responsible for the development of children's individual and collective version of social reality, including their perception of leadership. Moreover, it is linked to their self-development, their expansion of knowledge structures, moral constructs, and subsequent creation of social patterns (Selman & Jaquette, 1977).

From a developmental point of view, the acquisition of mental models and categorisation processes are directly linked to the individual's verbal ability (Mareschal, 2003). This does not imply that pre-talking infants do not hold mental models of leadership. For example, Stavans and Baillargeon (2019) found that by the second year of life, infants hold expectations towards their leaders, can distinguish between leadership-based and dominance-based power, and "ascribe unique responsibilities to leaders, including that of righting wrongs" (Stavans & Baillargeon, 2019, p. 16292). Precisely, because infants encode numerous cognitive categories upon perception of stimuli since birth, by the time they begin learning words, they are capable of diverting new and prior stimuli and knowledge towards a category or label (Mareschal, 2003). Consequently, as children learn to talk, they progressively talk to learn (Chouinard, 2007; Wells, 2009), so the progressive dynamic between thought and language in children's cognition is fundamental for the development of knowledge, conceptualisation, and abstraction, including that of leadership. This is because the mental models, or recognised identifiers of leadership, adjust continuously along the progression of language comprehension, which simultaneously expands children's

capacity for cognitive operation (Anthony, Lonigan, Driscoll, Phillips, & Burgess, 2003) and capacity for abstraction (Robson, 2006). Even though language often becomes the preferred predictor for implicit understanding in talking children, stimuli continues to be processed through other knowledge structures beyond the symbolic representations of language depending on the cognitive needs, perhaps more than adults (Mareschal, 2003). This post-infant progression is not always age dependent, as children in the same age frames present different language skills, reflecting differences in their capacity for abstraction (Robson, 2006).

Furthermore, since the meaning assigned to words is born in the nexus of social interaction between children and adults (Golinkoff, Hoff, Rowe, Tamis-LeMonda, & Hirsh-Pasek, 2019) and this interaction happens primarily in education, play, and home settings (Vygotsky, 1978), it reflects cultural differences and value systems. For example, Qi and Michelle (2000) found that children's cultural belief system, including the values endorsed in their family and social context, influences the level of awareness or familiarity ascribed to certain labels or words. By comparing children form the US and China, the authors found that while most Chinese children understood the meaning of the word shame (*diulian* in Mandarin), only half of US children were able to comprehend it. Opposingly, most US children understood the word guilt (*neijiu* in Mandarin), and only a few Chinese children knew its meaning (Qi & Michelle, 2000). Conclusively, because language and culture intertwine into children's narratives, it is important to consider the cultural beliefs and values that they are immersed in, as these factors can impact the meaning ascribed to words and subsequently, impact their ILTs.

Additionally, language is ever evolving (Draxler, 2015), and words ascribed to objects, traits, or exemplars can be transformed across age and also, across generations. For example, as presented previously, Okamura (1968) found that the word 'rich' was positively associated with political leaders in younger children and negatively in older children. Additionally, according to Gelman and Roberts (2017), cumulative cultural evolution reflected in technological advancements (e.g. social media), new theories and discoveries (e.g. whales are no longer fish), and the ongoing diversification of human kind, cause languages to expand, merge, and augment individual's cognitive capacities, both positively and negatively, when engaging in categorisation and labelling processing (Gelman & Roberts, 2017). An example found in ILTs theory, is how a bold leader was associated with a strong leader in 1994 and later, in 2018, it was associated with a charismatic leader (Offermann & Coats, 2018). Furthermore, the perceived role of leaders in a world-wide phenomenon such as the current coronavirus global outbreak and its large-scale effects, can redefine people's ideas and expectations of leaders impacting the language associated with leadership in the future and hence, in children.

Conclusively, language is a key player in the development of children's ILTs. It offers insight into children's thinking and concept development (Robson, 2006). Subsequently, it helps researchers determine the structural boundaries of children's implicit leadership construct and how it is processed and developed. Additionally, conceptual understanding is reflected in the capacity for differentiation and elaboration (Robson, 2006). Since the aim of the current study is to investigate the construction of the leadership construct as conceived and perceived by children from five to 12-years-

old, it is critical to explore their narrative of leadership, in other words, the labels, categories, and typologies utilised for making sense of the leadership phenomena and how the differentiate or develop. Such findings will be culturally and contextually sensitive and depict how the advancement in language knowledge can impact the abstraction of the meaning of the construct of leadership.

In the next section, the literature will explore further the factors that influence children's ILTs.

Influences on ILTs. Children's ILTs are sensitive to multiple factors. The previous section has noted that children's development of the leadership concept and ILTs, is linked to physical growth, gender, verbal knowledge, and social skills. It is also linked to emotional development, knowledge of their social structure, religious affiliation, socioeconomical status, and cultural beliefs. Furthermore, their interactions with caregivers, peers, and teachers as well as the leadership experiences held at home, during play, and at school, shape their ideas of leadership and ILTs. Lastly, family, school, media, books, political, and entertainment environments have been found to have an impact in this development.

The next section will explore further influences on children ILTs.

Self-concept. Selman et al. (1977) noted that the leadership construct develops inwards with their perception of self and 'the other'. However, children's ILTs are not always correspondent to the way they measure themselves, as has been found in adults. This is especially visible in its early development, when ILTs are based on physical power (Selman et al., 1977) and linked to the relationship with a grown-up (Sacks,

2009). During this early egocentric stage, children are mostly interested in their own joy (Pigors, 1933), hence, children don't give much attention to granting or claiming leadership status. However, once they reach an allocentric notion of interrelations, and expand their notion of awareness towards the uniqueness of the other, children can begin comparing with each other, which can mediate the leader-follower relationship in a similar way as adults, facilitating taking on a leadership role (Schyns et al., 2011). Similarly, Salmond and Fleshman (2010) found that self-concept affects leadership aspirations in children. Furthermore, Salmond and Fleshman (2010) also found that children who rate themselves higher in leadership traits and skills, report having more leadership experiences or being more influenced by their parents.

Additionally, in childhood, self-concept may be linked to gender, race, ethnicity, and household income (Nemerowicz & Rosi, 1997; Salmond & Fleshman, 2010). For example, Nemerowicz and Rosi (1997) found that girls between nine and 11 years old report they already hold key relational characteristics critical for leadership and that children with higher income and from African American and Hispanic backgrounds, rate their self-concept as leaders higher, than White children.

Similarity. As presented in the previous chapter, adults more often follow others who are similar to them demographically, culturally, or ethically (Byrne, 1971; Dulebohn et al., 2016; Engle & Lord, 1997; Greenwald & Banaji, 1995). Research on children's perception of leadership in the US has reported similar trends in gender and ethnicity. Nemerowicz and Rosi (1997) found that even though children tend to depict a leader of their own gender, "boys do so at twice the rate" Nemerowicz and Rosi (1997,

p. 29). Subsequently, studies with data collected in the early 90s and later in the 2000s have shown that White boys hold unto the idea of a male White leader (Ayman-Nolley & Ayman, 2005), and girls on the other hand, have demonstrated a shift towards gender similarity since the 2000s. Ayman-Nolley and Ayman (2005) found that in the 90s, girls had a tendency to draw male leaders, however, in the early 2000s, this tendency decreased because of the US implementation of more gender equality policies and programs (Ayman-Nolley & Ayman, 2005). In their 2000s studies, girls tended to consider female leaders more often than boys, resulting in more than fifty percent of the girls with an ILT that was female (Ayman-Nolley & Ayman, 2005). Nevertheless, recent studies conducted in China and Philippines still presented a male prevalence for children's ideas of leaders regardless of the gender (Liu et al., 2012; Oliveira, 2016).

Similarity has also been found in ethnicity. Ayman-Nolley and Ayman and colleagues found that African American children in the US presented a growing tendency of self-similarity in the cultural background of their ILTs across a 10-year frame (between the 90s and the 2000s). So, while White children in the US always drew White leaders, African American children increasingly drew more leaders from their ethnicity and less White leaders (Ayman-Nolley & Ayman, 2005).

Early interactions. From an early age, children show interest in leadership demonstrated by the on-going tendency to copy adult 'leaders' such as fathers, mothers, or teachers and incorporate them into their role play (Pigors, 1933; Rosenblith, 1959). Consistently with adult ILTs literature, studies show that children's establishment and development of leadership models, concepts, and traits are impacted by early

relationships or experiences with leaders (Ayman-Nolley & Ayman, 2005; Massey, 1975; Nemerowicz & Rosi, 1997; Pigors, 1933; Rosenblith, 1959; Walters & Stinnett, 1971). Subsequently, children's experiences with parents and caregivers are critical for the development of their understanding of leadership and consequently, of their ideas of leaders (Walters & Stinnett, 1971) which guides their behaviour towards leadership styles (Chauvin & Karnes, 1984). Moreover, since older children evoke adult authority to younger children in a subtler way (Piaget, 1932), relationships between younger children and older children in school settings also impact the development of children's leadership schemata. For example, Ahlbrand and Reynolds (1972) provide evidence about the tendency of younger children to look up to older children by nominating positively more older children as good leaders and fewer from their own grade. In connection, Čater, Lang, and Szabo (2013) asked undergraduate students how social role models influenced their perceptions of good and bad leadership behaviour. The authors found that:

> Charismatic or value-based styles are connected with the influence of teachers, parents, friends, or peers
>
> Team-oriented styles are found to be rooted in role models amongst parents, teachers, friends, or peers
>
> Humane styles are seen in examples of teachers, friends or peers, and also parents
>
> Participative styles are observed and experienced in groups of friends or peers
>
> Autonomous styles in its positive or negative connotations are related to practical experiences with superiors, and in a second stance, with behaviour in friends or peers,

> Self-protective styles are mainly observed in the public, with politicians and celebrities from the media (Čater et al., 2013, pp. 107-108).

Further evidence can be found in studies looking at adolescents and young adults. Frost (2016), for example, noted that adolescents' leadership experience in groups with diverse purposes, either as a leader or a follower, strongly impact the development of ILTs (Frost, 2016). Additionally, Keller (1999)'s study with university students found a strong correlation between parental and caregiver's traits. This evidence exemplifies how authority figures in childhood shape expectations for interactions with leaders in the future (Frost, 2016).

Gender. Congruent with adult ILTs studies, there are both gender commonalities and differences in the way children perceive leaders. For example, regardless of their gender, most children from middle primary school and onwards, acknowledge the leader's role as essential for effective social functioning by preventing conflict, being helpful, pursuing common cause, and performing authority through power and control, without being dominant (Broich, 1929; Nemerowicz & Rosi, 1997; Salmond & Fleshman, 2010). Additionally, boys and girls who show leadership desirability expect to be able to help others and be more independent and respected (Nemerowicz & Rosi, 1997).

Furthermore, boys and girls consider a wide spectrum of leader figures including parents, teachers, and political leaders (Ayman-Nolley & Ayman, 2005). Ayman-Nolley and Ayman (2005) also found that, in similar frequency, boys and girls draw generic persons such as head of state, parents, and famous people, making them valuable leader

representatives to both genders. However, extensive research reports that gender impacts children's perceptions of leadership because boys and girls present differences in ideas, preferences, and functional characteristics of leaders (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Broich, 1929; Nemerowicz & Rosi, 1997; Selman & Jaquette, 1977; Yamaguchi & Maehr, 2004). Next, I summarise key differences between boys' and girls' perceptions of leadership.

Girls. When rating or describing leaders, girls tend to report relational characteristics or character attributes such as sympathetic, understanding, good at what they do, loyal, trustworthy, and easy going, as the most relevant (Broich, 1929; Nemerowicz & Rosi, 1997). Subsequently, they focus more on the good relationship with the leader or follower rather than in task-based results (Broich, 1929). Additionally, girls are more open than boys to changing the rules of the game (Piaget, 1932) and feel more motivated to become leaders because of social and emotional aspects (Salmond & Fleshman, 2010).

Moreover, girls present higher levels of relationship-based leadership in their groups (Broich, 1929; Nemerowicz & Rosi, 1997; Piaget, 1932). For example, Yamaguchi and Maehr (2004)'s study of task-based and relationship-based group performance in children found that groups with a majority of girls had higher levels of relationship-based leadership and boys had higher task-based leadership. This can be explained by the findings of Selman and Jaquette (1977) that girls are at a more advanced level of interpersonal development than boys, hence, more attentive to preserving relationships and subsequently, more open to novelty in their tasks and

games than boys (Piaget, 1932). This may also explain why girls, more often than boys, agree with their parents' ideas and expectations of leaders (Ayman-Nolley & Ayman, 2005). In conclusion, this evidence suggests that girls hold a higher interest in the social and emotional features of the leader (Liu et al., 2012; Oliveira, 2016).

Boys. Boys, on the other hand, have a tendency to describe functional characteristics of leaders as more relevant than relational traits (Broich, 1929; Nemerowicz & Rosi, 1997). For example, they value ability, determination, productivity, and accomplishment in leadership ratings (Broich, 1929). They also believe the leader should inspire respect and solve problems, and will tolerate dictatorial behaviour, as long as the leader pursues common goals (Broich, 1929; Nemerowicz & Rosi, 1997). In this sense, boys do not give as much value to the relationship with the leader as girls, but rather to the leader getting things done. Boys' preference for functional leadership traits has also been found in group performance where boys show higher task-based leadership than girls (Yamaguchi & Maehr, 2004). "They admire efficiency and the ability to get results" (Broich, 1929, p. 22) and feel motivated to become leaders more often for power or wealth (Salmond & Fleshman, 2010). This may explain why boys are stricter than girls with the rules of the game (Piaget, 1932) and why they often refer to ideal leaders that exemplify well-defined results, for example, winning a game, or breaking a record (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Liu et al., 2012) or by noticeable followership such as sports leaders and military, politics, or religious figures (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Liu et al., 2012). Additionally, boys usually associate a leader with a male

leader while girls consider both (Ayman-Nolley & Ayman, 2005; Liu et al., 2012; Oliveira, 2016). Moreover, boys have more tendency to draw violent depictions of leadership than girls (Ayman-Nolley & Ayman, 2005). Further to differences in perceptions, the masculinity trait in children's ILTs has been recorded in the literature. When beginning school, the majority of children have a male idea of a leader (Ayman-Nolley & Ayman, 2005; Liu et al., 2012; Oliveira, 2016), nevertheless, this tendency has diminished in the last twenty years in the US. Subsequently, similar to adult studies, children frequently present *think leader-think male* bias (Ayman-Nolley & Ayman, 2005).

Additionally, in early primary school, children already hold different systems of beliefs, values, and expectations regarding the behaviour of females and males (Eccles, 2007; Grusec & Hastings, 2014; Schwartz & Rubel, 2005). Subsequently, they present gender-specific leadership role stereotypes (Frost, 2016), in other words, certain expectations, social roles, physical, and behavioural features of a leader are associated with a specific gender. For example, children more often depict male leaders as less kind or accompanied by followers, while female leaders tend to be smiling and caring for followers (Ayman-Nolley & Ayman, 2005). Also, male leaders are more often associated with military personnel, political leaders, or managers and supervisors. On the other hand, if the leader is female it would often be associated with a person who fulfils a community role (Ayman-Nolley & Ayman, 2005; Liu et al., 2012) such as teachers, parents, or other children (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et

al., 2006). These differences in physical and behavioural features to male or female leaders are not dependent on children's age or grade (Ayman-Nolley & Ayman, 2005).

Culture. Ethnicity can also have an impact on children's ILTs (Ayman-Nolley & Ayman, 2005; Selman & Jaquette, 1977) and on children's leadership behaviour (Salmond & Fleshman, 2010). Through the drawing studies, Ayman-Nolley and Ayman (2005) and colleagues showed that cultural background and ethnicity impact children's ILTs content. So, even though the youngest primary school children in US, China, Costa Rica, Canada, and Philippines show a preference for generic persons in their ILTs, and the oldest nominate similar leader roles such as parents, teachers, and political figures, there are unique associations to distinctive social roles in each country, and even within a country with children from different cultural backgrounds (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Liu et al., 2012; Oliveira, 2016). For example, Chinese children are the only ones who mention managers or supervisors and, contrary to US and Costa Rican children, they do not reference entertainment, sports, or religious leaders (Liu et al., 2012). Furthermore, US children draw more historical figures than Costa Rican children (Ayman-Nolley et al., 2006) and Filipino children name religious figures in a higher percentage than children from other cultures (Oliveira, 2016). Moreover, older Filipino children associate a religious leader with an ideal leader more often than the youngest children (Oliveira, 2016) and opposingly, younger children in the US choose more often a religious figure than the older children (Ayman-Nolley & Ayman, 2005).

Additionally, Ayman-Nolley and Ayman and colleagues found that children's preferred leader categories can vary depending on their ethnicity. For example, the top categories of leaders drawn by White children were firstly a generic person, followed by military, then by a child, followed by Martin Luther King; on the contrary, African-American children drew mostly a generic person, followed by Martin Luther King, followed by a child. They also found that most of the violent referenced leaders were drawn by White boys and that most of the children that didn't draw followers were African-American (Ayman-Nolley & Ayman, 2005).

The impact of culture on children ILTs is also visible when looking at gender preference and leadership behaviour. For example, Ayman-Nolley et al. (2006) found that American girls drew female leaders more frequently than Costa Rican girls. Additionally, Ayman-Nolley and Ayman (2005) found that in the US, African-American children more often agree with their parents about their leader ideas than White children. Moreover, Salmond and Fleshman (2010) found that ethnicity impacts children and youth leadership behaviour as children in the US from African-American, Latin-American, and Asian-American background report a higher self-concept and report being more motivated to become leaders than White children.

This evidence shows that children's ILTs content, is at least hierarchical, and that social role categorisation is sensitive to social context and environment. However, the literature looking at children's ILTs during preschool, primary, or secondary school has not undertaken an in-depth look at children's leadership expectations and prototypes, including those of good and bad leadership. Nevertheless, in the case of children's ILTs

it can only be concluded that they share similar referents within social roles across cultures, however depending of the culture, children sometimes give different weight to the importance of a specific social role, additionally, children recognise distinctive social roles that are unique to each culture.

Race. In children, favoritism over White leaders has not been studied in detail. However, it was found that in the 90s most children in the US represented male White leaders and that in more recent years, African-American children consider more often leader prototypes from their own ethnicity (Ayman-Nolley & Ayman, 2005). This trend, similar to adult studies, shows that the White leader bias (Rosette et al., 2008) could perhaps be concealed and obliterated by the encouragement of cultural diversity and ILTs principles of similarity (Engle & Lord, 1997; Greenwald & Banaji, 1995; Singh et al., 2019).

Power and hierarchical level. Children's development of the leadership construct shows that it develops hand-in-hand with the power construct (Bugental & Shennum, 1984; Palich & Hom, 1992). Children's first notions of leadership are established based on perceptions of physical power, subsequently, kindergarten children naturally grant power status to the adult who is physically larger (Sacks, 2009; Selman et al., 1977), and enacts authority (Piaget, 1932). Hence, in the earliest stages of childhood, power is an important factor in leadership development, and its referents are often constricted to the relationships with grown-ups with whom they interact at home, school, and other close social settings. Additionally, levels of self-perceived power in caregivers, as well as the amount of power granted to a child by their family and

teachers, influence the child's motivation to either claim or grant power (Bugental & Shennum, 1984). Subsequenlty, children's first experiences of power within the hierarchical structures in their immediate societal environments (Palich & Hom, 1992) impact upon their understanding of leadership and subsequently, their ILTs.

Later on, as children have more leadership experiences, they acquire knowledge (White & Lippitt, 1960) that they use intentionally to attribute power to their self, or to the other (Bugental & Shennum, 1984). So, as children experience more independence, responsibility, and influence (Sacks, 2009), they moderate their belief in adult power, while simultneously increasing their confidence in their own power (Bugental & Shennum, 1984) and that of their peers (Leman, 2005). Subsequently, children experience desirability to direct both their own, and others' behaviours or actions (Salmond & Fleshman, 2010). Conclusively, the awareness and experience of power impacts children's perception of their leadership potential, motivation, and followership.

Lastly, even though adults mark the boundaries that guide children's behaviour (Mayall, 1994), children also hold power to influence adults in their circle of relationships, environments, and settings (Bugental & Shennum, 1984). To attain this, children constantly negotiate and construct rules to manage their interactions with others (Cobb-Moore, Danby, & Farrell, 2009), developing skills to adapt and maneuver adult authority depending on the setting. For example, in situations where socialisation is based on negotiation (e.g., home) they exercise more power; on the contrary, wherever socialisation is set to fixed rules (e.g., school), children experience less

influence and succumb to procedures (Mayall, 1994). Nevertheless, across childhood, children concede power to adults when in need of their knowledge and experience (Sacks, 2009). Subsequently, mastering variations of power in their social settings is a condition of paramount importance during childhood that impacts children's perception of influence, and subsequently, of leadership.

Stereotypes. As previously mentioned, children's ILTs are sensitive to gender (male prevalence), ethnicity (white prevalence), and age (adult prevalence in younger children) stereotypes. Ruble, Cohen, and Ruble (1984) argue that these judgemental notions of individuals are constructed because of their membership to a specific social group (Rowley, Kurtz-Costes, Mistry, & Feagans, 2007). That gender and ethnicity impact on children's ILTs is also consistent with research on awareness of children's stereotypes, where gender (Killen, Pisacane, Lee-Kim, & Ardila-Rey, 2001) and race (Rowley et al., 2007) are amongst the first categories of stereotypes that emerge in children's thinking. Additionally, and specifically to gender, these knowledge structures also include social roles as determinants of stereotype endorsement, for example, leader to male (Ayman-Nolley & Ayman, 2005), nurse to female and soldier to male (Killen et al., 2001).

As children grow older, they begin to associate leaders with more stereotypic known exemplars (Ayman-Nolley & Ayman, 2005). For example, Ayman-Nolley and Ayman (2005) found that Michael Jordan and Martin Luther King were stereotypic leaders in their studies during the 90s. However, the authors found that these prototypes were absent in kindergarten children's ILTs, and barely present in children in first and

second grade. However, children in-between third and fifth grade included them often, then doubling up between sixth and eighth grade (Ayman-Nolley & Ayman, 2005). Nevertheless, later studies found that children in middle primary school tend to include the highest number of stereotypic exemplars than any other group (Nemerowicz & Rosi, 1997; Sacks, 2009). Regardless of such differences, children's ILTs are sensitive to stereotypes and attribute leadership status to certain occupations based mostly on specific gender and cultural domains.

Religious affiliation. The impact of religion on children's ILTs was signalled when Ayman-Nolley and Ayman (2005) and colleagues found that some boys in the US and Costa Rica reported religious figures as ideal leaders. However, Liu et al. (2012) found that Chinese children did not mention religious figures in their ideas of leaders. Such evidence indicated that children's ILTs could be sensitive to the religious environment and upbringing. The impact of religious affiliation over ILTs was widely confirmed by Oliveira (2016)'s study exploring the content and nature of ILTs of children in middle childhood (eight to 11 years old), from diverse cultural backgrounds attending Christian elementary schools (including Catholic, Evangelical and Adventist) in the Philippines. Oliveira (2016) found that Jesus was the leader epitome for the majority of children in her study. This result was comparatively different from previous studies in the US, Costa Rica, and China, where cumulatively, children's ILTs included parents, teachers, and political figures (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Liu et al., 2012) and did not refer to one exemplar so frequently.

Additionally, Oliveira (2016) found gender differences in ILTs depending on the Christian denomination of the school that girls were enrolled in. For example, the author found that Catholic girls were more likely to designate a female leader, while Evangelical and Adventist girls more often named a male leader. Similarly, intelligence was a predominant attribute of a leader for Catholic boys, and not so much for Evangelical and Adventist boys (Oliveira, 2016). Moreover, she also found that the impact of religious affiliation on children's ILTs increases as children grow, since older Filipino children would choose a religious leader more often than the youngest children (Oliveira, 2016). Conclusively, by exploring children ILTs in a micro-bounded religious context, Oliveira (2016) gave strong evidence of how malleable children's ILTs can be when guided by school and religious education.

Household income. Household income, social class, and socioeconomic status can have an impact on the perception and development of leadership ideas in children (Selman & Jaquette, 1977). For example, Selman and Jaquette (1977) found that middle class children reach an understanding of the functionality of leadership earlier than working class children. On a wider scale, this finding aligns with Cooper and Stewart (2013)'s systematic review consolidating extensive research evidence showing that children with higher household income move earlier than their peers across stepping stones in social, cognitive, and behavioural development, as well as school achievement, and health.

Furthermore, household income can impact leadership behaviour and self-rating. For example, Salmond and Fleshman (2010) found that in the US, children with higher

family income have higher leadership aspirations and these aspirations are even greater in children from households with higher income and from diverse backgrounds. The authors found that children from African-American, Latin-American, and Asian-American backgrounds would rate themselves higher on leadership traits and skills such as extraversion or organisational skills than White youth (Salmond & Fleshman, 2010).

3.4 Generalisability and stability of children's ILTs

3.4.1 Generalisability. According to Ayman-Nolley and Ayman (2005) and colleagues, the majority of children have a White male idea of a leader, immersed in a peaceful environment, with followers around. However, as previously discussed, children's ILTs can deviate from such notions, being positive or negative, sometimes violent, or more gender or culturally diverse (Ayman-Nolley & Ayman, 2005). Nevertheless, there are similarities in children's perceptions of leaders across gender (Broich, 1929; Nemerowicz & Rosi, 1997; Salmond & Fleshman, 2010) and cultural background (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Liu et al., 2012; Oliveira, 2016). Some of the chosen leadership role models (including from family, school, and political settings) are consistent across studies which points towards generalisability of role models across gender, age, and ethnicity. Subsequently, it can be established that some role models can be found in all children's ILTs.

Additionally, guided by the review of the notions of development, children across studies often hold similar ideas of leaders at a particular point in time during school. Subsequently, to some extent, it could be concluded that most of children's ideas of leaders are similar in these key moments. Following the key developmental

points across the schooling years, which were presented in the notions of the development section (early primary school, middle primary school, late primary school, early high school), this next section offers a synapsis of similar constituents of children's ILTs at these key moments.

Early primary school. In its earliest stage, children hold tangible, factual, instantaneous definitions of leadership, where content often relates to what leadership looks like and what it feels like (DeHaan, 1962). For example, children in early primary school refer to leaders who are adults (Sacks, 2009), who are generic persons (Liu et al., 2012) or who are in close contact with them such as family or school role models (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960; Lord & Maher, 1991). Additionally, ILT content is positive, represented by smiling leaders, and rarely negative (Ayman-Nolley & Ayman, 2005).

Middle primary school. During this time, children's ideas of leadership focus on the purpose of the leader more than on physical or emotional features (Okamura, 1968). ILTs content during this time is based on functional expectations and often illustrates an unreachable leader telling others what to do (Ayman-Nolley & Ayman, 2005) or demanding a task to be done (DeHaan, 1962; Nemerowicz & Rosi, 1997). Subsequently, children in middle primary school depict leaders who fulfill both task-based and socio-emotional features, mixing child and adult exemplars who they are in close contact with, as well as those who are in a wider social circle (Nemerowicz & Rosi, 1997). Hence, new categories of leaders appear, including authority figures (Hess & Easton, 1960), such as models from government and politics (Nemerowicz & Rosi,

1997), and those who are deemed purposeful, achievers, or knowledgeable (Sacks, 2009; Selman & Jaquette, 1977), such as celebrities and famous leaders (Sacks, 2009). Positive and negative referents appear with emerging levels of scepticism (Massey, 1975) and some children in this age frame may picture violence in their representations of leadership (Ayman-Nolley & Ayman, 2005).

Late primary school. Because during this time children develop a sense of reciprocity in the leadership process (Selman & Jaquette, 1977), categories begin to incorporate democratic types of leadership (White & Lippitt, 1960) showing a wider spectrum of leader personae (Ayman-Nolley & Ayman, 2005) including exemplars recognised for making a difference and also, class, talent, or sports leaders, nominated and elected at school (Sacks, 2009). Leaders are often seen as cooperating with others, holding responsibilities, or providing benefits to others (Selman & Jaquette, 1977), so leader's depictions in this age frame tend to portray more followers (Ayman-Nolley & Ayman, 2005). Negative ILTs can be associated with autocratic, domineering, or an absent leader (White & Lippitt, 1960).

Early high school. Increased abstract thinking in early high school brings forward-thinking notions of leadership (DeHaan, 1962). ILTs content advances towards leadership value (Sacks, 2009) in terms of community involvement and potential for social impact (Selman & Jaquette, 1977). Social champions are common role models referenced by children during this stage (Sacks, 2009).

Additionally, by looking into the leadership traits identified across ILT studies and also, those looking at children's perceptions of leaders, some clues may be found on

children's ILTs generalisability. However, because children ILT and perception of leadership studies have looked at different constructs including *the leader* (Ayman-Nolley & Ayman, 2005; Broich, 1929; Jennings, 1943; Salmond & Fleshman, 2010; Stogdill, 1948; Tryon, 1939), *the ideal leader* (Ayman-Nolley & Ayman, 2005; Chauvin & Karnes, 1984; DeHaan, 1962; Nemerowicz & Rosi, 1997), *the preferred leader* (Salmond & Fleshman, 2010), *the favourite leader* (Oliveira, 2016) and *the good leader* (Ahlbrand & Reynolds, 1972; Sacks, 2009), it is difficult to determine stability in their sole perception of a leader. For example, Ayman-Nolley and Ayman (2005) discovered that children's leader ILTs and good leader ILTs are different, in the first scenario, children report more relationship-oriented traits and in the second one, children describe task-oriented traits. Nevertheless, each construct is summarised here.

The leader. Salmond and Fleshman (2010) found that overall, children between eight and 17 years old, associate a leader with authority applied through control and power. Additionally, most children look for leaders who embrace the group's interest as well as preventing conflict (Broich, 1929). Additionally, these early studies found that the most recurring leader characteristics across childhood were capacity, achievement, responsibility, participation, and status (Broich, 1929; Jennings, 1943; Stogdill, 1948; Tryon, 1939). This wide-ranging list only included task-based functional traits and notable characteristics of leaders. However, no physical or socio-emotional features were included. Nevertheless, Broich (1929) found that appearance based on physical strength, size, health, and age are significant attributes for children in middle primary school when electing leaders in their class. And as children get older, new factors

become relevant, such as dexterity, knowledge of the game, independence, self-control, purposefulness, contact, and social behaviour (Broich, 1929). These characteristics, including abilities, knowledgeability, and socio-emotional features such as social behaviour and communication as children's age advances are consistent with the Ayman-Nolley and Ayman (2005) ILTs categorisation into task, level of involvement, and relationship oriented perceptions of leadership in children.

The ideal leader. Ideal leaders are often associated with both socio-emotional and task-based features. For example, Ayman-Nolley and Ayman (2005) found that children that were chosen as group leaders were the ones that cared both for getting tasks done and the well-being of the group. However, according to Chauvin and Karnes (1984), children's ideas of ideal leader ignite emphasis on both socio-emotional aspects as well as task-based features, with children in late primary school even more prone to emphasise on socio-emotional features. For example, the authors found that leader responsibility, fulfilling promises, and accepting criticism, are less significant leader traits in children in middle and early primary school than those in the advanced grades (Chauvin & Karnes, 1984; DeHaan, 1962). For the younger children, sport coaches are often ideal leaders and sport teams are good settings for effective leadership (Nemerowicz & Rosi, 1997).

More generally, Nemerowicz and Rosi (1997) found that children's ideas of the ideal leader are associated with someone who helps people in need, protects others from harm, and solves problems. Subsequently, towards the end of primary school, children often see parents or political figures as ideal leaders (Ayman-Nolley & Ayman, 2005).

Chauvin and Karnes (1984) looked specifically at the traits of ideal leaders given by children towards the end of primary school. By applying a leadership inventory, they found the following ideal leader characteristics, including both socio-emotional and task-based traits:

Socio-emotional traits

- Gets ideas clearly across to others.
- Tries to figure out how decisions will affect others.
- Encourages others to assume responsibility.
- Gives others credit and praise for their work.
- Accepts suggestions and constructive criticism.
- Accepts changes in plans or situations.
- Accepts his/her own mistakes.

Task-based traits

- Organizes him/herself and work.
- Draws logical conclusions.
- Figures out why and how things happen.
- Makes up his/her own mind without advice from others.
- Accomplishes goals before deadlines. (Chauvin & Karnes, 1984, p. 239)

The preferred leader and the favourite leader. Salmond and Fleshman (2010) found that children, when asked about their preferred leader, chose socio-emotionally skilled individuals who led innately over those who led by being nominated into a particular role or position. On the other hand, Oliveira (2016)'s faith-focused study

found that the most relevant leader's attributes were firstly to provide spiritual guidance, then to perceive leadership as a learning journey, and third, to be kind or caring towards others. Additionally, Oliveira (2016) found that intelligence, obedience, and helpfulness were recognised as the favourite leader's attributes. These notions of preferred and favourite leader are all associated with socio-emotional attributes, with no inclusion of task-based or humanitarian aspects.

The good leader. Sacks (2009) found that children towards the end of primary school associate a good leader with traits promoted through an educational program denominated 'Character Matters' and implemented across the school through posters, awards, and discussion. These leadership traits included: respect, responsibility, honesty, empathy, fairness, initiative, perseverance, integrity, courage, and optimism. Additionally, children reported other important good leader characteristics including confidence, vision, cooperation, courage to overcome obstacles, and not being bossy (Sacks, 2009). Moreover, Ahlbrand and Reynolds (1972)'s study of social effects, looking at peer acceptance in the light of leadership perceptions, found common characteristics associated with a good leader when students nominated their classmates. The study found that children between nine and 11 years old associate good leadership with the concept of scholarship and popularity, opposingly, the study did not provide significant relationships between poor leadership and any specific concepts. Even though the categories in the rating scale were taken from adult leadership measurement tools, which may cause children's associations to the good/poor leader dimension to be

biased by adult conceptual frameworks, the Ahlbrand and Reynolds (1972) study suggested that a good classroom leader has to be popular and a good learner.

Table 4

Traits associated by children with a leader, an ideal leader, a good leader, and a favourite leader

The leader	The ideal leader	The good leader	The preferred and favourite leader (bounded to a religious context)
Authority	Gets tasks done	Respect	Socio-emotionally skilled
Control	Cares for the well-being of the group	Responsibility	Lead innately
Power	Responsible	Honesty	Provides spiritual guidance
Capacity	Fulfils promises	Empathy	Perceives leadership as a learning journey
Achievement	Helps people in need	Fairness	Kind
Responsibility	Protects others from harm	Initiative	Caring towards others
Participation	Solves problems	Perseverance	Smart
Status	Gets ideas clearly across to others	Integrity	Obedient
Physical strength	Tries to figure out how decisions will affect others	Courage	Helpful
Size (bigger)	Encourages others to assume responsibility	Optimism	
Good health	Gives others credit and praise for their work	Confidence	
Age (older)	Accepts suggestions and constructive criticism	Vision	
Dexterity	Accepts changes in plans or situations	Cooperation	
Knowledge	Accepts his/her own mistakes	Not being bossy	
Independence	Organizes themselves and work		
Self-control	Draws logical conclusions		
Purposefulness	Figures out why and how things happen		
Contact	Makes up his/her own mind without advice from others		
Social behaviour	Accomplishes goals before deadlines		

*Note: This table compares leader traits (Broich, 1929; Jennings, 1943; Salmond & Fleshman, 2010; Stogdill, 1948; Tryon, 1939), ideal leader traits (Ayman-Nolley &

Ayman, 2005; Chauvin & Karnes, 1982, 1984; Nemerowicz & Rosi, 1997), good leader traits (Sacks, 2009), and favourite leader traits (Oliveira, 2016).

Even though children's studies of ILTs generalisability are still to be developed, integrating the traits associated with each of these notions found in the literature can seed the future study of children's ILTs generalisability for each of these constructs. Furthermore, by looking specifically at leaders' traits reported by children, as illustrated in Table 4, and comparing them to adult ILTs stability theory (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994), it is possible to identify some qualities assigned to a leader both by children and adults. For example, the trait authority found by Salmond and Fleshman (2010) is comparable to the trait authoritative, reported under the factor strength in Offermann and Coats (2018). Similarly, the trait power, also found by Salmond and Fleshman (2010), can equate to the trait powerful under the factor strength in Offermann et al. (1994)'s study. Additionally, the characteristic knowledge, reported by Broich (1929) can parallel both the trait knowledgeable reported by Offermann et al. (1994) and by Epitropaki and Martin (2004) under the factor intelligence. Furthermore, the trait tall reported under the adult ILTs factor of attractiveness (Offermann et al., 1994) and later on, under the factor masculinity (Offermann & Coats, 2018), could have its developmental roots in the trait size (bigger proportion) reported in Broich (1929)'s study of children's perceptions of leaders. Also in the tendency of children's early associations of a leader with an adult, who is proportionally bigger, as found in the Sacks (2009) study. This indicates that

perhaps, ILTs emerge within the leader's strength and intelligence factors. However, these are theories yet to be determined since adult generalisability is measured across factors, and that resource is non-existent in children's ILTs theory yet.

3.4.2 Stability. ILT stability across age, is an area still to be researched. Future longitudinal observations would give further insight into this area. Even though ILTs transmute perceptual dimensions across childhood, which may conflict with notions of stability, a few characteristics and expectations of leaders have been found to be stable across children in primary and secondary school. For example, Sacks (2009) found that children and adolescents have similar leadership role models including family, friends, teachers, government figures, and celebrities and DeHaan (1962) found that all school age children associated a leader with affluence. Furthermore, Sacks (2009) found that children in primary school as well as in high school, incorporated perseverance and confidence as key traits in their measurements of a good leader. Even though perseverance and confidence are not outlined within ILT stability studies (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994), they could be concomitant to some of adult ILTs factors, for example, perseverance to the factor dedication, and confidence to the factor dynamism. Furthermore, DeHaan (1962) found that beliefs that emerge later in childhood, such as the leader being a good listener, pervade into adolescence and throughout adulthood. Subsequently, it is possible that some schemas of leaders formed in childhood stay latent into adolescence, and even into adultness, however, further research is necessary to provide new ground for the exploration of ILTs stability across childhood and into adolescence.

As demonstrated in this chapter, there is evidence that points to both flexibility and stability in the ILTs of children. Such capacity for flexibility and stability is also found in adults' ILTs (Lord et al., 2001). ILTs are knowledge structures built upon individual and collective experience (Shondrick et al., 2010) that capture adults' lay theories of leadership. Since numerous knowledge structures emerge in childhood, including ILTs (Ayman-Nolley & Ayman, 2005), and the image of a leader develops during school years (Ayman-Nolley & Ayman, 2005; Borman, 1987; Matthews et al., 1989; Oliveira, 2016) shaping adult ILTs, it is necessary to explore connections between the content of children's and adults' ILTs under generalisability and stability theory (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994).

4

Methodology

4.1 Methodological approach

The present research focuses on how the concept of leader forms and evolves in the early mind of the human. On a grand scale, leadership emerges and evolves from complex interactions between individuals through their perceptions of, and reactions to each other (Martinko & Gardner, 1987). Ongoing relations mould its meaning, hence it is collectively, socially, and artlessly devised (Fairhurst & Grant, 2010). Naturally, it is a perceptible social element that constantly flows in multiple directions, subsisting in people's minds (Fairhurst & Grant, 2010). Subsequently, the study of ILTs is founded under the belief that there is no single truth or many truths. Because individuals experience different interactions, hold a distinctive history, and are immersed in unique natural and social environments, their conception of leadership is consigned in a unique fluctuating system of beliefs (Eden & Leviatan, 1975). So, the meaning that individuals ascribe to leaders is found both in individual perceptions and collective social thinking (Shondrick et al., 2010).

Consequently, the present study is designed under the assumption of the nominalist ontology, as proposed by Easterby-Smith, Thorpe, and Jackson (2015) where there is no truth, and facts are all human creations. Considering that the viewpoint of the observer is the unit of analysis, and reflecting on the idea that individuals experience, interpret, and assume leadership at different times (Shondrick et al., 2010), the nominalist assumption provides the necessary philosophical synergies for the

methodological approach of the present study. Under the nominalist ontology, the interesting questions concern how people attempt to establish different versions of truth (Easterby-Smith et al., 2015) and the proposed research explores from a personalised approach, the meaning children ascribe to leadership, looking at both their individual and collective ideas of traits and behaviours of leaders. From a nominalist view, social reality is no more than the creation of people through language and discourse (Cunliffe, 2001; Easterby-Smith et al., 2015), so leadership processes are co-constructed and negotiated permanently in a complex interplay among leadership actors (Fairhurst & Grant, 2010).

To determine the study's assumptions about the ways of enquiring into the natural world, and the basic issues of epistemology, to have a clear sense of the researcher's reflexive role in the research method (Easterby-Smith et al., 2015), the study has been framed under a social constructivist paradigm (Creswell, 2013). Since leadership has been widely defined as a socially constructed phenomenon, as an 'object' of human experience (Van Manen, 1990) and also as a social process (Schyns et al., 2011), ILTs are not static, ongoing change takes place at the individual, relational, or organisational level of analysis (Foti et al., 2014). The key idea is that different individuals experience, interpret, and even assume leadership at different times (Shondrick et al., 2010). Therefore, ILTs can't be found externally for the researcher to address, they exist in the mind of each individual and also, in the collective thinking. This means that the epistemological design of the research considers that reality is not objective and exterior, but is socially constructed and is given meaning by people in

their daily interactions with others (Easterby-Smith et al., 2015), represented in form of subconscious schemata, or a cognitive network of everyday concepts (Plaks et al., 2009), that is in itself social constructivism.

Consequently, under a social constructivist paradigm, this study looks at a process of interaction among individuals and on the participant's view of the leadership phenomenon, which is negotiated socially and historically (Fairhurst & Grant, 2010) and is seen as a social process that depends on both leaders and followers (Lord & Maher, 1991). With this in mind, the task is, to not only gather facts and measure the frequency of patterns of social behaviour, but also to appreciate the different constructions and meanings that individuals place upon their experience (Easterby-Smith et al., 2015) of leadership. The different aspects of attributional reasoning, leadership perceptions, memory for behaviour, and the generation of leadership behaviour can all be associated with symbolic, connectionist, and embodied-embedded views of knowledge (Lord & Shondrick, 2011). The present study includes all of these aspects in a dynamic way (Niedenthal, Barsalou, Winkielman, Krauth-Gruber, & Ric, 2005; Shondrick et al., 2010). This provides an embedded perspective where knowledge is generated and represented within a complex, dynamic system, which relies on the brain, the physiological experiences, and the environment (Lord & Shondrick, 2011). With this in mind, the method considered the knowledge structures held by perceivers (Shondrick et al., 2010), to identify individual and patterns of traits and behaviours of leaders (Kenney et al., 1996; Schyns & Schilling, 2011) which were compared, and

subsequently matched, to identify social constructs and provide a schema of children's perceptions of leaders.

So, to explore the content and nature of children's ILTs and develop a comprehensive understanding of the phenomenon (Carter, Bryant-Lukosius, DiCenso, Blythe, & Neville, 2014; Patton, 1999), the study gathered data from boys and girls between five and 12 years old, in a primary school setting, via three techniques: drawing, narrative, and interview. The study was conducted in two phases; a pilot test and the main study. Each phase included a drawing capturing stage, followed by an interview phase, which included gathering each child's drawing narrative, and answer to the question *What is a leader?* A demographic survey was conducted with their parents or caregivers to determine their age, gender, place of birth, ancestry, and religious affiliation.

4.2 Research design

The study carefully considered the group of study and designed an applicable method responding to the particular ethical concerns about research involving children and young people such as it being inclusive, asking for their consent, ensuring children's safety, and the benefits of the research for children, their caregivers, and the wider community (ERIC, 2013). It also considered specific requirements when gathering children's perceptions and views about their ideas or images of leadership across the different developmental stages, such as verbal and non-verbal language used

across the interaction, and experience from the researcher[2].

Because the method was designed to obtain viewpoints from the perspective of the children, it was guided by an emic approach which leads to intrinsic perceptual distinctions of leaders in the particular sample. The emic approach explores the knowledge from within the group of study to understand the phenomenon with an endogenous perspective (Ayman-Nolley & Ayman, 2005), as opposed to an etic approach that takes the knowledge and measures of one culture, and applies it to another to identify cross-cultural differences (Liu et al., 2012). The method also considered the Department of Education and Training Victoria (2015) ethical and legislative policies for conducting research in culturally and linguistically diverse communities, demonstrating respect for cultural, religious, and other differences.

The project obtained official authorisation from a Human Research Ethics Committee and the Department of Education and Training Victoria, prior to approaching the school principal, to obtain their approval (Department of Education and Training Victoria, 2015). Subsequently, the method was designed according to the principles of legislation, ethics, and Department of Education and Training Victoria policy. The method was designed to protect the safety, privacy, confidentiality, and anonymity of participants, both in the collection and storage of data complying with the provisions of the *Victorian Information Privacy Act 2000* and the *Health Records Act 2001.*

[2] The researcher has extensive experience working and collaborating with children from diverse cultural backgrounds devising and creating art projects and theatre performances.

4.2.1 Choice of method. Even though some methods and techniques have been widely used for the study of ILTs, the main question here is how to explore children's constructs. In other words, what is the best design to gather children's perceptions and views about their ideas or images of leaders across the different developmental stages? Subsequently, in addition to the recommendations of previous studies of children's ILTs (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Liu et al., 2012; Oliveira, 2016), this study has also utilised literature on children's drawings as a research method, combining narrative (Butina, 2015; Coates & Faulkner, 2011; Klepsch & Logie, 1982; Literat, 2013; Silverman, 2006; Soundy, 2012; Wright, 2007, 2014) and followed advice by Honorary Professor Susan Kay Wright - Chair of Arts Education Melbourne Graduate School of Education The University of Melbourne, on young children's meaning-making and communication using drawings. The external advisor provided the researcher with guidance to meet ethics and compliance requirements associated with ethical research involving children, ongoing guidance on the research design and method, and also evaluated and approved the structure, process, sequence, and content of the method, and research instruments.

Typically, when measuring adult ILTs, researchers have developed multiple questionnaire measures of leader behaviour, which are given to individuals in order to rate specific leader's behaviours. These ratings are often interpreted as being indicative of the leader's behaviour (Shondrick et al., 2010). However, these ratings also are influenced by the individual's cognitive and emotional sense making (Eden & Leviatan, 1975). Most of the early studies on children's ideas of leadership applied questionnaires

and/or interviews and group members' or observers' perceptions of leadership qualities (Eby, Cader, & Noble, 2003; Massey, 1975; Yamaguchi & Maehr, 2004). However, child leadership and ILTs studies employing questionnaire or verbal interview methodology are problematic because the use of these techniques may be contaminated with the child's language learning and verbal ability (DeHaan, 1962; Liu et al., 2012; Matthews et al., 1989) and the presence of concrete versus abstract definitions may be confounded by the children's verbal ability and their conceptual theories (Ayman-Nolley & Ayman, 2005).

Furthermore, the use of Likert-scaled questionnaires with children is flawed due to developmental issues. In a study conducted by Chambers and Johnston (2002) examining the effect of child age and number of response choices on children's tendency to respond at the extremes of Likert-type scales it was found that, regardless of age, primary school-age children respond in an extreme manner when rating emotional, psychological states, which is consistent with developmental theories regarding children's understanding of emotions (Harter & Whitesell, 1991). This tendency might have an erroneous and invalid impact on the interpretation of children's self-reports. Even when simplifying the number of response options available, this tendency continues (Chambers & Johnston, 2002). On the other hand, relying on members or observers' perceptions of leadership qualities is also problematic because they are susceptible to various forms of bias and error, liking or similarity effects, stereotyping, and implicit theories of 'good leadership' (Rush, Thomas, & Lord, 1977). As shown, there are challenging difficulties for leadership researchers to rely on retrospective

questionnaires to capture ideas of leadership not only in children, but also in adults. While some affective responses may be encoded symbolically, other responses may be stored in embodied representations (Lord & Shondrick, 2011) and would not be reportable through typical leadership questionnaires (Shondrick et al., 2010). Subsequently, while language-based research methods—both written and oral—have long dominated the spectrum of communication research, a new range of non-textual strategies is gradually emerging as an alternative and highly versatile way of knowing (Butina, 2015; Literat, 2013).

Tackling these challenges, Ayman-Nolley and Ayman (2005) built on past research to develop a method to understand children and leadership, which included three different approaches: children's leadership perception after a naturalistic experience of leadership conducted through a case study; children's verbal responses to an interview about their concepts of leaders and leadership; and children's ILT examined through their drawings. They found that drawing techniques were the most effective because they allow researchers to ask children about social phenomena with very little influence from the adult researcher's own perspective, maintaining a more emic study of the children's world through their eyes (Ayman-Nolley & Ayman, 2005). Additionally, according to Liu et al. (2012), who also used drawing methods to study children ILT's in China, and Oliveira (2016) in the Philippines, the method of drawing increased the amount of accuracy of contextual information about the leader prototypes held by young children, and alleviates some of the developmental challenges faced by researchers when using written or verbal expression to assess children. This is because

drawing is an activity that most children enjoy, much more than being part of complex and abstract interview, where they have to answer questions and interact with an unfamiliar adult researcher (Klepsch & Logie, 1982). It also detaches language skills from the research, which was a prominent setback with questionnaires and interviews.

Drawing is a powerful tool for research with children because children's cognitive development evolves in hand with children's drawing abilities (Lowenfeld & Brittain, 1947; Piaget, Tomlinson, & Tomlinson, 1929). According to Bjorklund and Causey (2017), most research in cognitive development states that infants are capable of picturing representations of their perceptions about their world in their minds. Such representations are thought to become more sophisticated throughout the early years and throughout childhood and this may be the reason why children at different ages appear to think and represent the world differently (Bjorklund & Causey, 2017). Nowadays, numerous studies have shown that there is more to children's drawings than what appears at first sight (Quaglia, Longobardi, Iotti, & Prino, 2015). Children of all ages often use drawing to expand their thoughts or ideas (Steele & Kuban, 2013; Steyn & Moen, 2017); "drawing allows for experimenting, evaluating, revising, and integrating ideas" (Wright, 2014, p. 519), and conceptualising information, ideas, or emotions (Wetton & McWhirter, 1998). Beyond the visual outcome, drawings can be seen as a multidimensional system of communication, which is why further to being used as a research method, it has also become a wellbeing diagnostic tool (Steele & Kuban, 2013; Steyn & Moen, 2017). It has become widely believed that such techniques help researchers expand their understanding about children's ideas about the world (Moore,

1990) across developmental stages, partly because it is an expressive technique children learn at a very young age before writing, reading, and mastering language (Wright, 2007); but also because it is a method with which children spontaneously engage (Quaglia et al., 2015), appreciate and enjoy (Liu et al., 2012; Moore, 1990), and can perceive as a form of play (Kukkonen & Chang-Kredl, 2018; Literat, 2013; Quaglia et al., 2015; Wright, 2014). Consequently, drawing can be seen as a type of language (Vygotsky, 1978) that is intrinsically linked to the development of children's thinking and expression of feeling (Cox, 2005; Wright, 2007) as children are able to illustrate emotions through means that the spoken word or text cannot provide (Wetton & McWhirter, 1998). Overall, the consensus in the literature is that drawings are "uniquely personal statements" (Steyn & Moen, 2017, p. 5). As such, drawing helps the ILT researcher explore children's representations of leadership through their eyes (Ayman-Nolley & Ayman, 2005). This is why studies of children's ILTs that have applied this technique have gathered further insight into the context of the leadership schemas and the content of children's ILTs (Liu et al., 2012) than those that have used other methods (Klepsch & Logie, 1982).

Since this study included children as young as five, it is important to determine the drawing capabilities of these very young children. According to Piaget (1932), five-year-old children express their intelligence via language, imagery, and sensory-motor expressive means; Quaglia et al. (2015) notes that by the age of five, children have surpassed the *scribbling stage* and are capable of representing their version of reality, hence, they are capable of figurative drawing and aim for realism. Lange-Küttner

(2014) says that such change occurs even earlier, by age four. Therefore, that it is appropriate to apply the drawing method to children as young as five. Conclusively, even though Selman and Jaquette (1977) appear to be the first to have utilised children's drawings in the study of their ideas of leaders, the drawing method, which has been utilised broadly in science to study children's development since the 1800s (Quaglia et al., 2015) and more recently to access the ideas children hold about the world (Bjorklund & Causey, 2017; Steele & Kuban, 2013) and their inner world (Malchiodi, 1998), has become widely applied in the study of children ILTs since the 90s.

Nevertheless, it is a research method which has been criticised for being subjective and often over-interpreted (Literat, 2013; Wetton & McWhirter, 1998). Therefore, literature on drawing as a method of research highly recommends mixing this non-verbal method with a verbal one (Ayman-Nolley & Ayman, 2005; Literat, 2013; Liu et al., 2012). For example, Wetton and McWhirter (1998) suggest that children's drawings are a starting point in the research process and, consequently, the researcher needs to develop a strategy to access a deeper understanding of the drawing. This second stage could be thought of as a decoding stage where the child can complement the content or message that he or she has depicted. Similarly, Literat (2013) advises that the analysis of drawings should be complemented with a follow-up discussion to access more detailed data including information, emotions, and concepts. For Wright (2007), the drawing and the telling of the drawing work together, inform and enhance each other's content. Additionally, studies have found that during primary school years, girls seem to develop drawing skills before boys (Moore, 1990), so the

verbal component can help alleviate potential gender differences and some details that might have been left out by some children in their drawing.

Overall, the general consensus in the literature is that drawing alone doesn't work as a reliable source of data. For example, Moore (1990) maintains that the researcher faces difficult challenges trying to interpret the message that the artist has depicted, "especially if there is no verbal expression of intent to accompany the drawing" (Moore, 1990, p. 37) because what ends up in the picture may not fully express what the picture contains (Wetton & McWhirter, 1998) nor what the creator were hoping to express (Banks, 2001). Furthermore, talking to the child about the drawing may serve as a strategy to 'complete' the drawing if the child's level of drawing skill did not suffice to depict what the child was hoping to achieve (Cox, 2005). Conclusively, it is critical to give the child the opportunity to complement the pictorial content (Literat, 2013) and explore children's complex descriptive narratives about their drawings (Ahn & Filipenko, 2007). Children's drawings are shaped by an internal and external narrative (Banks, 2001) that contains not only the way they understand an idea but also how they think and feel about issues (Ahn & Filipenko, 2007). Furthermore, children's narratives accessed through drawing can connect to children's knowledge and understanding of a specific culture (Coates & Faulkner, 2011). So, in order to moderate the challenge of mis- and over-interpretation, participatory drawing should be used in combination with other research methods, cross-validating the salience of the findings through mixed methods or triangulation (Literat, 2013).

Children ILTs studies have progressively found this mixed approach of drawing plus verbal description necessary. Nevertheless, most previous research combining drawing with verbal techniques still have focused mostly on the graphic representation. For example, Ayman-Nolley and Ayman (2005) in the US in the 90s, and Liu et al. (2012) in China in the 2010s asked children across primary school to complement their drawings by writing two phrases about it, superficially exploring the verbal complexity of related events and experiences that accompany a child's drawing (Wright, 2007). Such a concise referent to the drawing would lack narrative, emotional, and socio-emotional measurements. Exploring graphic-narrative representations (Wright, 2007) would be a first step towards collecting richer data on children's ideas about leadership. This is to be done addressing the verbal data component of the drawing through a narrative approach which produces further in-depth, thick descriptive data (Butina, 2015), and is gathered via a follow up conversational- interview (Coates & Faulkner, 2011), after the child creates the drawing. A conversational-interview is spontaneous and builds on the natural flow of the conversation (Butina, 2015). Consequently, the present study followed recommendations by Gauntlett (2007) of capturing the drawing first, and analysing it once it has been finalised supported by narrative methods.

Conclusively, it is recommended to base the study both in imagery through drawing and in language which can be achieved either through a written or spoken component. Because five year old children in Australia are in the process of learning to read and write (Department of Education and Training Victoria, 2018), this study will address the drawing verbal component through a conversational-interview where

children describe their drawing and speak about leadership. By adopting this strategy, the study aims to give children the power to decode their own drawings so the researcher can capture both the pictorial content and their narrative which minimises over interpretation by the researcher (Literat, 2013).

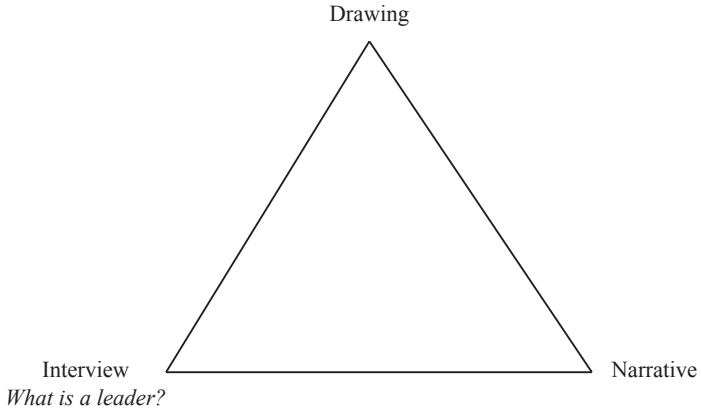
Lastly, even though interviews have been found to be problematic in the study of children´s ILTs, it is worth including them in this study as up to the early 90s it had been the most widely applied method to study children's ideas of leadership. The literature (Ayman, 1993; Cohn, Fisher, & Brown, 1961; DeHaan, 1962; Hess & Easton, 1960; Selman & Jaquette, 1977; White & Lippitt, 1960; Yarrow & Campbell, 1963) consistently denotes this method as the most effective to reveal developmental trends across physical, functional, and emotional dimensions, which indicates the potential sophistication or increased complexity of the concept of leadership as children grow older. Conducting the interview, after the drawing activity, and holding a conversation about the drawing, would minimise feelings of stress due to the interaction with an unfamiliar adult (Klepsch & Logie, 1982), since at this stage, children would be more familiar with the researcher.

Conclusively, there is a consensus in the literature of a mixed methods approach to studying children ILTs, including drawing and verbal tactics. However, verbal tactics must address the extensive narrative that interacts with the drawing (Cox, 2005), unveiling the richness that arises as children enter their narrative modes of thinking (Faulkner & Coates, 2011). Oliveira (2016) appears to be the only one to apply drawing and interview techniques to study children's ILTs in her study in Philippines, however

the sample was of 28 children between eight and eleven years old. Applying a graphic-narrative method across a bigger sample, to complement the data in the drawings, is novel, and a necessity, to advance the study of children's ILTs.

Figure 1

Research methods



*Note: This figure shows the method to collect data from the sample.

4.2.2 Inclusion and exclusion criteria. To include a child in the present study it was required that the child was between five and 12 years old, also, that the child provided consent to participate, and that parents or caregivers also gave consent for the child's participation and provided demographic data for research purposes. Additionally, it was required that the child attended school on the day that the research was conducted. The study aimed to include as many children as possible from the particular context. Children who were excluded from the study were those whose parents or caregivers were unwilling to participate in the research or did not provide consent, or when the child did not consent to their participation, or if the child could not attend school on the day that the research was conducted.

4.2.3 Context. Since it is well established that contextual and situational factors influence the way children conceptualize leadership (Ayman-Nolley & Ayman, 2005; Hess & Easton, 1960; Massey, 1975; Okamura, 1968; Sacks, 2009; Selman & Jaquette, 1977; Stogdill, 1948), including school environments (Ahlbrand & Reynolds, 1972; Sacks, 2009; Sahgal & Pathak, 2007; Triandis, 2004), immersion in media, books, political settings, and entertainment contexts (Ayman-Nolley & Ayman, 2005; Hess & Easton, 1960; Massey, 1975; Nemerowicz & Rosi, 1997; Okamura, 1968; Sacks, 2009; Stogdill, 1948), policies and programs (Ayman-Nolley & Ayman, 2005), as well as leadership experiences with leaders and leadership (Sacks, 2009; Salmond & Fleshman, 2010), we provide some contextual referents at the time the research was conducted.

During data collection (16 July -21 September 2018), Australia experienced political turbulence and saw its Prime Minster Malcolm Turnbull challenged by its party, leading to Scott Morrison becoming Prime Minister in late August. Donald Trump was president of the United Sates and prior to data collection, the *Build the Wall act* was introduced in the US and Donald Trump met with North Korean leader Kim Jong-un in Singapore. Within the entertainment context, Disney's Incredibles 2 movie was released, and also, the Marvel movie Black Panther, becoming the highest grossing domestic movie in 2018 (Firmansyah & Jones, 2019).

Turning to the school's characteristics, it is located in a municipality where more than 35% of people are born overseas, and where more than 40% speak a language other than English at home (State Government of Victoria). This is comparable to Australia's cultural diversity, where more than a quarter of Australians were born

overseas (Australian Bureau of Statistics, 2016) and within the average mix, as some places can have more than 50% of people born overseas, like Auburn in New South Wales, or quite less that 15%, like Hobart in Tasmania (Capuano, 2012).

Additionally, the suburb of Reservoir, where the school is located, holds similar statistics to the Australia's entire population, as illustrated in Table 5, and make it a location resembling Australian typicality to conduct the present study. It is a medium income location (AU$541/week), where, according to the Australian Bureau of Statistics (2016), occupations are distributed across professional (21.4%), technician and trades workers 14.5%, clerical and administrative workers (14.2%), community and personal service workers (11.3%), managers (9.6%), sales workers (9.6%), and machinery operators and drivers 6.4%. Mostly couple families with children (43%) and without children (35.9%) make up the suburb's family composition. In terms of educational attainment, 22.7% have a bachelor's degree level and above.

Table 5

Suburb's population profile in comparison to the state, and to Australia

	Reservoir (Vic.)	%	Victoria	%	Australia	%
Median weekly income						
Personal	541	--	644	--	662	
Occupation *(Employed people aged 15 years and over)*						
Professionals	4,589	21.4	636,220	23.3	2,370,966	22.2
Technicians and Trades Workers	3,097	14.5	358,749	13.1	1,447,414	13.5
Clerical and Administrative Workers	3,049	14.2	363,216	13.3	1,449,681	13.6
Labourers	2,416	11.3	247,428	9	1,011,520	9.5

Community and Personal Service Workers	2,342	10.9	289,348	10.6	1,157,003	10.8
Managers	2,064	9.6	369,921	13.5	1,390,047	13
Sales Workers	2,062	9.6	265,142	9.7	1,000,955	9.4
Machinery Operators and Drivers	1,376	6.4	159,193	5.8	670,106	6.3
Family composition						
Couple family without children	4,606	35.9	559,717	36.5	2,291,987	37.8
Couple family with children	5,519	43	709,965	46.3	2,716,224	44.7
One parent family	2,344	18.2	234,596	15.3	959,543	15.8
Other family	375	2.9	27,800	1.8	102,559	1.7
Level of highest educational attainment *(People aged 15 years and over)*	Reservoir (Vic.)	%	Victoria	%	Australia	%
Bachelor Degree level and above	9,572	22.7	1,177,540	24.3	4,181,406	22

*Note: This table has been adapted from "Reservoir 2012 Quick Stats" by (Australian Bureau of Statistics, 2016).

The primary school where the study was conducted is comparable to typical schools in the state of Victoria in terms of number of students, student gender distribution, and number of students per class, as illustrated in **Error! Reference source not found.**.

Table 6

School's student population profile in comparison to the state

Characteristics	Victorian government primary schools 2018	School 2018
Male students	52%	53%
Female students	48%	47%
Average size of classes	21.4	25
Student-teacher ratio	14.6	15.9
Average number of students in primary school	552	550

*Note: This table has been developed based on information in "Summary statistics for Victorian schools" by the State Government of Victoria (2019), and in personal communication with Reservoir West Primary School (2018).

The school's teaching staff is also comparable to the typical characteristics of Australian governments schools. It reflects Australian diversity in teaching staff. On one hand in terms of gender. According to the Australian Bureau of Statistics (2020) primary schools have, in average, 81.9% of women and 18.1% men teachers. The school where the study was conducted had a similar distribution, where the teaching staff was composed of 81% women and 19% men teachers (Reservoir West Primary School, 2018). In terms of cultural diversity, according to the Australian Institute for Teaching and School Leadership (2019), only 8.9% Australian primary school teachers were born overseas. Similarly, at the school where the research was conducted, 6% of teaching staff was born overseas. The Principal at the time of data collection, was a 60 year old Australian born male who had been at the school in the role for fifteen years. The Assistant Principal, who was also Acting Principal for a few weeks during the time

of data collection, was a 64 year-old Australian-born woman.

At the time, the school offered several leadership experiences to students, such as school captains, sport house captains and vice-captains, student representatives at the school's council, managing office and admin duties, and looking after one of the Prep kids through the 'buddy system'.

4.3 Pilot study

The pilot test was a trial run in preparation for the main study. It was necessary to provide opportunities for children to offer input or feedback regarding the research design, to pre-test the effectiveness of research instruments, and identify potential issues that could affect the main study such as where research protocols would not be followed, or whether proposed methods or instruments were inappropriate or too complicated (van Teijlingen, Rennie, Hundley, & Graham, 2001).

4.3.1 Sample. The pilot sample was run with children from other public primary schools nearby, to measure a smaller sample significantly similar to the one where the main study would be conducted in terms of demographics. The test could not be done with children from the same school where the main study would be conducted because this could cause bias and error by potential pre-information about the constructs of leadership in the main study setting. The pilot test was conducted in May 2018, at an after-school theatre class in a in a community house located 2.2 kilometres from the primary school where the main study took place. It sampled a diverse group of eight children between six and eleven years old from Prep, Grade 2, 3, 4, 5 and 6. Four were boys and four were girls. They all attended public schools in neighbouring suburbs of

Reservoir (Preston, Coburg, and Thornbury). The pilot sample reflected cultural diversity. Children's ancestries included Italian, Greek, British, Russian, Indian, and Latin American, as reported by their caregivers. All children were born in Australia and spoke English at home, two of them also spoke Spanish at home. Five of the children's parents were both born in Australia, two siblings' parents were born in Costa Rica and Colombia, and one child's parents were born in UK and New Zealand. Five children's caregivers reported no religion, two were Catholic, and one reported 'Jedi' as their religious affiliation.

4.4.2 Recruitment strategies and communication strategy. Recruitment for the pilot study was selective via the network of children that the researcher had contact with through her work as a theatre maker. The parents were contacted directly by the researcher and a consent form was provided before conducting the pilot study. The communication with the community house, was also direct, due to the researcher's connection through her theatre work. The community house directives also signed a consent form to support the conduction of the trial test in their installations.

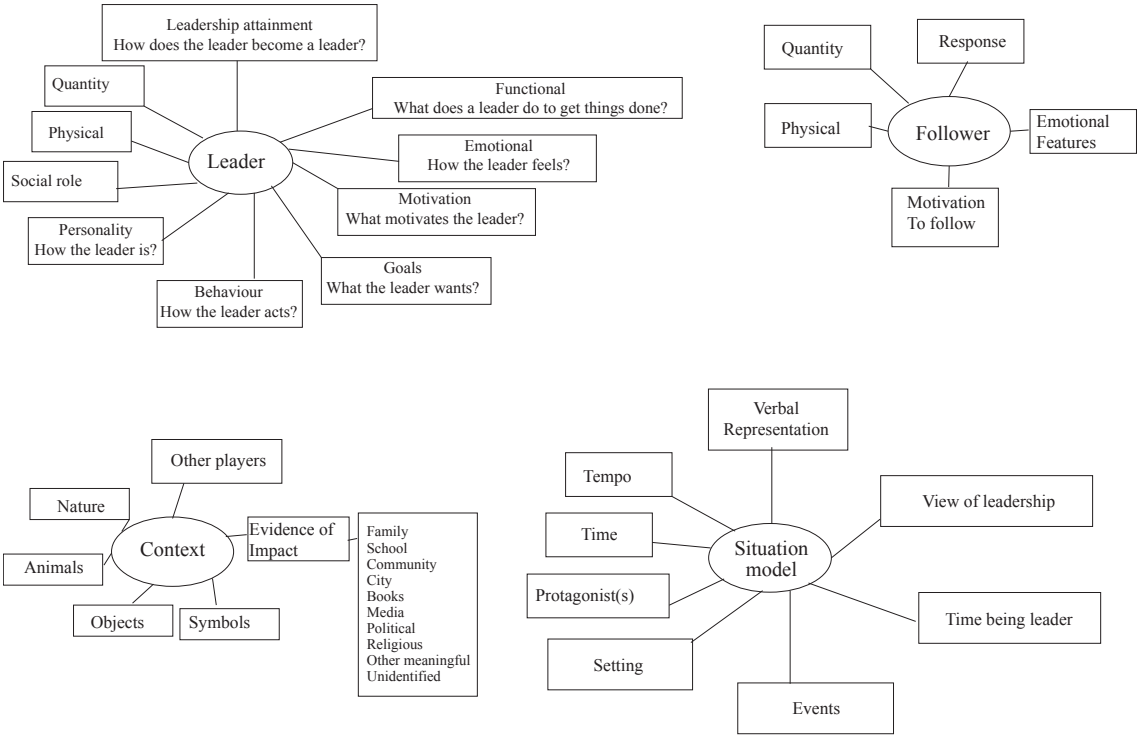
4.4.3 Procedure. The researcher introduced the activity, explaining that they would be asked to draw something to find out what they thought about a particular theme. The researcher explained that they could draw whatever came to their mind in connection to the theme, easing ideas that the activity was about how nice they drew, but more about what they thought. Then each child was asked if they wanted to do the activity, and to provide consent. All children agreed to participate. Each child had a piece of A4 paper, a grey lid, an eraser, and a box of 12 colours. Children were guided

to sit quietly, and the researcher wrote on the board: ‘draw a leader leading’ and then, said it out loud. Children drew their pictures. Then, as children finished, they were asked to go to the outdoor area, supervised by a volunteer adult, while the researcher looked at the drawings in detail, before interviewing each child individually, one by one. The researcher asked *Can you please describe the drawing to me?* and then enquired about further details that needed clarification. Subsequently, the researcher asked six questions to each child: Q1 *What is a leader?, Q2 What do you think leaders are so supposed to do,?Q3 What do you think makes a good leader?, Q4 What do you think makes a bad leader?, Q5 And how do you think one becomes a leader, and Q6 What is the name of the best leader?* Then, the researcher asked each child what they thought about the activity, if it was easy to understand, and if they had any ideas on how to improve it. Next, they were thanked, and parents and caregivers picked them up.

4.3.4 Results. The results were analysed applying the drawing code that was designed combining children ILT (Ayman-Nolley & Ayman, 2005) and children’s drawing as a research tool knowledge (Mouw, Van Leijenhorst, van den Broek, Saab, & Danel, 2017; Stein & Glenn, 1975; Wright, 2014; Zwaan & Radvansky, 1998) looking for content similarity or differences across ages, or gender. The narratives and interview analysis looked for semantic similarity, frequent themes, or core variables in children’s notions of leaders. The results showed that, through eight drawings and eight interviews, children provided very rich data about their ideas of leaders, and also, of leadership, as shown in Figure 2. The information included notions about a leader, follower, context of influence, and situation model.

Figure 2

Mapping of richness of information obtained via results from the pilot study



*Note: This figure shows the thematic variables obtained from the drawings and the six-question interview.

The results also showed that the youngest child, a six year old boy, noted functional notions of a leader by depicting a chef, and a seven year old girl, depicting a boss in the office telling others what to do, who also noted socio-emotional aspects of the leader like being nice or kind. Lastly, the results found the oldest children presenting more humanitarian visions, like a world leader, and more followers in their drawings, as illustrated in Exhibit 1. Pilot test results also showed that most girls drew women leaders and boys, men leaders. Lastly, the results also showed that the oldest children talked more, than the youngest children, including more descriptions in their answers.

Exhibit 1

Child 0007

Researcher: Can you please describe the drawing to me?

Boy: Ok, there's the leader and he's saying stuff he wants to change about the world and what he wants to do with the world like he wants to say that he wants to change it and there's a power point about how he'll change the world and there's the people watching, there's sixty but I couldn't fit all the sixty I couldn't have enough time to do all sixty so I just wrote x60

Researcher: Can you tell me more about where it's happening?

Boy: Parliament House in Australia, Canberra

Researcher: Can you tell me a bit more about the leader, what's he like?

Boy: He is like a he's a high leader like liberal or labour and he wants people to work for him so he can change the world or change Australia to make it a better place and that's what the leader wants pretty much.

Researcher: If you would have used colours, what kind of colours do you think he would have?

Boy: He would be wearing a suit [] he would do his hair like put it to one side or something like that black hair. And a suit and pants

Researcher: Who are the 60?

Boy: They are voters, so they came to listen about his speech and about 10 of them are probably recording it for TV. (Boy, 0009, Pilot test, 11Y/7M).

4.3.5 Adjustment to the design. The pilot test confirmed that the design was effective in accessing children's ideas of leaders, since children gave positive feedback, and the results revealed a high volume of rich data. Overall, children confirmed that they understood the activity, and that it hadn't caused stress. In contrast, they expressed their enjoyment being asked to draw what they think a leader is. However, minor adjustments were necessary. It was found that phrase *'draw a leader leading'* was inappropriate for the younger children who kept asking for more explanation. So, through their feedback, and advised by the art teacher at the school, the instruction was transformed to *'draw a leader doing what they do, draw a leader leading'.* The pilot test also helped the researcher confirm that the research protocols were practical and easy to follow, and also helped the researcher test, measure the effect, and familiarise herself with the prompt narrative to further enquire into children's ideas, including nudging probes, and out loud thinking, for example, *"Tell me more", "How is that?", "What else?", "Anymore comes to mind?", "Really? So, what happened then?", and "I wonder about ... What do you think?"* as recommended and advised by Wright (2014).

Lastly, the pilot test also tested the effectiveness of the coding manual, which gathered information across the content of the drawings, but also across the narratives. It also tested the thematic coding of narrative content and interview answers and confirmed the presence of social-role content and gender preference (Ayman-Nolley & Ayman, 2005; Liu et al., 2012) as found in children ILT literature, as well as physical/spatio-temporal, functional, socio-emotional and humanitarian/socially-

concerned notions of leaders in the children, as noted in the revised literature on children's development of leaders.

4.4 Main study

Children's ILTs are contextually sensitive (Shondrick et al., 2010) (Ayman-Nolley & Ayman, 2005; Hess & Easton, 1960; Massey, 1975; Okamura, 1968) and develop working leadership models of the social world based on their experience with leadership models who are close to their daily life, who stimulate their imagination or ideas, and who are valued in their culture as desirable (Ayman-Nolley & Ayman, 2005; Daniels-Beirness, 1989; Hunt et al., 1990; Jablin & Kron, 1994; Keller, 1999; Liu et al., 2012; Matthews et al., 1989; Nemerowicz & Rosi, 1997; Oliveira, 2016; Owen, 2007; Sacks, 2009; Schyns & Meindl, 2005). Some of these ideas are moulded by their experiences at school (Hamre, Hatfield, Pianta, & Jamil, 2014; Sacks, 2009), and peer group dynamics (Ahlbrand & Reynolds, 1972). Framed under the theoretical connectionist perspective, with an emic approach, the present thesis studied a particular group in a particular setting, in this case a school, since a particular group will possess multiple, contextually based schemas of leaders (Lord & Brown, 1999; Shondrick et al., 2010).

4.4.1 Sample. The present study focused the research in one primary school because it minimises bias that may be caused by variations in the setting, since each school has a culture of its own (Lindahl, 2006; Zhu, Devos, & Tondeur, 2014) which affects the way students act and how students feel about the school and about others (Deal & Peterson, 2016; Zhu et al., 2014). Additionally, all prior studies of children's

ILTs had been conducted in primary school settings, so conducting the research in this setting would align contextually with the literature.

Size. ILTs are conceptualised as ordinary images of what leaders are like (Offermann et al., 1994; Schyns & Schilling, 2011). So, the present study was looking for children's everyday working images of leadership, the serviceable traits in their day to day understanding. Since ILTs are individual, but also contextual**,** and collectively endorsed (Offermann et al., 1994; Schyns & Schilling, 2011), the study aimed to maximise information, by collecting and analysing as many individual ILTs in a particular school population. Holding children's ILTs studies in a public primary school offers the possibility to recruit a significant number of participants for analysis, reflective of a particular setting, including boys and girls, across all ages (five to 12 years old). By gathering as many drawings, narratives, and interviews, it could further detect collective patterns from a distinctively context-based population.

As illustrated in Table 7, the literature on children's prototypical ILTs lacks a representative study within a contextual setting, inclusive of all ages across primary school, with a multi-method approach, including the drawing method and the narrative component. Subsequently, a study combining drawings and narrative methods, with a bigger population of children, including all ages across primary school, was necessary to update, and move forward the literature on this topic.

Table 7

Children ILTs studies

Year	Country	Author	Sample	Grades	Method
1989	US	Ayman-Nolley & Ayman	36	Grade 3	Interviews
1992	US	Ayman-Nolley & Ayman	695	Kindergarten-Grade 8	Drawings and two short sentences about drawing
1993	US	Ayman-Nolley & Ayman	130	Grade 3 and Grade 6	Interview
2003	US	Ayman-Nolley & Ayman	500	Kindergarten-Grade 8	Drawings
2006	Costa Rica	Ayman-Nolley & Ayman	Unknown	NA	Drawings
2012	China	Liu, Ayman, & Ayman-Nolley	491 100	Primary school students Secondary school students	Drawings and two short sentences about drawing
2016	Philippines	Oliveira	28 (drawing and interview) 175 (questionnaire)	Grade 3 - Grade 6	Drawing, interview, and questionnaire

*Note: This table shows the children's ILTs studies conducted to date.

Characteristics of the sample. Because the sample needed to collect and analyse a typical cross-section of Australia's cultural diversity, a primary school located in Reservoir, a suburb of the City of Darebin, a municipality part of Melbourne's metropolitan area in Victoria, Australia, 12 km north of Melbourne's Central Business District was approached. This municipality is culturally diverse with a population of around 160,000, with more than 35% people born overseas, and where more than 40% speak a language other than English at home (State Government of Victoria). This is comparable to Australia's cultural diversity, where more than a quarter of Australians

were born overseas (Australian Bureau of Statistics, 2016). Reservoir, has an area of 19.1 km2 and a population of 47,637 (Australian Bureau of Statistics), and approximately 7,600 (16%) of this population are children between zero and 14 years old. Additionally, Liu et al. (2012) also recommended the importance of the reasearcher's knowledge about the culture where the study takes place. The researcher belongs to this community and has been involved in the school as a volunteer.

All children (n=550) from an Australian public primary school were invited to participate in the present research. The researcher attended each class and invited the children personally to participate, A letter was given to children to take to parents and caregivers with the required consents for children to participate. In total, 260 (47%) children from the total (n=550) of children in the school agreed to participate and provided consent from their primary caregiver. However, 10 children were absent at the time of data collection, so, in total the sample consisted of 251 children from all primary school grades (Prep to Grade 6). This reflects 3% of the population of children in the particular suburb of Reservoir (7,600 approx.). The demographic included 131 girls (52%) and 120 boys (48%).

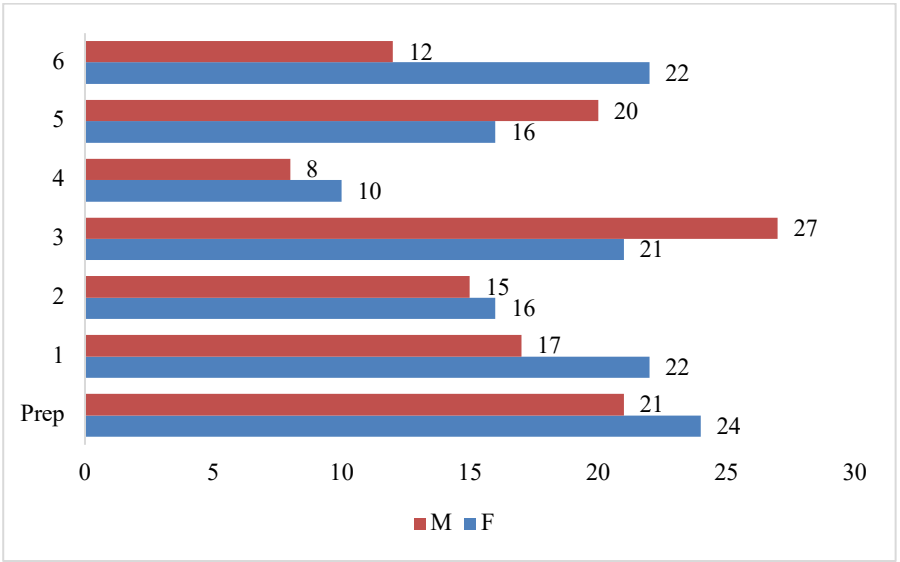
The vast majority of children were born in Australia (234, 93%), however the birthplace of their parents was diverse. All caregivers (n=500) provided information about the place of birth of the mother and the father, 338 (55%) of children's parents were both born in Australia, 125 (25%) had one parent who was born in Australia and the other born overseas, and 100 (20%) had parents who were both born overseas. The parents born overseas came from 47 different countries (See Appendix A). Additionally,

173 (69%) of children spoke only English at home, 59 (24%) spoke English and another language at home, and 15 (6%) spoke a language other than English at home. Caregivers also provided information about the children's religious affiliation. Caregivers reported that 113 children (45%) didn't have a religious affiliation, 80 (32%) reported Christianity (including Catholic and Orthodox), 30 (12%) Islam, four (2%) Hinduism, and two (1%) Sikhism.

The distribution of children across grades was: 45 (18%) in Prep or Foundation, 39 (16%) in grade one, 31 (12%) in grade 2, 48 (19%) in grade 3, 18 (7%) in grade four, 36 (14%) in grade five and 34 (14%) in grade six. The gender distribution per grade is observed in Figure 3.

Figure 3

Gender distribution per grade



*Note: This figure shows the distribution of 131 girls (52%) and 120 boys (48%) across grades.

4.4.2 Recruitment strategies and communication strategy. In the school, the first step towards recruitment in the main study was to obtain the Principal's permission to conduct the study. The Principal was first approached via an introductory letter and that was followed by a meeting. Once approved, the communication strategy took into account all the stakeholders involved in the research including the children, their families, the teachers, staff, and directives from the school, and the wider community. As part of the strategy, the researcher worked closely with the school to achieve the required levels of motivation and communication. The strategy included an 'introductory phase' about the research, which was directed to families throughout the school via parent/caregiver-school communication media including a video on the school's newsletter, mentions on the school's website, and researcher presence in open sessions, and face-to-face opportunities across the school's events calendar.

Additionally, the researcher presented the research proposal to the school's leadership team, staff, and teachers. Teachers played a key role in the parent/caregiver recruitment strategy and were very motivated to assist with recruitment, making it easy to get information to parents, guardians, or potential participants (Lamb et al., 2001; Pincus & Freidman, 2004). Following recommendations by Rice, Bunker, Kang, Howell, and Weaver (2007), the strategy also focused on getting the school staff positively involved, especially the front-office staff who were crucial in informing parents and caregivers on where to direct queries about the study, or consents. Then, the researcher visited all the children at the school, in their class, introduced herself, and

explained the aim of the research and the benefits of expanding our understanding about their thinking for future decision-making which could potentially impact the future teaching of leadership.

A second 'reminder phase' supported the recruitment process by reminding parents/caregivers of the importance and benefit of the research and the return of consent packets. This phase included communication via newsletter and the school's website. A third 're-inspiration phase' to reactivate any potential interest in the research and gather a new wave of returned consent packets was the final step. In total, 260 (47%) children from the total (n=550) of children in the school agreed to participate and provided consent from their primary caregiver.

4.4.3 Procedure. Data was collected between 16 July and 21 September during Term 3, in 2018. Working collaboratively with the art teachers at the school, a lesson plan was created for the creation of drawings at an art session across the seven grades. In each session, an hour long, all children in the class were re-introduced to the researcher, who then would ask them to *'draw a leader doing what they do, draw a leader leading'.* Even though the presence of the researcher and the teacher was necessary to guide the drawing activity, the researcher and the teacher did not actively engage with the children during the drawing process, minimising any influence by the adult on the content of the drawing (Gauntlett, 2007), potential feelings of forced compliance or power differences (ERIC, 2013), and reducing risks of triggering further thoughts which could influence the content of the drawing (Coates & Coates, 2006). Following on recommendations by Ayman-Nolley and Ayman (2005), if children were

doubtful on what to draw, teachers and researchers would go back to the statement and ensure the children that any idea they were thinking was right. It was also important to emphasise that the exercise was not about drawings skills, but about what were their ideas of a leader. Children were reminded to work on their own and quietly. If children did not know what a leader was, they were guided to draw a free idea.

Since ILTs are lay images of leadership that everyone holds individually as an idiosyncratic theory about the traits and behaviours of leaders (Eden & Leviatan, 1975; Offermann et al., 1994; Schyns & Meindl, 2005; Schyns & Schilling, 2011), this study provided participants with the necessary time, space for self-reflection and decision making, so they could freely frame their individual notions, perceptions, and feelings of leadership (Wetton & McWhirter, 1998). By giving the research participants time to reflect on their drawings, the process encouraged authentic research data as artistic and creative activities have the potential to unearth more deeply the unconscious in the brain (Gauntlett, 2007). Such an approach also aimed to ignite feelings of agency in each child by inspiring their capacity to decide her or his finalised depiction of a leader in an individual way and according to their own perception. For example, younger children often need to see their finalised drawing to be able to name it and describe it, while older children can decide what it is about before they have even started (Vygotsky, 1978).

After the session, the researcher gathered the drawings from those children whose caregivers had provided consent and had completed the demographic survey. Then, in subsequent art sessions throughout the term, the researcher interviewed each

child individually, in an art office inside the art room, visible to the teacher and classmates. This was a key moment in data collection, where the researcher asked each child for their consent guided by the *Guidelines for conducting research in Victorian government schools and early childhood settings* (Department of Education and Training Victoria, 2015) and after careful consideration of the *National Statement on Ethical Conduct in Human Research* (National Health and Medical Research Council, Australian Research Council, & Australian Vice-Chancellors'Committee, 2007), and the *Ethical Research Involving Children (ERIC) Compendium* (Graham, Powell, Taylor, Anderson, & Fitzgerald, 2013). This study strongly believes the consideration by the Department of Education and Training Victoria (2015) that obtaining the consent of children and young people demonstrates respect and provides them with the opportunity to withdraw from the study if they want to. Also, that, even though acquiring children's consent is not a legal requirement, children and young people should be given the option to decline to participate even if their parents/caregivers have provided consent for them to do so. To obtain consent from the children, the study followed recommendations from Rice et al. (2007) clearly stating what was required of them, how much time it will take, what their rights are, and what happens if they drop out of the study. Additionally, the researcher emphasised that they were free to decide whether or not to be part of it, and that not participating would not affect their grades or their relationship with their teachers or the school. All children were happy to provide consent and seemed eager to share their perceptions.

Once the child's consent was obtained, the child was asked to place an orange dot sticker next to each leader in their drawing, and a sticker with their anonymous number code. Next, the researcher photographed their picture twice. Then, the researcher turned on two recording devices and asked each child to describe their drawing in detail (narrative), holding an in-depth conversation and enquiring on as many details to minimise interpretation. Following on Wright (2014) recommendations, and after testing them in the pilot test, some prompt narratives were taken as guidance for the graphic-narrative collection such as *'anymore comes to mind?'*, *'so, what happened then?', 'can you give me an example?', 'what did you mean when you say…', 'what I hear you saying is… have I understood you correctly?',* which solicit narrative and encourage storytelling in the participants (Butina, 2015).

Then, children were asked to answer the research question *What is a leader?* following a semi-structured method with a flexible approach due to the nature of communication with children and particularly with young children (Selman & Jaquette, 1977). The interview was conducted at the same session, after the child described the drawing, looking to complement the child's own theory of leadership and the reasons underlying her/his beliefs and opinions about leadership (Selman & Jaquette, 1977). Even though the interview had been designed with a structured approach to guide the researcher towards the right data collection, the interviews utilised other open questions about leadership, for example, when they referred to socially recognisable individuals, and when it was viable, the researcher also enquired about the sources where the children had found out about a particular leader. Once the interview was finalised,

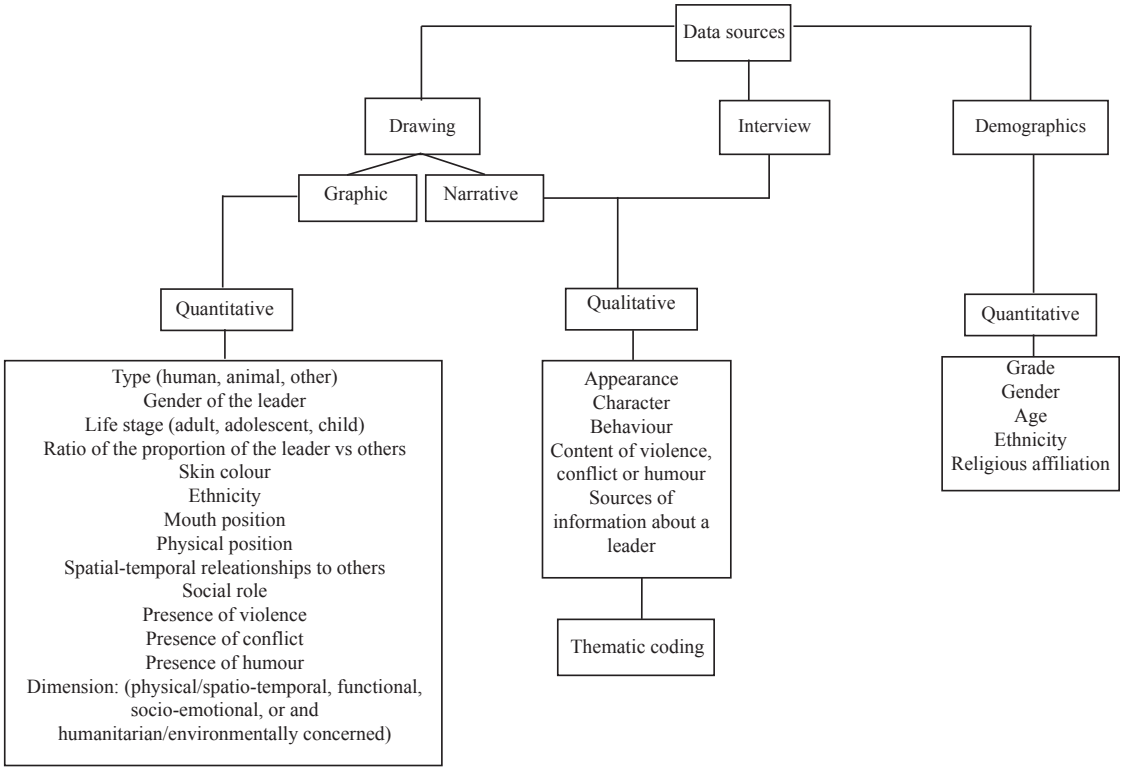
children were thanked for their participation and the drawing was kept in their art folder at school. A total of 272 drawings were photographed, since some children drew more than one leader. And a total of 251 interview answers were recorded including narratives about each of the drawings.

4.4.4 Analysis. To explore the schemas that children hold about leadership and how these representations can vary and become more sophisticated during childhood, the study analysed the data focusing on identifying the necessary themes to answer the research questions RQ1 *How do children's ILTs develop?* and RQ2 *How do children's ILTs relate to adult ILTs?* In preparation for the analysis, the interviews including the drawing narrative and answers to the *Q What is a leader?* were transcribed. Once transcriptions were ready, the researcher read and re-read these and simultaneously observed the drawing as reviewing the transcriptions, noting primary emerging patterns.

Coding. Coding of the data was conducted in two stages. First, the data from each drawing and narrative was coded manually, guided by a coding manual explained in detail in this section, and illustrated in Appendix B. The coding process of the drawing and narrative resulted in two pools of data, a quantitative pool and a qualitative pool, as illustrated in Figure 4. The drawing coding allowed for the qualitative data produced in the depictions, to be organised and prepared for a thematic coding stage, in conjunction with the interview answers.

Figure 4

Quantitative and qualitative sources of the data obtained from the coding phase



*Note: This figure illustrates the sources of data and the resulting quantitative and qualitative data obtained after the coding procedure.

Coding of drawings. Since the early 90s, children ILTs studies have used protocols designed by Ayman-Nolley and Ayman (2005) to analyse the information contained in children's leadership drawings. Ayman-Nolley and Ayman (2005) coding manual includes instructions on how to categorise the drawings on the following dimensions: Human or non-human, one leader or several leaders, gender (male/female), colour (skin) divided into subcategories (not identifiable, white/no colour, coloured black/brown, and other colours), leader smiling divided into subcategories (not

identifiable, lips not upward, and lips upward), presence of violence divided into subcategories (none, verbal, physical, and both), follower presence divided into subcategories (none, implied, and drawn), follower gender (male/female), and comparative size divided into subcategories (larger, equal, smaller). It also included instructions for categorising leaders into social roles such as military personnel, teacher, parent, entertainer, head of state, fantasy character, religious leader, sports leader, and famous people. Additionally, it includes descriptions to categorise a generic person, a child, and self-description when children draw the leader as themselves.

Addressing the children's drawing analysis literature (Butina, 2015; Coates & Faulkner, 2011; Klepsch & Logie, 1982; Literat, 2013; Silverman, 2006; Soundy, 2012; Wright, 2007, 2014), the present study designed a new coding manual, as illustrated in Appendix B, to complement that of Ayman-Nolley and Ayman (2005). It added graphic features that aid the researcher in understanding children's pictorial and verbal narratives with an integrative approach (Coates & Coates, 2006; Coates & Faulkner, 2011; Wright, 2014). According to Wright (2007), the graphic mode appears in a drawing in many forms including filmic textual features (e.g. characters, objects, place, setting, time, scenery, actions), art elements (e.g. marks, lines, textures, shadings, proportions), symbols (e.g. letters, words, phrases, numbers, flags, logos, universal prototypes), visual icons (e.g. speech bubbles, whoosh lines, dotted lines, marks, arrows), and spatial-temporal relationships (e.g. in front/behind, close/distant, above/below, similar, proximal, surrounded). Ayman-Nolley and Ayman (2005) have addressed some of these modes in their coding manual. For example, they have included

art elements (size of the leader or proportions), spatial-temporal relationships (distance from followers), and filmic textual features (social roles). However, the manual does not include other graphic features that provide further knowledge about children's ideas presented in their drawings. For example, as often children give more visibility to attributes that are more significant to them by exaggerating its graphic appearance within the paper (Eisner, 2002; Soundy, 2012), drawings can expose levels of relevance to the child about the visual components.

Additionally, for narrative analysis, expression through written messages or signs, place or setting, physical actions, and other emotional signs, such as tears, were captured. These clues complement the verbal representation, and help establish the situation model (Mouw et al., 2017) including protagonists, story setting, and events, or whether the drawing is fictional or literal (Wright, 2014). Furthermore, it marks a foundation to enquire on the drawing's physical, functional, and emotional narrative (Stein & Glenn, 1975; Zwaan & Radvansky, 1998). In other words, what does the leader look like, for example, big, or strong? Or what does the leader do? Tell someone to do something, help a person. Or what are the leader's goals? For example, win a race. Additionally, drawing narratives can include information about the leader's emotions, for example, being happy or angry, or motivations, for example, wants everyone to have a go. These aspects are critical for the study of ILTs, since they open a spectrum for the quantified exploration of children's ideas of leaders in terms of dimensions. Are they describing physical (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960; Sacks, 2009; Selman et al., 1977), functional (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960), or

socio-emotional features (Ayman-Nolley & Ayman, 2005; Nemerowicz & Rosi, 1997; Oliveira, 2016; Salmond & Fleshman, 2010; Selman et al., 1977; Yarrow & Campbell, 1963)? Perhaps humanitarian (DeHaan, 1962; Sacks, 2009; Selman & Jaquette, 1977)? Analysing this information is critical for the understanding of children's cognition of leaders as these are dimensions that the literature has consistently found to be present across children's development of the construct, that also include task or relational orientation views (Ayman-Nolley & Ayman, 2005), and are necessary to answer the research question of RQ1 *How do children's ILTs develop?*

Narrative coding also provides raw data for the measurement of relevant patterns of traits in the leader for the children, which then opens up the possibility for adult comparison as adult ILTs generalisability studies (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994) have looked at the structure of ILTs and have found that they contain items that they call traits, providing an avenue to answer the RQ2 *How do children's ILTs relate to adult ILTs?* The proposed coding manual, shown in Appendix B, catalogued children's ideas of a leader combining simultaneously the visual content of the drawing with their narratives, to gather the richness of their conception of a leader.

As illustrated in Figure 4, the coding system quantified physical and situational characteristics of the leader, such as gender, life stage, mouth position, social role, and dimensional approach. By simultaneously coding the graphic content of the drawing and narrative transcriptions, because they are complementary, the researcher gathered the facts directly from the child, minimising any interpretation, and complying with the

interactive nature of a drawing, its story, and its interplay for meaning making (Cox, 2005). When a characteristic of the leader was unknown or hard to read, it was coded as such, and when it was conflicting, the data provided in the narrative was followed. For example, if the child drew a leader who appeared like a man (according to the researcher), and the child specifically pointed out in the narrative that the leader was a woman, it would be coded as female. On the other hand, the drawing coding phase produce rich qualitative data about their ILTs such as characteristics of the leader's character, appearance, and behaviour, as well as sources from where children obtain models of leaders.

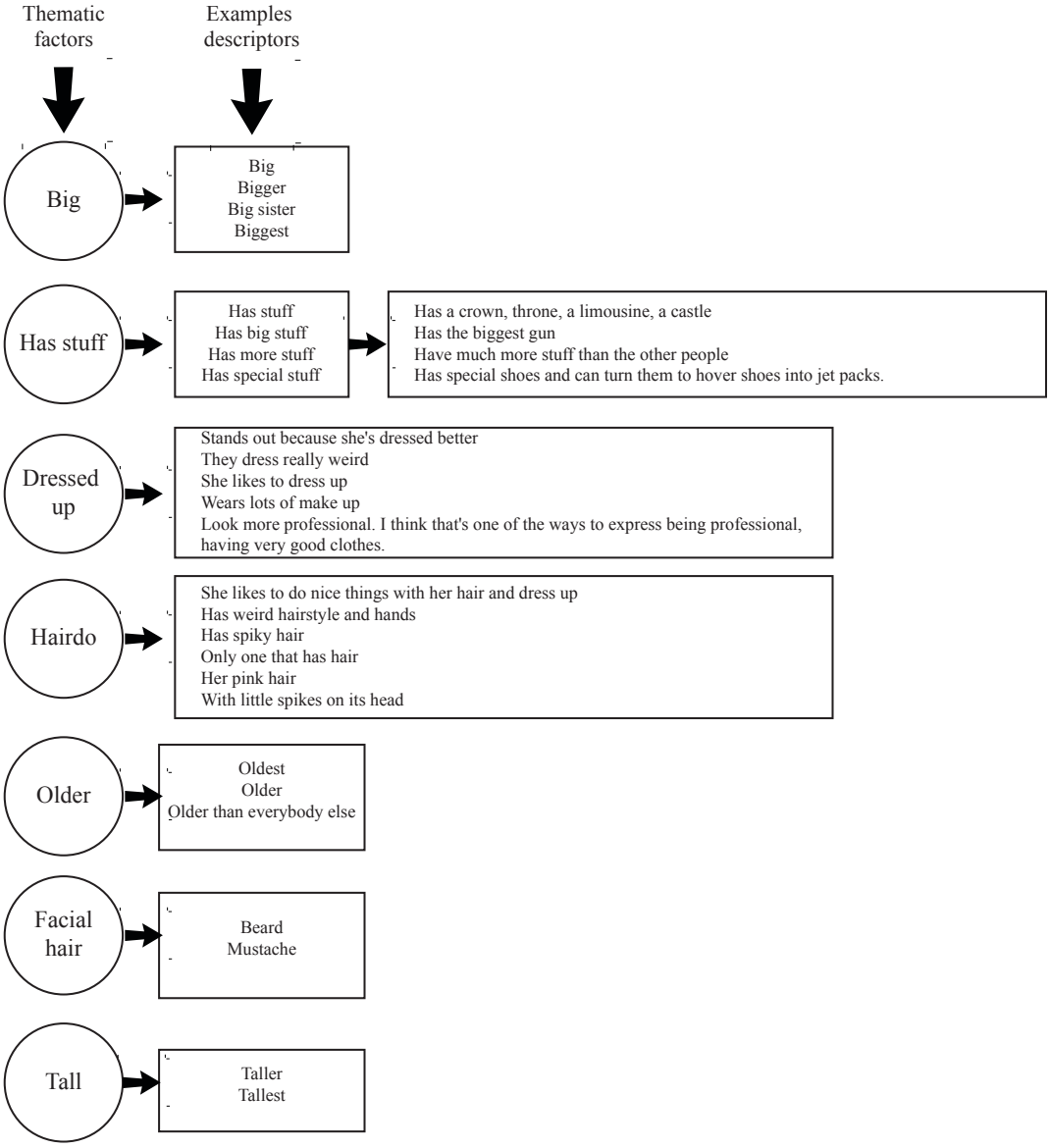
The researcher manually coded the data because children's language is in development (Chouinard, 2007; Mareschal, 2003; Robson, 2006; Stavans & Baillargeon, 2019; Wells, 2009), and has a tendency to sometimes describe a concept, rather than define it applying a specific label or word to it. So, additional to adjectives or descriptors about a leader's characteristics, for example, nice, or big, children also describe or explain a leadership trait with a phrase. For example, 'knows how to lead people in special lines' (Girl 028, Prep, 5Y/11M), or 'can be asked something, like questions.' (Boy, Grade 1, 7Y,4M). Even though these children didn't use an adjective, for example 'knowledgeable', the data is rich, and provides clues pointing towards emerging or forming ILTs of the leader being someone who knows something that others don't. A notion like this is still a recognised identifier of leadership, that hasn't adjusted to a labelling format as yet.

Thematic coding. The qualitative data obtained from the drawing coding and the interview answers was firstly integrated in three categories across the leader's appearance, character, and behaviour. When children mentioned a characteristic about the leader's appearance, character, and/or behaviour, in the answer to the *Q1 What is a leader?* or/and in the drawing narrative, such feature was noted as a separate idea. Some of these ideas were words, and some were explanations. Children's ideas were transcribed and consequently a selective coding process was developed to break down children's answers into individual ideas about a leader. For example, a girl in Prep, with five years and 10 months answered: 'They are the boss of you, and they boss you around. You have to follow them like follow the leader'. In the coding phase, this statement was broken down into four different ideas: 1. They are the boss of you, 2. They boss you around, 3. You have to follow them, and 4. Like follow the leader.

The analysis of words gathered nouns and adjectives in reference to a leader's appearance, for example, big, or tall. Or a leader's character, such as nice or helper, and also about a leader's behaviour, for example, works hard. When children utilised similar terms, for example, 'helper', or 'helpful', these ideas were combined under the word helpful, or, for example, 'out there' and 'outgoing' were combined with outgoing. Figure 5 shows examples of descriptors of a leader's appearance, and its corresponding thematic factor.

Figure 5

Examples of descriptors grouped under factors for frequency analysis of characteristics of leader's appearance



*Note: This figure shows examples of thematic coding when grouping 151 descriptors of a leader's appearance.

As a result, a list of characteristics of a leader's character, appearance, and behaviour was obtained guided by children's own words. To exemplify this step, Table 8 shows 70 different characteristics of a leader's character obtained during this step.

Table 8

Seventy characteristics of a leader's character and their frequency

Characteristic	Frequency
Helpful	39
Nice	21
Kind	10
Caring	9
Strong	8
Friendly	7
Happy	7
Brave	7
Confident	7
Angry	6
Good	6
Listener	5
Responsible	5
Persuasive	5
Respectful	4
Trustworthy	4
In control	4
Supportive	3
Positive	3
Decision maker	3
Good decision maker	3
Followed	3
Thinker	3
Fancy	3
Fast	3
Inclusive	2
Funny	2
Loves what they do	2
Fighter	2

Powerful	2
Victorious	2
Outgoing	2
Bossy	2
Hates others	2
Good ideas person	2
Calm	1
Considerate	1
Not strict	1
Tough	1
Opinionated	1
Demanding	1
Strict	1
Serious	1
Ambitious	1
Accurate	1
Committed	1
Persistent	1
Focused	1
Planner	1
World changer	1
Follower similar	1
Annoying	1
Dumb	1
Mean	1
Not friendly	1
Not liked	1
Racist	1
Rude	1
Bright	1
Clever	1
Prepared	1
Question solver	1
Wise	1
Environmentally aware	1
Future aware	1
Likes technology	1

Likes animals	1
Creative	1
Bad	1
Good and bad	1
Total	233

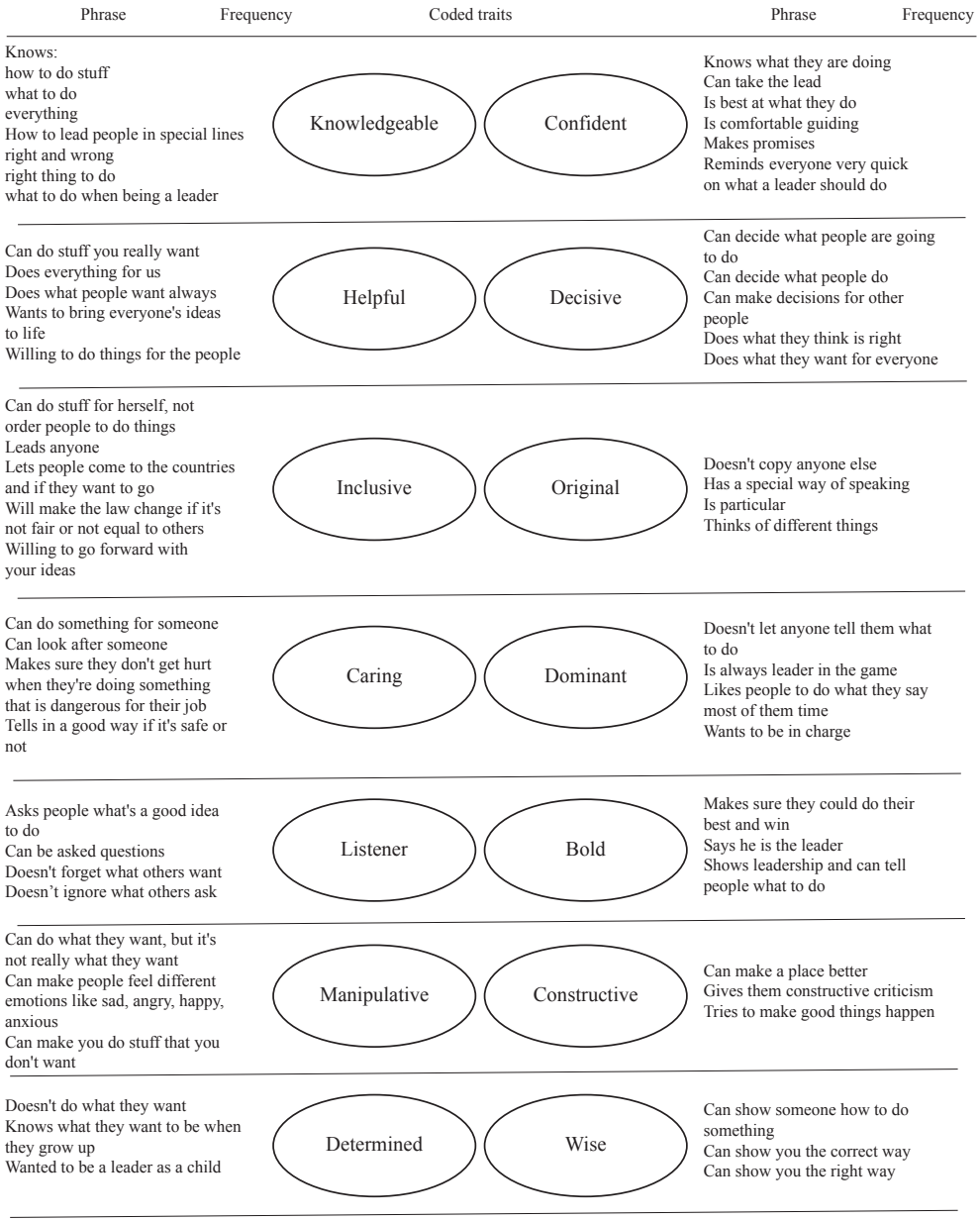
*Note: This figure shows the distribution of n=233 descriptors of the leader's character.

Besides precise adjectives, or descriptors, children also described or explained a leadership trait with a phrase. For example, 'stands up for what's right' (Girl, Grade 6, 11Y/10M). Guided by Williams and Moser (2019) to construct meaning from the data, this coding phase followed an open, and axial process through three-step thematic coding. The first step, involved the researcher open coding by selecting those segments from the transcribed text where children described a leader's appearance, character, or behaviour with a phrase. Then, following axial coding, to further refine themes (Williams & Moser, 2019), the researcher codified each phrase, line-by-line, integrating the thematic material in a trait or characteristic of the leader's appearance, character, or behaviour. At this point, in a second step, the list of phrases and proposed traits was sent to an experienced arts teacher at the school where the study was conducted for assessment. Beyond the traditional role of teaching academic skills, teachers know their students, play a significant role in children's cognitive and social development (H. A. Davis, 2003) and are familiar with children's everyday language in their interactions with adults and peers (Hamre & Pianta, 2001). The teacher codified a second time, each phrase, line-by-line, integrating the thematic material in a trait or characteristic of the

leader's appearance, character, or behaviour. Subsequently, in a third step, an experienced researcher and one of the supervisory team, reviewed the traits and characteristics integrated by the researcher and the schoolteacher. The expert reviewer codified a third time, each phrase, line-by-line, integrating the thematic material in a trait or characteristic of the leader's appearance, character, or behaviour. As a result, a list of phrases or explanations were processed into a list of words of traits and characteristics of a leader across appearance, character, and behaviour. To further exemplify the process, Figure 6 shows the 14-character traits with highest frequency resulting from the three-step thematic coding of 65 phrases.

Figure 6

Fourteen traits with highest frequency resulting from three-step thematic coding of children's phrases about a leader's character

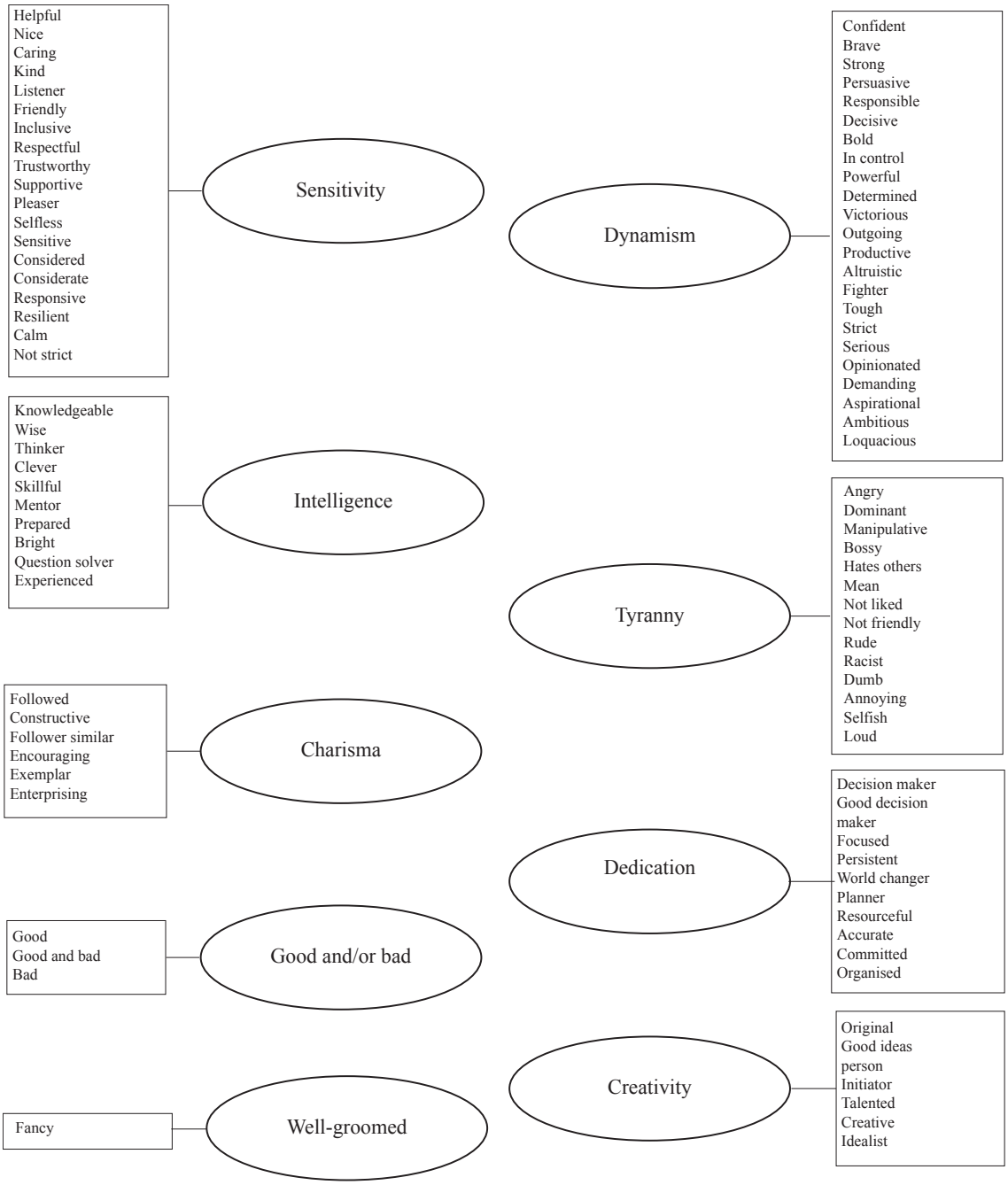


*Note: This figure is based on n=65 phrases or explanations about the leader's character, gathered from interview Q1 *What is a leader?* and from the drawing's verbal narratives. It shows 14 categories determined following a three-step coding process.

Then, in a final thematic coding step (Williams & Moser, 2019), traits were categorised and clustered within factors as per ILTs generalisability studies, including within a leader's sensitivity, dynamism, tyranny, dedication, intelligence, charisma, and creativity (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994). This step was required in the elaboration and formulation of the evidence to investigate how children's ideas connect to adult ILTs. The resulting traits integrated in the prior step, were selectively coded towards core categories for adult ILTs antecedent theory creation (Holton, 2010; Williams & Moser, 2019). This phase followed a two-step coding process. First, the researcher categorised the traits into adult ILTs factors guided by sample items reported in Offermann et al. (1994), Epitropaki and Martin (2004) and Offermann and Coats (2018) studies. When traits were not found in adult ILTs sample items, the researcher attributed the factor that thematically characterised the trait. In a subsequent step, one member of the supervisory team reviewed the factors assigned to traits and discussed conflicting assignments with the researcher, to reach a consensus. As a result, traits were assigned to adult ILTs factors. To exemplify the process, Figure 7 shows an example of traits assigned to factors during this phase.

Figure 7

Example of final thematic coding phase showing traits integrated from adjective and phrase analysis of children's ideas of a leader's character



*Note: This figure reflects the final coding process of n=340 mentions of characteristics of a leader's character including 233 adjectives and 107 phrases, coded

into traits and grouped under factors. Data was collected from interview Q1 *What is a leader?* and from the drawing's verbal narratives.

Lastly, the information gathered via drawings and interviews was cross-referenced via pivot tables designed to analyse the frequency of variables obtained from the coding phase, across children's characteristics (age, grade, gender, cultural background, religious affiliation) to determine developmental tendencies and frameworks or items that children apply when thinking about a leader. Additionally, the results were juxtaposed against dimensional developmental trends found in the literature for physical-spatial-temporal, functional, socio-emotional, or humanitarian aspects of the leader. By analysing frequent words, including verbs, adjectives, as well as descriptions of personality and behavioural characteristics of a leader, obtained from the drawing narratives and the answers to the interview question *Q What is a leader?* the qualitative data was translated into codified variables that could be analysed, in conjunction with the quantitative data obtained from the coding phase, to reveal children's tacit and embedded perceptions of leaders, as well as salient similarities and uniqueness advancing theory of children's ILTs.

4.4.5 Validity. The methodology has been designed to answer the two research questions *RQ1 How do children ILTs develop?* and *RQ2 How do children's ILTs relate to adult ILTs?* The design has carefully considered the recommendations when analysing children's drawings by experts in the field (Butina, 2015; Coates & Faulkner, 2011; Klepsch & Logie, 1982; Literat, 2013; Silverman, 2006; Soundy, 2012; Wright, 2007, 2014) and followed advice by an expert on young children's meaning-making and communication using drawings. Additionally, certain procedures were followed throughout the implementation of the methodology to check for the accuracy of the findings. Firstly, a slow and meticulous process to capture children's thinking across their drawing, narrative, and answers to the question *Q What is a leader?* (see an example of the data sources in Appendix C), guaranteed that the research captured children's points of view as wide-ranging, and rough as possible, without predetermined views through prior assumptions (as in questionnaires) and with minimal influence from the researcher. The narrative method approach prompted a wealth of detailed information from a considerable number of children across all primary school grades, beyond samples previously studied by other researchers.

In conclusion, a dedicated and thorough process was followed to code and analyse the data. The coding involved three-step and two-step coding procedures involving experts, one from within the environment of study, and the other an expert in human resources and leadership studies with 30 years of experience. Each person coded the data by reviewing it line-by-line, and idea-by-idea, manually, while constantly consulting the graphic component, to prevent misinterpretation, or overlooking ideas

described with phrases, due to children's language development (DeHaan, 1962; Liu et al., 2012; Matthews et al., 1989), while regarding the in-depth thought and meaning offered by each participant, who often revealed themselves in their stories. The coding and analysis phase was conducted guided by previous knowledge with constant data comparison to sample items reported in prior children's ILTs studies (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Liu et al., 2012; Oliveira, 2016) and adult ILTs generalisability studies (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994).

Lastly, since the study has been conducted under the assumption of the nominalist ontology (Easterby-Smith et al., 2015) under a social-constructivist paradigm (Creswell, 2013), the method has explored in-depth the meaning that each child ascribes to a leader, and also the collective patterns within their culturally and contextually sensitive social thinking (Shondrick et al., 2010). Supportive evidence presented in the form of tables, exhibits, and interview excerpts support these findings. And these could also be reviewed in its well-documented trail of data material and processes, as well as in the form of a visual and audio exhibit, with all the drawings and recordings, to support the findings.

5

Results

This section analyses the data from the content of the drawings and from the interviews with the children. The analysis of the data gathered from the children who demonstrated that they understood the concept of a leader in this study, either by drawing a leader leading, or answering the *Q1 What is a leader?* is presented in two sections. The first section of this chapter explores the first research question: *"How do children's ILTs develop?"* investigating distinctive tendencies in the way children perceive leaders across the key points in time, as noted in the literature review, and how ILTs become more sophisticated. These three key points in time are early primary school (Prep, Grade 1, and Grade 2), middle primary school (Grade 3 and 4), and late primary school (Grade 5 and 6). This investigation is guided by age-related (Broich, 1929; DeHaan, 1962), social-cognitive (Piaget, 1932; Selman & Jaquette, 1977; Selman et al., 1977), and leadership-experience (Sacks, 2009; Salmond & Fleshman, 2010) developmental theories. Additionally, it explores children's ILT theory developmental cues, such as gender preferences, leader's ethnicity, social role content, and gender stereotypes (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Frost, 2016; Liu et al., 2012; Oliveira, 2016).

The second section of this chapter explores the second research question: *"How does the content of children's ILTs relate to adult ILTs?"* Since the image of a leader develops during school years (Ayman-Nolley & Ayman, 2005; Borman, 1987; Matthews et al., 1989; Oliveira, 2016) and early notions of leadership shape adult ILTs,

the analysis explores connections between the content of children's and adults' ILTs in relation to their development, generalisability, and stability (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994). To do this, the research presents a new type of approach to the investigation of children's ILT content, including their ideas of a leader's appearance, character, and behaviour.

How do children's ILTs develop?

From the 251 children in the sample, only five children (2%) did not show any sign that they held an ILT. One boy in Prep, one girl in Grade 1, two girls in Grade 2 and one boy in Grade 3 with a learning disability. This is consistent with Ayman-Nolley and Ayman (2005), DeHaan (1962), and Lord and Maher (1991) findings that most children from the age of five hold a concept of a leader, and often can distinguish between leaders and non-leaders (Matthews et al., 1989). The present study also suspects that the conception of the leader mental model may initiate before primary school, at least in kinder, because 3-year and 4-year kindergarten experiences of play (*follow the leader, Simon says*) are noted in children's perceptions in primary school (Sacks, 2009), as exemplified in Interview excerpt 1 and Exhibit 2.

Interview excerpt 1
Child 243

Researcher: What do you think is a leader?

Girl: A leader is someone that ... they teach you how to do things sometimes, and sometimes they ask you to do something and you have to do it. Kind of like follow the leader, you have to do what the leader does. (Girl, Grade 3, 9Y/1M)

Exhibit 2

Child 119

Girl: I drew a little girl that's saying, "Do you want to follow me?" And they're all going to say, "Yes." And one person's saying, "Can I play?" And they're playing outside in a garden and they're trying to walk around the whole park and they're going to swap whoever does a good job at following. And they're going to do different stuff to exercise and play and the person who's the leader and they get to follow people, they get to pick whatever they want to do. And if they want to say in there ... follow me, you can do it and whoever says follow me first they get to be it…, that one that's saying follow me. And they're following each other on a foggy day. (Girl, Grade 1, 7Y/1M)

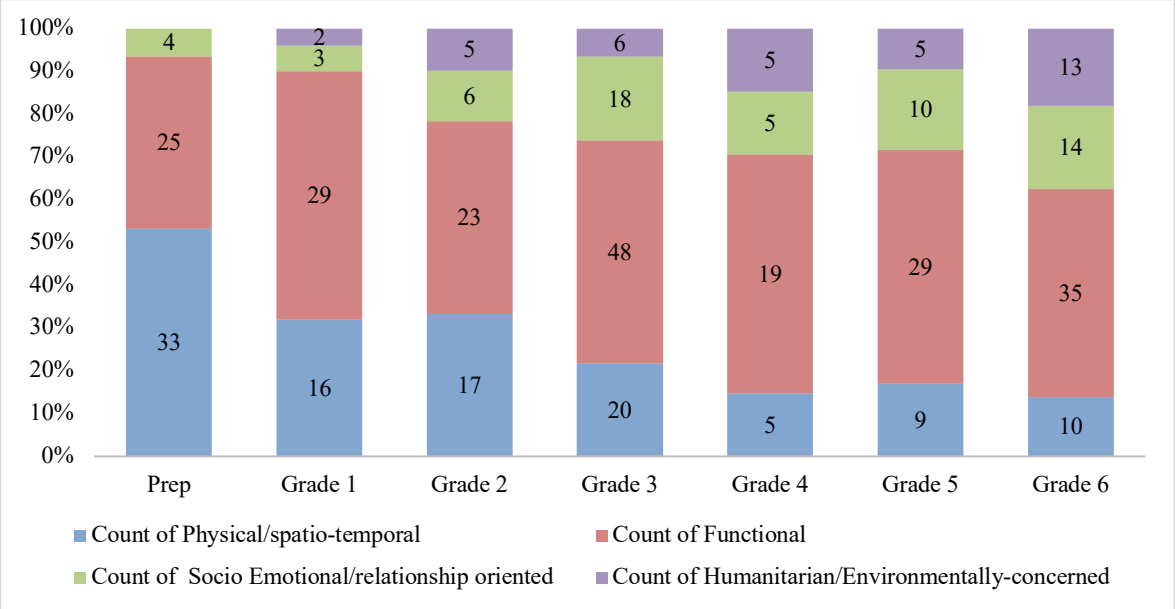
Additionally, the literature has consistently pointed out that children define their understanding and expectations of leaders differently at different ages and grades (Broich, 1929; Chauvin & Karnes, 1984; DeHaan, 1962; Hess & Easton, 1960; Okamura, 1968; Pigors, 1933; Selman & Jaquette, 1977; Selman et al., 1977). Specifically, it denotes that children's concept of leadership is transformed across the school years, where younger children most often process leadership information in a spatio-temporal and physical dimension of leadership (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960; Sacks, 2009; Selman et al., 1977); children in middle elementary

school process input in both a functional (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960) and socio-emotional dimension of leadership (Ayman-Nolley & Ayman, 2005; Nemerowicz & Rosi, 1997; Oliveira, 2016; Salmond & Fleshman, 2010; Selman et al., 1977; Yarrow & Campbell, 1963). Then, children in late primary school, often process leadership stimuli in a relationship (Sacks, 2009) and socio-emotional dimension of leadership (Ayman-Nolley & Ayman, 2005; Selman et al., 1977; Yarrow & Campbell, 1963). Furthermore, in early high school information processing often takes place in a humanitarian dimension of leadership (DeHaan, 1962; Sacks, 2009; Selman & Jaquette, 1977). However, some children can escalate quicker or slower than others across this development, depending on both internal and/or external factors (Selman & Jaquette, 1977). Next, we look at the results in light of these theories of development.

5.1.1 Dimensional development. In response to this escalation, as shown in Appendix D, the analysis of answers to the interview question *Q1 What is a leader?* in combination with the analysis of the drawing narratives has found supporting evidence that the dimensions noted in the notions of development from the literature, that is physical-spatial, functional, socio-emotional, and humanitarian, effectively cover children's responses about their perceptions of leaders. However, the progression is somehow different than the one proposed in an age-related dimensional approach to leadership (Broich, 1929; DeHaan, 1962).

Figure 8

Distribution of leader's notations within leadership dimensions across grades



*Note: This figure shows 414 notations of leader within four key dimensions across grades.

Firstly, as illustrated in Figure 8, the youngest children in early primary school often show functional ideas, as well as physical/spatio-temporal. This means that Prep children in the present sample recognise that the leader is meant to do something, not only be physically salient by size or possessions, or in a particular place within the space. For example, in Exhibit 3, a six year old boy denotes the leader's functionality, by being the one that tells people what to do, but it also assigns relational features such as the leader being nice and not bossy. This finding opposes theory that the youngest children are only aware of physical/spatio-temporal notions, and only become aware of the leader's functionality in middle primary school (Broich, 1929; DeHaan, 1962; Hess

& Easton, 1960; Sacks, 2009; Selman et al., 1977). The present study finds that young children are aware of the leader's functionality from the beginning of primary school, and even children as young as five can show socio-emotional views.

Exhibit 3

Child 017

Boy: They're cutting down a tree.

Researcher: They're cutting down a tree. So, who's this guy?

Boy: The leader.

Researcher: And what does he have in his hands?

Boy: An axe.

Researcher: Cool. And why is he the leader?

Boy: Because he tells people what to do.

Researcher: Do these guys like their leader?

Boy: Yes.

Researcher: Why do they like him?

Boy: Because he's nice, he's not bossy and that stuff. (Boy, Prep, 6Y/5M)

Additionally, the results in Appendix D, show that children's humanitarian dimension expands beyond social perceptions of the leader helping people in need, including environmental protection, and can be found in children as young as seven years old in Grade 1, as shown in Exhibit 4. Figure 8 also shows that such awareness gradually progresses across grades. This evidence suggests that the emergence of children's association of a leader with human welfare, occurs in early primary school and not in late primary school or early high school, as found in previous research (DeHaan, 1962; Sacks, 2009; Selman & Jaquette, 1977).

Exhibit 4

Child 127

Girl: I drawed the earth, and I drawed the big ocean, and I drawed water. I drawed the lands, and I drawed the stars. And, I drawed all the cities that I could think of that came from the country.

Researcher: Okay. So, can you please read out loud, the main word in the middle of the Earth, what does it say?

Girl: Ocean.

Researcher: Can you tell me why did you draw this when I asked you to draw a leader?

Girl: I just thought straightaway, because everything else that I thought of, everyone else was doing it, and I thought I better not do that, because everybody else is doing it. And, I just decided that if I could find something I could just draw the earth, because there is a leader for the earth, who takes care of it.

Researcher: So, tell me about this leader of the earth that you just mentioned.

Girl: So, the leader is a boy, and he's not young but he's not old. He's in the middle, maybe 40-something, 50, and ...

Researcher: And so, he's the leader of the earth. And where does he live? Do you know? What do you think is his job?

Girl: Taking care of ... He takes care of all the plants and trees, and flowers, the grass; all those things. (Girl, Grade 1, 7Y/1M)

Exhibit 5

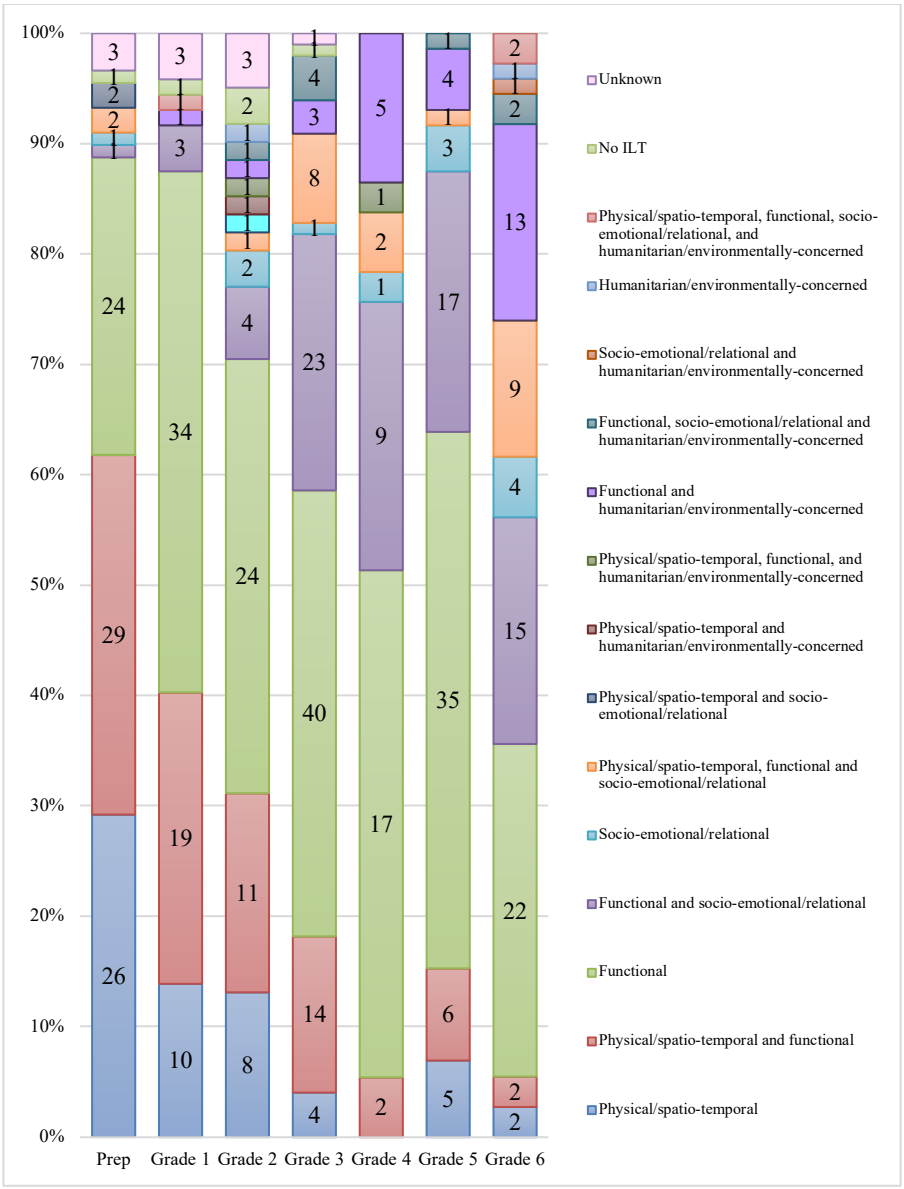
Child 217

Girl: I did a Queen announcing all women should have the right to vote and people are in the background cheering, listening in front of Buckingham Palace and her room with a chair, a picture, and a little board saying all women should have the right to vote and equal rights. (Girl, Grade 4, 10Y/3M)

The literature has pointed out that there may be a key shift sometime between seven and ten years old, when children start acknowledging the functionality of leadership (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960) and also begin to process information within the socio-emotional or relational dimension (Ayman-Nolley & Ayman, 2005; Nemerowicz & Rosi, 1997; Oliveira, 2016; Salmond & Fleshman, 2010; Selman et al., 1977; Yarrow & Campbell, 1963). However, as illustrated in Figure 9, looking at the dimensional combinations across grades, the present study shows that some of the youngest children in Prep can navigate within a three-dimensional framework of understanding, which is more often bi-dimensional combining physical/spatio-temporal and functional perceptions. Sometimes they also present one-dimensional perceptions within the physical/spatio-temporal dimension, and occasionally within a socio-emotional dimension. Additionally, it suggests that the youngest children in Prep and, probably those younger, will not show humanitarian or environmentally concerned notions of leadership.

Figure 9

Distribution of dimensional combination of children's narratives and interview answers across grades



*Note: This figure shows the distribution of dimensional combinations across grades coded from the drawing narratives and answers to the interview Q (n=493)

Additionally, the results in Figure 9, further supported by the analysis in Appendix D show that from, Grade 1, at around seven years old, children's understanding of leaders begins to fluctuate across a four-dimensional structure, including the humanitarian/environmentally-concerned dimension, which previous studies had only attributed to children in in late primary school or early high school (DeHaan, 1962; Sacks, 2009; Selman & Jaquette, 1977), and where the functionality dimension of the leader is the most salient and stable, presenting similar frequency across grades, as shown in Figure 8, and in further detail in Appendix D. This four-dimensional framework shows developmental changes across primary school, where notations within the physical/spatio-temporal dimension decrease, while those within the socio-emotional/relational and humanitarian/environmentally concerned increase.

The results in Figure 9 and Appendix D, are consistent with the literature in the sense that grade groups are more inclined to combine functional features with the dimensional notions previously reported. Subsequently, younger children more often process leadership information in a spatio-temporal and physical dimension of leadership than any other group (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960; Sacks, 2009; Selman et al., 1977). Then, in middle primary grades, children show increased socio-emotional inclusive notions of leadership (Ayman-Nolley & Ayman, 2005; Nemerowicz & Rosi, 1997; Oliveira, 2016; Salmond & Fleshman, 2010; Selman et al., 1977; Yarrow & Campbell, 1963), and towards the final grades, attributes within the humanitarian and environmentally concerned dimension of leaders grow (DeHaan, 1962; Sacks, 2009; Selman & Jaquette, 1977).

Exhibit 6

Child 077

Researcher: What did you draw? What's happening? Who's there?

Boy: So the leader wants to make the world a better place. He's talking- so he talks with a microphone and then it goes onto the radio so, and it goes into the news. (Boy, Grade 2, 7Y/9M)

This progression across dimensional content in children's ILTs can be explained because the youngest children are more sensitive to physical or spatial notions of the leader, linked to observable roles of leaders (e.g. the one in front) (Broich, 1929; Hess & Easton, 1960), and respond to stimulus provoked by their observable level of perception (Lord & Maher, 1991). Then, children in middle primary school become more sensitive to the leadership-followership relationship (Ayman-Nolley & Ayman, 2005; Selman et al., 1977), as they become more interested in the sociality of the game (Piaget, 1932) explaining the rise in socio-emotional features. Then, in late primary school, while they continue to show attention to socio-emotional ideas of leadership

(Ayman-Nolley & Ayman, 2005; Sacks, 2009; Selman et al., 1977; Yarrow & Campbell, 1963), they also turn to democratic leadership preference (White & Lippitt, 1960). However, the finding that humanitarian notions emerge during primary school is novel.

On the other hand, the present study has found that these developmental changes progress in a wave-like manner, which explains why different age children can present similar ideas of leaders. The developmental changes illustrated in Figure 9, show that same-age children often present equidimensional understanding of leadership, however, it also shows that an older child can show a similar dimensional understanding of leadership as a younger child, supporting Selman and Jaquette (1977) social-cognitive theories, or Sacks (2009) experience-based developmental vision which cause some children to escalate quicker, and others slower, across the development of the leadership construct. In the present sample, it can be seen that a child in early primary school, in Grade 1 can show humanitarian and environmentally-concerned notions of leadership as illustrated in Figure 9, Exhibit 4, and Exhibit 7, which are more frequent in children in Grade 6; and also, it shows that older children can still present physical/spatio-temporal notions, even though they are infrequent in this age group, as shown in Interview excerpt 2.

Exhibit 7

Child 120

Researcher: Why are these guys fighting? What are they fighting for?

Boy: So they can get their country back.

Researcher: Cool. What kind of country is it? Do you know? Or it can be any country?

Boy: Ethiopia.

Researcher: Ethiopia? Oh, okay. Why do you think it is Ethiopia?

Boy: Because it’s all dry and it has a lot of orange rocks.

Researcher: Right. Have you been there?

Boy: No.

Researcher: How do you know about it?

Boy: Because I've heard the name, and I know it’s a country. (Boy, Grade 1, 7Y/4M)

Interview excerpt 2

Child 209

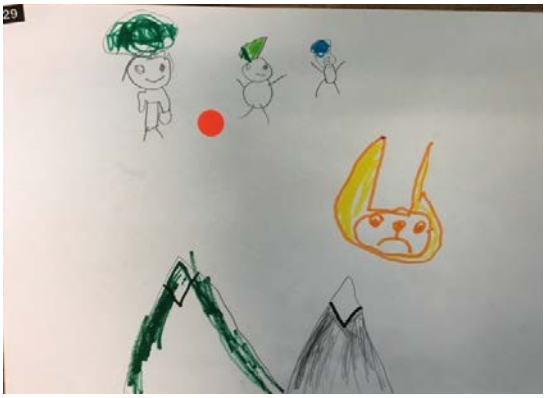
Researcher: What do you think is a leader?

Girl: I think a leader is someone that helps people to go places and tells them what direction and what place they need to go to. And they help you get to the destination that you need to go to, and they help you go ... Like they come and they help if you're lost or something. They lead you to where you need to go. (Girl, Grade 6, 11Y/5M)

Other equidimensional findings across age groups can be found in identical referents. For example, the narratives in Exhibit 8 by a six-year-old girl, and Exhibit 9 by a 12-year-old boy, show an identical referent to the leader as being the one 'with the big hat'. In this example, even though the 12 year-old boy provided diverse notations about the leader, the referent to 'the biggest hat' could have been an ILT developed in an early age, as can be found in the description by the six-year-old girl, and such ILT may have remained as a referent of a leader that is still accessible in an older age. This 'comeback' of physical perceptions align with Selman and Jaquette (1977) theories that, as children reach a new level of leadership understanding, they can always access perceptual structures stored in the prior stages as needed. However, longitudinal research would help determine if that is the case in the same individual.

Exhibit 8

Child 029

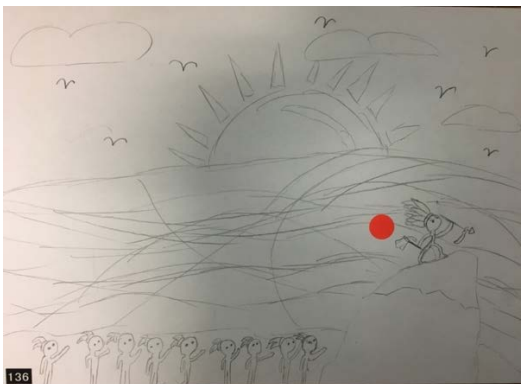


Researcher: Okay, so the first question is if you can please tell me what's happening in your drawing and who's there?

Girl: The leader. The leader have the big hat, and then the second leader have the medium hat, and then the little leader is have a little hat. (Girl, Prep, 6Y/1M)

Exhibit 9

Child 136



Researcher: Okay. And why do you think he's the leader?

Boy: Because he shows the brave courage as I draw him here. He's standing on the cliff, throwing the weapons to defend his people.

Researcher: Okay.

Boy: And he has the biggest hat out of all of them. (Boy, Grade 6, 12Y/2M)

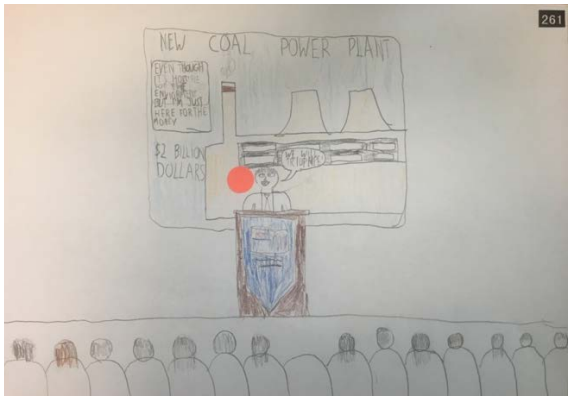
The behaviour found across the data in the dimensional analysis, which shows relaxed transitions across dimensions, and allows for equidimensional behaviour across grades, also explains why the previous literature consistently found discrepancies in the specific age when children shift from one dimension into another. As noted previously, several studies (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960; Okamura, 1968; Pigors, 1933; Sacks, 2009) found that children don't become knowledgeable of followership until they are 10 years old. On the other hand, Ayman-Nolley and Ayman (2005), Nemerowicz and Rosi (1997), Selman and Jaquette (1977), and Yarrow and Campbell (1963) found this shift earlier, at around eight years of age, when children can also have socio-emotional ideas of leadership regarding the relationship of the leader with followers. Furthermore, Oliveira (2016) proposed that even by eight years old, children already have moved from a physical notion of leadership into a task-based conception, and that by 10 years old, they already give importance to relationship-based attributes of leaders.

The present sample has found that these diverse turning points can be valid, since regardless of age, children in primary school can have a multi-dimensional understanding of a leader, which is founded on the functional dimension, and in the early years this functional notion is often combined with physical/spatio-temporal, then, in middle primary school it shifts towards more socio-emotional notions, and towards the end, without keeping focus on socio-emotional, humanitarian notions grow in content. So, consistent with the literature, and somehow in agreement with both age-

dependent and social-cognitive dependent theories, and keeping the functional understanding as a baseline, children's dimensional development departs from real, practical notions, that expand to relational, and by the end, tend to include sociocentric ideas.

Exhibit 10

Child 261



Boy: It's sort of like a leader of a country saying that the coal power plant, that even though he doesn't really need it and he's not really thinking about the future. So, what is going to happen to the environment and the well-being of the people and everyone in their country. And then he is saying that he is going to make the country better by doing it.

Researcher: What does it say here?

Boy: We will triumph.

Researcher: And what's this amount?

Boy: Two billion dollars, that's what he is spending on the coal power plant even though it's not going to do that much.

Researcher: And he's aware of that?

Boy: Yeah.

Researcher: He's aware that it's going to be bad for the environment and he still wants to do it because of the...

Boy: Because of money and everything. (Boy, Grade 5, 11Y/4M)

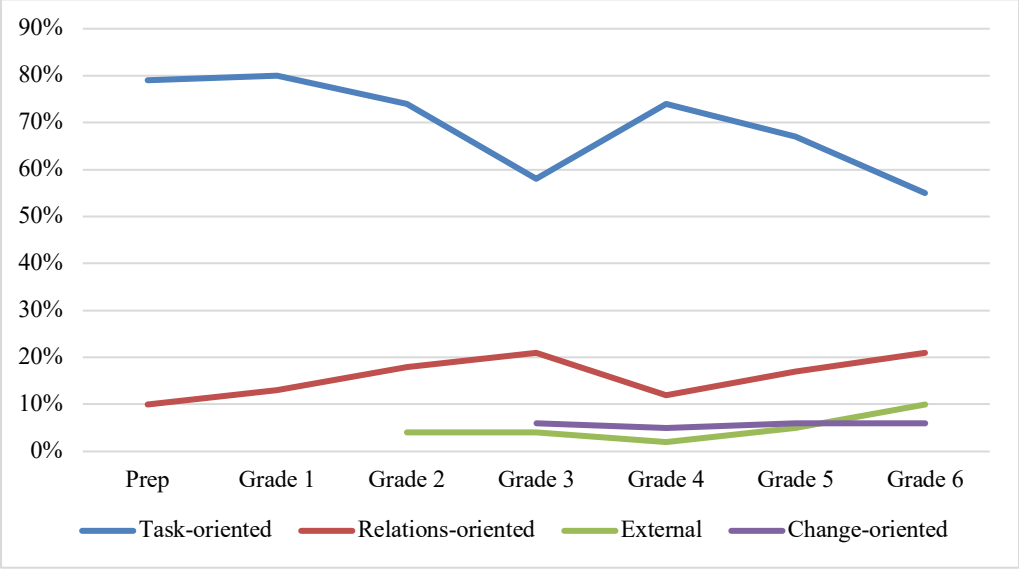
5.1.2 Children's ILTs studies developmental clues. Looking specifically at children's ILTs theory, Ayman-Nolley and Ayman (2005) and colleagues have consistently reported that children's ILTs are not dependent on age progression, specifically in terms of orientation and social role content (Ayman-Nolley & Ayman, 2005). Orientation is understood in children ILTs theory, as task-oriented, level-of-involvement-oriented, or relationship-oriented perceptions of a leader's behaviour. On the other hand, the authors have noted that, regardless of age, the social roles associated with leaders are held within four main categories of role prototypes (generic person, military, entertainment, and child) (Ayman-Nolley & Ayman, 2005). Both of these arenas have been found to be non-age-dependent in previous ILT literature. Nevertheless, Ayman-Nolley and Ayman (2005) and colleagues children's ILT theory has provided important clues, by exploring the content of children's ILTs, that guide further developmental investigation. For example, the authors have pointed out that, as children grow older, they tend to report more socially recognised leaders such as celebrities or famous people. Also, that younger children and older children show more positive notions of leaders, while children in middle primary school show more negative or sceptical views. Subsequently, Ayman-Nolley and Ayman (2005) suggest there could be a developmental trend of ILTs across age, that could be more often a U-shaped relationship between grade and ILT, or J-shaped in variation across grades (Ayman-Nolley & Ayman, 2005). This means that, in primary school, younger children's ILTs are similar to the oldest children's ILTs and not so much to the ILTs of

children in middle primary school. Here, we discuss these developmental clues, in light of results observed in the present study.

Orientation development. Ayman-Nolley and Ayman (2005) found that children can present functional task-oriented or relationship oriented notions of leaders. However, the authors did not report an age-trend. Additionally, DeHaan (1962) found that around middle primary school, children begin to discriminate between the leader's task and maintenance roles, as they become aware of the group's dynamic. Task-oriented activities include the leaders' competences and actions, done or undertaken, negative and positive (Ayman-Nolley & Ayman, 2005). They also include actions where the leader clarifies, plans, monitors, or solves problems (Yukl, 2012). Maintenance-oriented include actions that focus on the leader's dynamics with others, including communicating, and caring (Ayman-Nolley & Ayman, 2005), and also, supporting, developing, recognising, or empowering others (Yukl, 2012).

Figure 10

Progression of percentages within each category across grades



*Note: This figure shows the progression of categories of actions of the leader (n=512) based on percentages of frequency across grades. Data obtained from drawings narratives (n= 272), and interview answers to *Q What is a leader?* (n= 250).

The results, as illustrated in Figure 10, and in further detail in Appendix E, show evidence that, in agreement with Ayman-Nolley and Ayman (2005), children's functional notions can be task and maintenance oriented across all grades, and opposing DeHaan (1962) study, children in early primary school can acknowledge the leader's maintenance role within a group by looking after the group, helping the group, or trying to make everybody happy, as exemplified in Exhibit 11.

Exhibit 11

Child 087

Researcher: So, the first question is if you can please tell me what's your drawing about? What did you draw?

Girl: Well, because ... I'm drawing a leader. And leaders make me happy…Well, a leader, when there's a parade, and there's people following her, and she's carrying a spatula, and she's trying to make everybody happy (Girl, Prep, 5Y/10M)

Additionally, the results in Figure 10 show that there is a tendency across ages, where task-oriented notions tend to decrease, and relation-oriented ideas tend to increase as children grow older, with the exception of Grade 4, which may be due to the fact that this grade comprised a smaller sample. Furthermore, it has been discovered that, from middle primary school, children's functional perception of a leader can also be change oriented, and external. Change-oriented notions are those where the leader focuses on change, for example, advocating, envisioning a transformation, or noting aspects of innovation (Yukl, 2012). External notions are when the leader is networking Yukl (2012) by either giving a speech, talking on a podium, or a stage, as detailed in

Appendix E. Conclusively, children's functional orientations in their ideas of leaders in early primary school are mostly task-oriented, but also can be relational-oriented. Then in middle primary school, relations-oriented increases, while change-oriented and external notions emerge. Then, in late primary school, children show a further inclination for relation-oriented notions, and a continued decrease towards task-oriented notions. In this age group, external notions of the leader's functionality also increase and change-oriented are similar to children in middle primary school.

Exhibit 12

Child 198

Researcher: Awesome. Okay, so who's there, and what's happening?

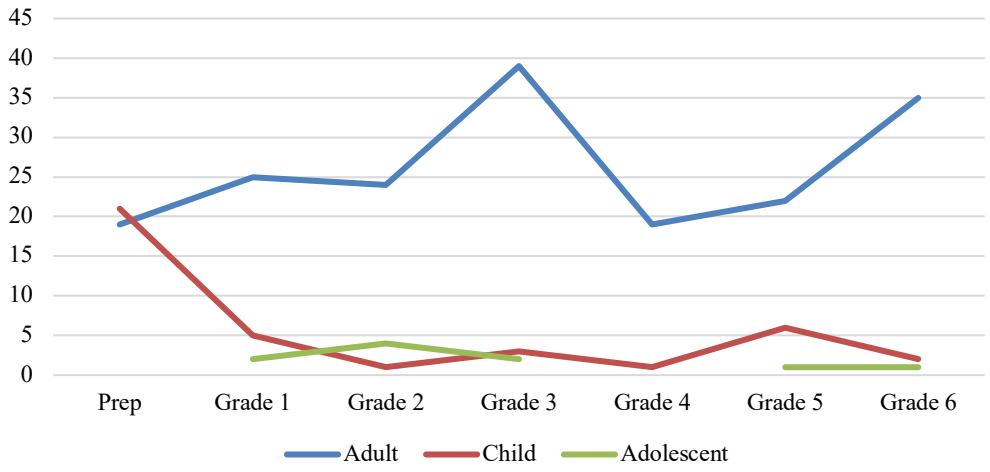
Girl: This person you'll describe as a leader, like, they're in charge of this campaign, they're striving to make people vote, and they're like giving reasons why they should vote for this point. (Girl, Grade 6, 12Y/2M)

Social role development. The previous section reinforces evidence pointing towards developmental trends across three key point in time, early, middle, and late primary school, as found in children's perception of leaders' literature. Previous children's ILTs studies (Ayman-Nolley & Ayman, 2005; Liu et al., 2012; Oliveira, 2016) have found that children assign leadership roles to members from their context, and that such roles can be grouped within categories, for example, parent, teacher, politician, or military leader. Additionally, children's ILTs theory has pointed out that, as children grow older, they tend to report more socially recognised leaders such as celebrities or famous people. However, the authors have also found that, regardless of age, the social roles associated with leaders are held within similar prototypes (Ayman-Nolley & Ayman, 2005). To explore further children's ideas of social roles, the present study firstly investigated whether children associated a leader with an adult, a child, or an adolescent, and if this would change with age progression.

Life stage. The results, as illustrated in Figure 11, show that overall, children associate a leader more often with an adult (79% of the drawings), occasionally with a child (19%), and rarely with an adolescent (4%). However, this preference is age-related, as illustrated in Figure 11 and in further detail in Appendix F, where most of the child leaders are found in the youngest children, who depict a child leader as often as an adult leader. From Grade 1 onwards, children shift to depict most often adults, and this trend continues increasing into the higher grades. This suggests that children in the foundation year, think that a leader can either be a child or an adult, however, this tendency reduces significantly in children in higher grades.

Figure 11

Number of drawings made by children per grade that depicted an adult leader, a child leader, and an adolescent leader



*Note: This figure shows the distribution of number of drawings of adult leaders vs number of drawings of child leaders vs number of drawings of adolescent leaders across children's grade (n=233).

The overall prevalence of adult leaders is consistent with Sacks (2009) findings that children's perception of leadership is linked to the adult which, according to Selman et al. (1977), is due to children's ILTs reliance on physical power. However, in these theories, this preference is found in the younger children, in early primary school (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960; Lord & Maher, 1991). Then, as children reach middle primary school, and become interested in either taking on, or granting a leadership role (Pigors, 1933; Schyns et al., 2011), they have been found to incorporate more child or adolescent leader referents (Nemerowicz & Rosi, 1997). However, as depicted in Figure 11 and detailed in Appendix F, the results from the

present sample are opposite to these studies. Here, the youngest children are the ones that are naming a child leader as often as an adult leader, while the older groups mostly name adults as leaders.

Exhibit 13

Child 145

Researcher: Right. But why do you think she's the leader and not this one?

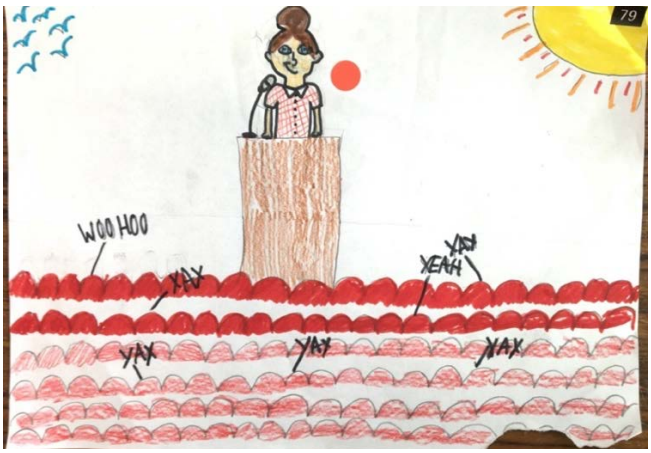
Girl: Because if this one's second, this one's third and this one's fourth. These aren't the line leaders. This one is. (Girl, Prep, 6Y/3M)

Further investigation shows that most of the children that drew a child, drew a 'line leader', as illustrated ahead, in Figure 17, and in further detail in Appendix F. The line leader is a classroom role that is assigned by the teacher at school, and the child's responsibility is to stand in front of the line and walk their group from one place to another. This assigned role is perhaps, one of the first experiences of leadership that children encounter in early childhood, outside of play referents, and becomes a prototype for this particular sample, where children in Grade 5 still use it as denotatum for a child leader. On the other hand, the children in late primary school who depicted a

child leader, referred to school children, including schoolgirl, school child, or schoolboy. Also, school captain, though no line leader referents were found in Grade 6, as illustrated in Appendix F. This is consistent with Sacks (2009) who reported children in this older age group show an interest in having a voice in the school setting, hence, depicting child leadership roles in the school.

Exhibit 14

Child 079



Girl: The leader is a school captain. So, it is like a role model for all the people in the school. (Girl, Grade 5, 10Y/4M)

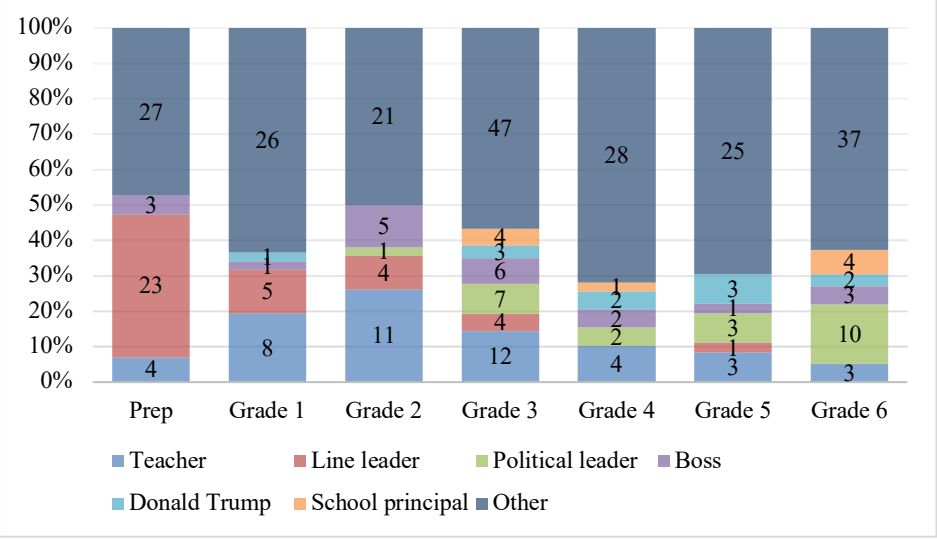
Subsequently, by looking at the leader's life stage frequency, theories of experience-related development take a centre stage in the understanding of the development of ILTs where children escalate their understanding as they witness or exercise leadership themselves (Sacks, 2009; Salmond & Fleshman, 2010). Specifically, the child roles assigned to leaders (line leader, and later school captain) exemplify the impact of the school context on children's early ideas of leaders, as noted by (Sacks, 2009) experience-based theories of leadership development. These results also help

illustrate why pre-adolescent children associate their first leadership memories with a responsibility task assigned by the teacher (Sacks, 2009).

Social role. The analysis of social role content in the present study gathered from the content in the drawings and answers to the interview questions *Q What is a leader?* found that children associate a wide variety of roles to a leader, in total 168 different role descriptors were obtained (see Appendix G). This wide variety had been reported previously by DeHaan (1962). By looking in more detail at the behaviour of the highest frequent roles assigned across grades, it can be observed, as illustrated in Figure 12, that, besides the early presence of the line leader stereotype, there are developmental variations in role preferences across grades.

Figure 12

Distribution of roles with highest frequency assigned to a leader across grade

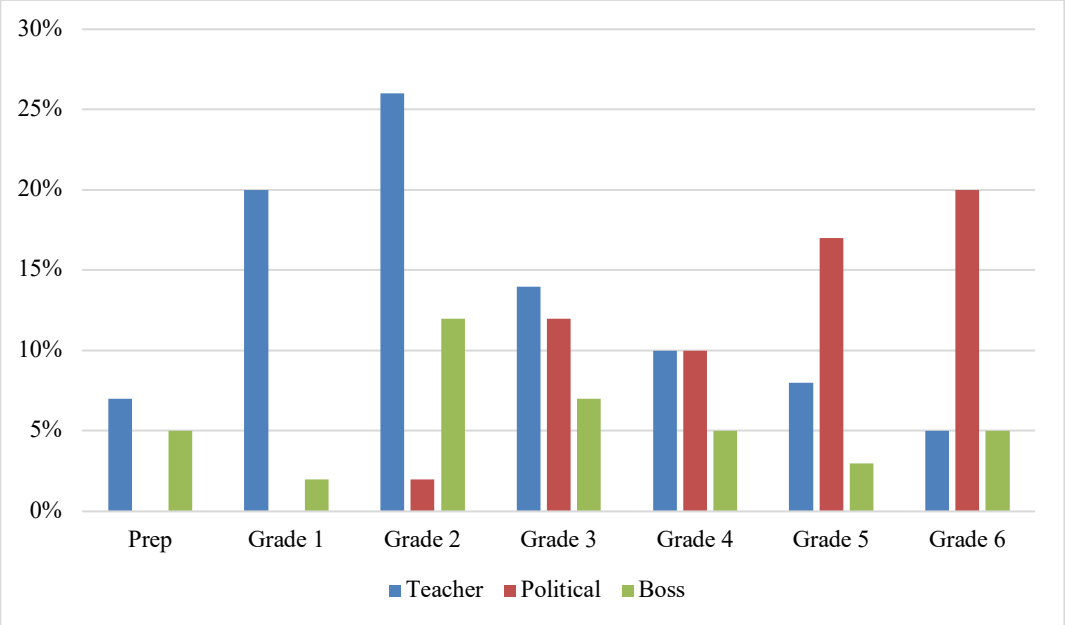


*Note: This figure is based on n=356 mentions of a human role assigned to a leader across grades, showing the six highest frequent assigned roles to a leader, in children's own words, across the sample.

For example, even though teacher has been found to be a consistent referent of leader across childhood (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Čater et al., 2013; Liu et al., 2012), in the present sample its frequency tends to grow in middle primary school and decrease towards late primary school, as illustrated in Figure 13. On the other hand, political leader appears towards middle primary school and grows into late primary school.

Figure 13

Comparison of frequency of teacher referent vs political leader vs boss



*Note: This figure is based on n=356 mentions of a human role assigned to a leader across grades, showing the six highest frequent assigned roles to a leader across the sample. Political leader included notations of exemplar Donald Trump.

Boss is also a referent found across all grades with no clear tendency of positive or negative growth. This role, which Sacks (2009) reported to be a synonym of leader in her study with preadolescents, is not often found in the literature. DeHaan (1962) roughly reported the role *boss* in his qualitative notes on children's perceptions of leaders in Grade 6, however, it was not found as a recognised leadership role in other children's ILTs studies. In this study, boss appears as a role attributed to the exercise of control or authority.

Exhibit 15

Child 255

Researcher: If you can please talk to me about your drawing? What is your drawing?

Girl: Because she's the boss I was going to draw … some ladies behind her for the boss but I know what a boss is, and I tried to draw it and I can't draw the picture of it.

Researcher: What does it mean to be a boss leader?

Girl: It's like you are a boss and you can tell people what to do.

Researcher: Okay and where is she standing?

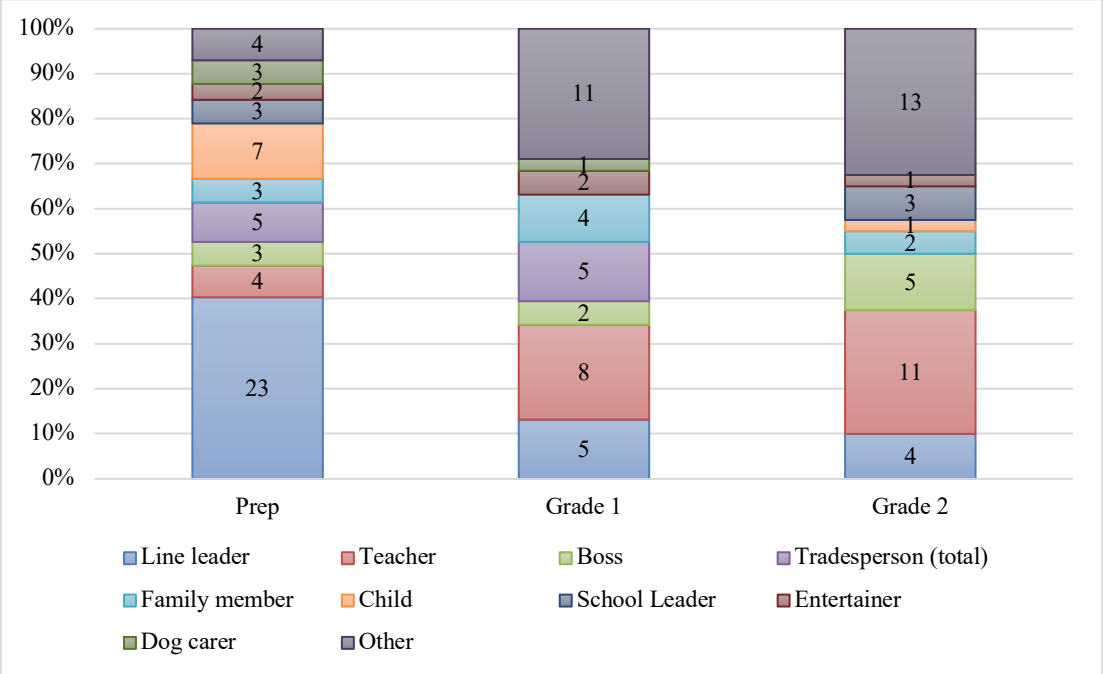
Girl: The beach. She's lying on the beach mat. She's like, I'm doing, relaxing and she's demanding to be just by herself and relaxing. And she's feeling relax. (Girl, Prep, 5Y/10M)

Exploring the social role content across the three key points in time (early, middle, and late primary school), consistent with the literature, and observed in the dimensional and orientation analysis, can provide further evidence across developmental progression. To determine categories within human roles guided by thematic similitude, the data was combined into social role categories as illustrated in Appendix H. Humanised fictional characters were also included, as they were found to provide clues, which will be presented further ahead, on influences on the development of children's ILTs from a social role point of view.

Early primary school. When looking at early primary school, as illustrated in Figure 14, besides youngest children being highly sensitive to the line leader social role, and consistent with previous theory (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960; Lord & Maher, 1991), by Grade 1, they shift to think that leaders are most often adults and this trend continues increasing into the higher grades.

Figure 14

Social role frequency in early primary school



*Note: This figure shows the social roles assigned to a leader in 135 notations in drawings narratives and Q1 answer to What is a leader? in children in Prep, Grade 1, and Grade 2.

The evidence here is that, besides the line leader, early primary school children assigned leadership roles to teachers, tradespersons, family members, and also to dog walkers, or carers, as shown in Figure 14. These are adult figures who they interact in their everyday life in their family, school, or community environment. The mentions of tradespersons in this age group is due to their parents' jobs (as confirmed in their drawing narratives). This is consistent with previous findings where the younger children reference more often roles from their immediate context (DeHaan, 1962; Palich

& Hom, 1992). These variations are sometimes gender-dependent, as illustrated in Appendix H, where the youngest children see a male leader more often as a tradesperson, guided by their father's jobs, and a female leader more often as a child, followed by teacher, mom, and sister.

Exhibit 16

Child 193

Researcher: Who lives in that house?

Boy: The builder.

Researcher: Who is it?

Boy: My dad.

Researcher: Oh. Great. Awesome. And what is he doing at the moment in your drawing?

Boy: He's building a house for us.

Researcher: For you. Aw, that's awesome. Cool. And so that's ... What's this in his face? This part?

Boy: Happy.

Researcher: Happy. Why is he happy?

Boy: Because he's building. And he gets money. And you build things for mama. (Boy, Prep, 5Y/7M)

These preferences start to change during Grade 1. Consistent with research on political socialisation (Hess & Easton, 1960; Okamura, 1968) and social-cognition theories (Selman et al., 1977), at around seven years old, in Grade 1 and 2, as illustrated previously in Figure 12, children start to associate leaders with roles from wider social spheres. In congruence, a girl in Grade 1, was the first to note a political exemplar, Donald Trump, as illustrated in Exhibit 17. Here, the girl is making reference to the particular situation covered by the media back in July 2018, at the time of data gathering, when President Trump walked in front of Queen Elizabeth II and did not bow to her. When asked how did she find about it, she replied “I've watched videos, and my Dad tells me” (Girl 108, Grade 1, 7Y/2M). This case provides evidence that media content and her father, are influencing her idea of leader.

Exhibit 17

Child 108

Researcher: The first question is if you can please tell me all about your drawing.

Girl:	There's a prime minister, and he's the leader. He's discussing with the ... girls and boys about something. They discussed something that he did to the queen.
Researcher:	What has been done, do you know?
Girl:	He pushed, and we know he pushed the queen in the pool. Donald Trump.
Researcher:	Why would he do that?
Girl:	I have no idea. Maybe he's dumb. And there's something else. He walked in front of the queen.
Researcher:	And what are these things here? What is he saying? What are ... can you read it out?
Girl:	“No, no, no, no, no”
Researcher:	Why is he saying, "No, no, no, no, no"?
Girl:	Because they said he did bad stuff to the queen. He said and they said, "You're dumb” (Girl, Grade 1, 7Y/2M)

Other figures from sports and entertainment were also noted in this group, including sports figure Ronaldo, and fictional character Darth Vader, as illustrated in Exhibit 18. This indicates both exposure to, and influence of sport and movie entertainment environments in their ideas of leader. The emergence of these specific person/or fictional characters during this time, or as Lord et al. (2020) define it, exemplars that most resemble the leadership category, can be explained by theories of political socialisation where at around seven years old, children start to associate socially recognised exemplars to leaders (Hess & Easton, 1960; Okamura, 1968). The evidence in the present study shows that this principle, can be expanded to other contexts such as sports, or entertainment.

Exhibit 18

Child 044

Researcher:	So, the first question is if you could please talk to me about your drawing. What did you draw?
Child:	I drew something from Star Wars, and it has um some people in it and…
Researcher:	Yeah, it's cool, alright. So do you know who's this guy?
Child:	Darth Vader.
Researcher:	And you made him the leader?
Child:	Mm-hmm.
Researcher:	Why did you make him the leader?
Child:	Because, he's just the leader in Star Wars. (Boy, Grade 1, 6Y/1M)

Middle primary school. Children in middle primary school most often think a leader is an adult. Political referents are driving a quarter of children's ideas during this time (27 notations= 22%), pointing towards a continuum in growth of political leadership awareness during middle primary school consistent with theories on political socialisation (Hess & Easton, 1960; Okamura, 1968) and in alignment with

Nemerowicz and Rosi (1997) findings. Furthermore, consistent with Sacks (2009) who reported ten-year-old children naming more often celebrities or famous leaders, than any other groups, this continuum extends to other contexts including sports, religious, and entertainment contexts. Subsequently, as detailed in Figure 15, and in further detail in Appendix H, the data shows that, when compared to the other groups, this group offers the most varied content of leader roles, as well as exemplars, across contexts. In other words, this group is including more leaders from more contexts than any other group, including from the political, royalty, entertainment, military, and sports spheres. Additionally, consistent with Ayman-Nolley and Ayman (2005) children in middle grades of primary school, draw more followers than any other group (see Appendix U).

Exhibit 19

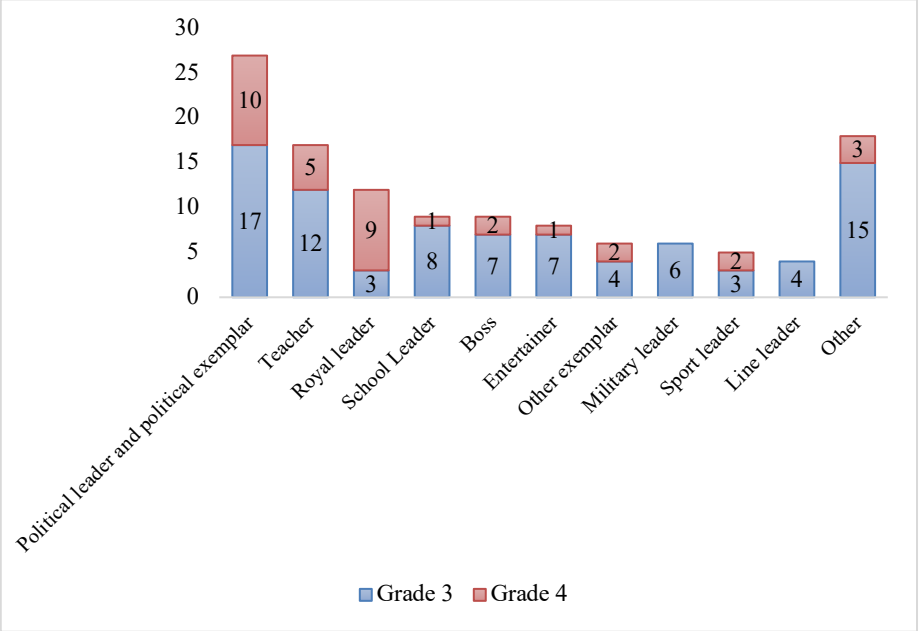
Child 160

Researcher: Okay, so the first question is if you can please describe your drawing to me?

Boy: Well, it's just a couple of, a burger that's leading all the burgers and the burgers are voting for the leader burger... (Boy, Grade 3, 9Y/0M)

Figure 15

Social role frequency in middle primary school



*Note: This figure shows the social roles assigned to a leader in 121 notations in drawings narratives and Q1 answer to *What is a leader?* in children in Grade 3 and Grade 4.

Additionally, contrary to children in early primary school, the assigned roles from these 'wider' contexts (political, sports, religious, and entertainment) are more frequent than those from their most 'proximal' (family, school, or friends) (DeHaan, 1962; Palich & Hom, 1992). Family roles show the lowest content in comparison to early and late primary school children, with only one child in this age group naming a family leader role. This means that children in this age group recognise wider social structures beyond their family, school, and friends, and models from these structures

highly impact the social role development of children's leadership construct during this time.

Consistent with theories that during this time children are more prone to depicting socially recognised or stereotypical images of leaders (Ayman-Nolley & Ayman, 2005), this group denoted the most diverse list of exemplars, including Australian and international political figures led in frequency by referent Donald Trump, followed by Queen Elizabeth, Malcolm Turnbull, and Kim Jong-un, as shown in Appendix I. Other figures included Australian sports figure Jarryd Roughead, religious figures Jesus and God, and entertainment or Internet fiction characters such as Raining Tacos, Burger (Fortnite), and movie character Black Panther, adding to eleven in total, while in early primary there were three, and in late, eight different exemplars.

Exhibit 20
Child 042

Girl: When I heard the leader, I thought well the movie Black Panther, and Black Panther's the leader. And I thought of doing the village.

Researcher: Mm-hmm (affirmative). I haven't watched the film, so can you tell me what is this leader like?

Girl: He sometimes goes to other places and he does missions.

Researcher: And what are these, these are?

Girl: These are the people in the place. (Girl, Grade 3, 8Y/4M)

This apparent heightened perceptual time, expressed through the increased variety of models and contexts from where children are obtaining social role referents, has also been explained by a social awareness developmental landmark of amplified sensitivity to media and famous referents in their understanding of leadership (Ayman-Nolley & Ayman, 2005; Nemerowicz & Rosi, 1997; Sacks, 2009; Selman et al., 1977). Another explanation can be, that as children grow older, with more exposure to media and contexts such as sports, entertainment, political, or religious, they refer to more recognised exemplars from these social circles (Ayman-Nolley & Ayman, 2005; Hess & Easton, 1960; Massey, 1975; Okamura, 1968; Oliveira, 2016). Or perhaps, they develop during this time an interest in other sources of information.

Interview excerpt 3

Child 211

Researcher: How do you find out about this leader [Australian political leader]?

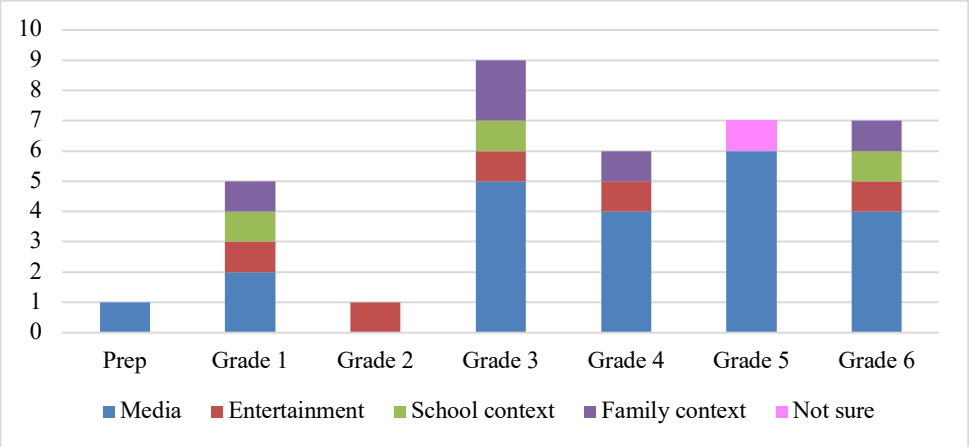
Boy: From my dad because he listens to a radio station. There was a lot of news about like what's going on in the ACT. (Boy, Grade 3, 8Y/8M)

As illustrated in Figure 16 and in further detail in Appendix J, when children were asked to point out where they found out about an exemplar, children in Grade 3 were the ones that reported more sources than any other group, and more than half of

the times, these were media referents such as TV, news, newspaper, radio, Internet, magazines, Google, and gossip.

Figure 16

Children's answer to the question where did you find out about this leader?



*Note: This figure shows the source of information reported by 36 children who noted an exemplar in their answers across grades.

Additionally, even though family referents are low in this age group, there is evidence of family influence (including conversations with parents, as well as parents' work environments), and also influence from the school context (class content, and friends), and entertainment (movies, sports, videogames) in the obtention of new leader models, as illustrated in further detail in Appendix J.

Interview excerpt 4

Child 059

Boy: My dad's boss. She's taking care of her job and the place she works at.

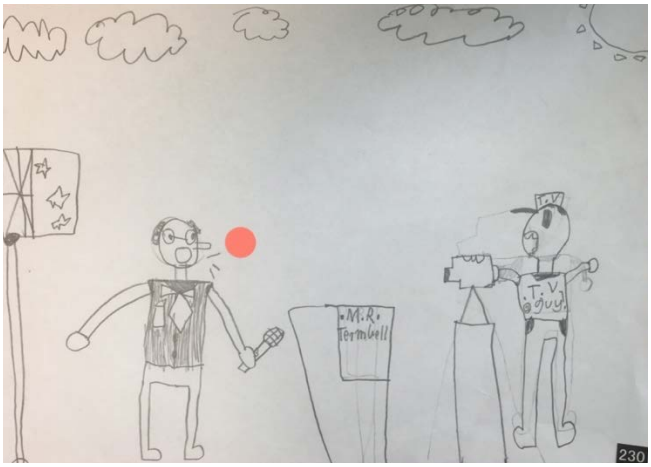
Researcher: And how can you tell that she takes good care?

Boy:	Well nothing is, there are a lot of people who are happy working there, and there's nothing that ... she's usually very happy.
Researcher:	Oh excellent. Alright. Do you see her often?
Boy:	Yeah, when I go to my dad's work, yeah. (Boy, Grade 4, 9Y/7M)

These exploratory findings show that, from this time onwards, children are absorbing information from new and more environments, mostly technologically driven, which are part of current home environments. During this time, social-role wise, children show high political content, while at the same time assign leadership status to teacher, and occasionally to child or adolescent leaders, such as school leader or captain (Nemerowicz & Rosi, 1997). Social role content during this time is influenced by gender-associated tendencies as illustrated in Appendix H, where children associate a male leader with a political figure half of the times, and female leaders are associated with either teacher, entertainer, or queen more than half of the times. Additionally, notions of military and sport leaders are also noted in this age group, mostly in boys, consistent with children's ILTs studies (Ayman-Nolley & Ayman, 2005).

Exhibit 21

Child 230



Researcher: So, the first question is if you could please describe your drawing to me?

Speaker 2: Yeah, I guess it's, Malcolm Turnbull speaking about something that prime ministers talk about like the world and what they can change and stuff.

Researcher: Mm-hmm (affirmative)-

Speaker 2: And helping funds and schools and hospitals and stuff.

Researcher: Yeah, cool. Excellent. And he is talking about it? And then what else is happening?

Speaker 2: The TV person tried filming him so that everyone can see it on the news. (Boy, Grade 3, 8Y/8M)

Exhibit 22

Child 195

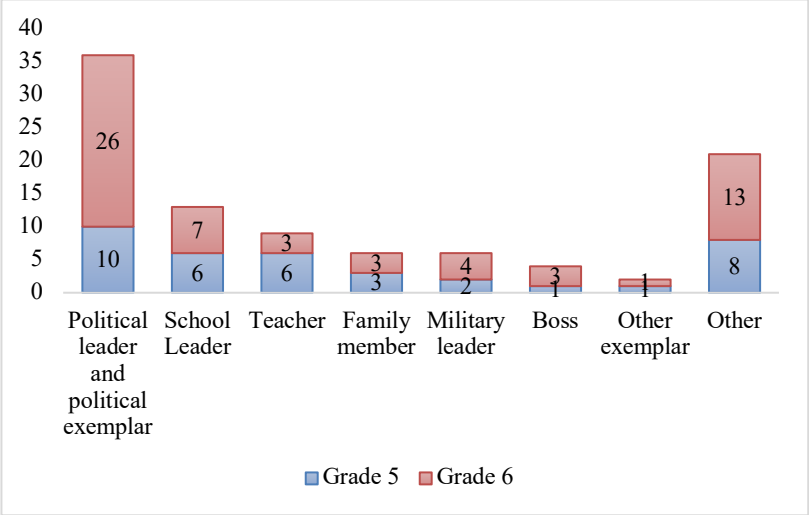
Boy: It's like a teacher. Those are the students. Like he's telling them to go into the classroom. (Boy, Grade 3, 9Y/5M)

Late primary school. Similar to children in middle primary school, older children think a leader is more often an adult. During this time, children show an even higher sensitivity towards political referents than the one found in middle primary school. Generic political leaders combined with political exemplars (highest frequent is Donald Trump followed by Kim Jong-un, and followed by Kevin Rudd, Barack Obama, Queen Elizabeth, and Nelson Mandela), are the highest frequent roles in this group, as illustrated in Figure 17, and also, when compared to the other groups (See Appendix H). Exemplars during this time are more often gathered from the political context. Additionally, referents from sports or religious contexts were absent, as detailed in Appendix I. All political exemplars were male, except for the Queen, and 61% of the male leaders noted by this group, were of a political personality. Also, humanised fictional characters decrease significantly during this time, so when in middle primary

school children choose a humanised fictional character five times, in late primary school only one child chooses it. Ayman-Nolley and Ayman (2005) reported in their US studies a similar tendency, though inclusive of political exemplars, however in the present sample, children's depictions of political exemplars grow, while the other exemplars decrease.

Figure 17

Social role frequency in late primary school



*Note: This figure shows the social roles assigned to a leader in 97 notations in drawings narratives and Q1 answer to *What is a leader?* in children in Grade 5 and Grade 6

Exhibit 23

Child 099

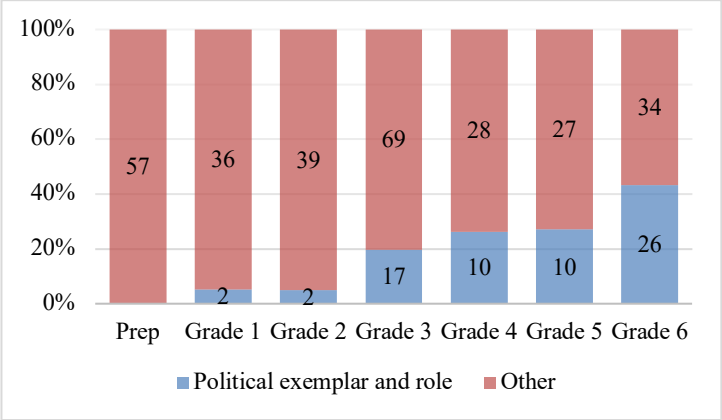
Researcher: Do you know why you thought about the Queen as the leader?

Boy: Well, just because the Queen is a higher ranking than everybody else who lives in that country. (Boy, Grade 5, 10Y/5M)

When adding exemplars (e.g. Barack Obama, or Malcolm Turnbull) to general political figures (e.g. Prime Minister, President) and exploring the data across grades, as shown in Figure 18, results further illustrate political influence over leadership perception in children, where from middle primary school and onwards, children increasingly name political figures more often than younger children (Hess & Easton, 1960; Nemerowicz & Rosi, 1997; Okamura, 1968). The evidence marks a continuum growth in political content across social-role development during primary school.

Figure 18

Frequency of political referents (general and exemplars) assigned to a leader across grades



*Note: This figure is based on n=356 mentions of a human role assigned to a leader across grades, showing the frequency of leadership roles assigned to a political figure (general and exemplar) across the sample.

This tendency can be explained by exploratory evidence found in children's answers about how they found out about a particular political figure. As shown in Figure 16, media continues to be the main source of information for leader referents, while no entertainment sources were cited during this time. From nine interviews, most of the answers (five), referred to the news (political referents), two to Google (political referents), one to class at school (Nelson Mandela), one through gossip, (Donald Trump), and one through the TV show BTN[3] (Prime Minister). For further detail, see Appendix J.

[3] *Behind the News* (more commonly known as *BTN*) is an educational news program aimed at 10-13-year-old kids broadcasted online by the Australian Broadcasting Corporation (ABC).

Interview excerpt 5

Child 037

Researcher: Right. Cool. How did you know about him [Australian politician]?

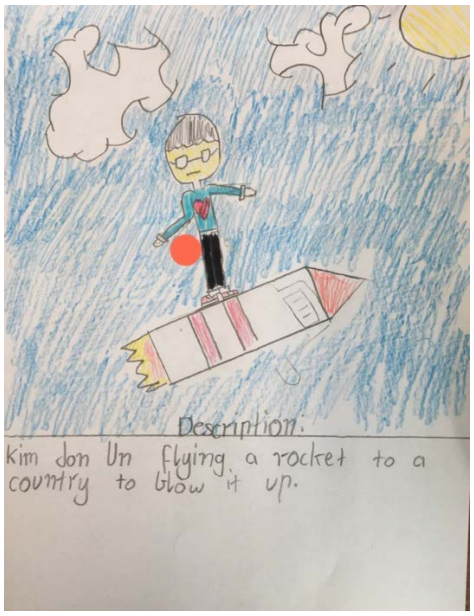
Boy: On the news.

Researcher: Okay. So you watch the news?

Boy: My parents watch it, so I have to watch it. (Boy, Grade 5, 11Y/2M)

Exhibit 24

Child 241



Boy: So basically what it is, is it's Kim Jong-un. So he's flying a rocket to a different country, maybe America. I don't know. And then it's going to go ... and then he's like ... There's going to be a boat underneath then he jumps off and the rocket's going to fly and then the Americans are going to [explosion sound]... So ...

Researcher: …Okay. And how do you find out? How do you follow?

Boy: It's on the news or the newspaper.

Researcher: Yeah. So you check news and newspaper?

Boy: Yeah. I like watching the news. It's nice.

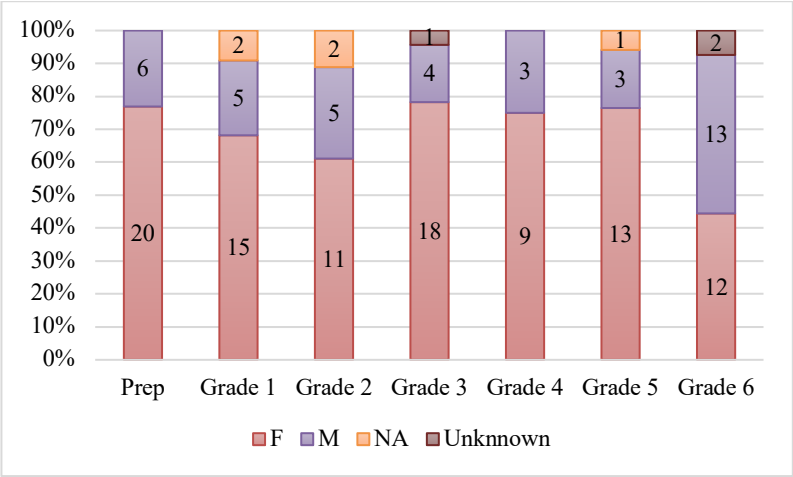
Researcher: Do you watch them during night-time or in the daytime?

Boy: More so later in the afternoon. (Boy, Grade 6, 11Y/5M)

Subsequently, increased exposure to, or interest in media content causes an augmentation in political figures and political exemplars, which may have an impact on gender preference of leaders in girls in the final grade. The evidence shows that preference for female leaders diminishes significantly in the last year, as illustrated in Figure 19. So, while up until Grade 5 girls noted a high preference for female leaders, in average 73%, the older girls in Grade 6 are the only ones who didn't choose a female leader more often than male, only 44% of the times, so choosing a male leader slightly as often as a female leader.

Figure 19

Girls' gender preference in their drawings across grades



*Note: This figure shows the number of drawings by girls (n=145) and the gender assigned to the leader across grades.

Comparing the social roles noted by the oldest girls across the leader's gender both in girls in Grade 5 and 6, shows that while in Grade 5 they chose female leaders over male leaders overall, and the female leaders they chose were mostly from a school context (e.g. teacher, or school captain), as illustrated in Table 9, girls in Grade 6 chose more often male leaders who were political leaders, or male exemplars such as Donald Trump and Kevin Rudd, as shown in Table 10.

Table 9

Girls roles assigned to a leader's gender in Grade 5

Male	
Army leader	1
Donald Trump	1
Parade leader	1
Total	3
Female	
School girl	3
Teacher	3
Teacher (dance)	1
Teacher (surf)	1
Teenager school leader	1
Mother	1
Parade leader	1
Political leader	1
School captain	1
Total	13

*Note: This table shows the roles assigned to a leader's gender in Grade 5 in n=16 drawing narratives.

Table 10

Girls roles assigned to a leader's gender in Grade 6

Male	
Political leader	5
Donald Trump	2
School Principal	2
Aboriginal leader	1
Kevin Rudd	1
Office boss	1
Teacher	1
Total	13
Female	
Political leader	3
Army leader	1
Mother	1
Museum guide	1
Paramedic	1
Parents	1
Police Officer	1
School girl	1
Self	1
Teacher	1
Total	12

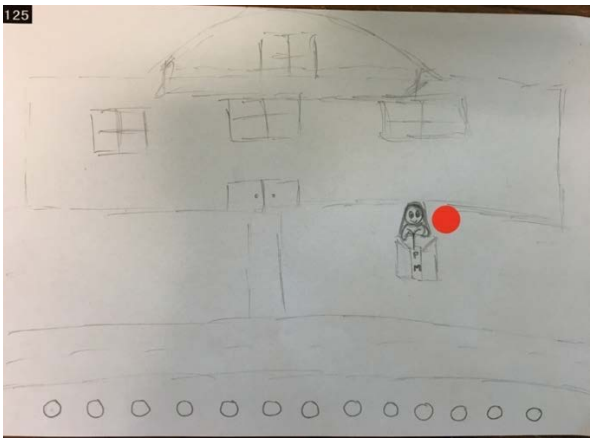
*Note: This table shows the roles assigned to a leader's gender in Grade 5 in n=16 drawing narratives.

So, a high rise in preference for politicians in older children, noted by children progressively assigning a leadership role to a political representative, can become dependent on the agents 'on offer' at the time, and who have more visibility in the public sphere thanks to media coverage. And because political representatives are often male, due to the low representation of women in political spheres, 21 out of 193

countries have a female head of state or government (Volgelstein & Bro, 2020), girls then show a shift in gender preference towards the end of schooling. This tendency in older girls had not been reported in previous children's ILTs studies and may be distinctive to the Australian sample. Further research in other populations would be needed. Though, in connection, Oliveira (2016) found that younger children, regardless of gender, have a higher tendency to nominate a female leader than older children, however, the present study didn't find such tendency in boys, as shown in Appendix K.

Exhibit 25

Girl 125



Researcher: Can you talk to me about your leader like more in detail?

Girl: So the leader is like the Prime Minister, so they make the huge decisions of Australia and she's talking about election and the upcoming election that I've heard about on the news. Yeah, so she's talking about why she wants people, she wants to stay in the government, stay Prime Minister, to get people to vote for her.

Researcher: Cool. Can I ask you why did you pick to do a woman Prime Minister?

Girl: Because there's only been one woman having this and the rest have all been men, so I thought well it's actually not kind of fair that men get all the Prime Minister jobs, so I was going to do a man but then I'm like no, it's if we've just done women equality so we'll do a woman. (Girl, Grade 6, 11Y/6M)

Children's tendency to associate a leader with a particular exemplar from middle primary school, has been found across ILTs literature. For example, in Philippines, where the study was conducted in Catholic schools, Jesus was the most frequently cited leader of the children (39.2% in the first phase and 25.7% in the second phase) (Oliveira, 2016), in the US during early 2000s, Martin Luther King was the second highest frequent category (13.7%) (Ayman-Nolley & Ayman, 2005), and in China, Chairmen Mao was the most cited exemplar (5.8%) (Liu et al., 2012). In conjunction, in the present study, the political context is providing the largest amount of leader exemplars (25 mentions) over religious, sport, or entertainment referents (two mentions each). Topping the list is Donald Trump with 11 mentions, which is 7% over the overall 168 social roles named. In this sense, Australian children show less tendency to the influence of a particular exemplar when compared to the studies in Philippines and US. Even though officially, Donald Trump's ruling power is beyond the Australian people, his existence impacts 7% of Australian children's ideas of a leader in July 2018, which can be compared to the influence of Chairmen Mao (5.8%) in Chinese children in 2012. These figures show that specific exemplars can present stronger or weaker power of influence over the content of children's ILTs in different settings.

Exhibit 26

Child 096

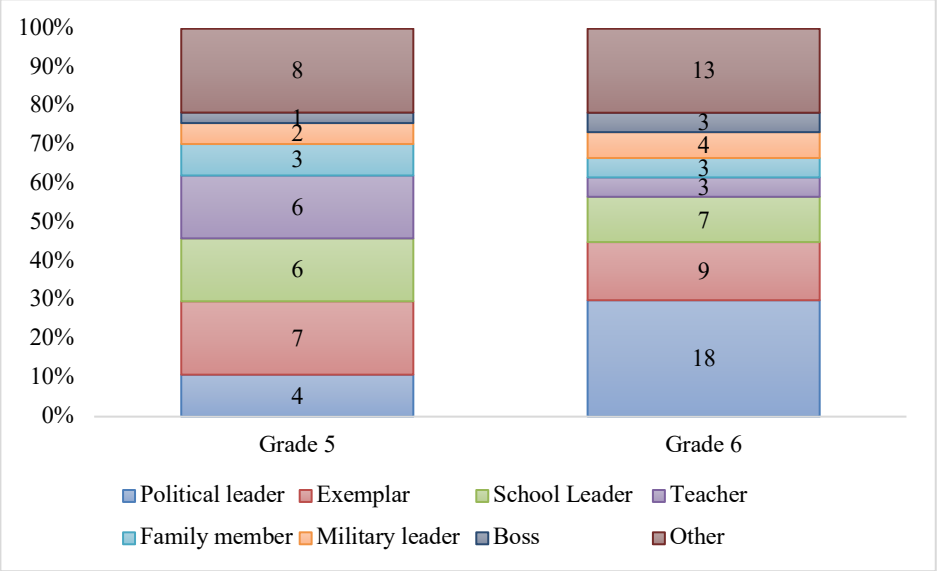
Researcher: So, can you please describe your drawing to me?

Girl: So, the leader is Donald Trump and he's in a World War Three and he dies. (Girl, Grade 6, 10Y/9M)

Lastly, during late primary school, as illustrated in Figure 20, the frequency of teacher assigned roles diminishes, while other adult, child, or adolescent leader recognised roles from the school context grow (e.g. school principal, schoolgirl or schoolboy, adolescent school leader) consistent with (Nemerowicz & Rosi, 1997). Additionally, children in this grade group noted family members in a similar way to the youngest children, pointing towards a U-shaped developmental tendency (Ayman-Nolley & Ayman, 2005) in family social-role content in children's ILTs.

Figure 20

Social role frequency in late primary school



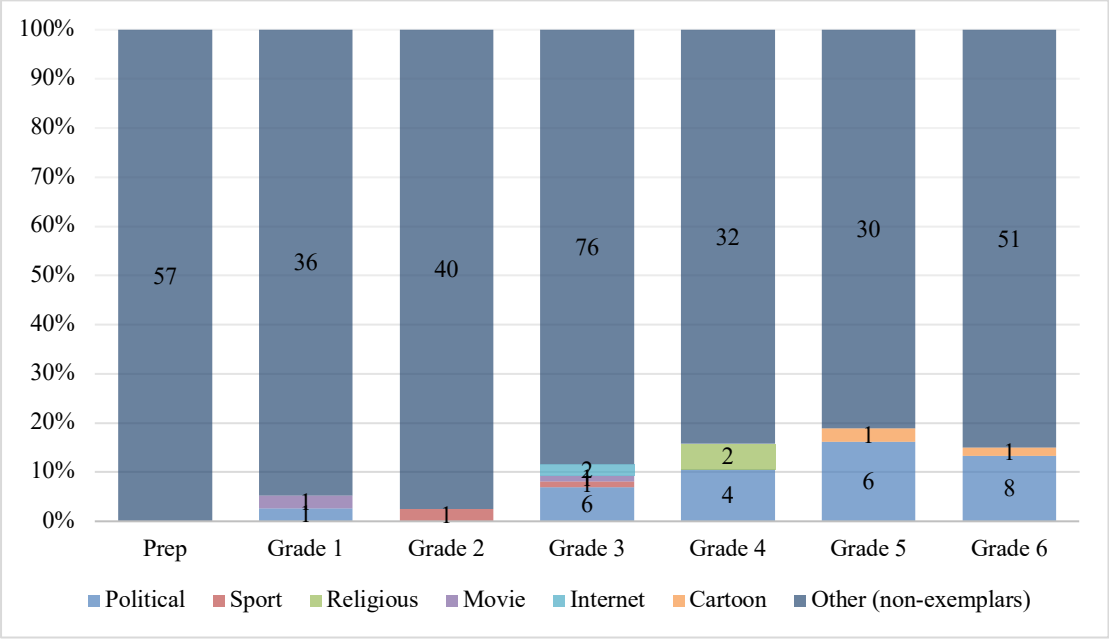
*Note: This figure shows the social roles assigned to a leader in 97 notations in drawings narratives and Q1 answer to What is a leader? in children in Grade 5 and Grade 6.

The social-role analysis has given further prominence to the contextual sensitivity of children's ILTs (Ayman-Nolley & Ayman, 2005; Hess & Easton, 1960; Massey, 1975; Okamura, 1968; Selman & Jaquette, 1977; Stogdill, 1948) and exemplifies how family, political, educative, community, sports, religious, and entertainment environments have a direct impact on children's development of leader's constructs (Hess & Easton, 1960; Massey, 1975; Okamura, 1968; Stogdill, 1948). This explains why social role content in children's ILTs can be grouped within categories, for example, parent, teacher, politician, or military leader, as cited by previous children

ILTs studies (Ayman-Nolley & Ayman, 2005; Liu et al., 2012; Oliveira, 2016). However, these contexts show different level of impact across primary school, which causes a developmental progression across preference. This progression is not only because they are increasingly more exposed to media, and entertainment. As children grow, they progressively show a higher content of political roles over others, as shown in Figure 21, which can be explained by their sensitivity towards humanitarian or environmental dimensions of leaders. So yes, they choose more socially recognised figures, but in time, these figures are chosen guided by a governance framework.

Figure 21

Distribution of exemplars grouped by context across grades



*Note: This figure is based on n=356 mentions of a human role assigned to a leader across grades, showing the distribution of exemplars (n=34) across grades.

Positive to negative, violent, or sceptical views. According to Ayman-Nolley and Ayman (2005) and colleagues, there is a developmental trend from more positive views of leaders towards more negative, or sceptical views of leaders. The authors have suspected a U-shaped development, as in their studies, the younger and oldest children in primary school have shown positive views, while children in middle primary school have shown more negative, or violent content. In this section, the study looks at these ideas in detail.

Lips features. Positive leader view content has been measured in children's ILTs studies (Ayman-Nolley & Ayman, 2005) by the quantity of drawings with lips upwards, which represents, according to the authors, leaders smiling, and subsequently, positive ILT content (Ayman-Nolley & Ayman, 2005). Exploratory evidence in Ayman-Nolley and Ayman (2005) studies, found that the youngest and oldest children in primary school represent more leaders smiling, showing a higher positive ILT content, than those in middle grades (Ayman-Nolley & Ayman, 2005).

Exhibit 27
Child 223

Researcher: And then, what are you doing with your mouth?

Girl: I'm smiling.

Researcher: How come?

Girl: Because I'm happy playing outside. (Girl, Prep, 5Y/4M)

However, the present study found that, as illustrated in Appendix L, even though smiling leaders are the mouth feature with the highest frequency across all grades, as children grow older, they feature fewer smiling leaders, and more mouth features such as the leader with the mouth open, speaking, or with straight lips. So, while the youngest children in Prep most often draw leaders smiling (79% of the times), consistent with (Ayman-Nolley & Ayman, 2005), the oldest children are the group that less frequently draw leaders smiling, showing negative growth in the numbers of leaders smiling across primary school, not a U-shaped or J-shaped trend, as found by (Ayman-Nolley & Ayman, 2005). Furthermore, as illustrated in Appendix L, presence of lips downwards is totally absent across early primary school (Pre, Grade 1, and Grade 2), hence, it is rarely negative (Ayman-Nolley & Ayman, 2005). This has been explained by theories that the youngest children are often unable to discern between good or bad leadership (Selman et al., 1977), though such evaluation is beyond the reach of this study.

Exhibit 28

Child 104

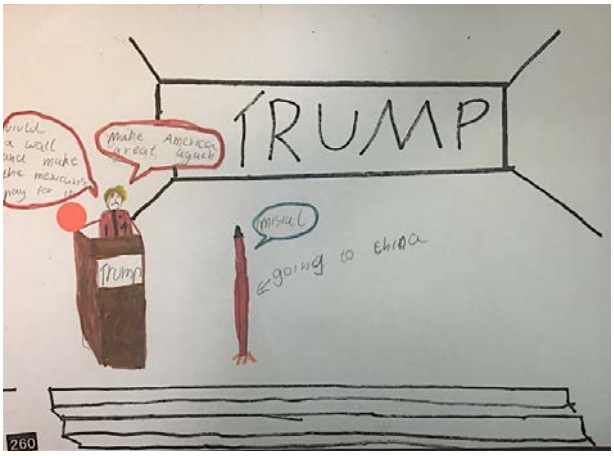
Researcher:	Can you please tell me all about your drawing?
Girl:	I thought she was going to help cars stop and guard when the lights are not working.
Researcher:	So, these person helps, can you say it again please?
Girl:	I think that when the lights are not working, they can help the lights. (Girl, Prep, 5Y/6M)

Less lips upwards doesn't mean that older children have more negative views of leaders, it shows that as children grow older, they don't picture the leader smiling so much, but rather speaking, or simply with lips straight. This tendency is found from Grade 1, where drawings of leaders with open mouth or lips straight increase, so while in Prep 5% of drawings pictured leaders with open mouth or lips straight, by Grade 1, it has grown to 19%, and this tendency continues increasing across grades, as shown in Appendix L. However, in middle primary school, from Grade 3 onwards, children begin

to depict leaders with lips downwards most often when drawing political leaders, Donald Trump and Kim Jong-un. The presence of drawings with lips downwards is low (ten drawings= 4%), and from this small group, most of the depictions were made by children in Grade 3 (five), and by boys (nine), as further detailed in Appendix L.

Exhibit 29

Child 260



Boy: It's Donald Trump, but he's sending a missile to China and he's telling them what to do. He's telling them what how to, what to do.

Researcher: And what about his face. What do you think his expression is like?

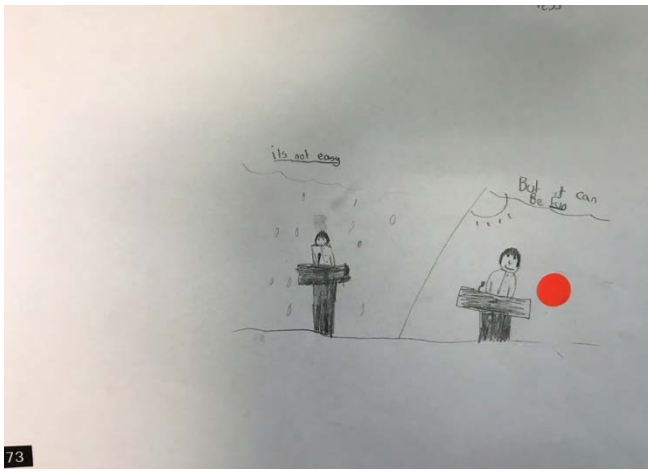
Boy: He's, he's angry because like, because it was late like, like the missile was late to go. (Boy, Grade 5, 11Y/0M)

Even though the number of drawings featuring lips downwards is low, it supports theories that positive and negative leadership thresholds appear during middle primary school, which causes a peak in negative leaders' frequency during this time (Ayman-Nolley & Ayman, 2005). Also, literature (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960; Okamura, 1968) proposes that in late primary school, the development of personal judgement towards others' actions, may explain increased critical, and

sometimes negative views leaders. So, in terms of negative views, guided by lips downwards in drawings, they increase from middle into late primary school.

Exhibit 30

Girl 073



Researcher: Okay, can you please describe your drawing to me?

Girl: Well, the first one, it's the leader standing up and talking. Being a leader isn't always fun and easy. Sometimes it's a bit hard and puts some people in stages where they don't want to get out of doing stuff.

Then my second one is a leader leading and having a good time, like, because he's happy that he's been chosen to be a leader.

Researcher: Cool. Are these the same person?

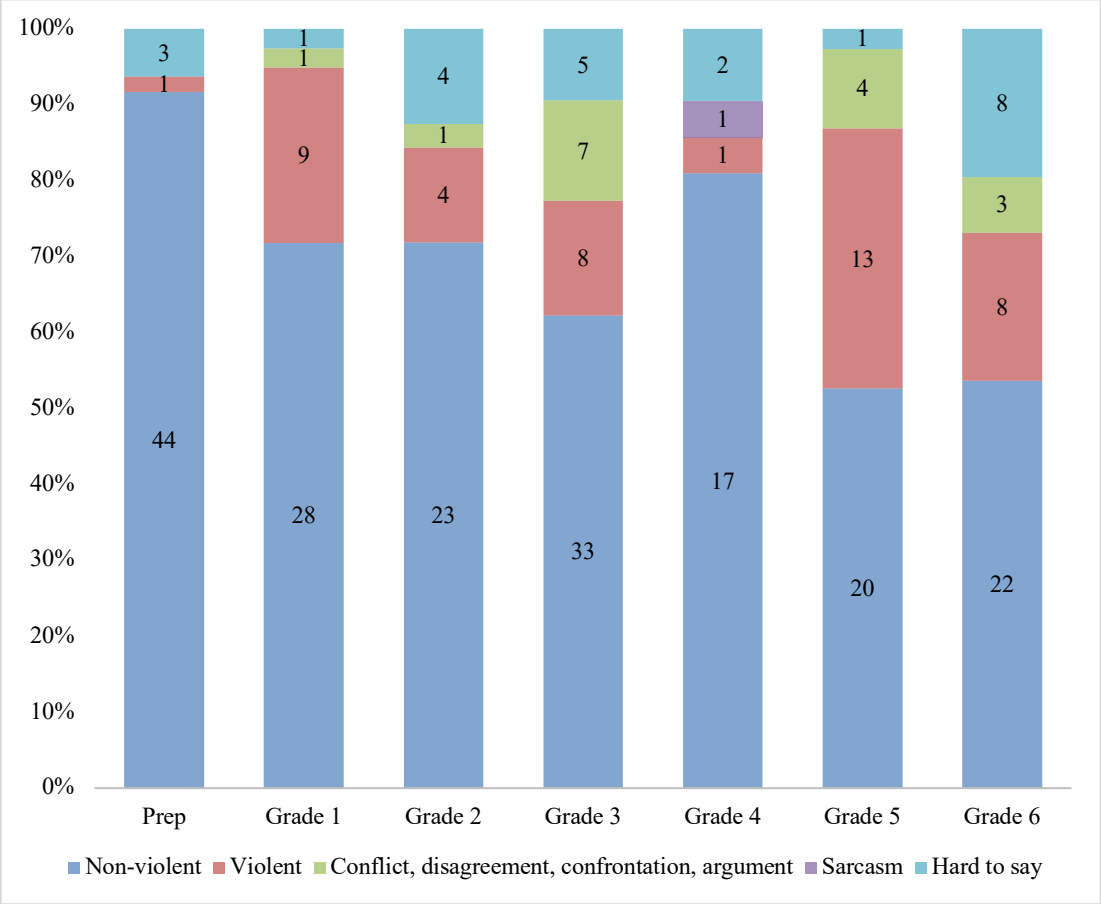
Girl: At different stages. (Girl, Grade 6, 12Y/1M)

Content of violence. On the other hand, children's ILTs studies have measured violence when a drawing includes verbal or physical content, or both (Ayman-Nolley & Ayman, 2005) as a measure of negative views in children's ideas of leaders. Violent depictions of leaders have been found to become more frequent in children in middle primary school (Ayman-Nolley & Ayman, 2005). And even though the vast majority of

children in the sample depicted non-violent content (69% of total drawings), some of the drawings depicted violence (44= 16%) as detailed in Figure 22. The results show that, consistent with DeHaan (1962) and Okamura (1968), the younger children in primary school present more peaceful views of leaders than children in middle primary school.

Figure 22

Presence of violence in drawings of leaders across grades



*Note: This figure is based on 272 drawings of leaders, distributed across grades: Prep= 48, Grade 1= 39, Grade 2= 32, Grade 3= 53, Grade 4= 21, Grade 5= 38, and Grade 6= 41.

Additionally, children in Grade 1, prior to middle primary school, present a substantial increase in violence content when compared to the children in Prep (from 2% to 23%), as illustrated in Figure 22. The highest content of violence (34% of drawings) was found in late primary school in Grade 5, while violence content oscillated mildly across middle primary school. Subsequently, a U-shaped tendency is not found across primary school in the present sample. However, children in Grade 6 did not show as high content as those in the prior year, which supports theories of violent content decreasing in frequency towards the end of primary school (Ayman-Nolley & Ayman, 2005). Even within varied frequency across grades, it can be concluded that violent content tends to increase in frequency across primary school.

Exhibit 31

Child 215

Researcher: Oh okay. So what are these guys doing there?

Boy: That one punched him and them two are brothers and that one's actually the dad of them two.

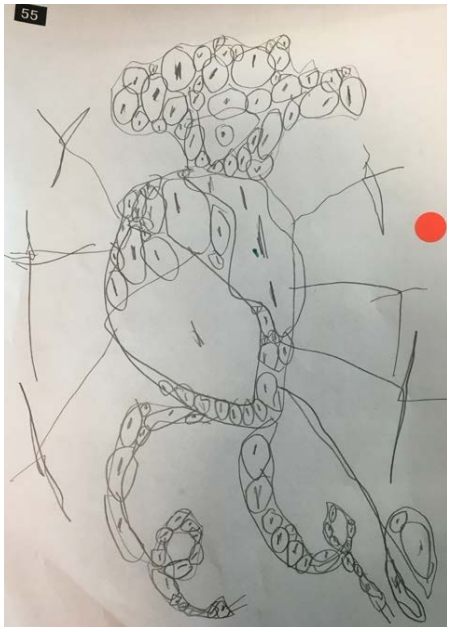
Researcher: Right. And why did he punch him?

Boy: Because in the school, he's a bully and he's a nice kid. (Boy, Grade 1, 6Y/8M)

Exploring violent themes across grade groups, as detailed in Appendix M, shows that in early primary school, the violent content is informed by fictional ideas (monsters, or creatures attacking), nature-related (hunting, or killing dinosaurs), as well as ideas of thieves or someone stealing something, and occasionally, about war. Only one notion was from the school environment (bullying), one from the political environment (Donald Trump pushing the Queen), and another from the work environment (an angry boss).

Exhibit 32

Boy 055



Researcher: Can you please tell me what's happening in your drawing?

Boy: I think a monster is a ... I think a cloud monster is a leader.

Researcher: Okay, so what is this monster doing?

Boy: Leading people. Leading other monsters what has so many eyes. He's covered in eyes.

Researcher: Yeah, and how many ... what are these ones?

Boy: They're hands.

Researcher: And why does he have so many?

Boy: Because he grabs and eats lots of people.

Researcher: And what are these?

Boy: This is a wrecking ball. These are legs and he's got eyes all over his body. Yes, even on his wrecking ball. This wrecking ball can squeeze people's blood out of their bottoms. (Boy, Prep, 5Y/6M)

Then, during middle primary school, violent depictions are equally from political environments (Donald Trump and Kim Jong-un), and from war, work environments (angry boss), and fictional (mean tomato, big red nosed army).

Exhibit 33

Boy 211

Researcher: Can you tell me what did you draw and everything about your drawing?

Boy: So, there is a big, big, big, big war.

Researcher: War.

Boy: And the tanks are fighting the invaders and they're protecting the city. And the city ... and most buildings at the front here are shot down. And they're coming in from planes, coming in from ... tanks, coming in from cars and all that. That's it. (Boy, Grade 3, 8Y/8M)

Lastly, in late primary school, political violent referents increase in reference to Donald Trump building a wall, or alongside Kim Jong-un, launching missiles, or rockets. War content is prominent too during this time, followed by work environment (angry, or abusive boss), and fictional (shark attack, monster), as detailed in Appendix M. Hence, in conclusion, fictional referents can be found across all grades, in higher proportion in the early years. Then, political and war referents, as well as work environments, become more prominent arenas for the influence of violent content in children's ILTs as they grow older. This sensitivity to inclusion of violence in ILTs content is bigger in boys, consistent with Ayman-Nolley and Ayman (2005), who draw a picture with violence three times more often than girls.

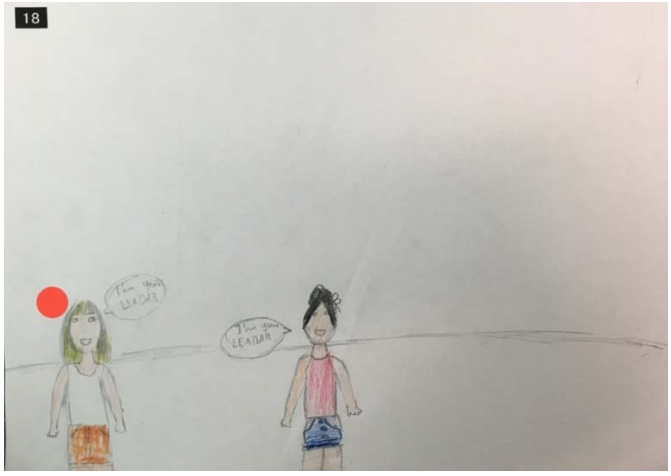
Exhibit 34

Child 043

Boy: So it's Kim Jong-un pressing a button with his foot to what looks like a firework to his people but actually is a killer bomb. (Boy, Grade 5, 10Y/4M)

Exhibit 35

Girl 018



Researcher: So can you please describe your drawing to me? What's happening there?

Girl: So it's just a girl who's ... two girls who are fighting to be a leader, but one of them is the real leader here ... yeah, and they're just fighting to be a leader.

Researcher: So which one's the real one?

Girl:	The one with the orange stuff.
Researcher:	Mm-hmm (affirmative). And why is she the real one?
Girl:	Because she was chosen to be a leader, but the other one doesn't want her to be the leader. She wants to be the leader. (Girl Grade 5, 10Y/10M)

It was also found that a few drawings (16=5%) depicted conflict, disagreement, confrontation, or argument. These drawings did not show verbal or physical violence, nor narratives that denoted violence, however, they noted tension between the leader and follower(s), guided by children's narratives. These notions emerge in Grade 1 and had the highest frequency in Grade 3, in middle primary school, though these are still present in late primary school, as illustrated in Appendix M. From 16 drawings with such content, 10 drawings were drawn by girls and six drawings by boys, which may point towards girls being more inclined to portray this type of content. This tendency had not been reported by previous ILTs studies, however Broich (1929) reported girls' propensity to emphasise more emotional conflict in leadership experiences. Nevertheless, the findings here are exploratory and further research is necessary to further suspect a trend.

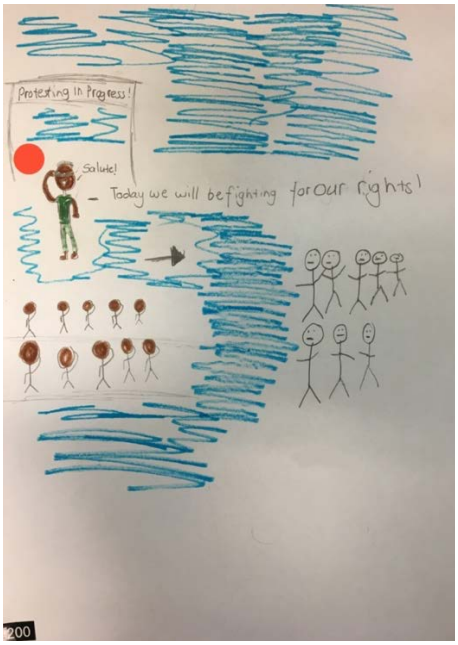
Racial discrimination awareness. Two children, one boy from Grade 5 as young as eleven years old, and one girl from Grade 6, provided evidence of racial discrimination awareness[4] noting themes such as racism and the fight of some specific ethnic-associated groups of people for their rights (e.g. Mexican, Muslim, black).

[4] This empirical data was gathered during Term 2 (16 April to 29 June) in 2018 before the wake of global Black Lives Matter protests in response to the killing of George Floyd in the US in May 2020.

Additionally, one boy in Grade 5 from Chinese ancestry, depicted a racial note in regard to the physical structure of Asiatic people's eyes (see Exhibit 38). This provides an indication that children in late primary school are aware of racial discrimination and can also show racial-stereotypical content. Similar to presence of violence in older children's ideas, sources on racial discrimination content are from political arenas. The source of the case of black people's rights shown in Exhibit 36 is not known, when asked where did the events take place, the boy, from Indian background, replied he didn't know. However, the boy talked about Obama in the interview, which may explain his attention to the rights of black people.

Exhibit 36

Child 200

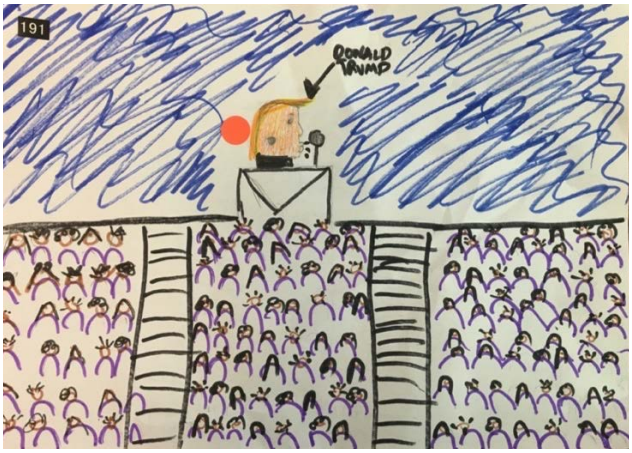


Researcher: The first question is if you can, please describe your drawing to me.

Boy: My drawing is about a person who is leaving the army protesting for black people's rights. (Boy, Grade 6, 12Y/3M)

Exhibit 37

Child 191

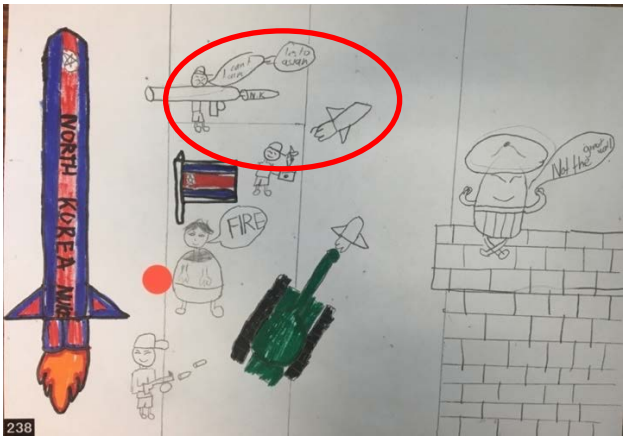


Researcher: And can you tell me more about him?

Girl: So, he's putting on a lecture about, like, he wants to change America, make it great again, and he doesn't want to, he's, like, a bit racist. Like, he wants to build a wall between Mexico, and he doesn't really want to let dark people into his country and the Muslim culture. (Girl, Grade 6, 11Y/7M)

Exhibit 38

Child 238 (detail in red circle)



Boy: Yes, he's like a soldier.

Researcher: Okay, and then what's with this other one?

Boy: He's shooting an RPG [rocket-propelled-grenade launcher]

Researcher: And what is he saying?

Boy: I can't aim.

Researcher: And then what does it say next to it?

Boy: I don't want to say that [reads: I'm too Asian]. (Boy, Grade 5, 11Y/2M)

Funny. The study also found that, in a few cases, children reference funny leaders or funny leadership situations. From 272 drawings, six children, all boys, made reference to funny content. Three were from Grade 3, one from Grade 4, and one from Grade 5. And even though this is only 2% of the total depictions, it may show a tendency for boys, from middle primary school, to be more inclined to humour traits in leaders.

Exhibit 39

Child 170

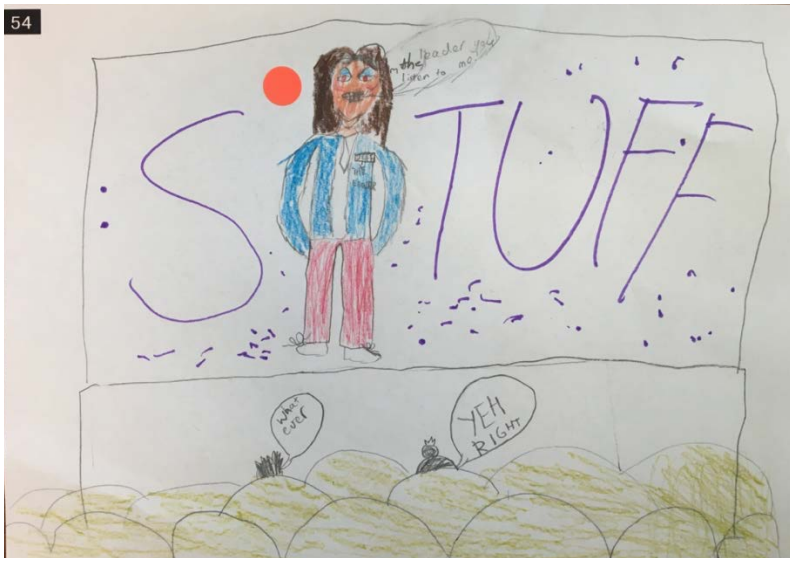
Boy: So, it's a guy leading his friend, well; leading his big baby friend to Taco Bell down the sewers. That's his crown. Yes. (laughs)

Researcher:	And can you talk to me a little bit more about that crown, why is it that way?
Boy:	I just came up with it randomly.
Researcher:	But, what's the material do you think?
Boy:	What do you mean?
Researcher:	Crowns are usually metal.
Boy:	Oh yeah, the material is plastic. It just makes it funnier if it's that way. (laughs)
Researcher:	Yeah yeah yeah, and what is like his eyes are a bit crossed?
Boy:	It's funny.
Researcher:	Yeah? But why is he like that?
Boy:	Funny. (laughs)
Researcher:	He's a funny leader?
Boy:	Yeah. (Boy, Grade 3, 8Y/10M)

Scepticism. Massey (1975) reported emerging levels of scepticism in children's views of political leaders in middle primary school. In the present study, this tendency was not found, however, one girl in Grade 4, portrayed the 'annoying leader', and showed followers with questioning attitude towards the leader, though it was not a political leader.

Exhibit 40

Girl 054



Researcher:	Cool, so the first question, is if you can please describe your drawing to me?
Child:	That's the annoying leader. And those are her people that she bosses. And then she's angry and wearing lots of make-up.
Researcher:	Okay, where are they?
Child:	In an office.
Researcher:	They are adults?
Child:	Yeah.
Researcher:	And what are these guys saying?
Child:	"Whatever" and "Yeh right".
Researcher:	Why are they saying that?
Child:	Because they don't care.
Researcher:	What is she saying?
Child:	I'm the leader. Listen to me. (Girl, Grade 4, 9Y/3M)

Leader's ethnicity. In previous children's ILTs studies (Ayman-Nolley & Ayman, 2005), the leader's ethnicity had been measured by the drawings, where children have depicted or described a specific race such as brown or black. Additionally, in Ayman-Nolley and Ayman (2005) studies, where children left the picture with no colour in the leader's face, leaders had been coded as white. This was utilised as a determinant of preference for white leaders by the majority of children in the US (Ayman-Nolley & Ayman, 2005). However, in the present sample, this coding procedure wasn't followed as children's drawing narratives provided indications that even when the leader's face was left white or, when they would colour a leader's face with a specific colour, it did not always mean that the child was attributing an ethnical characteristic to their depiction (See Exhibit 7, Exhibit 41, and Exhibit 42).

Exhibit 41

Child 126

Researcher: They all have different colours in their faces?

Girl: Yeah.

Researcher: How come?

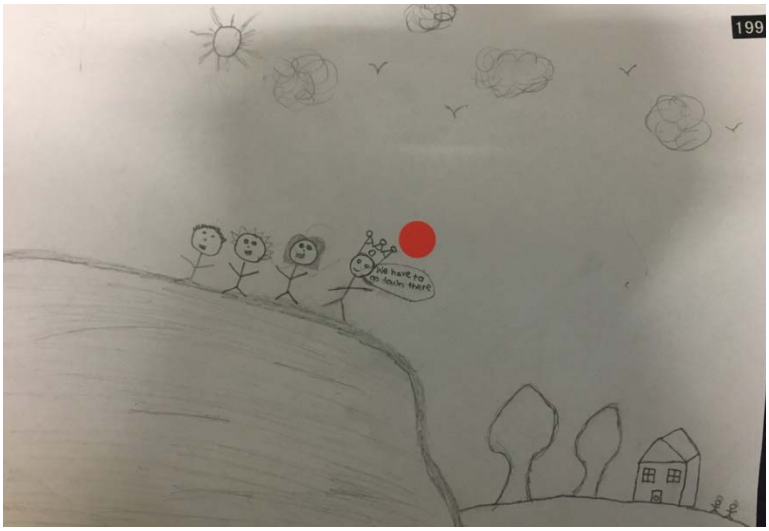
Girl: Because, I want their faces to be different.

Researcher: Cool. That's such a good idea. Any reason why you made her face brown?

Girl: Because, I want her to look like chocolate. (Girl, Prep, 5Y/4M)

Exhibit 42

Girl 199



Girl: So, the reason I did this, I know what a leader is. But in the olden days Aboriginals there used to be a leader in the tribe, so I decided to like a leader trying to lead them back to their home.

Researcher: Mm-hmm, so is this like back in the day?

Girl: Yeah.

Researcher: Okay, and who are these people?

Girl: They, like they need to go around to catch food and like saw the settlers.

Researcher: So, they want to go to the settlers. Why do you think they want to go there?

Girl: To fight for their land. (Girl, Grade 6, 12Y/2M)

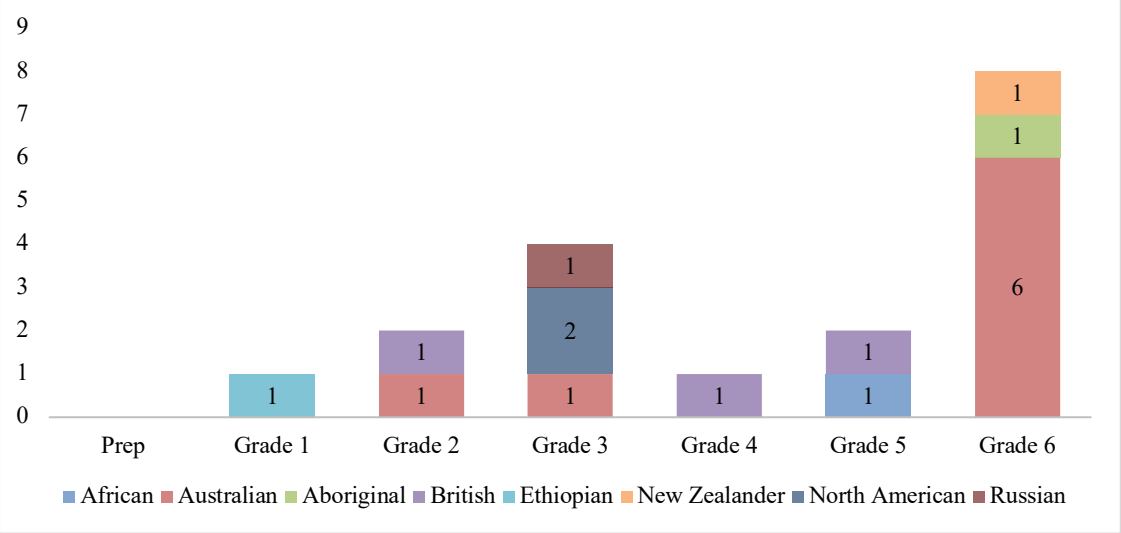
Subsequently, in the Australian sample, it can't be concluded that the absence of colour in the drawing of the leader's face, is a definite vision of a White leader. Hence, the colour of the skin in the drawings from the sample was not used as an indication of a leader's ethnicity.

A leader's ethnicity was measured where children either specified the ethnicity of the leader in their narratives, or when they drew an exemplar for whom the ethnicity was coded. The majority of drawings (80%) did not reference an ethnicity when children were asked to describe their leader. There were only 43 drawings (16%) where children either specified the ethnicity of the leader (18 drawings) or drew an exemplar for whom the ethnicity was coded (25), for example, when naming Queen Elizabeth, the ethnicity was coded as British. As illustrated in Appendix N, children most often denoted an ethnicity when referring to political or military leaders. The analysis of ethnicity-content in light of children's ILTs development was done in the 18 drawings where the children specifically attributed an ethnical characteristic to the leader (see Appendix N), since they deliberately chose to characterise the leader in this sense. Even though this number is low, it provides some developmental cues in this type of content. As shown in Figure 23, exploration across grades shows that the youngest children in Prep, did not include any cultural referents, however cultural referents emerge in Grade 1, suggesting that children as young as seven can hold ethnic-aware content in their ILTs. Ayman-Nolley and Ayman (2005) noted in their studies, that children as young as five can hold ethnic and racial stereotypes in the US. Further exploration into racial and

ethnical content in children's ILTs in the Australian sample, would probably require a new method design that can unearth their ethnical perceptions of leaders.

Figure 23

Children's appointed ethnicity to a leader across grades



*Note: This figure shows the distribution of 18 drawings where children determined the ethnicity of the leader distributed across grades.

The results show a growing tendency from early primary school to Grade 3, and less prominence in Grade 4, and 5. Then, children in Grade 6 mention more often ethnical characteristics of leaders than any other group, and these references were mostly of Australian prime ministers, which may indicate a preference for White Australian leaders. However, the results did not provide evidence of children in the present sample holding preference for a leader from a particular race, as the ethnical content is not clearly or distinctly noted in children's ILTs, but as they reach the end of primary school, it is a framework that can be referred to, sometimes.

Exhibit 43

Child 102

Boy: Okay, so the Australian Prime Minister in this picture is just giving a speech about something that's going on in parliament house about something that's going on, something bad or something good that's happened. And that's what I think a leader is, that's what I think a leader does, that's what they do, they talk about issues, they talk about problems, think about things that they can fix, and discuss with other people.(Boy, Grade 6, 12Y/3M)

5.1.3 Children's ILTs sophistication. In this section, the results explore how children's ideas of leaders can become more complex, or sophisticated. Age-development theories have proposed that changing ideas of leaders are explained by intelligence growth, increased language and verbal ability, and emotional capability, (Broich, 1929; DeHaan, 1962). Social-cognitive theories have explained change of perception across childhood, with escalating knowledgeability about their social structure (Ayman-Nolley & Ayman, 2005; Hess & Easton, 1960; Selman et al., 1977), religious affiliation, and cultural beliefs (Oliveira, 2016). On the other hand, experiential based theory (Sacks, 2009; Salmond & Fleshman, 2010) says that, as

children relate more to others, and as they increasingly witness or exercise leadership, or encounter more opportunities for leadership, their ideas of leaders reflect more knowledgeability of the concept. The present study has found that sophistication can be found across all these theories.

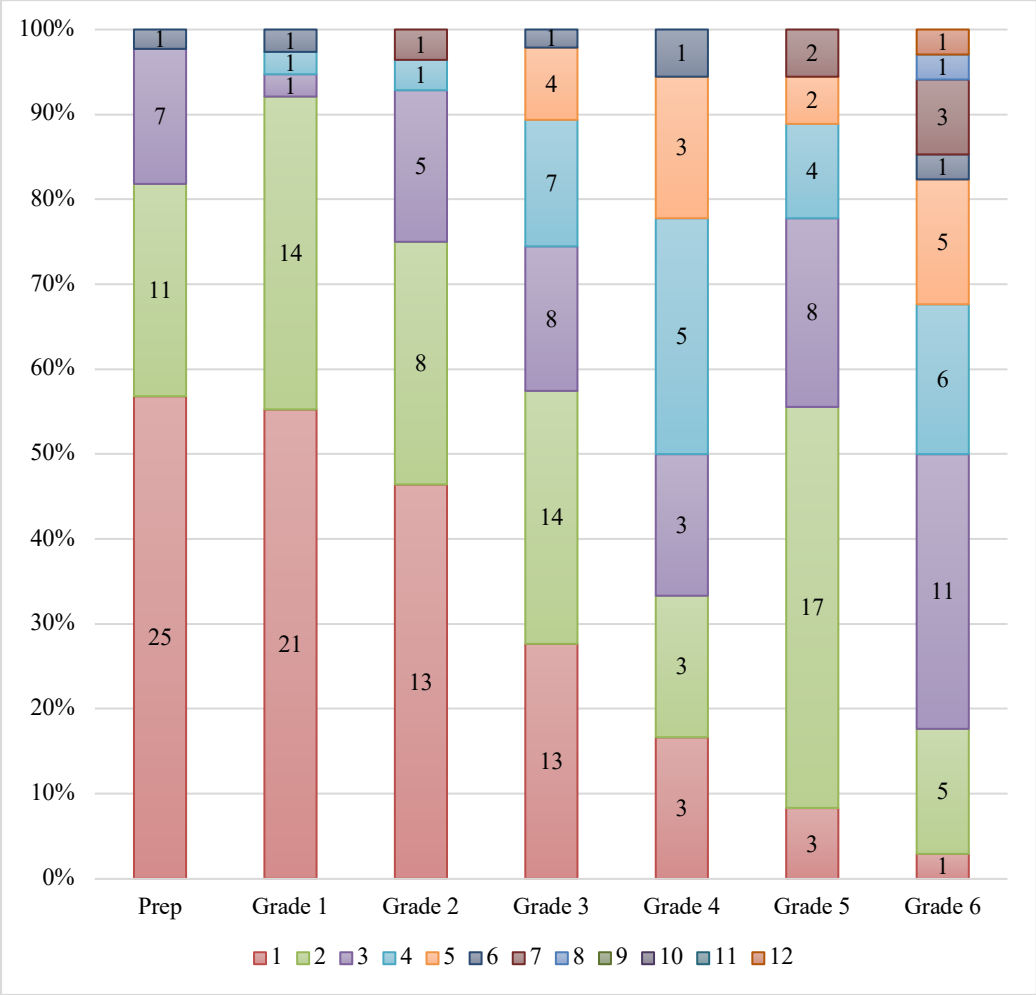
The majority of children present more capacity to differentiate leadership extents as they grow, for example, in the higher grades, children show more capacity to denote more information about a leader, guided by the number of unique descriptors, or characteristics in their narratives, or interview answers. Sophistication can also be seen across dimensions (physical/spatio-temporal, functional, socio-emotional, and humanitarian/ environmentally-concerned), or functional orientation (task, maintenance, change, or external). Subsequently, there is evidence of increased capacity to elaborate on knowledge about the leadership construct across age (Selman et al., 1977).

Descriptor sophistication. A general approach to sophistication, regardless of developmental theories, was analysed through the answers to the interview question *Q What is a leader?* Here, the study explored the number of unique descriptions of a leader provided by a single child in their answer, even if they belonged to the same dimension, or orientation. For example, When a child answered one phrase such as the leader 'tells others what to do', this would be counted as one descriptor, however if the child would provide different ideas such as the leader being the one who 'tells others what to do, helps people, and cares about what other people think', such answer would be counted as a triple-descriptor where the first one was functional: 'tell others what to do', the second was socio-emotional 'helps people' and the third one was coded as

socio-emotional as well, but as a new idea ‘cares about what other people think’. The results, illustrated in Figure 24, and detailed further in Appendix W, show that the youngest children in Prep, are the group that most often provides only one descriptor, and this tendency diminishes progressively across grades. On the other hand, from Grade 3, and onwards, there is an emerging trend for children to include three, four, or five descriptors in their answers. This evidence shows that children include more information in their answers as they grow older, which supports theory of increased capacity to elaborate on knowledge about the leadership construct across age (Selman et al., 1977) and also supports age-development theories, where ideas of leaders can be explained by increased language knowledge and verbal ability (Broich, 1929; DeHaan, 1962). From a unique descriptor point of view, sophistication of children’s leader schemata across primary school, is more explicit through the observation of children’s capacity to denote more information about a leader.

Figure 24

Number of unique descriptors per children's answer of what is a leader across grades



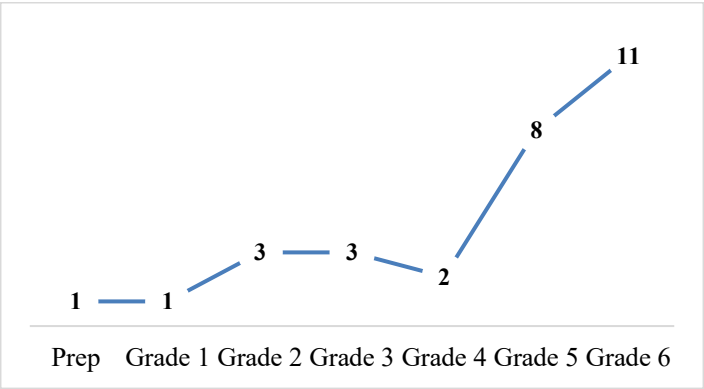
*Note: This figure shows the distribution across grades of the number of unique descriptors (n=526 descriptors) from 245 children's answers to the question *Q1 What is a leader?*

Role descriptions. Further evidence of sophistication is also found in children's descriptions of the role of the leader, for example, 'is the main person' 'is on top', 'has

power', as illustrated in Appendix Y. These results also show different leader role descriptions linked to a specific context, for example, 'runs a company' or 'leads a class'. The present study found that children acquire more capacity to describe the role of a leader as they grow, as illustrated in Figure 25, as well as develop the faculty to recognise characteristics attached to hierarchical and top-down notions of leadership (e.g. 'on top', 'is higher') and also, to associate the concept with notions of power or control (e.g. 'is in power', 'is in control'). These findings are consistent with Salmond and Fleshman (2010) who found that children from eight years old and onwards, associate a leader with authority applied through control and power. It also supports the theory that, as children grow older they show an increased capacity to recognise more elements of leadership, including categories of leaders, and leader roles with increased level of detail, due to children's expansion of awareness about their social structure (Ayman-Nolley & Ayman, 2005; Sacks, 2009).

Figure 25

Number of phrases or general descriptions of a leader's role across grades

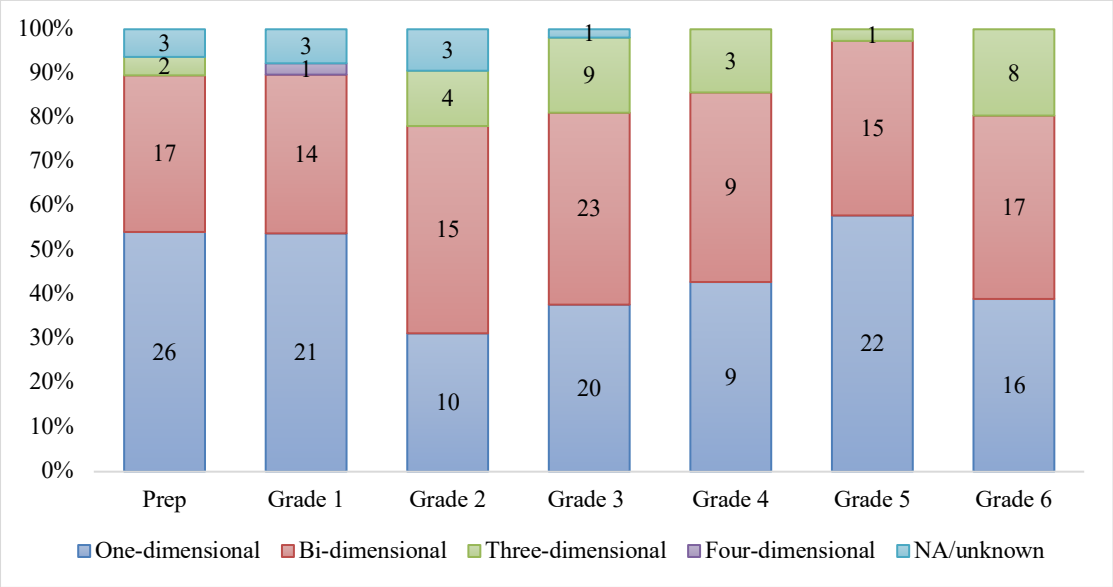


*Note: This figure shows the frequency of mentions of phrases or descriptions of the general role of a leader (n=29) across grades.

Dimensional and orientational sophistication. To explore levels of sophistication in leadership understanding across grades, the present study looked at the number of dimensions (physical/spatio-temporal, functional, socio-emotional/relational, and humanitarian/ environmentally-concerned) covered in each child's narrative of their drawing, as well as those covered in their answer to the interview *Q What is a leader?* This was done to find out whether the number would increase with age progression.

Figure 26

Distribution of number of dimensions across grades



*Note: This figure shows the number of dimensions covered in each children's drawing narrative across grades.

As shown in Figure 26, and in further detail in Appendix X, dimensional sophistication does not mean that, as they grow older, they include more dimensions.

The majority of children in primary school, as illustrated in Figure 26, describe leaders within a one-dimensional or bi-dimensional framework, however, three-dimensional descriptions are more prominent during middle and late primary school. However, four-dimensional descriptions are rare. In only one case, a seven-year old boy in Grade 1 (see Exhibit 7, Child 120), provided a four-dimensional narrative, where he described an Ethiopian army leader. The boy attributed leadership status to the character because the leader was 'being up the front' and 'in a lighter colour', which are within the physical and spatio-temporal dimension of leadership. Then, he noted that the leader was the one 'who started the army to fight the bad country', which is functional, relating to a task that was completed. Additionally, he noted that the leader's army is fighting 'to get their country [Ethiopia] back', which concedes a humanitarian or socially concerned notion to the understanding of a leader. Lastly, the boy notes that the leader 'is nice to them [army soldiers]', which attributes a relational or socio-emotional characteristic to the leader.

Subsequently, the results suggest that four-dimensional narratives of leadership are scarce. And this is because perceptions in the physical/spatio-temporal decrease over time, and humanitarian/environmentally-concerned increase, as illustrated in Figure 8. However, there may be a progressive tendency towards adolescence, of three-dimensional notions, inclusive of functional, socioemotional, and humanitarian/environmentally concerned.

Interview excerpt 6

Child 020

Researcher: What do you think is a leader?

Boy: A leader is someone who's brave and willing to do things for the people who he or she is leading, and willing to sacrifice things like maybe some of his soldiers, or a big amount of money for his people. Or maybe ... yeah, I guess that's it. (Boy, Grade 6, 11Y/7M)

On the other hand, the functional orientation notations analysis shows, as illustrated previously in Figure 10 and in further detail in Appendix E, that children in early primary school, only show task and relations oriented notions, while, in middle primary school change-oriented, and external notions emerge. And in late primary school, they show more descriptors of external and change-oriented characteristics than any other group. So throughout functional perceptions, results show that, as children grow older, they perceive more functional orientations, and more characteristics within these orientations. These results across dimensional and orientation development are concluding, though do not provide clues as why this progression from one and bi-dimensional notions towards more three-dimensional notions or from bi to quad-orientational happens. Exploring social role content-based analysis provides further insights.

Social role sophistication. Social role analysis shows, as detailed in Appendix H, that between early primary school and middle primary school, children's ILTs become more varied with increased exposure to new contexts, such as media and entertainment. And then, during late primary school, they often assign roles to leaders

who have a humanitarian or environmental reach, and more than any other group, to socially recognised exemplars. This points to ideas that social role sophistication can be seen first, as an expansion of how many leader social roles and contexts a child can recognise, but then, it is about selectivity potentially linked to the leader's impact on wider society. These social role refinement supports social-cognitive theories where change of perception across childhood is linked to children's escalating knowledgeability about their social structure (Ayman-Nolley & Ayman, 2005; Hess & Easton, 1960; Selman et al., 1977). This knowledgeability, as previously shown in the social role development section, is fed by stimuli found in their environments and through social interaction, supporting experiential based theory (Sacks, 2009; Salmond & Fleshman, 2010) where as children relate more to others, and as they increasingly witness or exercise leadership, or encounter more opportunities for leadership, their ideas of leaders progress.

Interview excerpt 7
Child 199

Researcher: So what do you think is a leader?

Girl: A leader these days helps their country, state or territory to make things better, for everybody's right, to get their say and everything. (Girl, Grade 6, 12Y/2M)

In conclusion, children's ideas of leaders become more sophisticated as they develop. First, they become more sophisticated as they improve language and verbal ability (Broich, 1929; DeHaan, 1962), and are able to include more information about the leader, with increased level of detail. But this is not the only centre line. Even if they

can talk more, does not mean that they have a more advanced, complex, or sophisticated understanding of the leader concept. The study shows that certain stimuli found in their day to day experiences (Sacks, 2009; Salmond & Fleshman, 2010), as individuals, family members, students, group members, local and world citizens, boost their understanding, expanding it into new dimensions, orientations, and processes of categorisation. In effect, these stimuli expand their understanding of the social structures that surround them (Piaget, 1932; Selman & Jaquette, 1977; Selman et al., 1977). And this is why, the results find that sometimes younger children can hold a more sophisticated, abstract, understanding of leader, than older children (Robson, 2006).

5.1.4 Girls and boys, boys and girls. According to the literature, gender impacts children's perceptions of leadership because boys and girls present differences in ideas, preferences, and functional characteristics of leaders (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Broich, 1929; Nemerowicz & Rosi, 1997; Selman & Jaquette, 1977; Yamaguchi & Maehr, 2004). On one hand, girls tend to report and prefer more relational characteristics than boys (Broich, 1929; Nemerowicz & Rosi, 1997), while boys tend to describe and favour functional characteristics more often than relational traits (Broich, 1929; Nemerowicz & Rosi, 1997). The present study did not ask children to rank leadership attributes, so it is not possible to comment on whether girls give more rating to relational aspects of the leader than task-based (Broich, 1929), however, it can explore differences across the content of their ideas of leaders.

Exhibit 44

Child 243

Girl: Because the girls are fighting back against the boys because the boys kept trying to take all the things from where the girls live, and not letting girls do votes and stuff.

Researcher: How many leaders are there?

Girl: There's one for each group.

Researcher: Perfect. All right. Can you tell me what's this that you wrote?

Girl: Girls versus boys. These are the girls, and these are the boys.

Researcher: Adults. Why do you think this [he] is the leader?

Girl: Because he's telling them what to do, and he is the brightest one in the group.

Researcher: Right, right, right. Up here, the girl, why is she the leader?

Girl: Because she's the one that decided where they would stand so they could have the advantage, and she's telling them what to do. She's the bravest one. (Girl, Grade 3, 9Y/1M)

Dimensions. From a dimensional development point of view, the present study did not show a relational vs functional tendency. As illustrated in Table 11 and in further detail in Appendix O, both genders presented a very similar distribution across notations within dimensions. Subsequently, the present study did not find conclusive evidence to support the impact of gender of the child over the dimensional notation of leadership in their ILTs.

Table 11

Distribution of leadership dimensions between boys and girls

Dimension	Girls	%	Boys	%
Functional	289	58%	265	59%
Socio-emotional/relational	88	18%	71	16%
Physical/spatio-temporal	86	17%	88	19%
Humanitarian, environmentally-concerned	35	7%	28	6%
Total	498	100%	452	100%

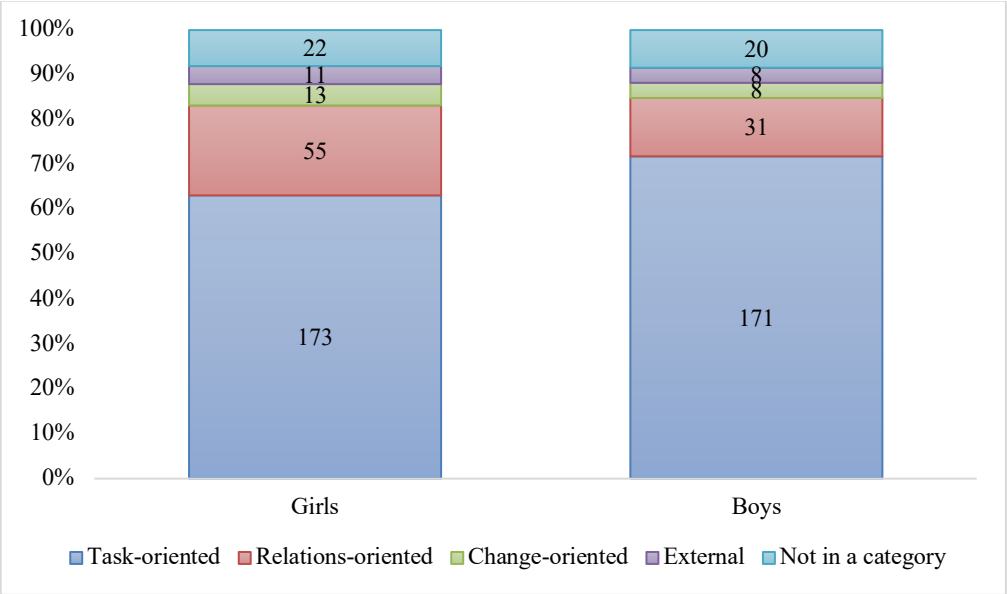
*Note: This table shows the gender distribution of n= 940 notations from drawings and interviews across four dimensions: physical/spatio-temporal, functional, socio-emotional, and humanitarian/environmentally concerned. Girls= 488 notations, boys= 452 notations.

Orientation. Similarly, when exploring differences between boys and girls in the orientation analysis, that is variations across task, relational, change-oriented, or external notions of leaders, it was found that boys and girls present a comparable distribution across orientations, as illustrated in Figure 27, and in further detail in Appendix P. Both boys and girls give the highest frequency to task-based features when describing a leader's actions and, in similar frequency, both boys and girls assign change-oriented notions or external notions to a leader's actions. There are marginal

differences between both groups, where boys present a slightly higher tendency to denote task-oriented actions (72%) than girls (63%), as noted by Yamaguchi and Maehr (2004). And girls presented a slightly higher tendency to assign relations-oriented notations to the leader's actions (20%), than boys (13%) as previously noted (Broich, 1929; Nemerowicz & Rosi, 1997; Piaget, 1932). However, overall, the content appears more similar than different, though functionality wise, boys somewhat talk more about the task, and girls somewhat talk more about maintenance.

Figure 27

Comparison of action-based categories across boys and girls



*Note: This figure shows the distribution of notations of a leader's actions (n= 512) from drawings and interviews, across boys and girls, grouped within behavioural categories as per taxonomies by Yukl (2012) and Ayman-Nolley and Ayman (2005).

Content of violence. Violent depictions of leaders have been found to become more frequent in boys (Ayman-Nolley & Ayman, 2005), and consistently, the present study found that, when children depict violence, which is occasionally, boys were three times more prone to depict or describe such content in their leader drawings or narratives than girls as noted in the prior section in Figure 22. So, from the 44 drawings that depicted violence, 77% were drawn by boys. On the other hand, from middle primary school, boys also appear to be more inclined to draw leaders with lips downwards, as illustrated in Appendix L, and may be more inclined to portray humour traits in leaders as well, as exemplified in Exhibit 39. On the other hand, as detailed in Appendix M, girls may have a higher tendency than boys to depict conflict, disagreement, confrontation, or argument given they drew this content twice as often as the boys. However, these tendencies of violence-content and emotional-conflict in children's ILTs are absent in Prep grade, emerge in Grade 1, and appear to reach a peak during middle primary school, around Grade 3.

Exhibit 45

Child 248

Boy: There's an army of Big Nosed people and they are meant to go to war with the Talking Undies, but he saw a different sign and he thought that was the right way to go and those tracks are the ways to get to where the signs point to.

Boy: Yeah.

Researcher: And how did that happen?

Boy: Well, because, I think he just needed to use the toilet, and he just said "We must go right". (Boy, Grade 3, 9Y/5M)

Exhibit 46

Girl 229

Girl: It's a mom who is telling her kids to keep their pet hamster's cage tidy or she'll give the hamster away. (Girl, Grade 5, 10Y/9M)

Social role. Previous ILTs studies have found that, overall there is a preference for a male leader over a female leader because boys' prefer to depict leaders of their own gender more often than girls (Ayman-Nolley & Ayman, 2005; Nemerowicz & Rosi, 1997). Consistently, in the present study, 94% of boy's drawings were of male leaders, only 4% were of female leaders, including Queen Elizabeth II, a teacher, or a female politician. On the other hand, 72% of girls' drawings were of a female leader and 28% were of a male leader. These results are consistent with previous studies of children's ILTs in Western cultures (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Oliveira, 2016), where girls have a tendency to draw more female leaders, but also, more often draw opposite gender leaders than boys. However, this tendency in girls, as previously noted (see Figure 19) is not consistent across grades, so while the

youngest children and up to Grade 5 chose a female leader in average 73% of the times, girls in Grade 6, chose one 44% of the times. Hence, it is problematic to conclude that all girls and all boys shows similar preference in gender, which impact social role content.

And while previous children's ILTs studies have found that, across cultures, children associate teachers, political representatives, and military personnel, with leadership roles (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Liu et al., 2012; Oliveira, 2016), because of the developmental variations shown in the previous section, it is precarious to say that, across all ages, all girls think alike, or all boys think alike. Specially in social role content.

Overall, in the present sample, boys and girls, across grades, included diverse social roles with different levels of frequency, only two roles were found to be present across the entire sample, teacher and boss. Though, as shown previously, teacher's frequency oscillates across primary school, showing more prominence in children in middle primary school, and nearly disappearing by the end of primary school. Another example can be seen in the younger girls, who are the most prominent to choose female leaders and child leaders across all groups. Similarly Oliveira (2016) noted that younger children, regardless of gender, have a higher tendency to nominate a female leader than older children. So these variations impact the understanding of social role preference across ages, and also, across boys and girls. Subsequently, the following section presents social role content development of boys and girls at the three key points in time (early, middle, and late primary school).

In early primary school, both girls and boys more often see, in similar frequency as illustrated in Appendix Q, a leader as a line leader, followed by teacher, tradesperson (due to parent's job), family member, and boss, hence they are more similar than different. The differences can be found in less prominent referents where girls then mention more often school leader (child) and entertainer, while boys mention more often political leader, military leader, and royal leader. This doesn't mean that girls don't mention political leader, or royal leader, or boys don't mention entertainment roles (e.g. parade leader, band leader), they just mention it slightly more often. However, military leader is a referent only found in boys at this age.

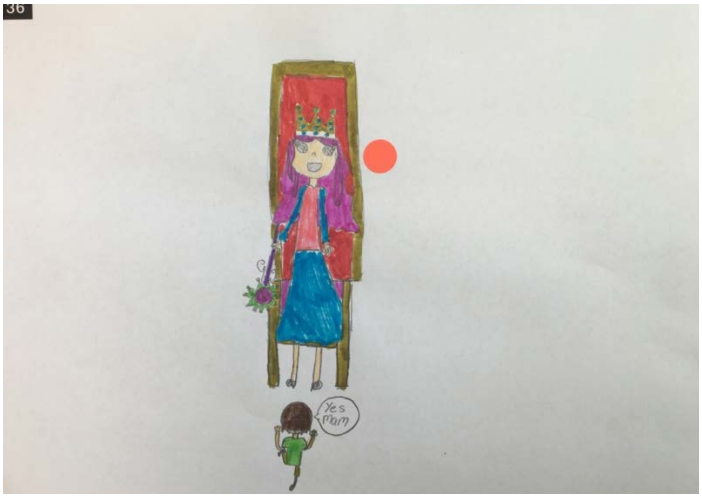
Exhibit 47

Child 086

Boy: There's a leader and they're like soldiers and they're marching and there's a cannonball shooting out to the sky. And there's a little dog, like a guard dog. And it's a sunny day and the soldiers are fighting. (Boy, Grade 2, 7Y/7M)

Exhibit 48

Child 036



Girl: So the queen is leading everyone in her country and this ... the man, she's telling the man that he has to ... what he has to do. And the queen's the leader. She's holding the stick which means that he must do it. And the crown tells that she leads the country. (Girl, Grade 3, 8Y/9M)

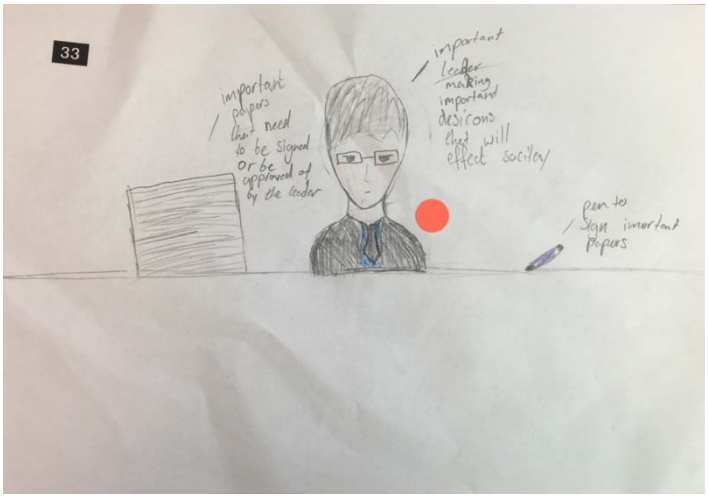
Then, in middle primary school, differences are more noticeable as detailed in Appendix Q. Boys more often named exemplars (including political, sports, religious, and fictional characters), followed by generic political leaders, boss, and then teacher. Girls on the other hand, more often named teachers, followed by the queen, then political leader, and then entertainer. However, less often and in equal proportional, both named military leaders, school leaders (teachers excepted), sports leaders. Girls during this time are less inclined to name exemplars, so while they named three, boys named 16, perhaps boys are more sensitive to socially recognised political, sport, or fictional characters, or perhaps, girls responding to gender similarity are less inclined to choose exemplars as such and noting the Queen most of the times. Also, girls appear to

be more inclined to choose generic entertainments referents than boys, however, further exploration is needed to pursue further conclusions at gender preferences during this time.

Then, comparing the social roles noted by the children in late primary school, as illustrated in Appendix Q, the data shows that boys and girls more often name political leaders or political exemplars, so regardless of gender, they most often associate a leader with a referent from the governmental context. However, girls appear more sensitive to the school context than boys. While girls included 20 referents to school related leader roles (e.g. school principal, school child captain), boys only mentioned it twice.

Exhibit 49

Child 033



Girl: So pretty much this leader, or certainly anyone, I just drew it, is sitting down thinking of important things that may affect our society, and that's the important thing. He says the signed papers will affect our society because they have very important things on them which, like, what laws are we going to put in, what laws will we change, what things will we change. Like, remember last year with the 'yes' vote that

> changed everything for a lot of people. They had to make some very important decisions if they were going to allow it or not. So they put it to a vote like most things happen. (Girl, Grade 6, 12Y/3M)

Conclusively, it could be said that results point to children navigating similarly across dimensions and orientations regardless of their gender. From Grade 1 onwards, slight variations are visible from around six or seven years old, when boys begin to show more inclination for violence or lips downwards in their depictions, while girls appear to have more tendency to depict emotional conflict. In terms of social roles, most boys (94%) have a male idea of a leader, while girls between Prep and Grade 5, have in average 70% ideas of female leaders. However, in Grade 6, girls show a different behaviour choosing a female leader almost half of the times. Additionally, the younger children show very similar ideas, regardless of gender, and differences are only found in less frequent models. However, during middle primary school, boys tend to describe more often political leaders or socially recognisable figures from sports and entertainment contexts, while girls, show more preference for teachers and the Queen. This may be because they appear to be looking for gender-similarity in their referents during this time, or perhaps, boys are somehow more exposed to, or sensitive to media or technological-influenced environments? Lastly, in late primary school, boys and girls show more similitude again, choosing a political figure or exemplar most of the time, though girls, also choose school related leader roles (school principal, or school child captain).

So, cursorily, it could be said that across cultures, teachers, political representatives, and military personnel are associated with leadership roles (Ayman-

Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Liu et al., 2012; Oliveira, 2016), but this wouldn't reflect the youngest children's perceptions. Social role content seems to relate to the time of childhood and the experience-filled stimuli surrounding such time, that impact and influence their cognition which can result in realistic, fictional, or mixed ideas of leaders.

Exhibit 50

Child 124

Boy: Okay. So, my drawing was about, my leader was all about the space. And he was doing a project about space. And he ask someone could pass the solar system, someone said yes boss. And then there's a baby sitting on his chair jumping down saying wee. But he's mad. (Boy, Grade 3, 8Y/7M)

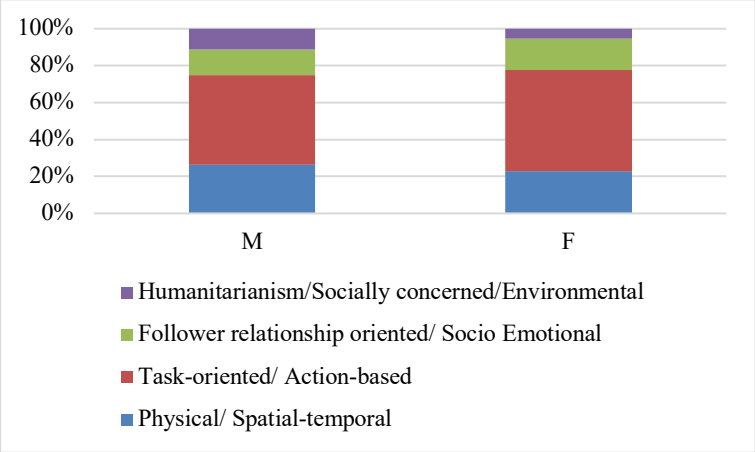
5.1.5 Gender-associated ideas. Children's ILTs theory shows that since early primary school, children already hold gender-specific leadership role stereotypes (Frost, 2016), that is, different systems of beliefs, values, and expectations regarding the behaviour of women and men (Eccles, 2007; Grusec & Hastings, 2014; Schwartz & Rubel, 2005). For example, Ayman-Nolley and Ayman (2005) found that children more

often depict male leaders as less kind or accompanied by followers, while female leaders tend to be smiling and caring for followers (Ayman-Nolley & Ayman, 2005). Also, the authors found that male leaders were more often associated with military personnel, political leaders, or managers and supervisors. On the other hand, female leaders were often associated with a person who fulfils a community role (Ayman-Nolley & Ayman, 2005; Liu et al., 2012) such as teachers, parents, or other children (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006). These differences in physical and behavioural features to male or female leaders were found to be non-dependent on children's age or grade (Ayman-Nolley & Ayman, 2005). However some developmental clues had been noted, for example, Liu et al. (2012) and Oliveira (2016) found that the youngest and the oldest children in primary school referred more often to male leaders than to female leaders in comparison to children in the middle grades. To explore gender-stereotypic ideas, the present study explored ideas associated with male and female leaders across developmental theories.

Dimensions. From a dimensional point of view, it was found, as detailed in Appendix R, that, even though more attributions were given to male than female leaders, because there were more depictions of male than female leaders, the distribution of dimensions assigned to both were similar, as illustrated in Figure 28. The most notable difference is seen in the humanitarian and environmentally-concerned dimension, where male leaders were assigned 11% across their characterisations, while female leaders were assigned 5%, explained by a smaller number of female political figures.

Figure 28

Distribution of dimensions assigned to depictions of male and female leaders



*Note: This figure shows the distribution of dimensions assigned to depictions of male and female leaders of n=399 notations about the male and female leader in children's narratives about their drawing

Orientation. The frequency of change-oriented notions and external notions was similar for male and female leaders, as illustrated in Table 12 and in further detail in Appendix S.

Table 12

Frequency of action-based categories assigned to female and male leaders

Category	Female	%	Male	%	Total
Task-oriented	62	51%	96	57%	158
Relations-oriented	25	20%	31	19%	56
External	7	6%	11	7%	18
Change-oriented	8	7%	8	5%	16
Not in a category	20	16%	21	13%	41
Grand Total	122	100%	167	100%	289

*Note: This table shows the distribution of notations of a leader's actions (n= 289) assigned to female and male leaders, grouped within behavioural categories as per taxonomies by Yukl (2012) and Ayman-Nolley and Ayman (2005)

Results in Table 12 show that there is a slight tendency for male leaders to be associated more often with task-based features (96 notations= 57%), than female leaders (62 notations= 51%). Also, in contrast to research noting that female leaders are more often associated with relations-oriented actions (Ayman-Nolley & Ayman, 2005), the results show a similar proportion in relations-oriented notations given to male and female leaders by children in the present sample.

Exhibit 51

Child 177

Researcher: If you can please tell me everything about your drawing. Who's there, what's happening, what did you draw?

Boy: This is the leader and he's teaching these kids something to build. And then, they start doing it, and he tells them what to build. And then, what stuff.

Researcher: Beautiful. Do you think these kids like that leader?

Boy: Yeah.

Researcher: Why?

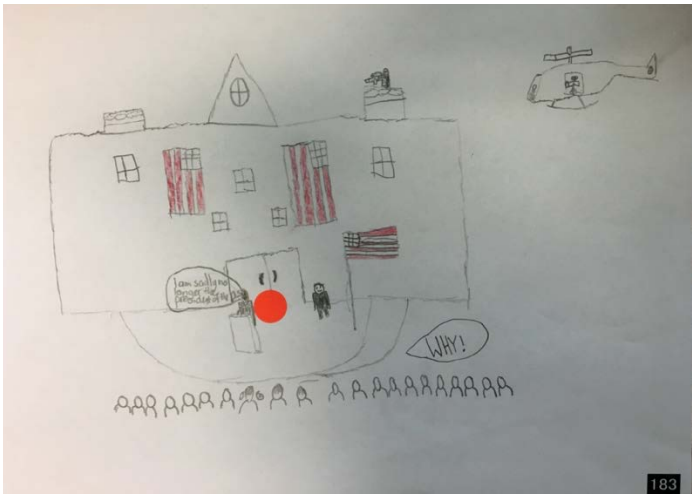
Boy: Because, he's nice and if they talk he lets them talk, so they can tell each other what to do, so they can build everything like they want to, and then leader lets them build ... After the leader says what to build they can build whatever they want to by themselves. (Boy, Grade 2, 8Y/3M)

Social role. In the present study, social role content behaves in a different way than dimensional and orientation associations to a leader's gender. In some ways, it shows that, as detailed in Appendix T, at the beginning, in Prep, the most prominent role (line leader) is perceived genderless, but then, as children grow older, results display wider gender differentiation of leader roles. And even though previous studies did not report differences across age or grades in social role features attributed to male or female leaders (Ayman-Nolley & Ayman, 2005), the present study, as shown in Appendix T, found that there are thematic commonalities across grade groups.

Younger children associate more often a male leader with a tradesperson (due to their father's job), then in middle primary school, children associate a male leader with a political figure (Ayman-Nolley & Ayman, 2005; Liu et al., 2012) half of the times, and also with figures from sports and entertainment, and sometimes, with king. Then, by late primary school, male leaders are associated with current political figures 61% of the times (see Appendix T), congruent with previous studies (Ayman-Nolley & Ayman, 2005; Liu et al., 2012).

Exhibit 52

Child 183



Boy: So basically this is Barack Obama. He's saying that he's no longer the president of the United States. Yes, and there's a helicopter up there filming it. There's the crowd here. There's the White House.

Researcher: And the, this is coming from all the crowd?

Boy: Yeah.

Researcher: What does it say? Can you read it?

Boy: It says, "Why?"

Researcher: So they are feeling a bit ...

Boy: Sad.

Researcher: And what's, is this a head, or-

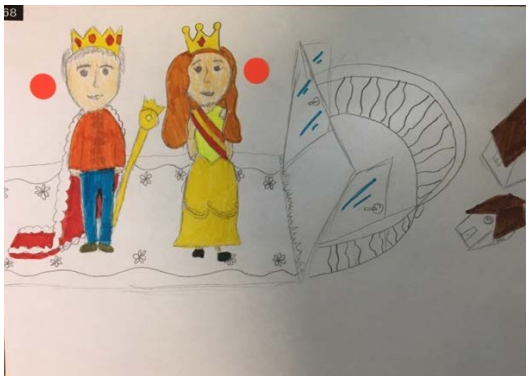
Boy: Yeah, he's crying. (Boy , Grade 6, 12Y/0M)

On the other hand, as illustrated in Appendix T, female leaders are seen by the youngest children, as either a child or line leader half of the times, then by Grade 1, they often see a female leader as a teacher, mom, or sister. Then, in middle primary school,

consistent with Ayman-Nolley and Ayman (2005) and Ayman-Nolley et al. (2006) these ideas shift, and female leaders are more often seen as teacher or entertainer (including parade leader, museum guide, and dancer), and queen. Towards Grade 5, similar to the youngest children, they associate the female leader with a teacher, but also with a school leader such as principal, or school captain. And by late primary school, children in Grade 5, associate female leaders firstly with teachers and school leaders, and sometimes with political leaders, and family members. Particularly in Grade 6, the roles associated with female leaders are infrequent and choices are diverse, as detailed in Appendix T, including political leader, mom, and sister, but also emergency service provider such as nurse, paramedic, or police officer. Teacher is rare, where only one child depicted a female teacher.

Exhibit 53

Child 068



Girl: So, the king and queen, they're about to walk out on to a balcony overlooking the town that they rule.

Researcher: Yeah, awesome. So, let's say some decision needs to be made. Do you think one of them would have more say in what gets to be done?

Girl: I reckon that what they're asking is given to the king, but then the king talks to the queen as well. (Girl, Grade 4, 10Y/3M)

These results show that, when categorising leaders, the youngest children in early primary school begin in a more undifferentiated gender arena, guided mostly by the line leader prototype, which can be assigned to either boys or girls. However, as illustrated in detail in Appendix T, small glimpses can be seen of an emerging tendency to associate different roles to men or women. This labelling appears to be guided by the models they interact with in their day-to-day. So, for example, their dad in his job as a tradesperson, or the mom as their main carer. However these are not exclusive, and female leaders can still be represented in more common male categories. For example, a tradesperson can also be depicted as a woman, as illustrated in Exhibit 54.

Exhibit 54

Child 167

Researcher: Okay, can you please tell me what's going on in your drawing?

Girl: It's about a builder, so this is its tools and it's leading all the other builders, so it's the leader builder. She's wearing a dress and she's happy and her hair is almost the same dark as me.

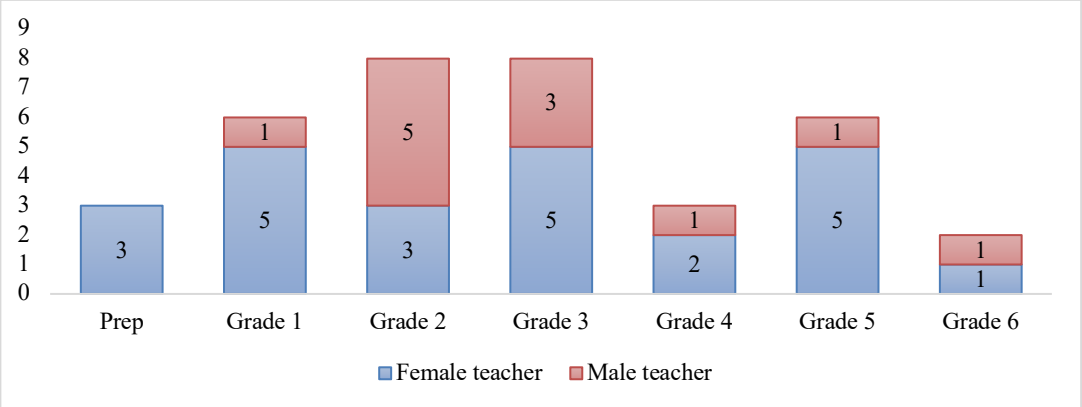
Researcher: Very nice. And what's this up there?

Girl: So that's her bow in her hair… That's her high heels… Yeah, she's a leader of the other builders. (Girl, Prep, 6Y/1M)

Another example, opposing gender-biased ideas during this time, is found in the teacher role. Previous research (Liu et al., 2012) had found that teacher is often categorised as a female stereotypic role, however in the present sample, as illustrated in Figure 29, male teachers were chosen one third of the times and depictions of male leaders were found across all grades, except Prep. No child in Prep drew a male teacher, and all Prep teachers were women at the time of data collection, as illustrated in Figure 30. Then, Grade 1, Grade 4, and Grade 6 had men classroom teachers, and congruently, children in these grades depicted a male teacher. Perhaps children in Grade 2, 3, and 5, have had previous experiences with male classroom teachers in previous years. The fact is that the children who hadn't experienced male teachers did not depict one, and the ones that had, did so.

Figure 29

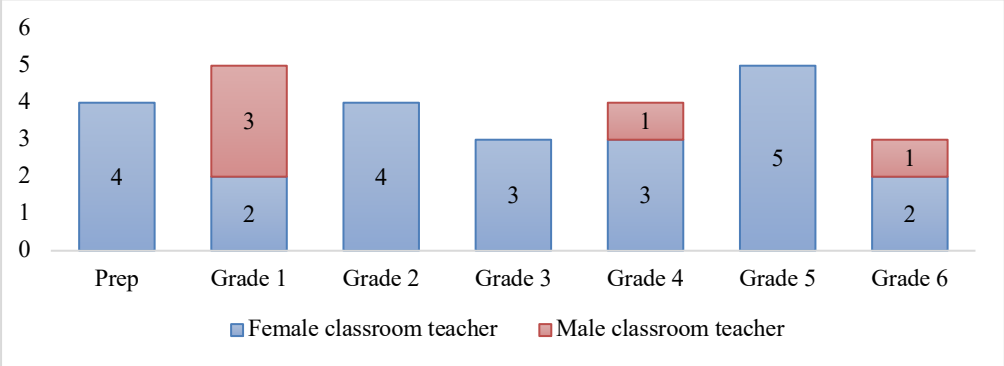
Number of man and woman teachers depicted in each grade



*Note: This figure shows the number of female and male teachers depicted in each grade (female teachers = 24, male teachers= 12)

Figure 30

Number of men and women classroom teachers at the time of data collection



*Note: This figure shows the number of man and woman teachers noted by each grade (women = 24, men= 5)

Exhibit 55

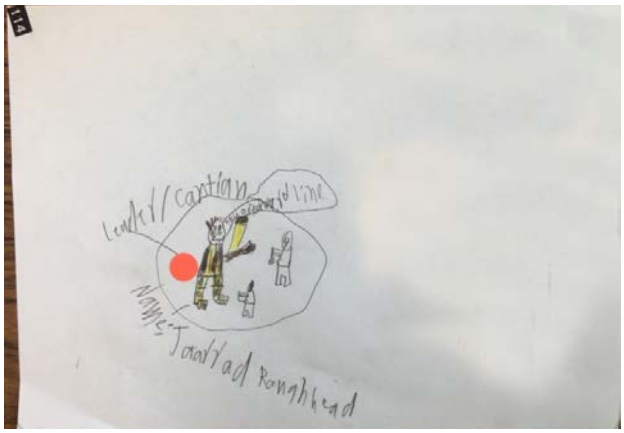
Child 164

Researcher: The first question is if you can please describe your drawing to me?

Girl: Well, it's pretty much a teacher and some kids and they're on an excursion and the teacher is saying, "Jump down the hill" and it's pretty much like follow the leader, pretty much, because they're all in a line. (Girl, Grade 6, 12Y/2M)

Such evidence suggests that gender choices of leader roles are more reflective of the stimuli received in their day to day, rather than in response to gender bias, at this stage. If a line leader can be male or female, this is reflected in their choices, and then, if the stimuli shows that a teacher is more often a woman, but can also be a man, this is shown in their representations of leaders. And then, as children grow older, and they are more exposed to new referents from the political, sports, or entertainment arenas, they seem to nominate models that have the highest exposure in their environments, but also who they are attracted to, and have made some kind of cognitive impact. So, if a child is attracted to sports, for example football, and the male models are players, while the female models are cheerleaders, these gender-roles reflect in their ILTs.

Exhibit 56
Child 114



Boy: So first, here, I done the Hawthorn leader, Jarryd Roughead, and-

Researcher: Which leader?

Boy: This leader. His name is Jarryd Roughead[5], and he's telling other players where to go, like forward, middle, back. (Boy, Grade 3, 9Y/1M)

Exhibit 57

Child 123

Girl: I drew a cheerleader cheering for a basketball game, or a soccer game, and then there's a crowd in the background. And they're all cheering for a team.

Researcher: Beautiful. And can you tell me more, what is your leader like? What is she like?

Girl: Well, she's cheerleading for a team, and she's ... She's saying nice things to them to make them get better, and like, yeah. (Girl, Grade 3, 8Y/7M)

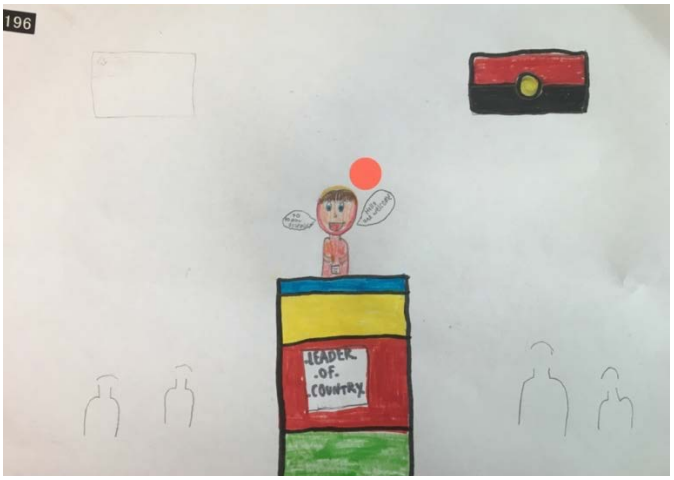
Guided by the number of exemplars that grow across primary school, as illustrated in Appendix I, it can be said that, as children grow older, they increasingly tend to nominate a specific person, often a politician. Here, they are not assigning a gender to the role (e.g. cheerleader to female), they are noting an exemplar who has a gender (e.g. Former Australian Prime Minister Kevin Rudd). And, as their dimensional

[5] Retired professional Australian footballer who played for the Hawthorn Football Club in the Australian Football League.

appreciation expands, and children appear to grow more attentive to include humanitarian or environmentally focused ideas, they appear to pick up on the incentives found in this context across their environments. Subsequently, they choose either recognised political figures, or a general political role, as detailed in Appendix T. In the case of exemplars, or specific persons, they don't seem to respond to a gender bias where they think that a politician is male, because they are choosing a representative from the category, who exists, they have somehow become aware of, has had an impact, and then, they can recall. For example, in Exhibit 58, a girl refers to former Australian Prime Minister Kevin Rudd's National Apology on 13 February 2008, formally acknowledging the suffering caused by decades of mistreatment of Indigenous Australians.

Exhibit 58

Child 196



Girl: So this is the leader of the country, and these are the people that he is talking to. And they're discussing what the topic is in that country. For instance, he's not really talking about, I don't remember off the top of my head, but I remember there was the ...

Researcher: You forgot.

Girl: I forgot. I was thinking of it. The Stolen Generation. So he's just saying "sorry" to all the people it happened to, and it's pretty much-

Researcher: Okay, cool. So is this a man or a woman?

Girl: It is a man. He said "sorry" but in the case that the country is it could be either. (Girl, Grade 6, 11Y/7M)

On the other hand, generic political leaders are associated with male leaders twice of the times, as detailed in Appendix T. Which takes us to the question, is it because they think politicians are male? Or is it because the environment is displaying more male political figures, which shows, just as in the case of teachers, a bigger number where there is more? Where there is more familiarity? For example, ideas of male political figures are visually similar, where the leader is often standing on a lectern nearly 80% of the times, as exemplified in Exhibit 59. This prototypic image is familiar to male representatives.

Exhibit 59

Collage of depictions of male political leaders

Boy 077: So the leader wants to make the world a better place and- They are all his family and friends, and- (Boy, Grade 2, 7Y/9M)

Girl 019: So that's the president of this state, and he's really royal, so he has the red carpet, and then these are some stairs and some bushes to the side. Here's the sky, and he's saying "I'm the state president and I work for you." (Girl, Grade 3, 8Y/6M)

Boy 102: Okay, so their prime minister in this picture is just giving a speech about something that's going on in parliament house about something that's going on, something bad or something good that's happened. And that's what I think a leader is, that's what I think a leader does, that's what they do, they talk about issues, they talk about problems, think about things that they can fix, and discuss with other people. (Boy, Grade 6, 12Y/3M)

Girl 122: The first thing I thought of like prime minister because like they're the person who kind of like controls how the country runs and like a kind of things. (Girl, Grade 6, 11Y/5M)

Boy 261: It's sort of like a leader of a country saying that the coal power plant, that even though he doesn't really need it and he's not really thinking about the future. (Boy, Grade 5, 11Y/4M)

Girl 033: So pretty much this leader, or certainly anyone, I just drew it, is sitting down thinking of important things that may affect our society, and that's the important thing… Like, remember last year with the 'yes' vote

that changed everything for a lot of people. They had to make some very important decisions if they were going to allow it or not. So they put it to a vote like most things happen. (Girl, Grade 6, 12Y/3M)

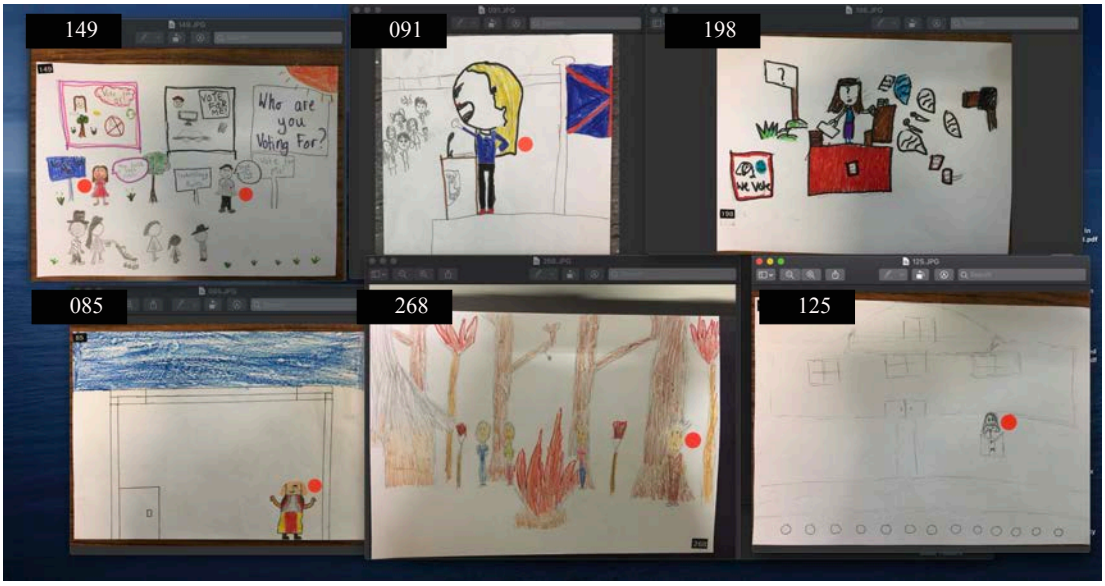
Boy 216: So, he is at a meeting and talking to all the other people... and I don't really know how to say it, but he's talking to a lot of other people and... I don't know. He is the mayor. (Boy, Grade 3, 9Y/2M)

Girl 073: It's the leader of a country. (Girl, Grade 6, 12Y/1M)

And then, a few depictions of political leaders (seven), all drawn by girls except one, none of them exemplars, or socially renowned, show a less homogeneous visual content when compared to the male depictions, as illustrated in Exhibit 60. Additionally, the narratives describe unnamed, incognito, spiritual, or angry leaders, as detailed in Exhibit 60.

Exhibit 60

Collage of depictions of female political leaders



Girl 149: That person [left female] is ... wants everyone to be environmental, and because they're having an election, and it's saying to vote for her. [Right] He likes technology. And, he [right male] wants to develop new

technology… And, sort of, like, make more things that aren't really natural. (Girl, Grade 4, 9Y/10M)

Girl 091: Well, I didn't know what to draw at first when you said a leader, so I just drew a leader standing on a stage yelling into a microphone in a crowd of people about what she's going to do in the future. [She's yelling] Because she's angry at other leaders, and how she will change the world, and how she's just kind of ... (Girl, Grade 5, 11Y/3M)

Girl 198: Because, it could be anybody. Any religion, anything, so it could be a religion topic, or woman rights, or people's rights, and everything, so I just did that. Um, it's just I, that's one of the sides ... cause I'm not going to stick on just one side ... there's always two sides to the campaign, and I think that's only one of the sides. (Girl, Grade 6, 12Y/2M)

Boy 085: So this is the government and that's the leader of the government. It's happening in America. It's a girl and she tells everyone what to do and she has her own office and she tells the other people to go do stuff that she needs to get finished. (Boy, Grade 3, 9Y/1M)

Girl 268: I thought that this would be a chief or a leader and they go out in the bush and the leader tells them what to do and stuff. It's a lady. [Lips are downwards because] I saw on this YouTube clip that they went to this tribe council thing [in New Zealand] and they said do not smile or laugh. It will make the spirits come out of the fire. (Girl, Grade 6, 11Y/5M)

Girl 125: [Chose a woman Australian prime Minister] Because there's only been one woman having this and the rest have all been men so I thought well it's actually not kind of fair that men get all the Prime Minister jobs, so I was going to do a man but then I'm like no, it's if we've just done women equality so we'll do a woman. (Girl, Grade 6, 11Y/6M)

This behaviour could mean that leadership categorisation processes of female and male leaders follow a different developmental process in children at this time, and that by the end of primary school, male perception is often exemplified by recognised representatives within a category (in this case political), while female notions are more disperse or amorphous. Children appear to have a less common idea of what a female political leader is, and much more awareness of the male standing in the political

context, which may cause a higher frequency in male referents. And because at this time, children are awakened to the humanitarian or environmentally concerned dimension, they are sensitive to political exemplars who respond to this perceptual rousing. But because children are not as exposed to female political exemplars as to male exemplars, they don't receive equal-gender stimuli, so they stumble in their attributions to female leaders, and increase their preference towards male political figures. Or to self-projected versions of female leaders, even opposing male models, and addressing gender inequality, as shown in Exhibit 61.

Exhibit 61

Child 266

Child: Um, my drawing is a regular person, who is up on a podium. And is not technically a leader, just a person that's just talking about stuff. Because to me a leader isn't like a specific person, it's like general people that are working together. So it's like a teamwork.

Researcher: Excellent. So she's mostly talking about what a leader is. Can you please tell me what she's saying?

Child: A leader isn't a Prime Minister. It is person that takes control of their actions.

Researcher: Oh cool. And what do you mean by that?

Child: Like, say for example, is the Prime Minister like Scott Morrison, who is our one in Australia. He is the boss of everybody. It's like, we are all our own boss. We get to decide what we do every day. It's a choice that we make individually. Like not what other people say.

Researcher: Awesome and is there any particular reason it's a girl? Right?

Child: Yeah. I'm very, very strong like that. About how women rights and how women don't get the opportunities as men do. So I put a girl there because it's representing from a different perspective.

Researcher: Cool. And is she talking to somebody? Like are there people, maybe...or who's she talking to?

Child: Um, she's not really talking too much. Just herself, telling her no one can control her. It's just her, she can make her own decisions. Yeah.

Speaker 1: And it seems like she's wearing something particular. What's she wearing?

Child: She's wearing a school uniform.

Speaker 1: Okay. So, how old do you think she would be?

Child: Possibly our age, like year 6. Like 11 to 12. (Girl, Grade 6, 11Y/4M)

Also opposing gender favouritism, in very few cases, a couple of older boys specified the leader not having a determined gender, as illustrated in Exhibit 62 and Exhibit 63. And even though they are exceptional, it denoted the possibility of children holding, or wanting to hold, unbiased presumptions of leader gender across roles.

Exhibit 62

Child 059

Researcher: Okay, so the first question is if you can please describe your drawing to me.

Boy: Well, this is at a university where a manager is doing a presentation [left], and this is the Queen of England [right].

Researcher: So ... what is this manager, can you tell me more about this person.

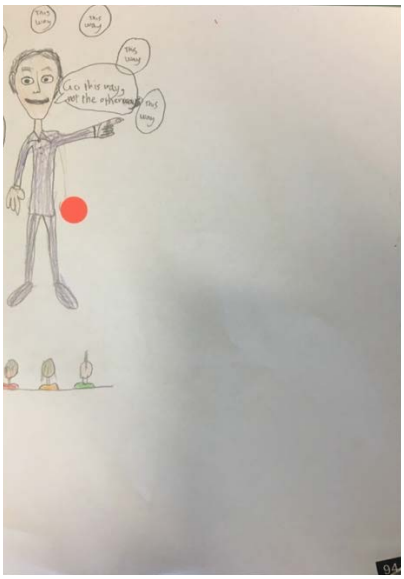
Boy: Well it's a biology manager.

Researcher: Can you tell me if it's a man or a woman?

Boy: It could be either. (Boy, Grade 4, 9Y/7M)

Exhibit 63

Child 094



Researcher: So the first question is, if you can please just describe your drawing to me.

Boy: Okay. So right here is the leader, and he is saying, it could be a she, go this way, not the other way. And there's all these circles, and they have this way, and it's basically pointing at a way. And he's saying that to some people.

Researcher: Perfect. That's pretty clear. And is that a grownup, would you think? Or did you think about that?

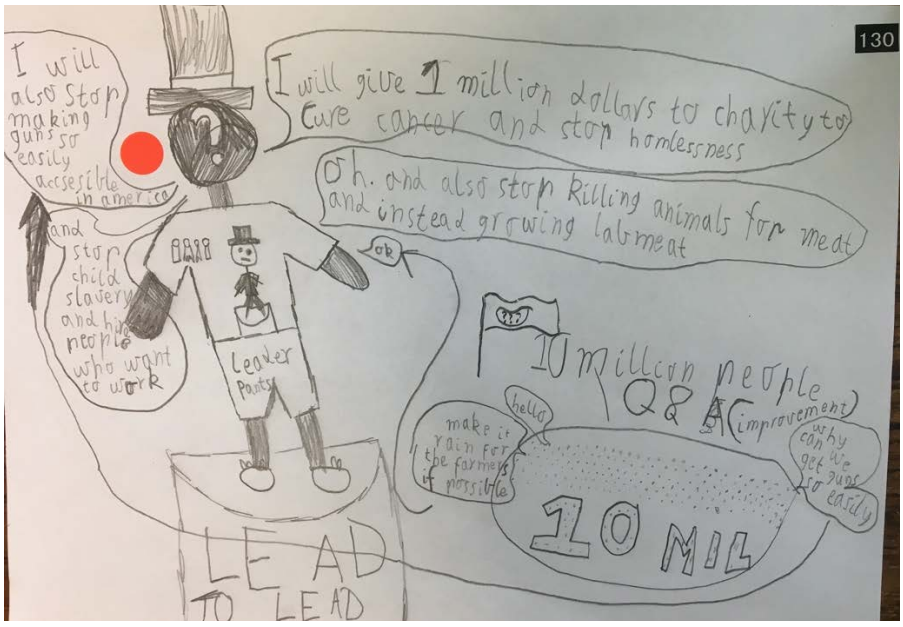
Boy: It doesn't really matter. I just want to draw a person, really. (Boy, Grade 5, 11Y/3M)

Conclusively, these results may align with ideas that male leaders are more often associated with military personnel, political leaders, or managers and supervisors, and that female leaders are more often associated with teachers, parents, or other children (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Liu et al., 2012), but this does not offer sufficient ground to determine that children in primary school have

gender-specific leadership role stereotypes (Frost, 2016). However, it can mean that they may follow different categorisation processes, when labelling male and female leaders guided by environmental gender-based stimuli. On the whole, social role content across primary school appears to not be assumed or biased, but experiential and engrossed and, sometimes, illusory, surpassing referents found in the real world, and portraying ideal or imaginary models of how they would dream or would like the leader to be.

Exhibit 64

Child 130



Boy: Well, there's 10 million people gathered up in this circle. Then they're asking questions and he's making improvements because of what they're asking.

Researcher: Awesome. Can you please read out some of the questions that you wrote?

Boy: Make it rain for the farmers if possible.

Researcher: Is there an answer for that?

Speaker 2:	He said, “Okay.”
Researcher:	Next.
Boy:	Why can we get guns so easily? I will also stop making guns so easily accessible in America.
Researcher:	This leader is an American leader?
Boy:	Yes.
Researcher:	Cool. Any other question there?
Boy:	Well, there’s no other questions but he’s also doing, “I will give one million dollars to charity to cure cancer, stop homelessness, child slavery, and hire people who want to work.”
Researcher:	And?
Boy:	And also stop killing animals for meat and instead growing lab meat. (Boy, Grade 3, 9Y/3M)

Followers. Next, the study investigated if female leaders were more often depicted accompanied by followers, consistent with Ayman-Nolley and Ayman (2005). However, in the present study, male leaders appeared more often accompanied by followers (62%) than female leaders (38%), as illustrated in Appendix U.

Exhibit 65

Child 224

Boy:	Hi, I've done, I've made the leader water the plant, put the plants in some little pots, and I've made the dirt and coloured the leaves in.
Boy:	In the other picture we have a sun, we've got some more holders, and some general people watering.
Boy:	The leader's holding a carrot, and even more people, and more dirt, and more leaves.
Researcher:	Cool, and so, if this is their leader, who are those?
Boy:	They help him with watering the plants. (Boy, Grade 1, 6Y/8M)

Smiling leaders. Ayman-Nolley and Ayman (2005) also found in their studies that female leaders were drawn smiling more often than male leaders, based on the number of drawings with lips upwards. The present study found that Prep children drew leaders smiling 80% of the times, from which and more often female leaders smiling (20 drawings = 47%), than male leaders smiling (14 drawings =33%), as detailed in Appendix V, which is consistent with Ayman-Nolley and Ayman (2005), however, this

tendency did not prevail into the other grades. From the total of drawings where the leader featured lips upwards (151 drawings), 76 drawings (50%) were of a male leader and 75 drawings (50%) were of a female leader, as illustrated in Appendix V.

Subsequently, there wasn't a clear tendency of female leaders being drawn with smiles more often than male leaders. Even in some cases, male leaders were drawn more often smiling than female leaders, for example, in Grade 2, 13 drawings of a total of 30 (43%) drew a male leader smiling, and six drawings (20%), drew a female leader smiling. Similarly, the older children in Grade 6, depicted more male leaders smiling (11 drawings out of 39 =28%), than female leaders smiling (7 drawings =18%).

5.1.6 Conclusion. This first part of the results chapter has analysed the data in light of the research question *How do children's ILTs develop?* Conclusively, it can be said that children's ILTs development can be observed across the three key points in time identified in the literature (early, middle, and late primary school), because at those times, dimensional combinations, and functional orientations show a distinctive blend in the majority of the children from those grades. These arenas (dimensions, orientations) contain rich context-based content where models are sampled and where categories form. In this particular sample, there were 168 different roles assigned to leaders from more than 60 different contexts (see Appendix Z). Subsequently, across dimensions and functional orientations, content is absorbed, categorised, and developed.

However, this doesn't mean that all children are circumscribed to these developmental cues. The stimuli that each child is exposed to in their day-to-day life across proximal contexts such as family or school, as well as in wider media and

entertainment filled environments, impacts their ideas and developmental cognition of the leader concept. Subsequently, there are children who are early adopters of ideas that can be more commonly seen in more advanced grades, and common ideas in younger children can be found belated, in older kids. Next, is a summary of the more popular developmental characteristics across the three key points in time.

Early primary school. Generically, during early primary school inclusive of Prep, Grade 1 and Grade 2 children, children's ideas of leaders are mostly functional, combined with physical or spatial notations held mostly within the line leader prototype. Their emphasis in operative ideas of leaders are mostly task-oriented but can occasionally be maintenance-oriented. School has the highest impact on their ideas of leaders, followed by family (Sacks, 2009), so they often name roles from their immediate context (DeHaan, 1962; Palich & Hom, 1992).

However, there are distinctive characteristics to the youngest children who have just started schooling. Prep children show the most positive views, never illustrating leaders with lips downwards and drawing leaders smiling more than any other group (Ayman-Nolley & Ayman, 2005). Distinctively, they see a leader as a child half of the times, and, consistent with DeHaan (1962) and Okamura (1968), they have the most peaceful views across all children in primary school, with only one depiction of violence found in this young group. Also they do not appear to be sensitive to a high level of detail, for example, beyond a family member (e.g. mom or dad), they do not name specific persons or exemplars, such as a political leader, fictional character, or a famous person, and they also do not refer to a leader's ethnicity.

However, as children reach Grade 1, around six and seven years old, notable changes emerge. From here, and for the rest of early primary school, they mostly name adult referents (Sacks, 2009) such as teachers, tradespersons, and family members. Children also start to associate socially recognised exemplars to leaders (Hess & Easton, 1960; Okamura, 1968), for example, Donald Trump, Darth Vader, or Ronaldo. They also begin to include ethnicity referents, smiling leaders diminish and leaders talking or with lips straight emerge. Violence content shows a tenfold increase to the youngest children, which is informed equally by fiction (monsters, or creatures attacking), nature (hunting, or killing dinosaurs), and social phenomena such as someone stealing something, war, bullying, an angry boss, or Donald Trump disrespecting the Queen. Notions of conflict, disagreement, confrontation, or argument in leader ideas also emerge during this time.

Middle primary school. During this time, between eight and nine years old, children appear to be in a moment of perceptual amplification, where they offer the most varied content of leader roles, as well as exemplars, and followers (Ayman-Nolley & Ayman, 2005), across contexts, when compared to the other groups. Here, the majority of children hold a mix of functional and socio-emotional ideas of leaders, which is often attached to an adult. Also during this time, there is an emergence of change-oriented perception, where the leader can advocate or envision a transformation (Yukl, 2012).

Leader models are obtained more often from ‘wider’ contexts such as political, royalty, entertainment, military, sports, and religious spheres (Hess & Easton, 1960;

Nemerowicz & Rosi, 1997; Okamura, 1968; Sacks, 2009) than from their most 'proximal' (family, school, or friends) (DeHaan, 1962; Palich & Hom, 1992). They are also more prone to depicting socially recognised images of leaders (Ayman-Nolley & Ayman, 2005) being the group that denoted the most diverse list of exemplars. From here onwards, children begin to, and also more than others, depict leaders with lips downwards. They also include violence content more than the younger children, which is gathered half of the times from political contexts (Donald Trump and Kim Jong-un), but also from war, parents' work environments (angry boss), and fictional or imaginary ideas (mean tomato, big red nosed army). They are the group that described more ideas of conflict, disagreement, confrontation, or argument. These confrontational tendencies in their perceptions of leaders has been explained by the emergence of positive and negative leadership thresholds during this time (Ayman-Nolley & Ayman, 2005).

This intensified phase of leadership perception can be a natural response to intensified stimuli. During this time, children report that their ideas of leaders are being influenced by media including TV, news, newspaper, radio, but also movies, Internet, YouTube, magazines, Google, and gossip. Through these mediums, children expand the contexts they know, either by being more sensitive to such stimuli (Ayman-Nolley & Ayman, 2005; Nemerowicz & Rosi, 1997; Sacks, 2009; Selman et al., 1977), more exposed to (Ayman-Nolley & Ayman, 2005; Hess & Easton, 1960; Massey, 1975; Okamura, 1968; Oliveira, 2016), and/or more interested.

Late Primary School. During late primary school, children's ideas are most commonly functional, mixed with socio-emotional, and also attentive to humanitarian

or environmentally concerned impact. A leader is more than half of the times an adult political figure or exemplar. For this age group, stimuli appears to be more controlled by, or focused towards a governance framework. Subsequently, change-oriented functional ideas grow, in light of socio-centric or worldly views of leaders. This is reflected in the sources from where they obtain exemplar referents, which appear to be more curated, with less presence of entertainment and more of media (news across TV, radio, Internet). In less proportion, leadership roles from the school context grow, such as school principal, child, or adolescent leader (Sacks, 2009), however, the frequency of teacher assigned roles continues diminishing into the higher grades. Children in this grade group noted family members in a similar way to the youngest children, pointing towards a U-shaped developmental tendency (Ayman-Nolley & Ayman, 2005) exclusive to family social-role content in children's ILTs. Overall, the influence of entertainment stimuli, appears to diminish, and attention seems to be more towards politics, media, school, and family.

Additionally, during this time, children draw the least number of leaders smiling, and bigger number of leaders with open mouth, speaking, or lips straight. This can be explained by higher content of external aspects of the leader, such as networking, or speaking in public. Before reaching their senior year, children present the highest content of violence, informed by political covered events, such as Donald Trump building a wall abusing Mexicans, or alongside Kim Jong-un, launching missiles, or rockets. Also by war violence and workplace conflict (angry, or abusive boss). Racial discrimination awareness is also found in children during this time. The development of

personal judgement towards others' actions, may explain increased critical, and sometimes negative views leaders during this time (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960; Okamura, 1968), however, children in Grade 6 did not show as high violence content as those in the prior year, which supports theories of violence decreasing in frequency towards the end of primary school (Ayman-Nolley & Ayman, 2005). Fictional or imaginary characters decrease to a fifth during this time, hence, human-real-life ideas of leaders are the most prominent when children graduate from primary school.

In conclusion, children's ideas of leaders can be seen as elaborated and complex during each particular phase. However, there is a transformation of the conceptual cognition of leader across time, which can be the base for a theory of sophistication of children' ideas of leader as they grow. The transformation is found throughout the improvement of language and verbal ability (Broich, 1929; DeHaan, 1962), as they are increasingly more capable of including more information about the leader, with an increased level of detail. But this is not a centre line. Even if children can talk more, it does not mean that they have a more elaborated or more complex understanding of the leader concept. The study shows that their understanding can be one-dimensional and expand into two, three, or even four-dimensional ideas (physical/spatial, functional, socio-emotional/relational, and humanitarian/environmentally-concerned). And this also applies to functional orientation, where children can have task, maintenance, change, or/and external oriented notions of a leader's actions. The capacity to see a leader across more dimensions, or more functional orientations shows a deeper understanding of a

leader, which refines their categorisation processes in leadership cognition, shaping their ideas of leaders, and eventually, their response to leaders and leadership.

How do children expand their cognition across dimensions, orientations, and categories? The results show that it is intrinsic to the stimuli found in their day to day experiences (Sacks, 2009; Salmond & Fleshman, 2010), not only as individuals, family members, friends, students, group members, local and world citizens, but also as perceptive receptors of the environments that they are immersed in. From six years old, children are listening, seeing, and/or finding information that strongly impact their ideas of leaders. This is how they expand their knowledge of the social structures that surround them (Piaget, 1932; Selman & Jaquette, 1977; Selman et al., 1977), and this is why the results find that sometimes younger children can hold a more sophisticated, abstract, understanding of leader, than older children.

5.2 How do children's ILTs related to adult ILTs?

Since the present study aims to explore how the content of children ILTs relate to adult ILTs, their recurring ideas needed to be compared with ILT structures found in adults. Adult ILT generalisability studies have found adults' perceptive stability over time (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994) across factor structure that contain adult primary dimensions of ILTs. These factors, that appear to have been common to people's ideas of leaders, over two decades, and across organisational, social, and contextual change (Offermann & Coats, 2018), marked the foundation for the present study's exploration of children's ideas connection to adult ILTs.

These distinct factors include a leader's dynamism, sensitivity, dedication, strength, well-groomed, attractiveness, intelligence, masculinity, creativity, charisma, and tyranny (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994). Each of these, are conformed of sample items that carry weight for adults when defining or rating leaders. ILT researchers, taking a socially constructed approach, have looked at the structure of ILTs and found that they contain items that they denominated traits. These can be seen in detail in Table 2 (literature review).

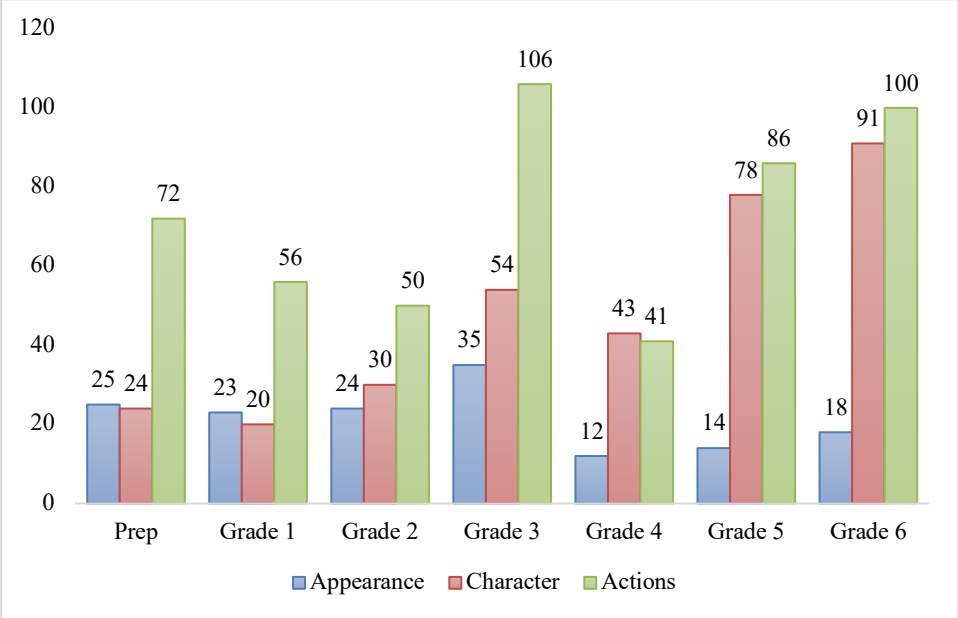
This kind of structure research is non-existent in studies of children's ideas of leaders and ILTs. Prior studies had superficially noted a handful of relevant characteristics of leaders to children, as illustrated in Table 4 (literature review). And some of these, were of a 'leader' (Broich, 1929; Jennings, 1943; Salmond & Fleshman, 2010; Stogdill, 1948; Tryon, 1939), others were of an 'ideal leader' (Ayman-Nolley & Ayman, 2005; Chauvin & Karnes, 1982, 1984; Nemerowicz & Rosi, 1997), others of a 'good leader' (Sacks, 2009), and the 'preferred and favourite leader' (bounded to a religious context) (Oliveira, 2016). Subsequently, there was a gap in the literature looking at primary school children's structures of common elements similar to those in adults looking at a leader's character, appearance, or behaviour.

5.2.1 Children's ILTs characterisation. Taking a socially constructed approach, this study contributes a quantified impression of children's ILTs, looking at the structure of adult ILT generalisability theory, in search of items that make up the content of children's ideas of leaders. This is done across key points in time, gathering the descriptions of a leader when children are asked to draw a leader leading, describing

the narrative in their drawings, or answering the *Q What is a leader?* To explore this content, the present study presents the results in reference to over 1,000 notations by children about a leader's appearance, character, and actions. The results show that the behavioural aspect of leaders makes, on average, half of the total of contributions given to a leader across all primary school grades. In total, 97 different actions were associated with what a leader does, as illustrated in Appendix AA. However, as they grow older, they talk significantly more about a leader's character, duplicating in middle primary school, and quadrupling by the end of primary school, mentioned almost as often as a leader's actions, as noted in Figure 31 and Appendix BB. This supports research affirming that children in middle primary school begin to have more notions within relational notions of leadership (Ayman-Nolley & Ayman, 2005; Nemerowicz & Rosi, 1997; Oliveira, 2016; Salmond & Fleshman, 2010; Selman et al., 1977; Yarrow & Campbell, 1963). The results also show that the leader's appearance become less prominent as children grow older, consistent also with research noting that the youngest children's perceptions of leadership are more physical (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960; Sacks, 2009; Selman et al., 1977). These final results are presented in accordance with the notions of development obtained consistently in the literature review (early primary school, middle primary school, and late primary school) to contribute to the research on the progression of the leadership concept across childhood.

Figure 31

Distribution of leader's notations within trait dimensions across grades



*Note: This figure shows the distribution across grades of n=1,002 notations of a leader, including appearance, character, and behaviour.

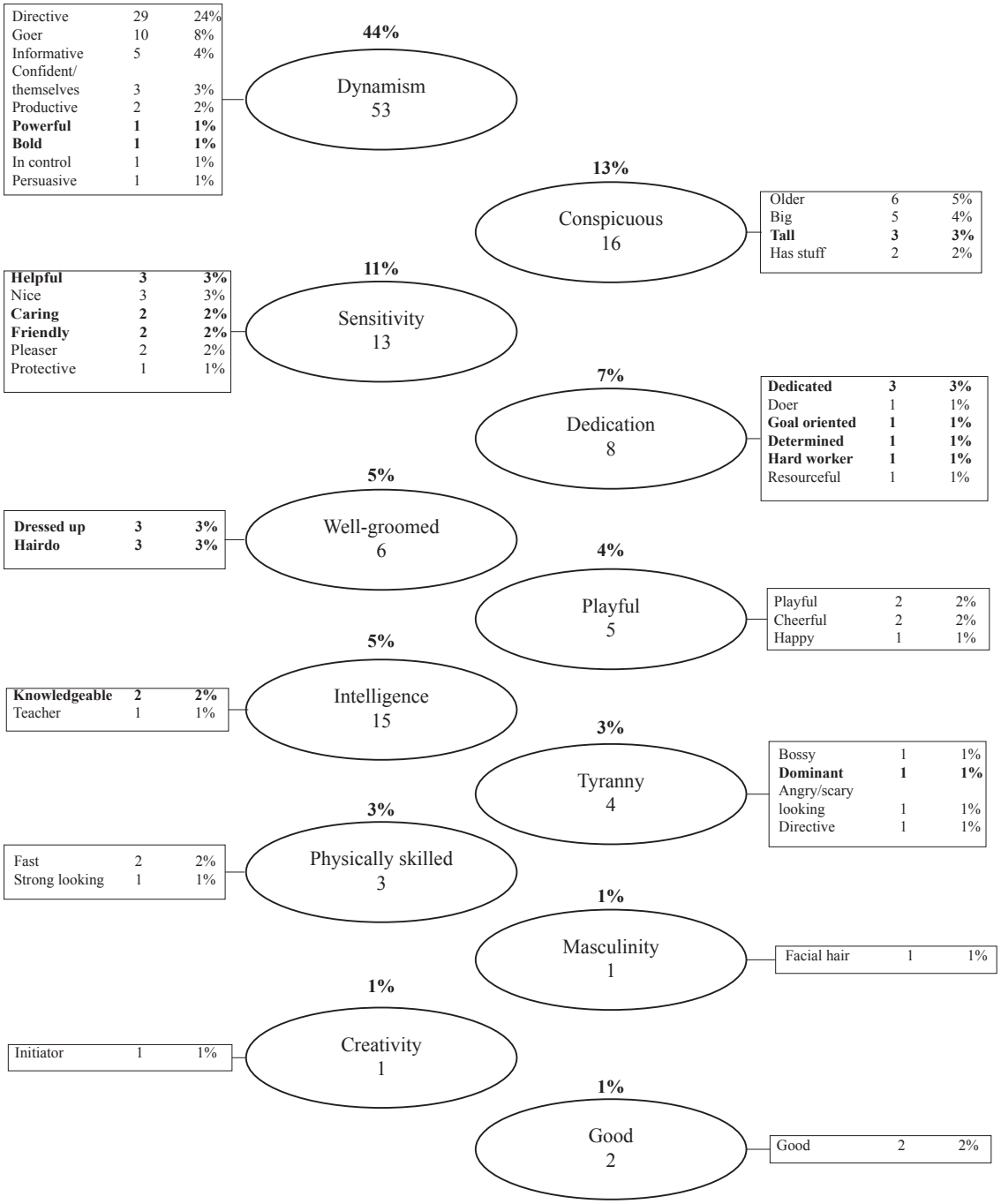
Early Primary School. Because the youngest children between five and six years old show a distinctive positivistic, peaceful, child-adult balanced idea of leaders, the analysis of characteristics, has looked at this group separately, as illustrated in Figure 32.

Prep. The youngest children in Prep perceive a leader primarily as directive, by 'telling what to do', 'saying what to do', or 'telling to go', as illustrated in Figure 32, and in further detail in Appendix CC. The leader can also be perceived as a 'goer' during this time, taking someone or something spatially, to another place. These task-focused primary traits lie within a leader's dynamism, since they are initiatives taken by

the leader to bring change or movement to the interaction with others. The youngest children also describe sometimes a leader's notoriety by being older, big, or tall which have been grouped under the factor conspicuous, since these are traits that are visible and observable. Then, the youngest children occasionally denote a leader's sensitivity, mostly by being helpful, nice, and caring, as shown in Figure 32, and in further detail in Appendix DD.

Figure 32

Trait based content of Prep children's ILTs across factors



*Note: This figure shows the characteristics n= 120 of a leader expressed by the youngest children in Prep, coded into traits following a three-step thematic coding

(researcher -> teacher -> member supervisory team) detailed in Appendix CC, and grouped within factors and clusters guided by ILTs generalisability theory (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994). Five (4%) notations were catalogued as NA. Traits in bold are found in adult generalisability studies.

Grade 1 and 2. Between Prep and Grade 1 and 2, the leader's sensitivity doubles in content, as illustrated in Figure 33, and in further detail in Appendix DD. So while in Prep, it was the third most noted, after dynamism and conspicuousness, in Grade 1 and 2, sensitivity is the second highest, holding traits such as helpful, nice, and caring, just like the youngest children, but also seeing the emergence of new items, such as inclusive and kind. During this time, conspicuousness moves to third highest frequent. The leader's physical notoriety is no longer so inclined to the leader being older, but more to the leader being big, bigger, or biggest. The descriptor 'big' (bigger in proportion), had been previously reported in Broich (1929) study of children's perceptions of leaders as a frequent feature in eight-year-old children, whereas in this study it is found earlier. Also children during this time, start to relate to the concept strong as a personality trait and not only as a physical attribute, for example, by making others do what they have to do, or others having to follow them. This evidence relates to Okamura (1968) findings that sometimes concepts or words ascribed to schemas in children can change across childhood.

During this time, children also note for the first time the leader's charisma by

being encouraging to others. Also, all across these early years, notions of a leader being confident, showing power, or acting in control are found in children's ideas of leaders (Broich, 1929; DeHaan, 1962; Jennings, 1943; Salmond & Fleshman, 2010; Stogdill, 1948; Tryon, 1939). In continuity, similar to the youngest children, this grade group perceives a leader primarily as directive (see Appendix DD). However spatial ideas of the leader being a 'goer' diminish (see Appendix DD), while informative increase, as seen in Figure 33, and in further detail in Appendix EE.

Exhibit 66

Child 236

Boy: There is ... kids and the leader.

Boy: And teacher.

Researcher: Cool. And why is that one the leader?

Boy: Oh, because he's the biggest. (Boy, Grade 1, 7Y/6M)

Exhibit 67

Child 165

Girl: …She's also very nice, and she makes feel better whenever I'm sad... (Girl, Grade 2, 8Y/0M)

Exhibit 68

Child 133

Girl: It's the queen. And, I think she is a leader, because she's rules the entire kingdom and makes fair choices for us. She's wearing a rainbow dress.

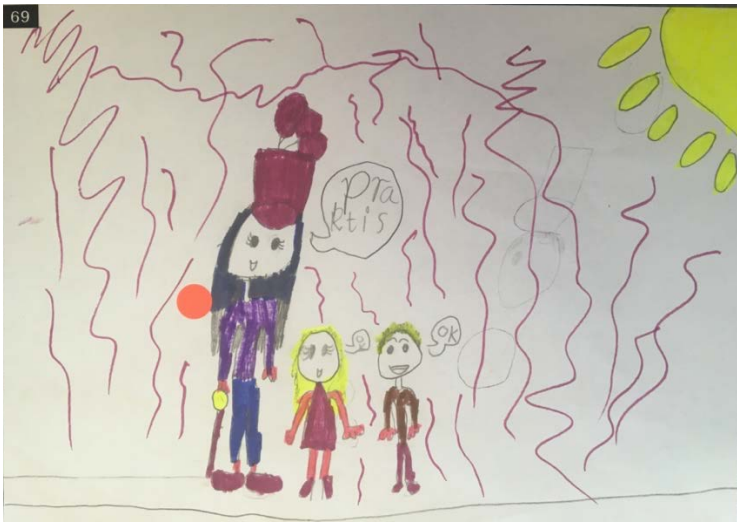
Girl: Because, she's actually kind of like a rainbow queen.

Researcher: And, what does it mean to be the rainbow queen?

Girl: She's a rainbow queen. It's kind of like a kindness queen. So, she lets people into people's countries, and everyone lives really nice and respectful. (Girl, Grade 2, 8Y/1M)

Exhibit 69

Child 069

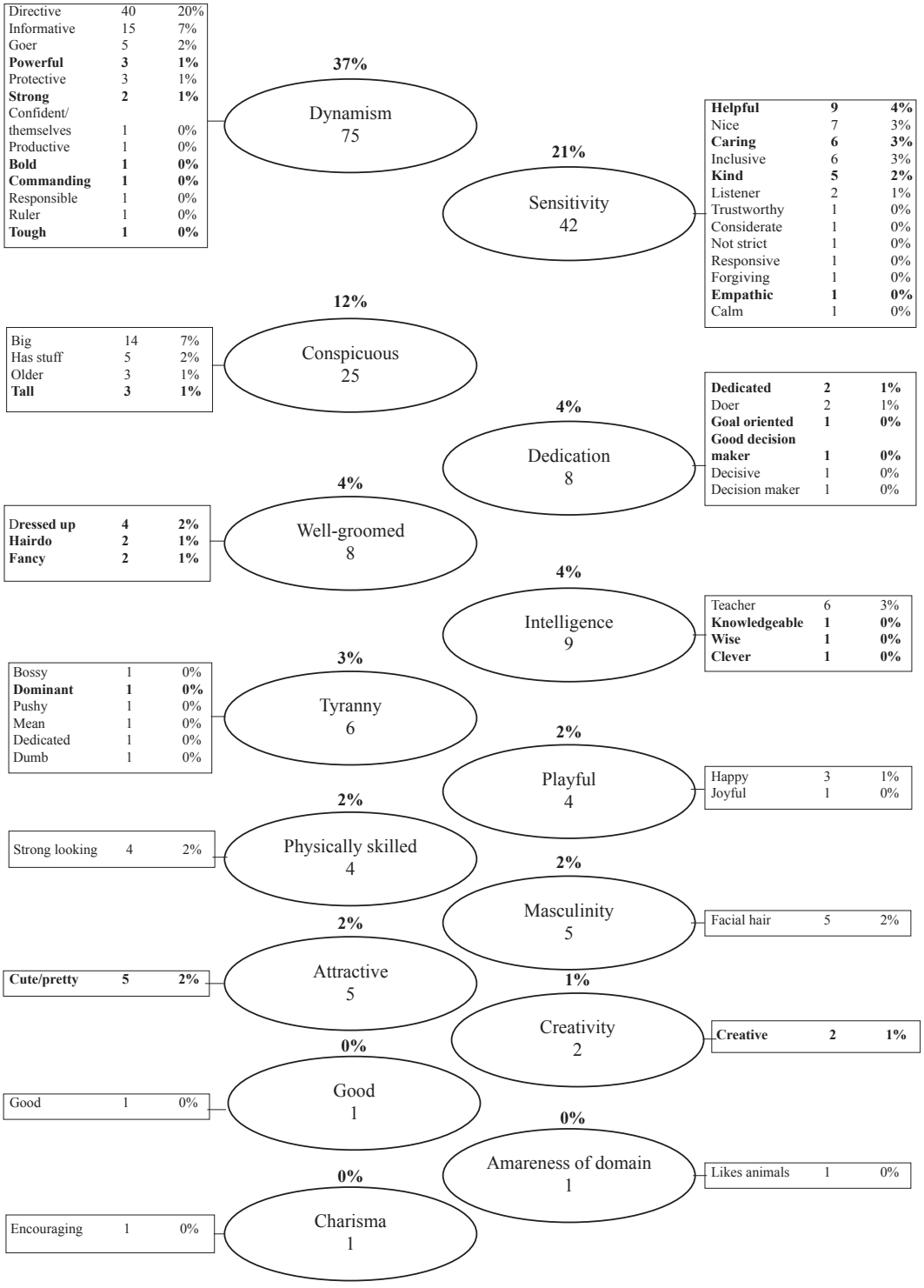


Researcher: What did you draw?

Girl: ... the leader is saying, “Practice makes perfect.” Girl, Grade 1, 6Y/5M

Figure 33

Trait based content of Grade 1 and 2 children's ILTs across factors



*Note: This figure shows the characteristics n= 204 of a leader expressed by the children in Grade 1 and 2, coded into traits following a three-step thematic coding (researcher -> teacher -> Member supervisory team) and grouped within factors and clusters guided by ILTs generalisability theory (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994). Eight (4%) notations were catalogued as NA. Traits in bold are found in adult generalisability studies.

Middle Primary School. Notations about a leader's dedication double during this time, while conspicuousness halves, as illustrated in Figure 34, and in further detail in Appendix FF. These results indicate a potential change in perception during this time, where attention to the leader's commitment and perseverance increases. The leader's dedication is noted by the leader's capacity to make decisions, be decisive, a doer, and someone who plans, and monitors others, as illustrated in Figure 34. In connection, Broich (1929) had reported 'purposefulness' as a relevant trait for eight-year-old children's ideas of a leader's dedication. Children in middle primary school give less focus than the youngest children to the leader being big or older, or to ideas of masculinity such as facial hair. Instead, they pay more attention to the leader having or wearing distinctive paraphernalia, for example, a cap, hat, special outfit, or a pointer or ceremonial stick. The leader 'having stuff', or personal possessions, was a notion of a leader's saliency previously reported by DeHaan (1962) in his study of children's concepts of leadership between five and 17 years old.

Tyranny and charisma content doubles in frequency, and tyranny notations become more frequent than a leader's intelligence or being well-groomed. Tyranny includes new and different notions besides being angry, or bossy, such as the leader being loud and divisive, or hating or bullying others. Also during this time, they introduce the trait funny, while previously, younger children only noted characteristics such as the leader being happy, playful, or cheerful. And also, being aware of a specific domain, in this case, technology 'He likes technology. And, he wants to develop new technology' (Girl 149, Grade 4, 9Y/10M).

Exhibit 70

Child 228

Boy:	It's a picture of a futuristic government asking people questions. He's a human, and he has a paper bag on his face.
Researcher:	Why?
Noah:	He's a strange government.
Researcher:	Oh. Perfect. So these guys like this leader?

Noah: Yeah.

Researcher: Why?

Noah: He's funny, makes lots of good decisions, helps people. (Boy, Grade 3, 9Y/2M)

In continuum, similar to the youngest children, this grade group gives prevalence to the leader's dynamism by giving direction and providing information. However, ideas of the leader being informative increase during this time, while being directive and a 'goer' diminish. In its place, multiple ideas about a leader's dynamism emerge such as being persuasive, ruling, protective, and strong (influential capacity), as illustrated in Figure 34, and in further detail in Appendix FF. Lastly, children in this age group note a leader's sensitivity, similarly to early primary school as the leader firstly being helpful, but also caring, nice, kind, and inclusive. However, new ideas emerge such as the leader being recognising, trustworthy, or supportive. This shows continuity in growth in the identification of more characteristics about a leader's behaviour and character.

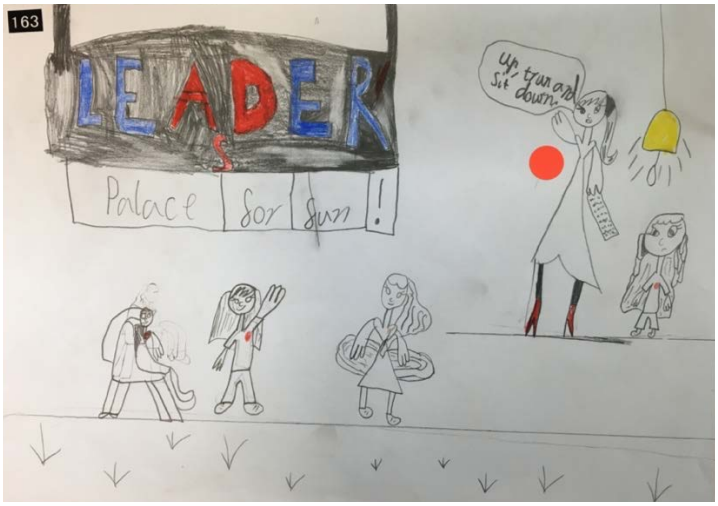
Interview excerpt 8

Child 237

Girl: I think a leader is when the leader is that they tell people to do things and the other people will do it. (Girl, Grade 3, 8Y/10M)

Exhibit 71

Child 163



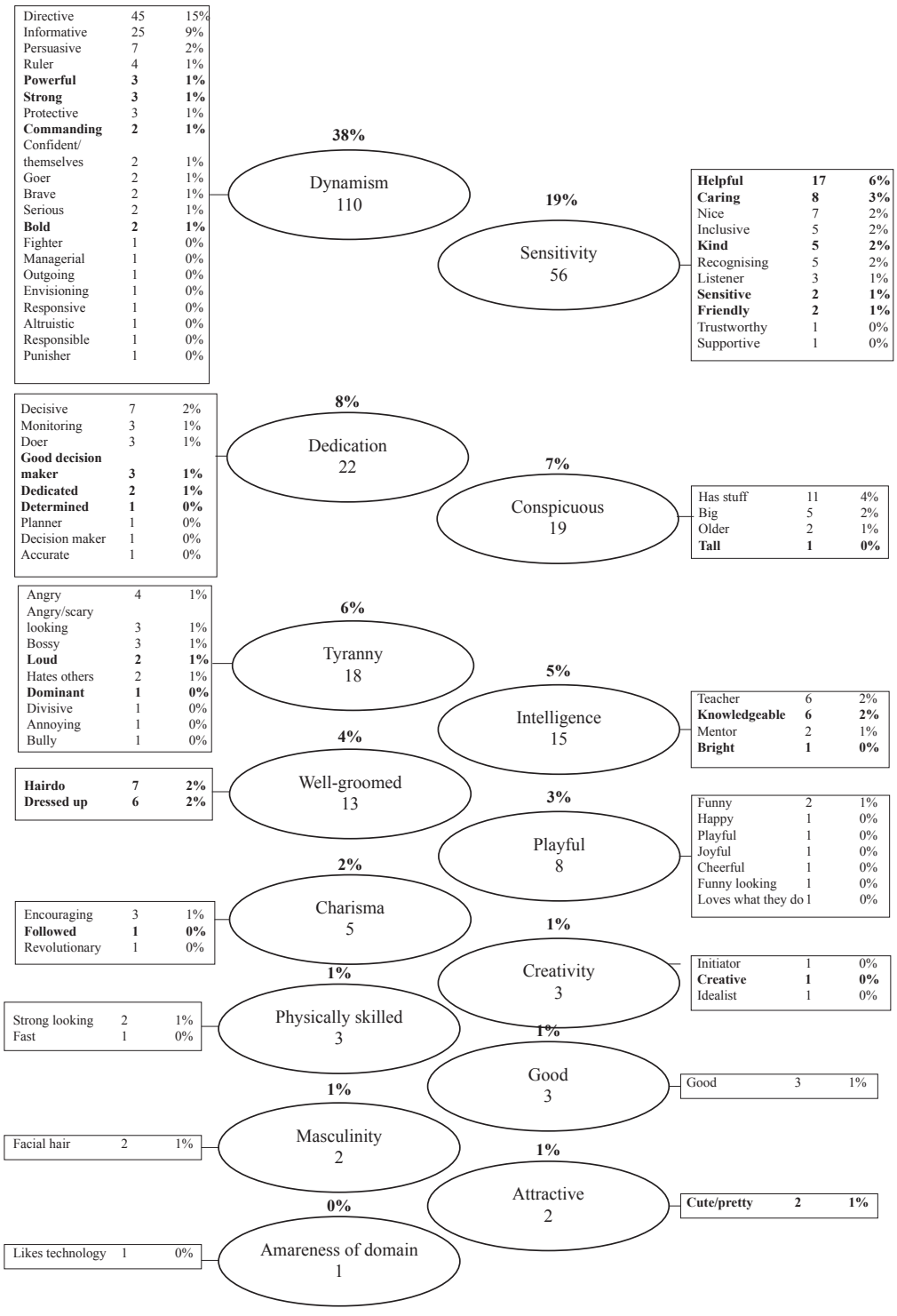
Girl: This is a leader telling three kids, one to stand up, one to turn, and one to sit down.

Researcher: Um-hum.

Girl: And there's a little girl next to the leader and the leader's holding a certificate. This school is for leaders. And this school is called Leaders Place for Fun. (Girl, Grade 3, 9Y/7M)

Figure 34

Trait based content of children's ILTs across factors in middle primary school

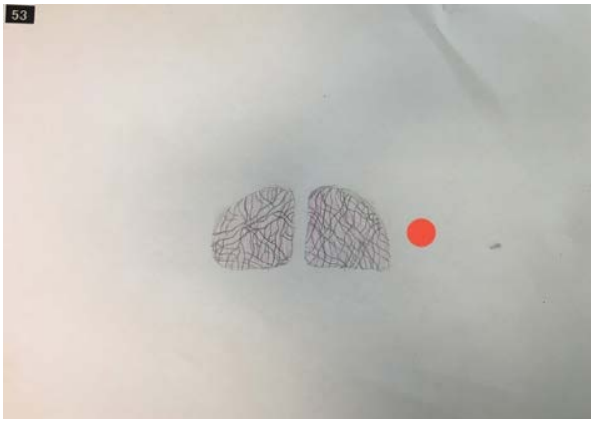


*Note: This figure shows the characteristics n= 292 of a leader expressed by the children in Grade 3 and 4, coded into traits following a three-step thematic coding (researcher -> teacher -> Member supervisory team) and grouped within factors and clusters guided by ILTs generalisability theory (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994). Twelve (4%) notations were catalogued as NA. Traits in bold are found in adult generalisability studies.

Late Primary School. The number of diverse traits within each factor continues to grow during this time, as illustrated in Figure 35 displaying the wider array of descriptors across groups, including tyranny-related traits, as illustrated in Appendix GG. A leader's dedication, intelligence, charisma, and creativity take a higher stand. Additionally, ideas of a leader being informative, and directive are still common in this grade group, as well as a leader's sensitivity by being helpful, caring, selfless, or friendly. However, directive notions are half as frequent when compared to early primary school, and informative ideas are stagnant. On the other hand, a leader's conspicuousness decreases significantly, so while in early primary school it was 12.5% average, in middle primary school it was 7%, and in late primary school it was noted only 3% of the times. The trait 'big' is absent in the latest years, as well as references to the leader being physically strong, for example, fast, or robust looking.

Exhibit 72

Child 053



Girl: I did a brain because it's the leader of your body and it controls like your emotions, your - how your arms and legs move ... and, like ... well you can be feeling ... (Girl, Grade 5, 10Y/3M)

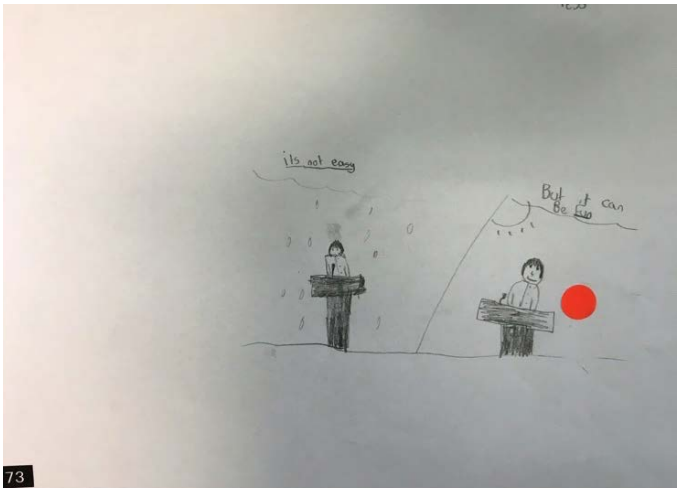
Exhibit 73

Child 214

Girl: I drew a leader of an army, not fighting anything. She's saying, "We can only do it together." If one person was doing it, they wouldn't get a better result unless there was more people doing it. (Girl, Grade 6. 11Y/10M)

Exhibit 74

Girl 073



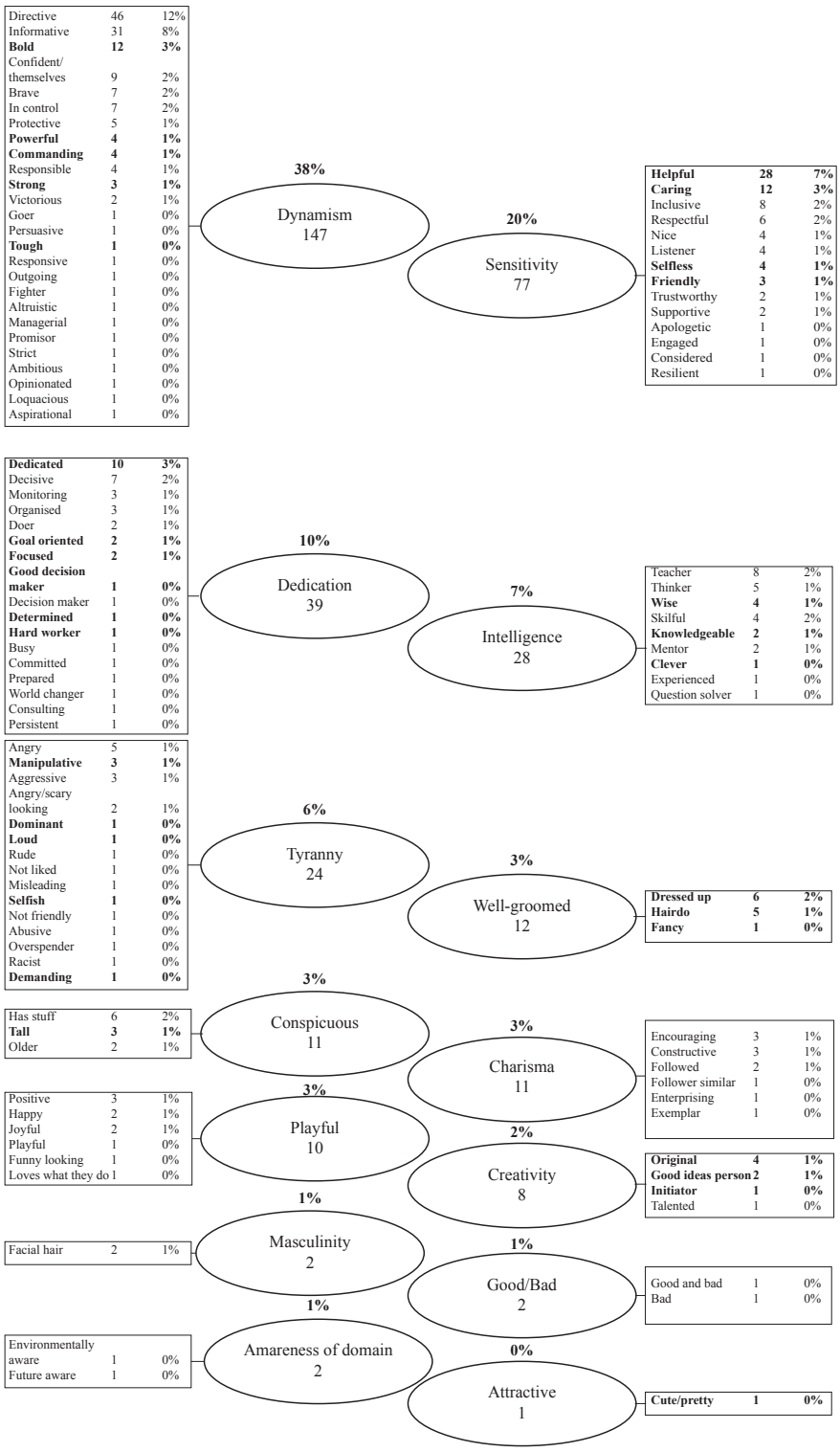
Girl: Well, the first one, it's the leader standing up and talking. Being a leader isn't always fun and easy. Sometimes it's a bit hard and puts some people in stages where they don't want to get out of doing stuff. Then my second one is a leader leading and having a good time, like, because he's happy that he's been chosen to be a leader.

Researcher: Cool. Are these the same person?

Girl: At different stages. (Girl, Grade 6, 12Y/1M)

Figure 35

Trait based content of children's ILTs across factors in late primary school

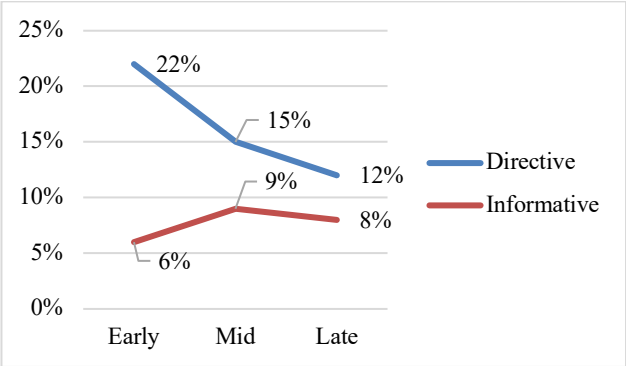


*Note: This figure shows the characteristics n= 386 of a leader expressed by the children in Grade 5 and 6, coded into traits following a three-step thematic coding (researcher -> teacher -> Member supervisory team) and grouped within factors and clusters guided by ILTs generalisability theory (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994). Twelve (3%) notations were catalogued as NA. Traits in bold are found in adult generalisability studies.

Conclusion children's ILTs content development. Looking at characteristics of a leader's character, appearance, and behaviour, shows that, across grade groups, children mostly perceive the leader as a provider of direction (Ayman-Nolley & Ayman, 2005; DeHaan, 1962; Nemerowicz & Rosi, 1997), and secondly, as a contributor of information in regard to getting somewhere, completing a task, or sharing matters with others. However, frequency of these ideas shift across time. While directive notations decrease, informative perceptions grow mostly between early and middle primary school, as shown in Figure 36. These aspects, clustered under the dynamism factor of the leader, since these are initiatives taken by the leader to bring change or movement to the interaction, cause a prominence in a leader's dynamism factor in children's ideas of a leader.

Figure 36

Directive and informative notations across time

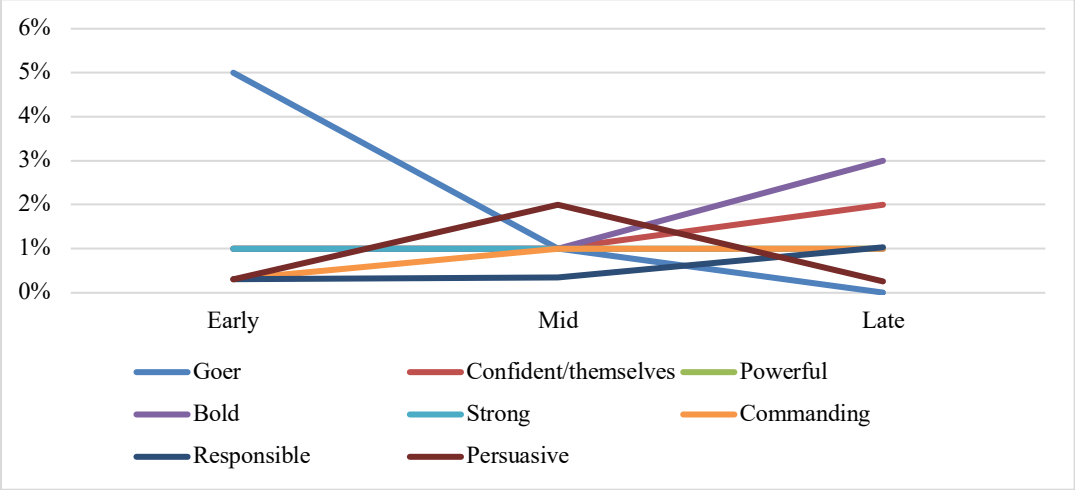


*Note: This figure is based on the percent of notations relating to directive and informative characteristics of a leader within each group of grades across time (early primary school= 89, mid primary school= 70, late primary school= 77).

Excluding directive and informative notations and looking at less frequent traits found within the dynamism factor common to all age groups ('goer', confident/themselves, powerful, bold, strong, commanding, responsible, and persuasive), shows that notions of the leader being confident/themselves, bold, commanding, and responsible tend to grow. DeHaan (1962) had reported that the leader being 'self-confident' was considered an important trait for children in high school, but "hardly considered important in elementary grades" (DeHaan, 1962, p. 10). However, in this study, referents to the leader being 'themselves' are found in children as young as five years old, and 'confident' in children as young as eight years old. On the other hand, the perceptions of 'goer', present negative growth, and persuasive shows a higher frequency in middle primary school, as illustrated in Figure 37 and in further detail in Appendix HH.

Figure 37

Common traits frequency of a leader's dynamism across all grade groups



*Note: This figure shows the percent frequency of common traits of a leader's dynamism across all grade groups

Exhibit 75

Child 185

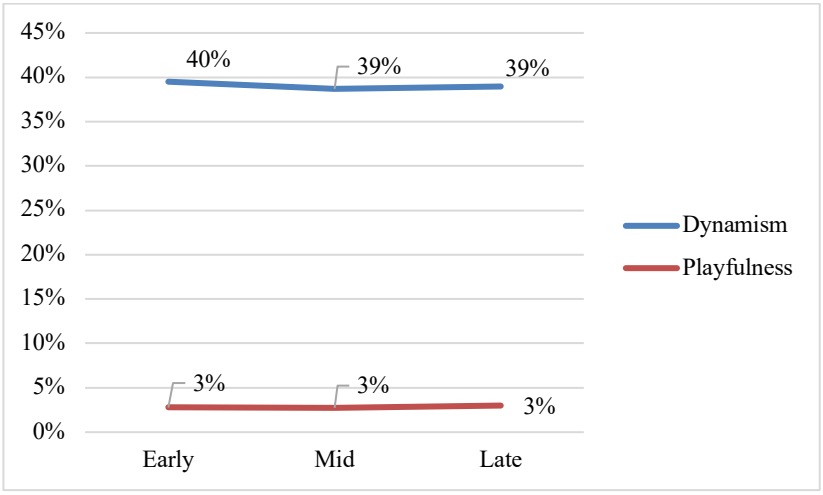
Researcher: Here we go. So, can you please describe your drawing to me?

Girl: So, my person has entered this competition with her little puppy, and she wants to win. And she wins it since she was confident, and her puppy wanted to win too. (Girl, Grade 3, 8Y/9M)

Regardless of the variation of the frequency given to specific traits by each grade group, it is found that the dynamism factor is the most stable, with similar frequency across all age groups along with the leader's playfulness cluster, as shown in Figure 38. Playfulness is one of three child-distinctive factors found in the present study, which includes ideas that could not be assigned to ILTs generalisability adult factors. Playfulness includes the leader being positive, funny, happy, or loving what they do. Conspicuousness includes ideas of the leader being bigger or older. The other child-distinctive factor is awareness, where the leader is aware of a specific domain, for example, technology, environment, nature, or the future.

Figure 38

Frequency of dynamism and playfulness factor across grade groups - stable



*Note: This figure is based on the percent of notations relating to characteristics grouped within dynamism and positivity clusters across time and added for each group of grades (dynamism: early primary school= 89 notations, mid primary school= 70, late

primary school= 77, positivity: early primary school= 9, mid primary school= 8, late primary school= 10).

Next, the analysis focuses on the factors or clusters that increase in frequency across time. These factors grow throughout primary school including the leader's sensitivity, mostly by being helpful, but also caring. Numerous studies (Broich, 1929; DeHaan, 1962; Nemerowicz & Rosi, 1997; Oliveira, 2016; Sacks, 2009; Salmond & Fleshman, 2010) have found the trait 'helpful' to be amongst the features within children's perceptions of leaders including from five years old and until adolescence. Specific to children's ILTs studies, Oliveira (2016) found that 'helpfulness' was amongst Filipino children's favourite leader's attributes. On the other hand, 'helpful' was amongst the most frequent traits in children between five and 17 years old, when rating leadership in students in their class (DeHaan, 1962). Furthermore, Sacks (2009) found that children between 10 and 13 years old believe that the emergence of the leadership construct is strongly linked to their experience of being helpful to adults or being trusted with responsibility, perhaps this early experiences explain the prominence of the trait helpful in children's studies of leaders.

Exhibit 76

Child 015

Researcher:	The question is if you can tell me everything about your drawing.
Girl:	Me.
Researcher:	Right. So, why do you think you drew yourself as the leader?
Girl:	Because I want to be a leader.
Researcher:	You want to? And do you know why you want to be a leader?
Girl:	Because at school in Miss [Teacher's name] grade, we do leaders to help. (Girl, Prep, 5Y/7M)

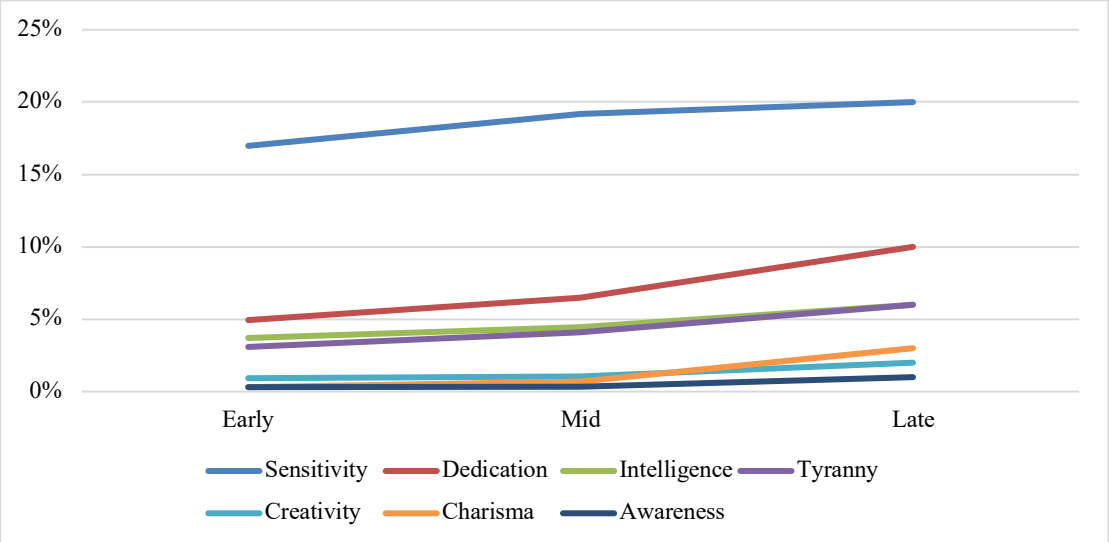
Further into sensitivity, the results in the present study are consistent with DeHaan (1962) who found that traits such as nice, kind, and friendly were frequent in peer leadership across childhood (five-17 years old), and also with Oliveira (2016) study showing that the leader being kind or caring towards others was the third preferred leader's attribute in Philippines.

After sensitivity, the leader's dedication is a factor that consistently grows across primary school, followed in order by intelligence, tyranny (see Appendix II),

creativity, charisma, and awareness of specific domains, as illustrated in Figure 39. The leader's intelligence is a feature that was reported to be significant in children's ideas of leaders (Broich, 1929; DeHaan, 1962; Oliveira, 2016). Additionally, perceptions of a leader's tyranny have not been previously reported in detail by children's ILTs studies. Ayman-Nolley and Ayman (2005) and colleagues found that children's ILTs can be positive or negative and can present content of violence. However, particular to the present study, results show that the factor tyranny is found in perceptions of the leader being scary, angry, dominant, or manipulative.

Figure 39

Increasing factors across grade groups



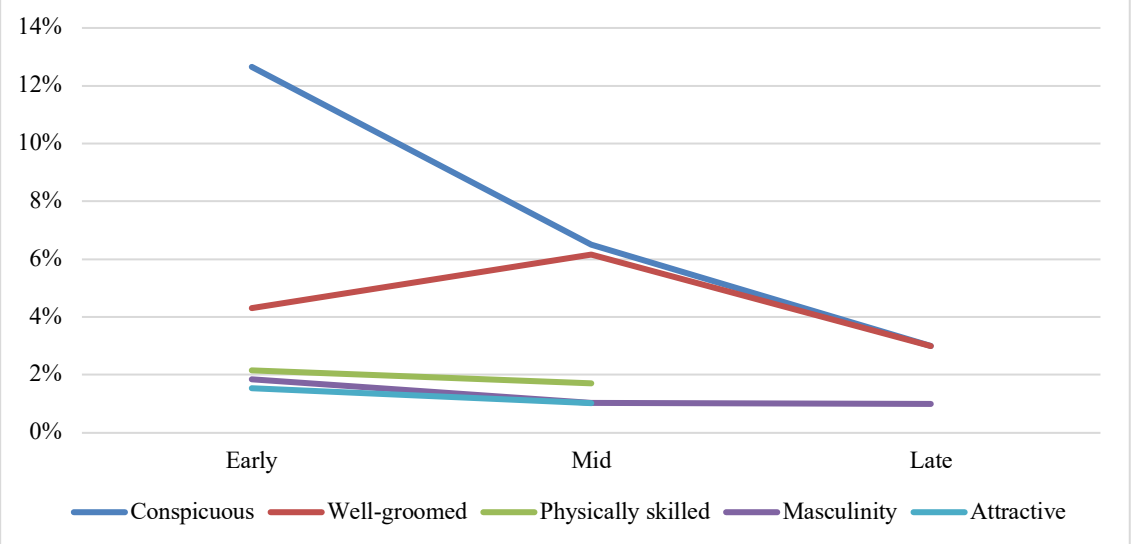
*Note: This figure is based on the percent of notations relating to characteristics grouped within clusters that showed growth across time for each grade group.

Lastly, the analysis shows the factors or clusters that decreased in frequency across time. These include the leader's conspicuousness, guided by the leader being big,

older, taller, physically stronger-looking, and holding or wearing distinctive objects. Also the leader being well-groomed by having a hairdo or being dressed up, however, this cluster grew in middle primary school, and decreased again in late primary school. The item 'dressed up' had also been previously reported by DeHaan (1962), where the term 'dress well' was used by children as an adjective to describe leaders. Nevertheless, 'hairdo', and 'facial hair' are notions that weren't found to be reported in previous studies of children's perceptions of leaders. Aspects of masculinity, such as the leader having facial hair also decreased in frequency across time as illustrated in Figure 40, and in further detail in Appendix II. Notions of the leader having physical skills or being attractive were not found in the oldest children as shown in Figure 40.

Figure 40

Decreasing factors across grade groups



*Note: This figure is based on the percent of notations relating to characteristics grouped within clusters that showed negative growth across time for each grade group.

Sophistication. Sophistication in children, when describing characteristics of leaders, can be projected across different avenues. One way, is comparing the number of notations in average to the number of children per grade, which shows that, as children grow older, they provide more ideas within each factor, as illustrated in Table 13 and in Figure 41. Subsequently, cognitive refinement can be guided by the increased number of notation of traits in each group.

Table 13

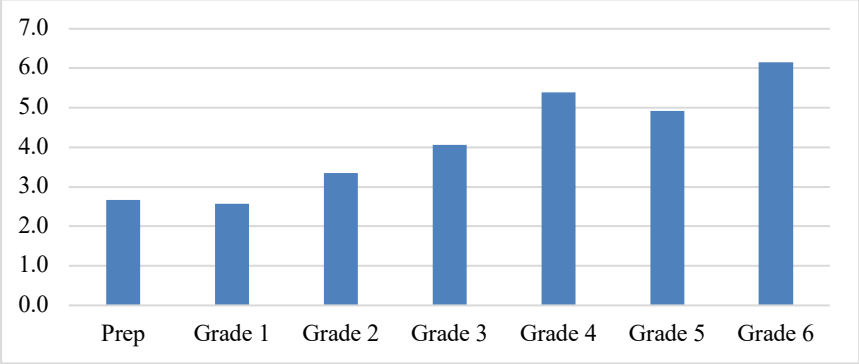
Average descriptors of a leader per grade

Sophistication	Prep	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
Notations	120	100	104	195	97	177	209
Number of children	45	39	31	48	18	36	34
Average per child	2.7	2.6	3.4	4.1	5.4	4.9	6.1

*Note: This table shows the average descriptors of n=1002 descriptors from n=251 children

Figure 41

Average descriptors of a leader per grade

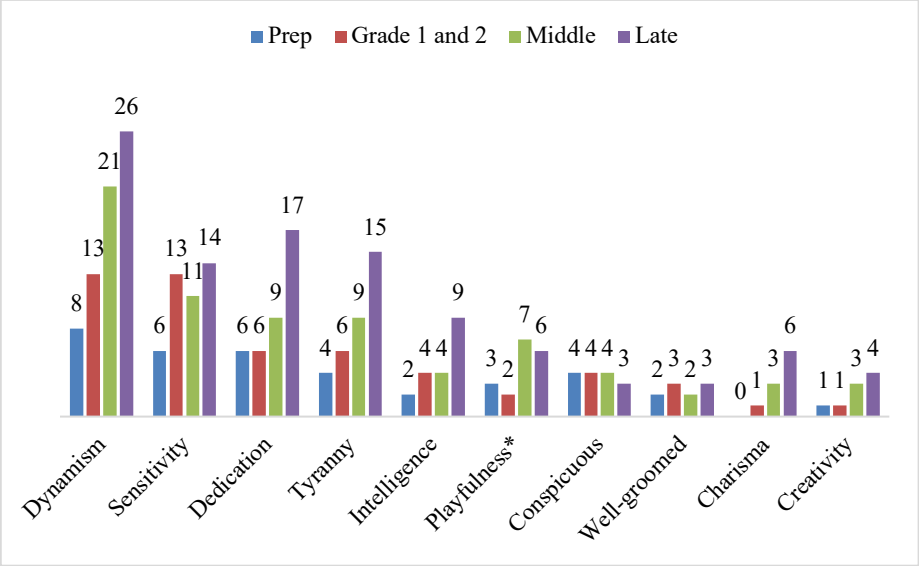


*Note: This figure shows the average descriptors of n=1002 descriptors from n=251 children.

With this growth, there is an intrinsic item expansion across some factors. So when children in Prep note eight traits of a leader's dynamism, children in Grades 1 and 2, note 13, then 21 in middle primary school, and 26 in late primary school. Subsequently, the pool of ideas about a leader's vigour, or enthusiasm is progressively richer as children grow older. However, this phenomenon is found in some factors, and not in all. Figure 42 shows children's ideas that become broader within notions of a leader's dynamism, sensitivity, dedication, tyranny, intelligence, charisma, and creativity, hence, more sophisticated as they grow older. However, there are other factors that stay similar in size, with no significant expansion, and sometimes even mild reduction, such as conspicuous, well-groomed, masculinity, or attractiveness (see Appendix JJ). All physical attributes.

Figure 42

Number of unique traits per factors that show expansion across four points in time

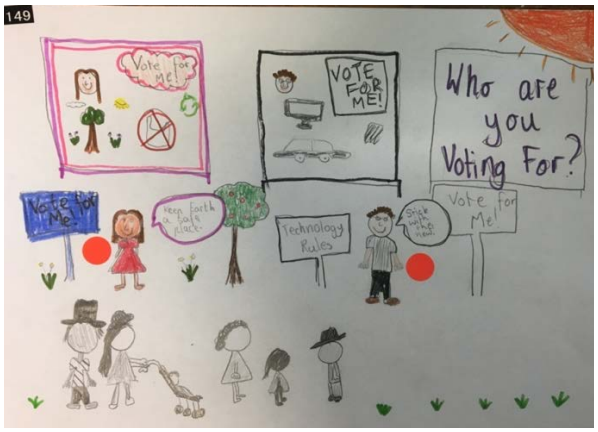


*Note: This figure shows the number of unique traits (n= 240) contained within each factor that expand, as children grow older.

Lastly, sophistication across this content, can reflect dimensional development. For example, a child in Prep talks about the leader being helpful by helping someone more generally, then in Grade 1 and 2, the descriptor gives more information about that someone, for example, a sick person, or the children. By middle primary school, the leader helping is related to the former, but also to public schools, hospitals, so in a wider social scale.

Exhibit 77

Child 149



Girl: I've got two leaders with different ideas and trying to make people think what they think.

Girl: That person [left] is ... wants everyone to be environmental, and because they're having an election, and it's saying to vote for her. [Right] He likes technology. And, he wants to develop new technology.

Researcher: Uh-huh (affirmative).

Girl: And, sort of, like, make more things that aren't really natural.

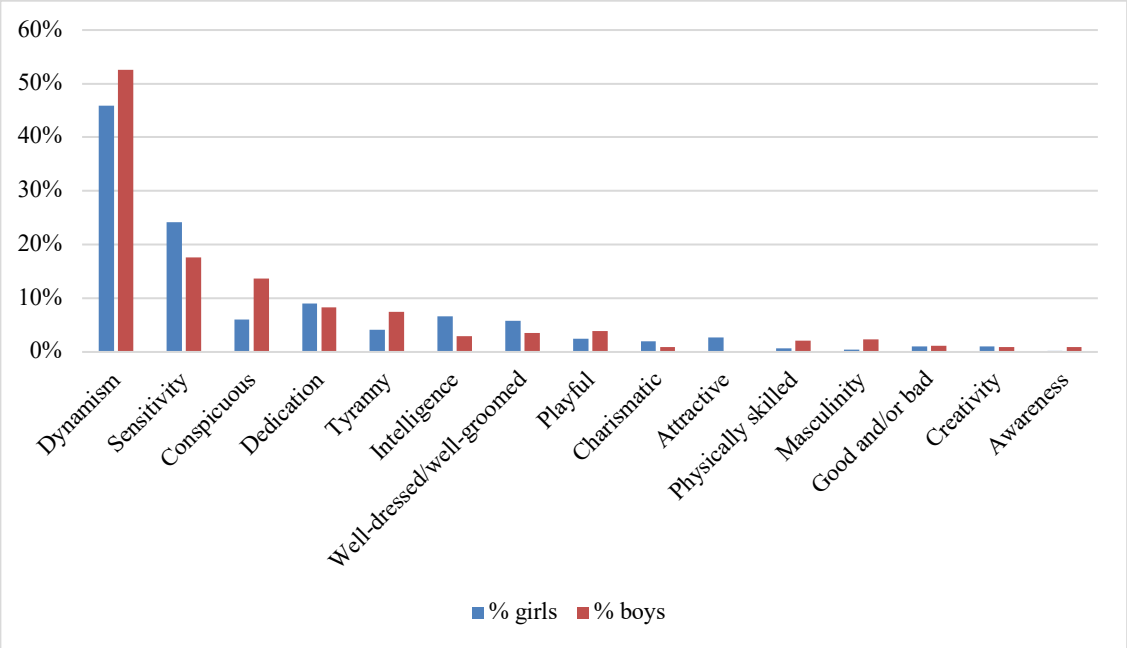
Researcher: Mm-hmm (affirmative). All right. And then, down here, who are these people?

Girl: People that they're trying to persuade. (Girl, Grade 4, 9Y/10M)

Girls and boys, boys and girls. Analysis reflecting trait content in children's ILTs shows that about eighty percent of children's ideas held within factors have equal frequency in boys and girls, providing further evidence of a greater similitude than dissimilarity between boys' and girls' general ideas of leaders, as illustrated in Figure 43 and in further detail in Appendix KK.

Figure 43

Comparison of factor distribution across boys and girls



*Note: This figure shows comparison of factor distribution across boys and girls noted in n=745 notations about a leader (410 by girls, and 335 by boys).

Girls and boys, in similar frequency, as detailed in Appendix LL, mention the leader being directive, informative, and also helpful, caring, and happy. Also, both boys and girls value the leader's knowledgeability and confidence and are sensitive to appearance, talking in similar frequency about the leader having some kind of hairdo, being older, or being tall. Mild distinctions are found firstly, in the leader's conspicuousness, which is noted twice by boys. This is explained by younger boys being more attentive to the leader's notoriety by being big, or 'having stuff'. Other peculiarities are found in boys showing a slightly higher tendency to note a leader's dynamism, due to more mentions of the leader being a decision maker or strong. On the other hand, girls show slightly more content within a leader's sensitivity because they refer more often to the leader being caring, as detailed in Appendix LL. These results somewhat support previous research by Broich (1929) and Nemerowicz and Rosi (1997) where boys often focus on the leader getting things done and on achieving results (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Liu et al., 2012), while girls give more weight to social and emotional features (Broich, 1929; Liu et al., 2012; Nemerowicz & Rosi, 1997; Oliveira, 2016). However it also challenges gender-differentiated ideas, as they are occasional, rather than frequent.

Exhibit 78

Child 204

Researcher: Okay, right. How do you think he got to become the soccer captain?

Boy: He was always the most positive in his team and he really loved the game, and he wanted to help the other teammates. (Boy, Grade 5, 11Y/1M)

Interview excerpt 9

Child 025

Researcher: So, what do you think is a leader?

Girl: A leader is someone who cares about everyone and wants to bring everyone's ideas to life, I guess. (Girl, Grade 5, 12Y/1M)

Interview excerpt 10

Child 102

Researcher: Okay, so what is a leader for you?

Boy: A leader for me is someone that makes the right decisions someone that tells people, "hey, that's not the right thing to do." Someone that makes sure that everyone's on track, someone that does stuff like that. (Boy, Grade 6, 12Y/3M)

Conclusively, boys and girls ILTs practically develop in the same way. This is consistently proven by similar factor frequency across all grades. The differences are rare, trivial, and don't fundamentally alter the structure of ILTs. Subtle differences shows boys being slightly more inclined to a leader's conspicuousness, dynamism, and playfulness, and girls, to a leader's sensitivity, intelligence, or creativity. Nevertheless, the data often shows girls whose ILTs are dynamically focused, and boys whose ILT are highly sensitive. These trivial differences can often be explained by the connection of social role features to the qualities of the leader, more than anything, so more intelligence or creativity items in girls such as original or wise, can be explained by their higher notations of teachers as leaders.

Additionally, some of the items or traits that make up some factors, mark a small differential territory where girls and boys may apply different labels or categories to the leader. For example, girls are the only ones that apply the traits cute, pretty, and fancy, in reference to a leader being well-groomed or attractive. Boys, instead, use strong-looking, cool, spiky hair. Or boys appear to note more tyranny content, which is explained by boy's slightly higher tendency to describe a leader as angry, or scary-looking. Perhaps this small differential territory may be caused by socially influenced ideas of girls to cute, and boys to strong. Gender differences are superficial and appear to be fed by stereotyped attributions influenced by the language that is projected on to them depending on their gender, and also gender-guided social roles. However, further research into gender differentiation in children's ILTs would be needed to further determine a tendency.

Exhibit 79

Child 221

Boy: This is the tables. And this is of the people. That's the leader. And this is the roof. This is the sky.

Researcher: And so they are inside-

Boy: House.

Researcher: ... a house. And what's with the hairs? Why everyone has so similar hair? What kind of hair is that?

Boy: Spiky hair. (Boy, Grade 2, 7Y/5M)

Exhibit 80

Boy 139

Researcher: Okay. What else can you tell me about this leader?

Boy: He's angry.

Researcher: Because?

Boy: Because, he shouts a lot. And, he looks scary.

Researcher: And, what about him?

Boy: He looks afraid. (Boy, Grade 4, 9Y/10M)

Conclusion of leader characterisation development. Conclusively, analysis of a leader's characteristics shows that over half of children's characterisations of a leader lie within dynamism and sensitivity characteristics. Furthermore, some dynamic and sensitive traits can be found across all grade groups, for example, the leader being directive, informative, helpful, and caring, providing evidence towards ILTs stability and generalisability in primary school. Adhering this finding to discoveries gathered previously in the present study across the dimensional and orientation analysis, where, regardless of age, children most often associate a leader with a human being, and their ideas are firstly functional, mostly positive, and also non-violent, can mark a foundation towards theories of children's ILTs generalisability, however attentive to developmental variations.

On the other hand, across key points of time, the analysis shows both stability and variation in children's ideas of leaders. The most stable ideas are a leader's dynamism and playfulness, and also, evidence remarks the possibility of ILT progression (e.g. bold, confidence, responsibility or helpful), or decline (e.g. big, fast, physically skilled) during the primary school years. Overall, the evidence shows that the dynamism factor decreases, and the sensitivity factor increases across time in the

highest proportion in comparison to other factors or clusters. Additionally, the leader's dedication is the third most frequent notion that shows higher proportional increase in these early times of ILTs development. On the other hand, conspicuousness is the only cluster that seems to emerge, sprout, and then dissolve before children reach the end of primary school.

Other infrequent notions found in other clusters within intelligence, tyranny, creativity, charisma, and awareness of specific domains such as technological and environmental, provide evidence of ILTs progression which can point towards further development post primary school. On the other hand, ideas of a leader being physically notorious, such as taller, or holding or wearing distinctive objects decrease; and ideas of a leader being big, or strong physically disappear by the end of primary school. Also the leader being well-groomed by having a hairdo or being dressed up, or having beard or moustache, decline. Lastly, some factors are unique to children's leadership cognition, as they had not been noted in adult ILTs generalisability theory, such as a leader's conspicuousness, playfulness, and awareness of specific domains. Exploratory data has also provided evidence that early and mid-primary school children hold notions of good leadership, and that children in late primary school can have notions of bad leadership or simultaneous good and bad for the same individual, however, further exploration into positive and negative thresholds of children's ideas of leaders are necessary to contribute further to this area of research.

Conclusively, the present research illustrates that a vast diversity of concepts about the leader schema is forming rapidly in the early years of schooling. These

developments cannot be overlooked across all grades and ages. It is crucial to look at children's ideas of leadership as they grow. And even though some of the characterisations may be infrequent, they must be taken into consideration when studying adult ILTs antecedents, as these show formative ideas, that may continue to grow, or develop into adolescent ILTs, and later on, into future adult ILTs factors.

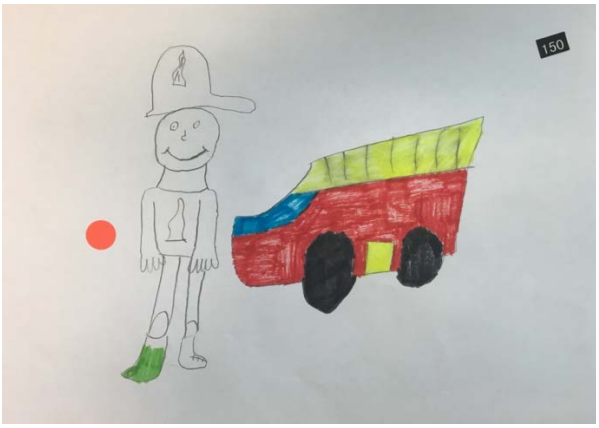
5.2.2 Children's ILTs relation to adult ILTs. Most of children's ILTs can be consigned within adult ILTs generalisability factors (sensitivity, charisma, dedication, strength, dedication, well-groomed, attractiveness, intelligence, creativity, tyranny, masculinity, and charisma) as presented in the former section. In this section the results focus on exploring how child-sampled items of leaders relate with adult sample items in ILTs generalisability studies within key points in time.

Early Primary School.

Prep. Looking at factors and item samples identified in the present sample, there is evidence that around 23% of Prep children's ideas can relate directly to adult leader traits as reported in ILTs generalisability studies, illustrated in Figure 44, and in further detail in Appendix MM. Comparable notions between the youngest children and adults are found firstly, in a leader's sensitivity, in the traits helpful, caring (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994), and friendly (Offermann & Coats, 2018).

Exhibit 81

Child 150



Boy: Just my fire engine. Leader… He's on his way to help somebody. (Boy, Prep, 6Y/5M)

Secondly, the youngest children show notions of a leader's dedication, such as the leader trying to lead others, wanting to be a leader as a child and becoming one, winning the race, or working hard. Such notions can relate to adult ideas such as the leader being dedicated (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994), goal oriented (Offermann & Coats, 2018; Offermann et al., 1994), determined (Offermann & Coats, 2018), or hard-working (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994), respectively, and further detailed in Figure 44.

Interview excerpt 11

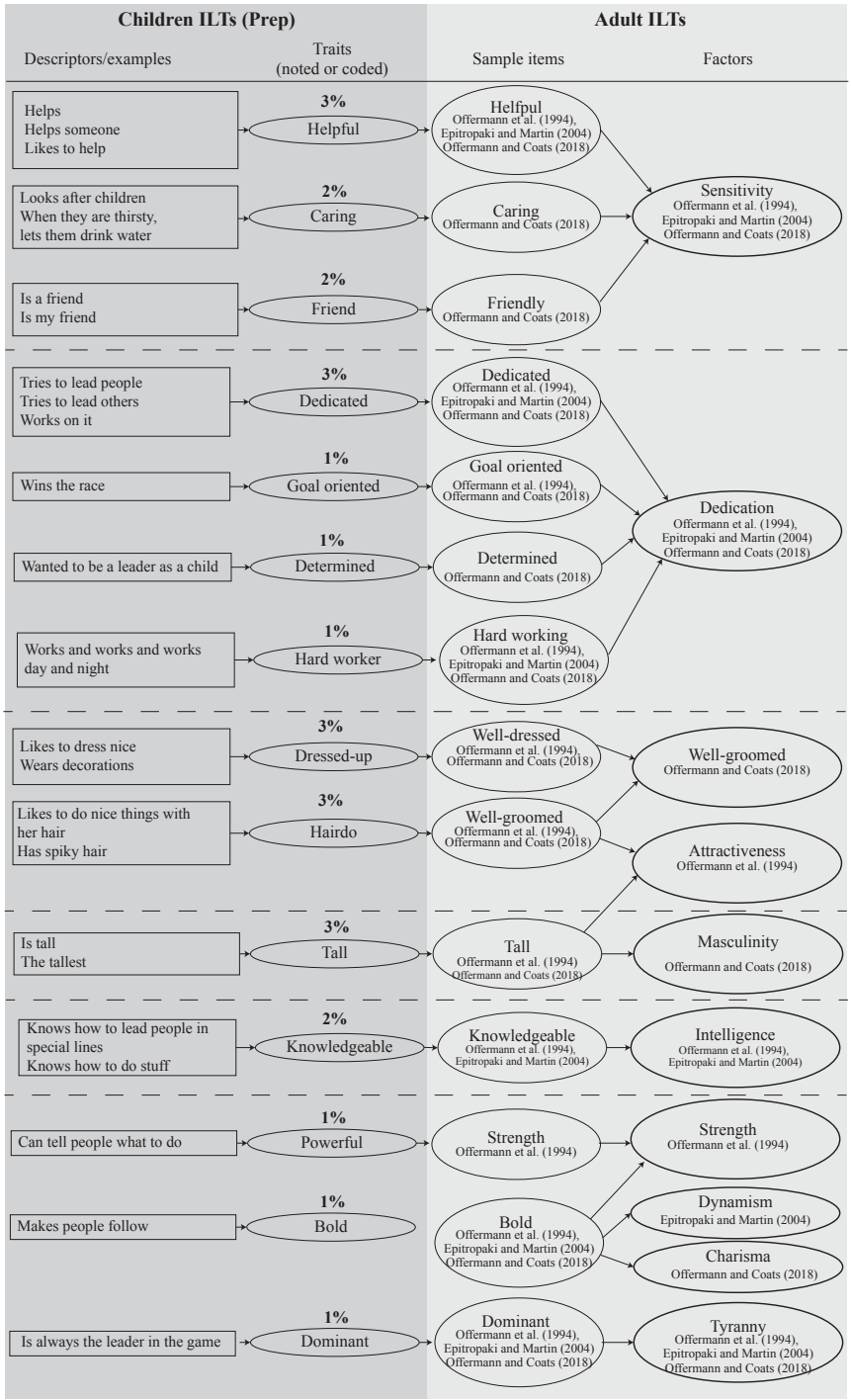
Child 193

Researcher: Okay. So can you please tell me what is a leader?

Boy: He builds stuff, he builds stuff, and it's in a day, and when it is in the night-time. Build and build and build and build and build and build and build and build and build and build and build. (Boy, Prep, 5Y/7M)

Figure 44

Prep leader's traits qualitatively similar to adult ILTs



*Note: This figure traces infrequent comparable leader traits reported by children in Prep into those reported in adult ILTs generalisability theory (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994). It reflects 27 (23%) notations about a leader from n=120. Percentages correspond to the frequency noted.

As illustrated in Figure 44, occasional references of a leader being dressed up (see Exhibit 54) and having a hairdo (see Exhibit 82) can relate to adult ILTs sample items well-dressed and well-groomed, clustered sometimes under attractiveness (Offermann et al., 1994), and also under well-groomed factors (Offermann & Coats, 2018). The leader being tall, is a trait found in the youngest children, which is common in adult ILTs studies, nested under a leader's attractiveness (Offermann et al., 1994), or masculinity (Offermann & Coats, 2018). Additionally, infrequent notions of a leader being knowledgeable (see Exhibit 82 and Interview excerpt 12) are found in adult ILTs studies under the factor intelligence (Offermann & Coats, 2018; Offermann et al., 1994).

Exhibit 82
Child 218

Researcher: Can you please tell me what's happening in your drawing?

Boy: A person taking their dog for a walk.

Researcher: What is that person?

Boy: A dad.

Researcher: He's got hair?

Boy: Spiky hair. (Boy, Prep, 6Y/5M)

Interview excerpt 12
Child 028

Researcher: So, what do you think is a leader?

Speaker 2: Someone that is really fast, and they know how to lead people in like special lines. (Girl, Prep, 5Y/11M)

Unique notions of a leader being powerful because the leader can tell people what to do, or bold by making people follow, can also connect to adult factors strength (Offermann et al., 1994), or dynamism (Epitropaki & Martin, 2004). Lastly, infrequent perceptions of a leader being dominant during this time, by always being the leader of the game, can relate to the trait dominant in adult studies clustered under tyranny (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994). And even though these ideas are scarce, in contrast to directive, ‘goer’, informative, or conspicuous ideas, they still provide evidence of connection between adult and some of the youngest children ideas of leaders across adult factors.

Grade 1 and 2. Looking at factors and item samples identified in the present sample, there is evidence of a higher percentage (27%) of Grade 1 and 2 children’s

ideas relating to adult leader items as reported in ILTs generalisability studies and illustrated in Figure 45. From here onwards, children can hold ideas across all adult factor-related clusters, guided by ILTs generalisability theory (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994). That is within sensitivity, strength, dynamism, charisma, dedication, masculinity, tallness, intelligence, creativity, well-dressed or well-groomed, and tyranny in children's ideas of leaders in early primary school. Prep children did not show notions of a leader's charisma.

Exhibit 83

Child 178

Boy: I drew a forest and ... a person. He's telling the animals to follow him. To take them ... to drink and to eat those. (Boy, Grade 2, 8Y/6M)

Additionally, a growth tendency of adult-related traits within each factor is found. For example, in addition to adult's sensitivity sample items caring (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994), helpful, and friendly (Offermann & Coats, 2018), new adult-related ideas of a leader being kind and

empathetic (Offermann & Coats, 2018) are found, as exemplified in Exhibit 84. New additions also include a leader being fancy, which can link to adult items classy (Offermann & Coats, 2018). Within a leader's strength, dynamism, and charisma sample items of the leader being commanding or tough (Offermann & Coats, 2018) are also found. Also, notions of a leader being wise and clever (Epitropaki & Martin, 2004; Offermann et al., 1994), linked to a leader's intelligence are new during this time, as exemplified in Exhibit 85.

Exhibit 84

Child 179

Girl: It's a kind leader. Not very strict, just gets a little bit upset when, like what that assistant did with all that important work sheets.

Researcher: And what is she wearing?

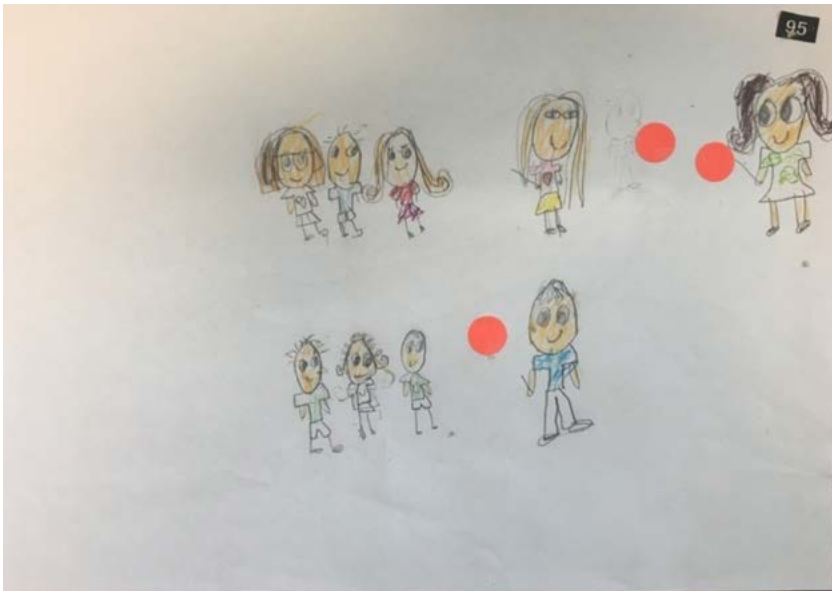
Girl: She's wearing a hat.

Researcher: And what else?

Girl: She's wearing a suit. (Girl, Grade 2, 8Y/6M)

Exhibit 85

Child 095



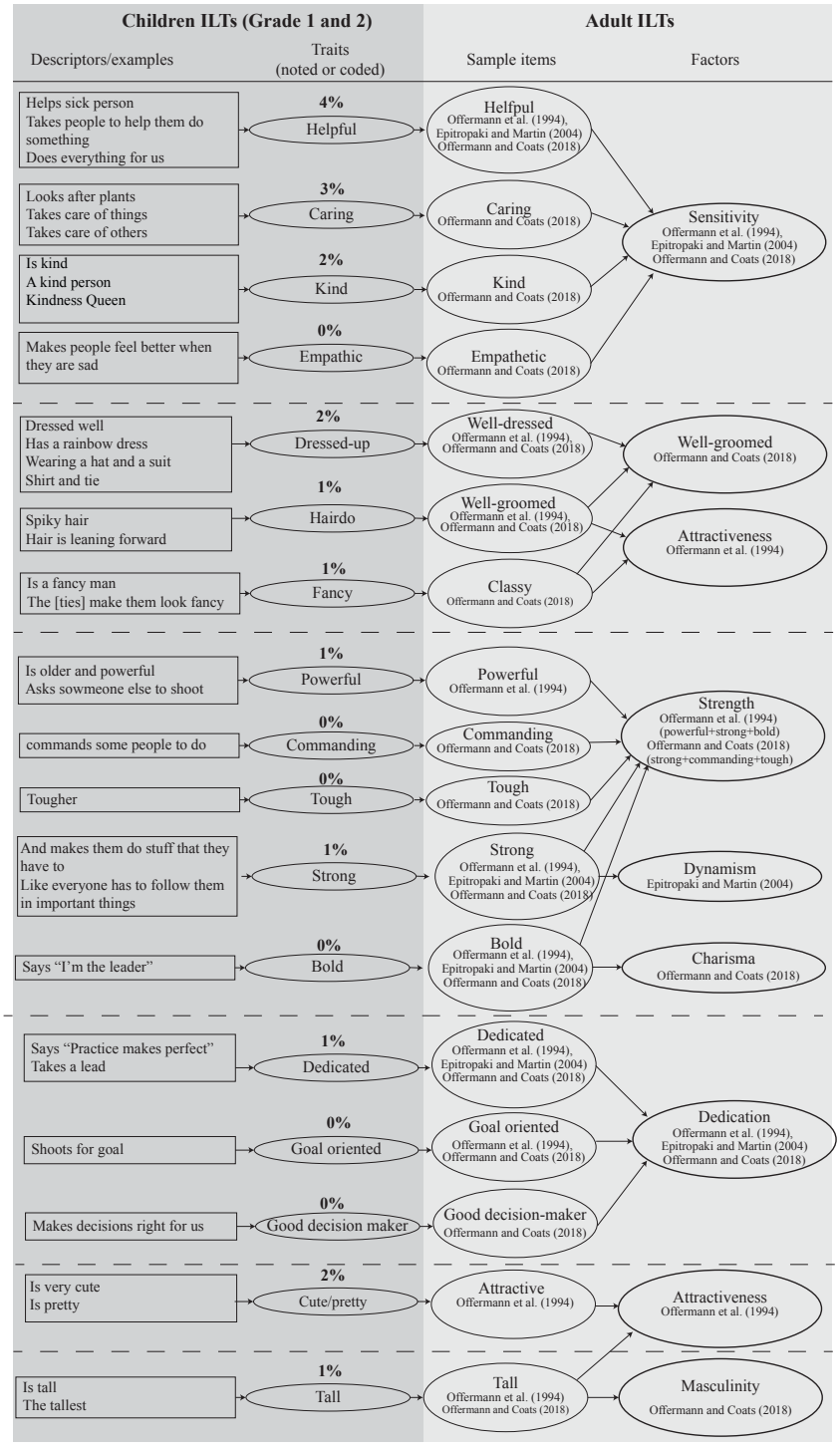
Girl: These are the free leaders leading these people. This lady is leading these two people who are leading these people.

Researcher: Tell me more about this leader.

Girl: This leader is the cleverest. Then it's these people. Then it's these. (Girl, Grade 2, 8Y/3M)

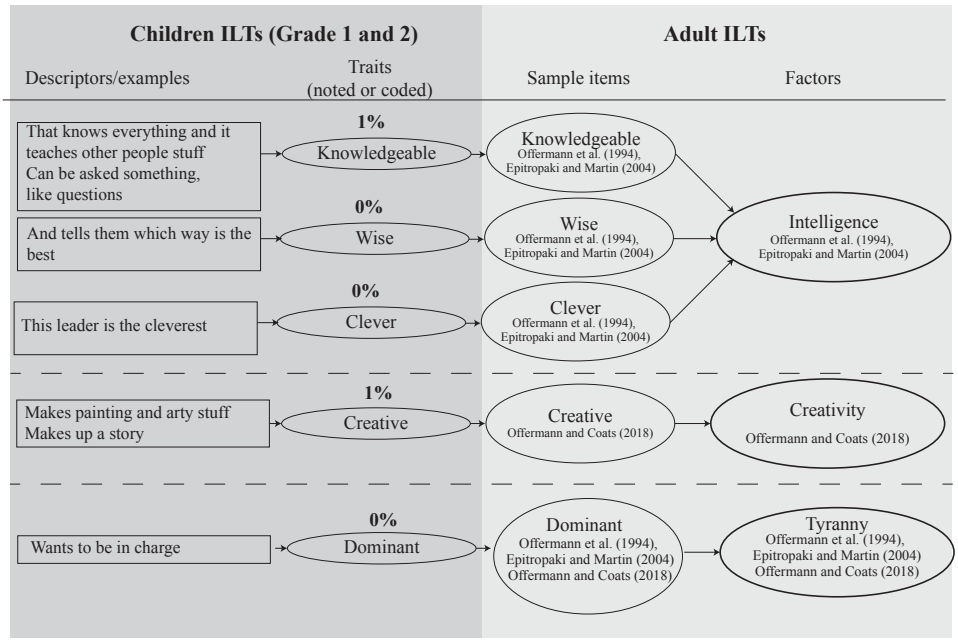
Figure 45

Grade 1 and 2 leader's traits qualitatively similar to adult ILTs



(cont.)

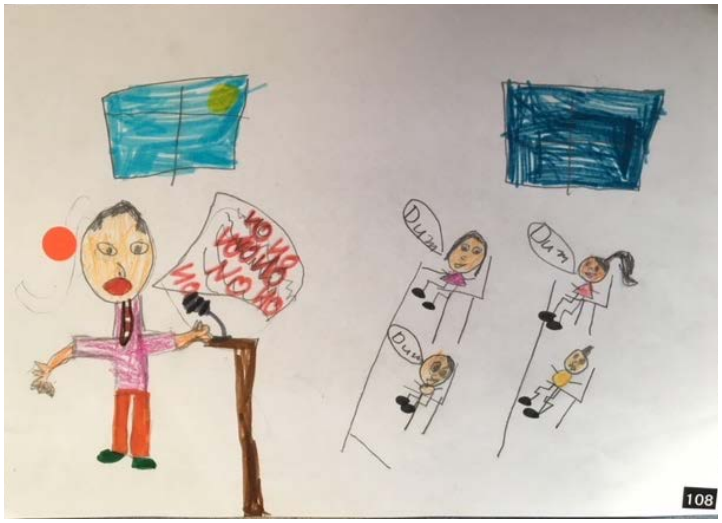
(cont.)



*Note: This figure traces infrequent comparable leader traits reported by children in Grade 1 and Grade 2 into those reported in adult ILTs generalisability theory (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994). It reflects 55 (27%) notations about a leader from n=204. Percentages correspond to the frequency.

Exhibit 86

Child 108



Girl: He also has a tie.

Researcher: Yeah. Why is that?

Girl: Because ... mostly presidents have ties. They make them look fancy. (Girl Grade 1, 7Y/2M)

Middle primary school. Looking at factors and item samples identified in the present sample, an equal percentage of children's ideas (27%), as in late early primary school that are directly linked to adult sample items in ILTs generalisability studies, as illustrated in Figure 46. The results show continuity in the type of characteristics noted across all adult-related factors guided by ILTs generalisability studies. Adult-related ideas of a leader's intelligence, such as being wise or knowledgeable become more frequent during this time, as well as tyranny traits like dominant and new adult-related ideas such as loud (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994).

Interview excerpt 13

Child 163

Researcher: Can you please tell me what you think a leader is?

Girl: I think a leader is responsible, a little bit serious and a little bit kind. (Girl, Grade 3, 9Y/7M)

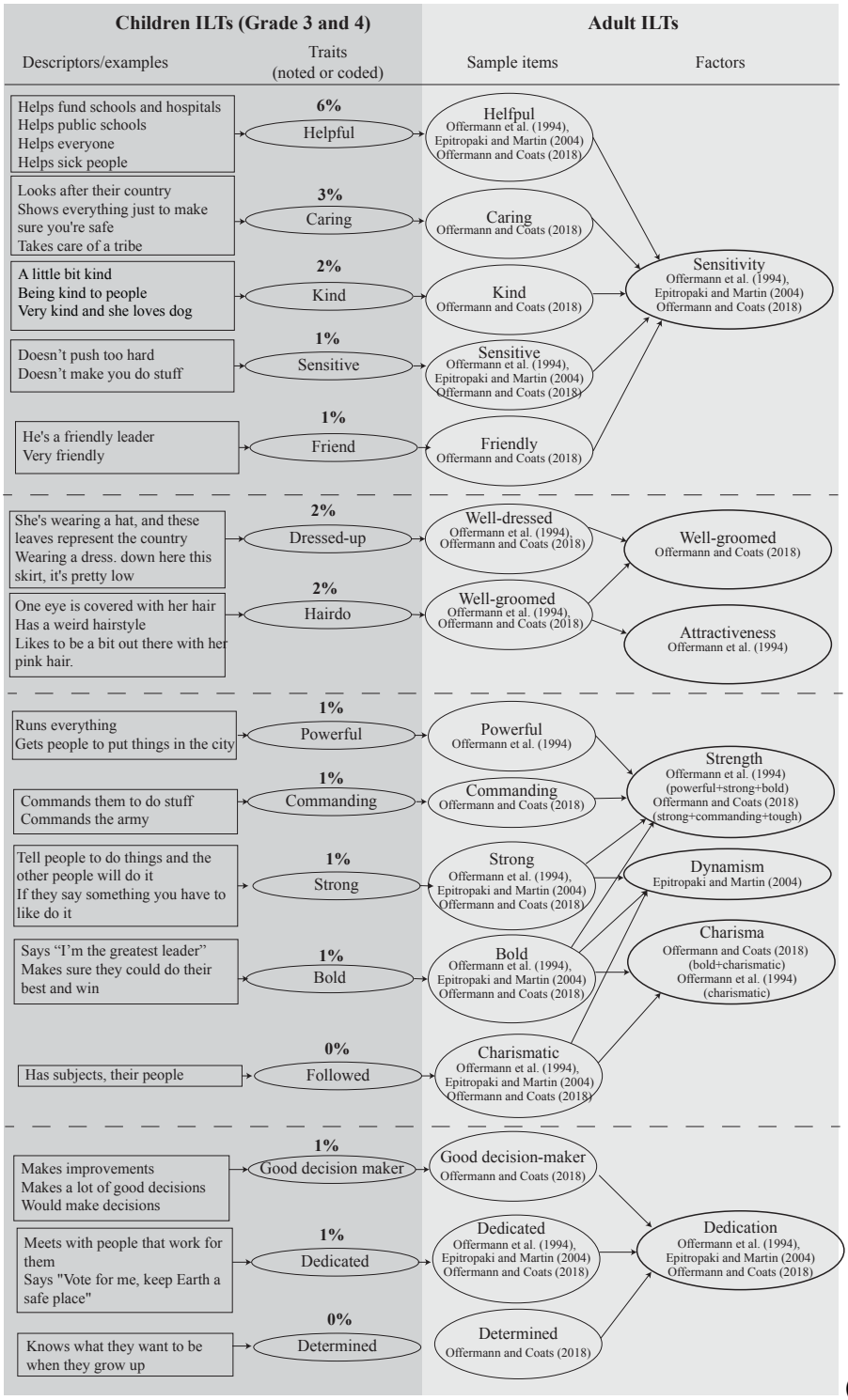
Exhibit 87

Child 172

Boy: He's a friendly leader, he doesn't push them that hard. He just wants them to do as good as they can do. (Boy, Grade 4, 9Y/5M

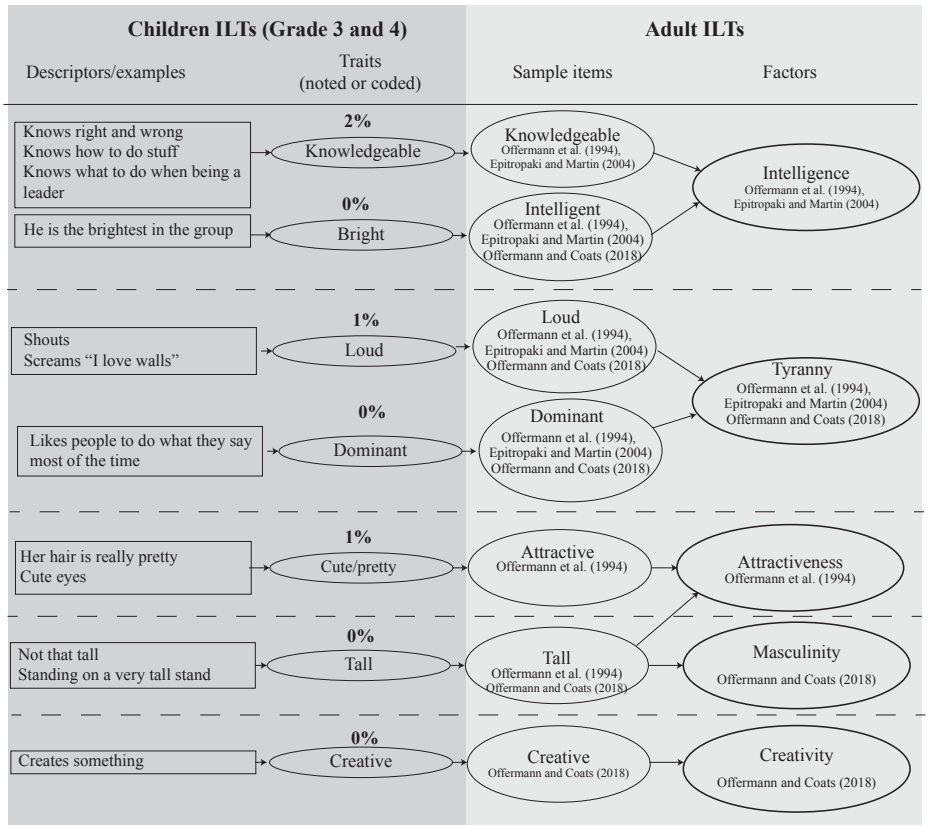
Figure 46

Grade 3 and 4 leader's traits qualitatively similar to adult ILTs



(cont.)

(Cont.)



*Note: This figure traces infrequent comparable leader traits reported by children in Grade 3 and Grade 4 into those reported in adult ILTs generalisability theory (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994). It reflects 78 (27%) notations about a leader from n=292. Percentages correspond to the frequency.

Exhibit 88

Child 158

Boy:	Yeah, he's screaming. And these are the people working for him. And the daughter.
Boy:	Yeah. He's saying, "Build that wall."
Researcher:	Mm-hmm (affirmative). And then here is says, "The leader stand."
Boy:	Yeah, [inaudible 00:00:59].
Researcher:	Okay. Yeah, it's pretty tall. Why do you think it's so tall?
Boy:	So that everyone can hear him. (Boy, Grade 3, 9Y/3M)

Late Primary School. Around 33% of children's ideas in the senior years of primary school link to adult sample items as illustrated in Figure 47. The sensitivity cluster still shows the highest level of connection to adult-related notions headed by the leader being helpful and caring, additionally, the sense of the leader being selfless (Offermann & Coats, 2018), by not leading for pride, and willing to make sacrifices,

emerges during this time. Ideas of a leader being bold such as giving opinions on what they think, or telling themselves that no one can control them, and similarly notions of the leader being dedicated, specially by fighting for something, increase during this time. These new notions give higher frequency to a leader's adult-related factors of dynamism and dedication, placing these in a higher stand than children in the previous years, who paid more attention to physical aspects of the leader being well-groomed or well-dressed.

Also, this grade group shows more connections to adult-related sample items of a leader's intelligence and creativity than in the younger groups. For example, the leader being wise (Epitropaki & Martin, 2004; Offermann et al., 1994), creative (Offermann & Coats, 2018), or clever (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994). Lastly, ideas of a leader's tyranny are also more connected to adult sample items. While they still describe a leader's domination and loudness, they include new items such as manipulative, selfish (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994), and demanding (Offermann et al., 1994).

Exhibit 89

Child 264

Girl: That's the leader. She has some followers that like to follow her and it's a nice day.

Researcher: It's a nice day outside. And how old are these guys?

Girl: I think she's about 13 and the others are like 12.

Researcher: Cool. Alright, and why do you think she's the leader?

Girl: Because she's dressed better and she's saying what they're meant to do.

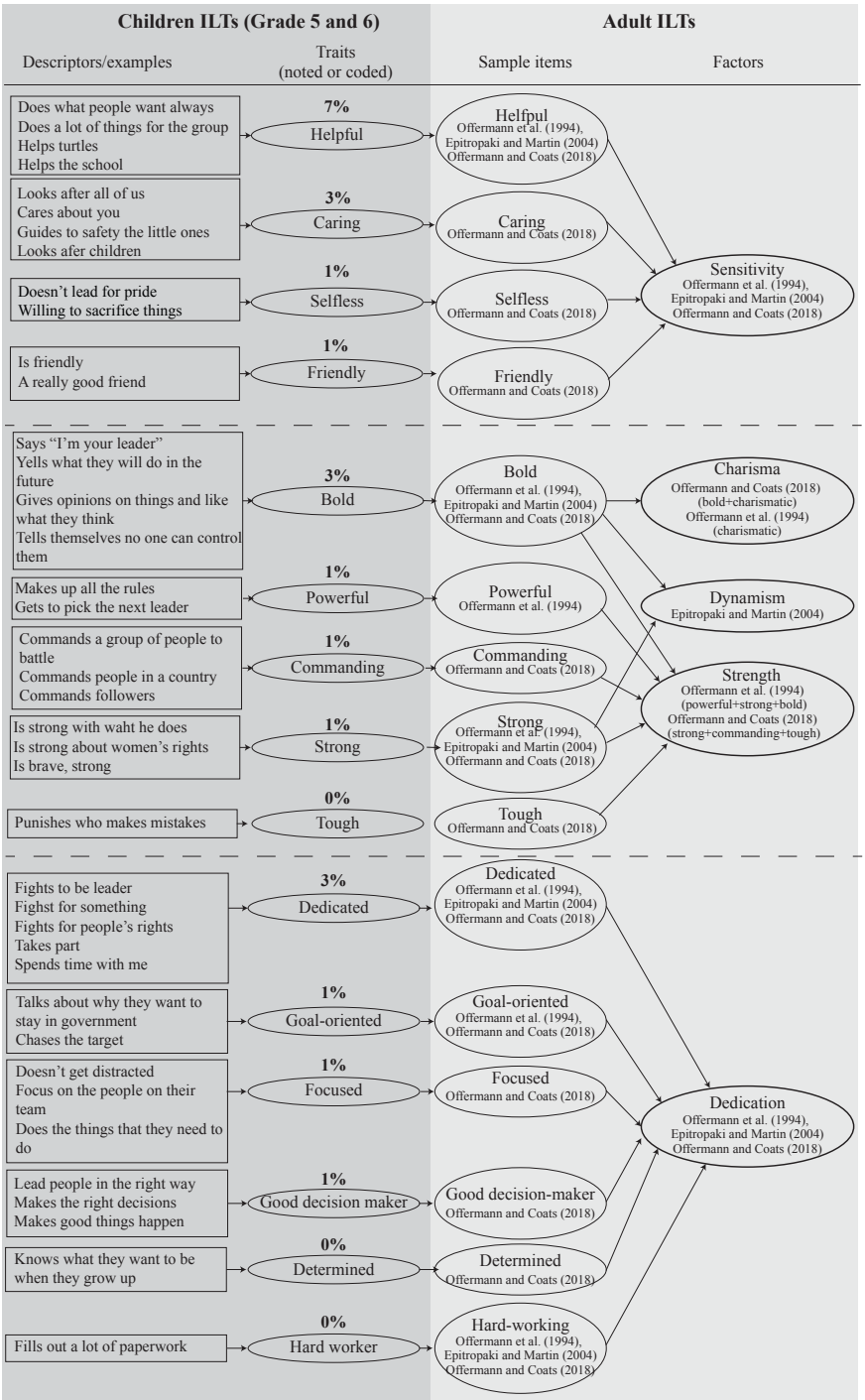
Researcher: Oh, excellent. Do they like her to be the leader?

Girl: They don't really have an option.

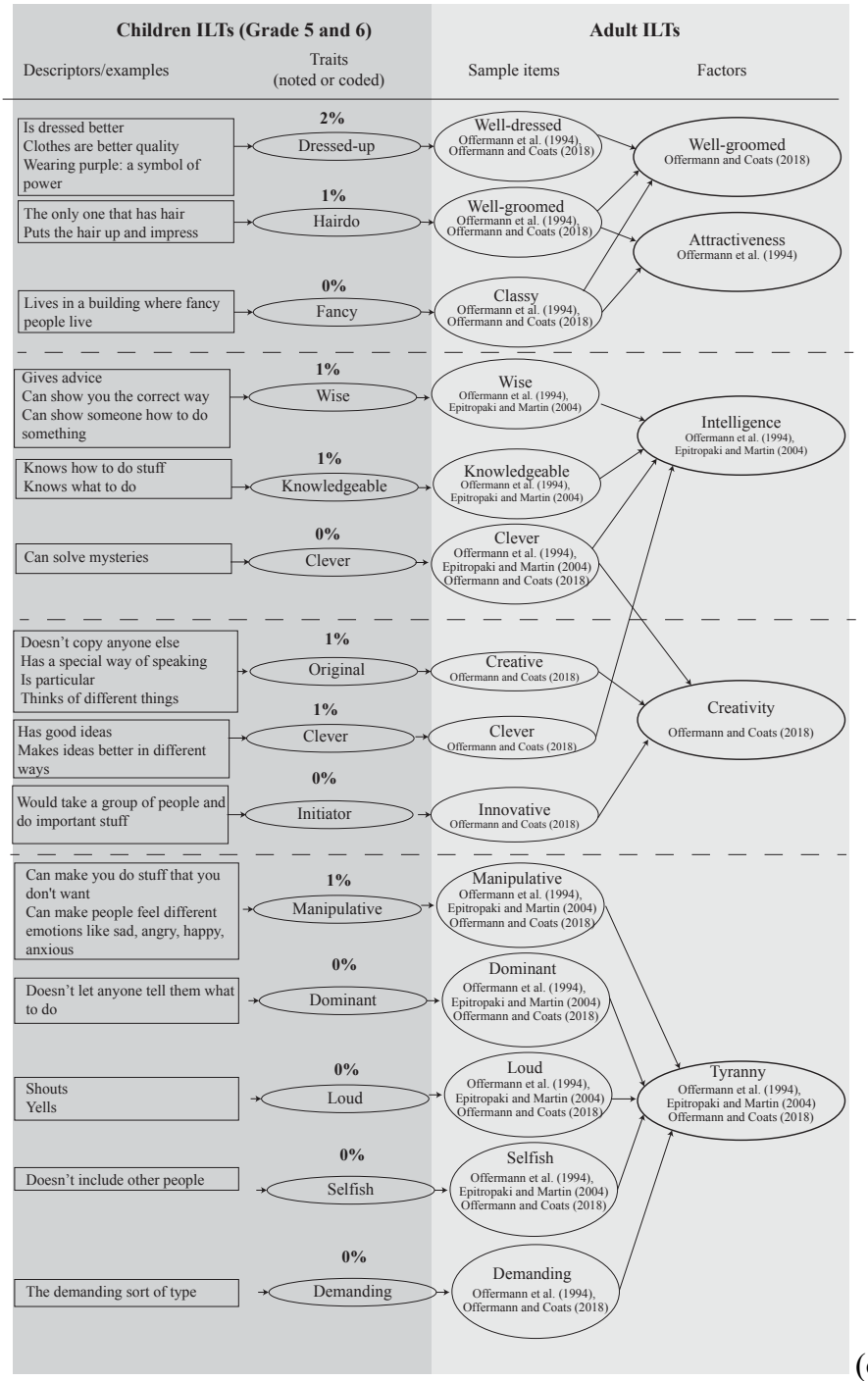
Girl: Because she just chose to be the leader. And they just have to follow her. When she leaves the school one year earlier than them, they can be the leader if she picks them. So, the best one that she picks gets to be the leader after her. (Girl, Grade 5, 11Y/4M)

Figure 47

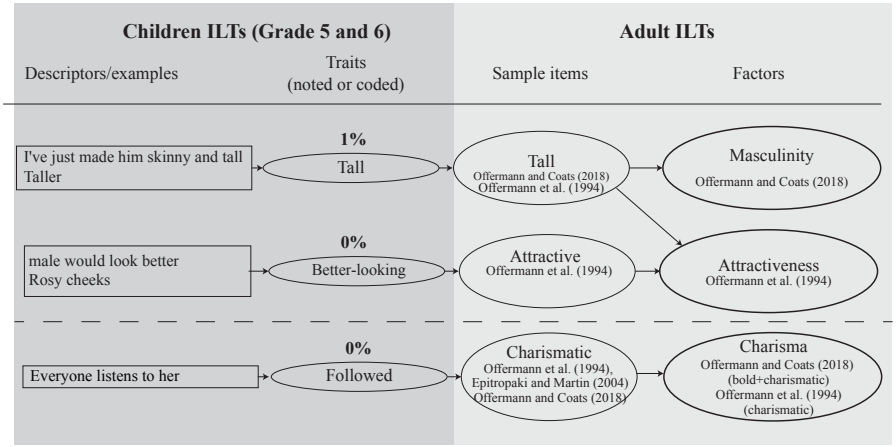
Grade 5 and 6 leader's traits qualitatively similar to adult ILTs



(cont.)


Children ILTs (Grade 5 and 6)
Adult ILTs
Descriptors/examples
Traits (noted or coded)
Sample items
Factors
Is dressed better
Clothes are better quality
Wearing purple: a symbol of power
2%
Dressed-up
Well-dressed
Offermann et al. (1994), Offermann and Coats (2018)
Well-groomed
Offermann and Coats (2018)
The only one that has hair
Puts the hair up and impress
1%
Hairdo
Well-groomed
Offermann et al. (1994), Offermann and Coats (2018)
Attractiveness
Offermann et al. (1994)
Lives in a building where fancy people live
0%
Fancy
Classy
Offermann et al. (1994), Offermann and Coats (2018)
Gives advice
Can show you the correct way
Can show someone how to do something
1%
Wise
Wise
Offermann et al. (1994), Epitropaki and Martin (2004)
Intelligence
Offermann et al. (1994), Epitropaki and Martin (2004)
Knows how to do stuff
Knows what to do
1%
Knowledgeable
Knowledgeable
Offermann et al. (1994), Epitropaki and Martin (2004)
Can solve mysteries
0%
Clever
Clever
Offermann et al. (1994), Epitropaki and Martin (2004) Offermann and Coats (2018)
Doesn't copy anyone else
Has a special way of speaking
Is particular
Thinks of different things
1%
Original
Creative
Offermann and Coats (2018)
Creativity
Offermann and Coats (2018)
Has good ideas
Makes ideas better in different ways
1%
Clever
Clever
Offermann and Coats (2018)
Would take a group of people and do important stuff
0%
Initiator
Innovative
Offermann and Coats (2018)
Can make you do stuff that you don't want
Can make people feel different emotions like sad, angry, happy, anxious
1%
Manipulative
Manipulative
Offermann et al. (1994), Epitropaki and Martin (2004) Offermann and Coats (2018)
Tyranny
Offermann et al. (1994), Epitropaki and Martin (2004) Offermann and Coats (2018)
Doesn't let anyone tell them what to do
0%
Dominant
Dominant
Offermann et al. (1994), Epitropaki and Martin (2004) Offermann and Coats (2018)
Shouts
Yells
0%
Loud
Loud
Offermann et al. (1994), Epitropaki and Martin (2004) Offermann and Coats (2018)
Doesn't include other people
0%
Selfish
Selfish
Offermann et al. (1994), Epitropaki and Martin (2004) Offermann and Coats (2018)
The demanding sort of type
0%
Demanding
Demanding
Offermann et al. (1994), Offermann and Coats (2018)

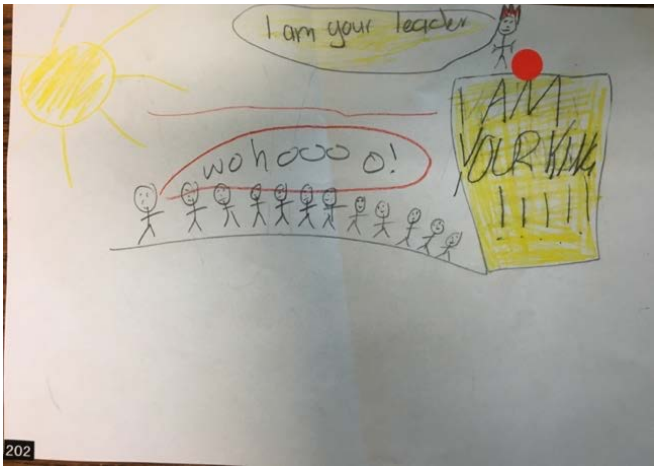
(cont.)



*Note: This figure traces infrequent comparable leader traits reported by children in Grade 5 and Grade 6 into those reported in adult ILTs generalisability theory (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994). It reflects 125 (32%) notations about a leader from n=386. Percentages correspond to the frequency.

Exhibit 90

Child 202



Boy: It is in a kingdom and all the people are bowing down to their king. Cause the king is the leader of everyone there.

Researcher: What's this yellow bit?

Boy: It's like the throne, how he is higher than everyone.

Researcher: Wow, and what does it say here?

Boy: "I am your king."

Researcher: Is that something that he is saying or is it written in his throne?

Boy: It's wri-, yeah on his throne.

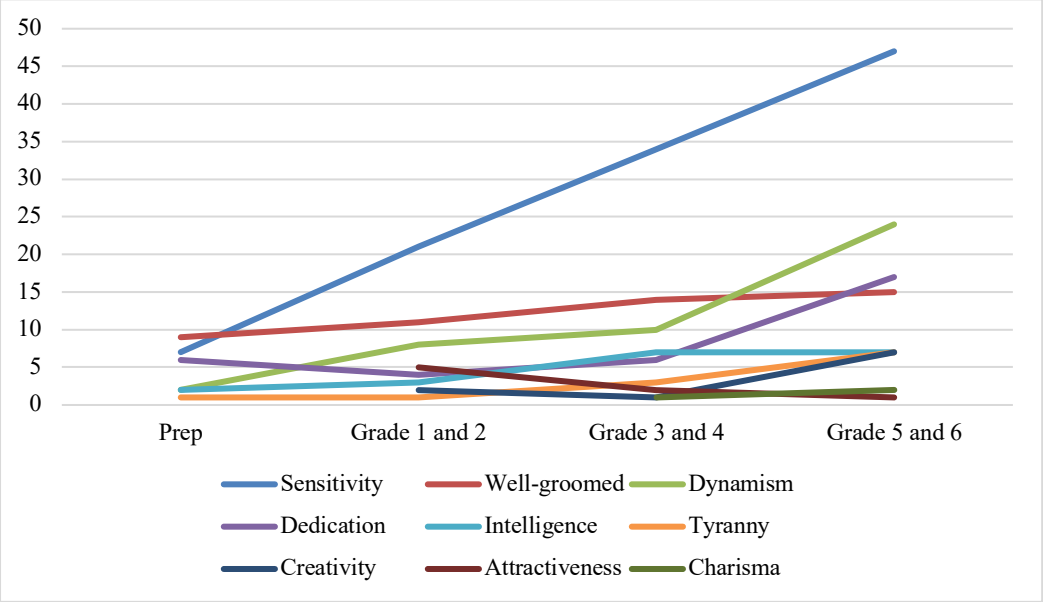
Researcher: It's written. Okay and then he is saying ...

Boy: "I am your leader." Loud. (Boy, Grade 6, 11Y/9M)

Conclusion. The results show that at the beginning of primary school, over 20% of children's ideas are qualitatively similar to adults sample items, guided by ILTs generalisability theory (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994). And this proportion increases to over 30% by the time they reach the end of primary school as shown in Figure 48 and in further detail in Appendix MM.

Figure 48

Development of adult-related notions in primary school across factors



*Note: This figure shows 287 notations out of a total on n=1,003 related directly to adult sample items as per ILTs generalisability studies.

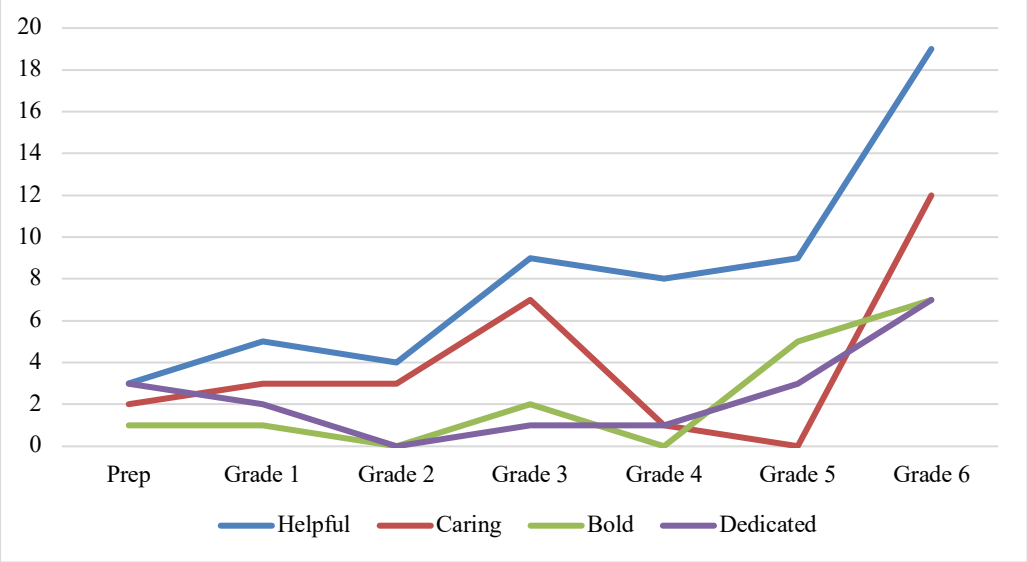
Looking at this development across factors shows that higher frequency growth across adult-related ideas is found in a leader's sensitivity, but also in regard to adult-related notions of dynamism, dedication, tyranny, and creativity. Other adult-related ideas such as well-groomed and intelligence are somewhat stable across time. Adult-related ideas of a leader's attractiveness which appear in Grade 1 and 2, show negative growth. And charisma, adult-related notions, which appear later in middle primary school, appear to be stable too.

When looking in detail at the traits that make up the specific factors across the key points in time, the results show that highest frequent adult-related ideas of a leader

being helpful, caring, and also well-dressed, well-groomed, dedicated, bold, knowledgeable, powerful, dominant, and tall, are born in the early years of schooling, around five or six years old, and are embedded in children's ideas of leaders across primary school, as illustrated in Appendix MM. Sensitivity's traits helpful and caring, and dynamism's bold and dedicated increase in frequency, as shown in Figure 49, while traits such as dressed-up, hairdo, powerful, knowledgeable, or tall appear mostly stable, as illustrated in Appendix MM.

Figure 49

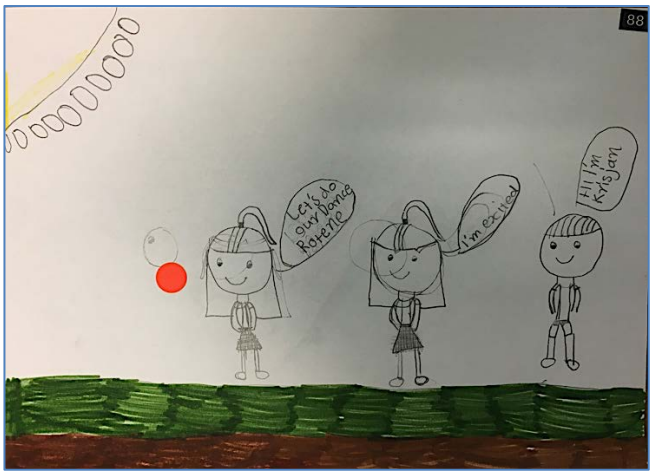
Leader traits similar in children and adults (increasing)



*Note: This figure shows the traits common to children and adults guided by ILTs generalisability theory that show growth across primary school. Frequency is calculated over n=1002 notations of a leader's appearance character, or actions.

Exhibit 91

Child 088



Researcher: Oh, beautiful. Can you tell me a little bit more what's your leader like?

Girl: She's nice and her hair's really pretty.

Girl: And she always wants us to keep on trying and she always, at the end of the class, she said that I did a good job, because I'm the youngest in my class. (Girl, Grade 3, 8Y/6M)

Besides those adult-related traits found across all years, each factor welcomes new adult-related compositions in time which stay up until the latest years. Within sensitivity, the trait kind and selfless (Offermann & Coats, 2018) appears in Grade 2. Previous to this, children often talk about the leader being nice, which may be an ILT antecedent to kindness. Later on, during late primary school, ideas of the leader being forgiving or sensitive (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994) emerge. Other traits can come and go. For example, the trait friendly (Offermann & Coats, 2018) is found in children in Prep, and then in middle and late primary school.

Looking at dynamism, besides ideas of bold increasing and powerful staying stable, new ideas of a leader being dynamic in the sense that adults often perceive this notion, emerge towards middle primary school such as the leader being strong (non-physical) (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994), commanding (Offermann & Coats, 2018), and tough (Offermann & Coats, 2018).

Exhibit 92

Child 205

Girl: She's leading them to do things, and she leads the country or the village in town. Those people do what she says and how she treats the country.

Researcher: Perfect. What is she like? Can you tell me more about the leader?

Girl: She's a bit bossy. She likes people to do what she says most of the time, and she protects her country a lot. (Girl, Grade 3, 9Y/3M)

Other adult-related traits found in the factor dedication include ideas of a leader being goal oriented (Offermann & Coats, 2018; Offermann et al., 1994), hardworking (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994), and

determined (Offermann & Coats, 2018), can be found in children as young as in Prep, while notions of the leader being a good decision maker (Offermann & Coats, 2018), are found from Grade 2 onwards. Then children in Grade 5 can report ideas of a leader being focused (Offermann & Coats, 2018) and prepared (Offermann et al., 1994).

Then, in the case of tyranny, the evidence suggest that the earliest notions of the tyranny factor, are within the leader being dominant, pushy, or intimidating (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994), which are found across all grade groups, however, the number of adult-related characteristics expand across primary school, as illustrated in Appendix NN. From Grade 3 onwards, new ideas emerge, for example, the leader being loud (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994). And then in Grade 5 the data shows another emergence of new ideas such as the leader being manipulative (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994), which increases into Grade 6, where notions of the leader being demanding (Offermann & Coats, 2018; Offermann et al., 1994) appear.

Lastly, within intelligence, besides the trait knowledgeable, which is found across all grades, showing a peak in middle primary school, ideas of the leader being wise (Epitropaki & Martin, 2004; Offermann et al., 1994) can be found in children in Grade 1, and of clever (Epitropaki & Martin, 2004; Offermann et al., 1994) from Grade 2. Similarly, adult-related creative (Offermann & Coats, 2018) notions of a leader, such as being an innovator, can be found in children as young as those in Grade 1. Lastly, evidence of adult-related notions of a leader's charisma, besides the leader being bold,

are rare. One only comment related to the leader being inspiring, which is an adult-related notion. This guides to think that adult-related notions of a leader's charisma are perhaps the least founded in primary school and might show a greater development in content later on, in adolescence.

Interview excerpt 14

Child 062

Girl: Well, there's this ballerina that I really like. Her name's Misty Copeland and she's inspired me to do ballet too. She does really good moves (Girl, Grade 3, 9Y/1M).

Exhibit 93

Child 091

Researcher: Can you please describe your drawing to me?

Girl: Well, I didn't know what to draw at first when you said a leader, so I just drew a leader standing on a stage yelling into a

	microphone in a crowd of people about what she's going to do in the future.
Researcher:	Cool. That's really good. Why is she yelling?
Girl:	Because she's angry at other leaders, and how she will change the world, and how she's just kind of ... (Girl, Grade 5, 11Y/3M)

Comparison of late primary school and adult sample. A final step was conducted to explore how the content of children's ILTs can relate to adult ILTs. The present study identified the variables or items common to the oldest children (in Grade 5 and 6) and the adults in the latest study of adult ILTs generalisability theory by Offermann and Coats (2018). Offermann and Coats (2018) study looked at the stability and change of ILTs over two decades, collecting data from different samples including undergraduate students and working adults, who listed characteristics of a leader, and confirmed the factor structure via a questionnaire derived from the list of items. In the study, the authors asked the samples to rate the characteristics across an *extremely to not at all* scale. Subsequently, they measured the trait loadings on each of the factors and presented the items with highest loadings. Even though the present sample did not ask children to rate characteristics across a scale, the frequency of the characteristics expressed by the children provide some interesting discussion about the volume of children's factors against adult ILTs factors.

Table 14 shows the traits that are common to the present sample and those reported by Offermann and Coats (2018) in adults. For the children sample, the table shows the volume of notations (from n=1002) given by children to each variable. For

the adult sample, the table shows the factor loading attributed to each variable in Offermann and Coats (2018).

Table 14

Traits common to the results in the present sample and those reported by Offermann and Coats (2018)

Factor	Variable, item, or trait	Frequency of notations Children sample (Grade 5 and 6)	Factor loading Adult sample Offermann & Coats (2018)
Sensitivity	Caring	3%	1.10
Dedication	Dedicated	3%	1.04
Dedication	Focused	1%	1.00
Dedication	Good decision maker	0%	0.95
Dedication	Determined	0%	0.95
Dedication	Goal oriented	1%	0.94
Sensitivity	Selfless	1%	0.92
Sensitivity	Friendly	1%	0.92
Well-groomed	Hairdo (well-groomed)	1%	0.80
Well-groomed	Dressed up (well-dressed)	2%	0.77
Tyranny	Intimidating	2%	0.75
Tyranny	Dominant (Domineering)	0%	0.71
Masculinity	Facial hair	1%	0.66
Strength	Commanding	1%	0.58
Creativity	Clever	0%	0.54
Strength	Tough	0%	0.51
Strength	Strong	1%	0.50
Strength	Strict (Firm)	0%	0.46
Charisma	Bold	3%	0.41

*Note: This table shows traits common to the results in the present sample and those reported by Offermann and Coats (2018). Frequency of children's notations is calculated based on n=1002 notations. Factor loading in adult study by Offermann and Coats (2018) is based on ratings by 860 adults.

When organising the items, in descending order of volume for the children, and in descending order of factor loading for the adults in Offermann and Coats (2018)

study, as shown in Table 15, it is found that adults' highest loaded variables, including the leader being caring (highest factor loading= 1.10), dedicated (second= 1.04), focused (third= 1.00), good decision maker, and determined (fourth= 0.95 each) are positioned in the same order, as the one found in children's volume. So, for example, when children more often noted the leader being caring (3%) and dedicated (3%), adults also gave the highest loading or magnitude to these two variables: caring (1.10) and dedicated (1.04). Furthermore, looking at the item focused, that children placed third in order of frequency (1%), it is found that it is also in third position in the adult loading (1.00). Moreover, the traits good decision maker and determined, as shown in Table 15, followed in fourth position, in equal frequency for children (four notations each) and loading for adults (0.95 each). These exploratory and concurrent results only ignite a conversation around volume of children's ILTs factors against adults, however it does not intend to discuss any comparative notions between the weight or importance of the different factors to each group. This exploratory data would need to be studied further, by looking at factor loadings across diverse children samples.

Table 15

Ordering of items for children in the present study and adults in Offermann and Coats (2018)

Factor	Variable, item, or trait	Children	Adults
Sensitivity	Caring	1	1
Charisma	Bold	1	15
Dedication	Dedicated	1	2
Tyranny	Intimidating	2	9
Well-groomed	Dressed up (well-dressed)	2	8
Dedication	Focused	3	3
Well-groomed	Hairdo (well-groomed)	3	7
Strength	Commanding	3	11
Sensitivity	Selfless	3	6
Strength	Strong	3	16
Sensitivity	Friendly	3	6
Dedication	Goal oriented	3	5
Dedication	Good decision maker	4	4
Dedication	Determined	4	4
Strength	Tough	4	13
Strength	Strict (Firm)	4	17
Tyranny	Dominant (Domineering)	4	10
Creativity	Clever	4	12

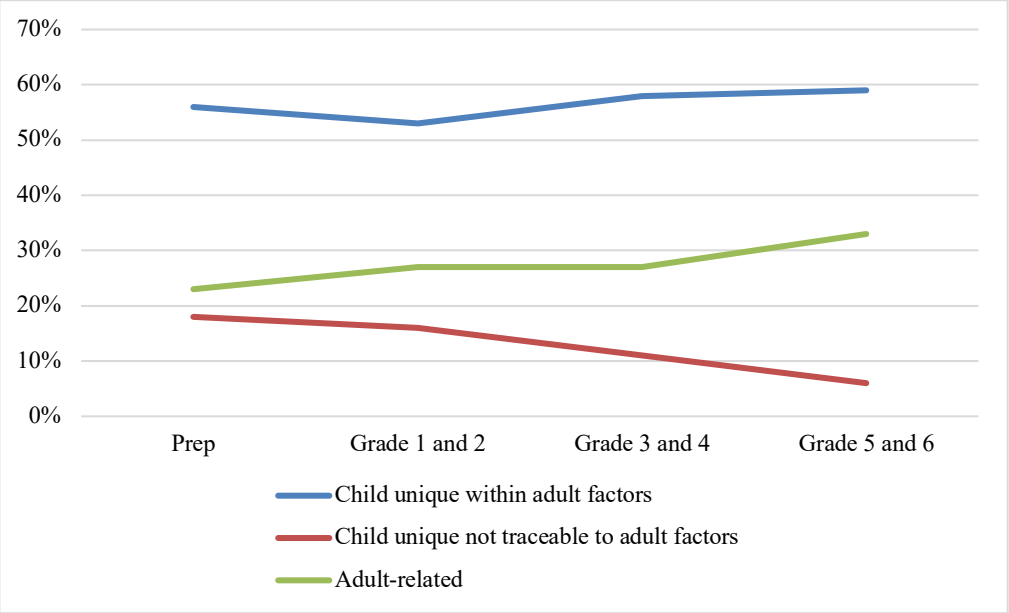
*Note: This table organises items in descending order of frequency for the children in the present study, and in descending order of factor loading for the adults in Offermann and Coats (2018) study

Conclusion. In conclusion, the analysis presented in this last section of the results chapter shows that children's ILTs develop towards adult ILTs while becoming increasingly sophisticated. In the beginning of schooling about one fifth of ideas can be linked to adult ILTs, and by the time they reach the senior years of primary school,

children are at the most advanced stage of development in the sample, with a third of their ideas connected to adult generalisable ILTs (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994). Nevertheless, as illustrated in Figure 50 and Table 16, the majority of content is unique to their world, influenced by language development as they utilise concepts that they use and understand, as well as labels and descriptions of situations with leaders gathered from their day to day and surrounding environments. Even so, most of children's unique ideas can be contained within adult generalisability factors, as detailed in Figure 50. There are also child-unique ideas, as detailed in Appendix PP, that cannot be assigned to adult generalisability factors. These notions tend to decrease or even disappear, for example, big, or fast. However, as children reach the end of school, child-unique ideas of the leader being positive, older, or joyful, can still be found, and perhaps may be found further ahead in adult individual's ideas of leaders.

Figure 50

Comparison of adult-related ideas, unique-child ideas contained in adult factors, and unique child ideas across grade groups



*Note: This figure shows the distribution of 1,003 notations about a leader categorised as adult-related ideas, unique-child ideas contained in adult factors, and unique child ideas across grade groups.

Table 16

Comparison of adult-related ideas, unique-child ideas contained in adult factors, and unique child ideas across grade groups

Category	Prep	Grade 1 and 2	Grade 3 and 4	Grade 5 and 6
Child unique within adult factors	56%	53%	58%	59%
Child unique not traceable to adult factors	18%	16%	11%	6%
Adult-related	23%	27%	27%	33%
NA	3%	4%	4%	2%
	100%	100%	100%	100%

*Note: This table shows the percentage distribution of 1,002 notations about a leader categorised as adult-related ideas, unique-child ideas contained in adult factors, and unique child ideas across grade groups.

Lastly, children' ideas of leaders can also relate to adult ILTs by comparing adults' highest loaded variables with older children's volume in their ILTs where it is stimulating to find that traits of the leader being caring, dedicated, focused, good decision-maker, and determined were organised in the same order by the children in the present sample, and by the adults in Offermann and Coats (2018) study. However, the children's ordering is measured in terms of frequency and the adults' in measurements of factor loading, so perhaps it is a coincidental finding. In any case, These exploratory and coincidental results contribute to the conversation around the relation and connection of children's ILTs factors to adults.

This chapter has presented an in-depth analysis of children's ILTs content for the present sample from different fronts including the dimensional and orientation, notions of development reported in previous literature, as well following children's ILTs studies developmental cues. It has also discovered children's thinking of leadership through quantified notions of characteristics of leaders. Additionally, it shows evidence that there are connections between children and adult ILTs in ways that had not been recognised before.

6

Discussion

[Leaders are] Like superheroes. Like how they're born with powers, and then they become really strong and powerful, and then people try and destroy them, but they save the whole world. Actually… [Leaders are] not really born leaders, but they become to realise that they know how to do stuff, and how the world works. (Girl 045, Grade 3, 8Y/9M)

6.1 Findings and observations

By exploring the image of a leader in the minds of 251 children in a public primary school in Australia in response to the research questions, *RQ1 How do children's ILTs develop?* and *RQ2 How do children's ILTs relate to adult ILTs?,* this study has found that children's thinking of leaders is not a sequence, it is an emergence model. The development of children's leadership cognition is observed across a multi-dimensional model founded on a functional understanding, over which socio-emotional, humanitarian, and environmentally concerned notions increase, and physical and spatiotemporal ideas tend to subside across time. Consequently, it does not progress through steps or phases that come and go, as previously thought; instead, it is a changing and emerging mix of these various factors.

The study has also found that proximal, close, and current leadership experience amongst a context, is the main drive in their content development, and that regardless of age, access to mass communication impacts their ideas of leaders, with a high rise in the senior years. This means that most of children's ideas in the last year of primary school are coming from the most commented political news or most recognised exemplars

from the political context. And this social context appears to influence both genders. Because social triggers are mostly male politicians, boys and girls more often choose male leaders. But if the social triggers were mostly female, for example in New Zealand and Finland, the only countries to have had three female leaders, including the current Prime Ministers Jacinda Ardern and Sanna Marin (O'Neill, 2020), and they were the highest visible in mass media, it would be expected that both boys and girls would reference more female figures. As currently configured, Australian society is influencing the oldest children to represent male figures as leaders.

Another finding is that children choose an adult leader 70% of the times, so it is suspected that they hold a *think leader-think adult bias*. However, the youngest children in Prep choose a child leader as often as an adult thanks to the line leader role at school, where the teacher assigns the responsibility to a child to head the line while they move from place to place. And lastly, boys' and girls' ILTs develop quite similarly and are structurally the same. Gender differences are superficial and appear to be socially fed through the language that is projected on to them depending on their gender and also gender-guided social roles.

RQ1 How do children's ILTs develop? The main finding is that the development of leadership understanding in children does not respond to a strict ordered sequence across age, social-cognition progression, nor is it U or J-shaped; it is a process of emergence towards a sociocentric notion of leader, guided by the constant interaction between internal and external factors that affect uniquely each child.

Approach to a new developmental model. Primary school children's ILTs develop through a phase-based process across dimensions, functional orientations, social-role attribution, and content that can be seen in the form of traits or items. Even though this development can be observed across four points in time (Prep, early primary school, middle primary school, and late primary school), this does not mean that its development is solely age-related (Broich, 1929; DeHaan, 1962), as previously noted by the literature giving a child's biological age much worth in assessing how their ILTs develop. As the findings in the present study show, children's mental representations of leaders are highly influenced by individual experiences (Sacks, 2009; Salmond & Fleshman, 2010) that cause perceptive impact and thought, which are widely supported by their development in social-cognition (Selman & Jaquette, 1977; Selman et al., 1977).

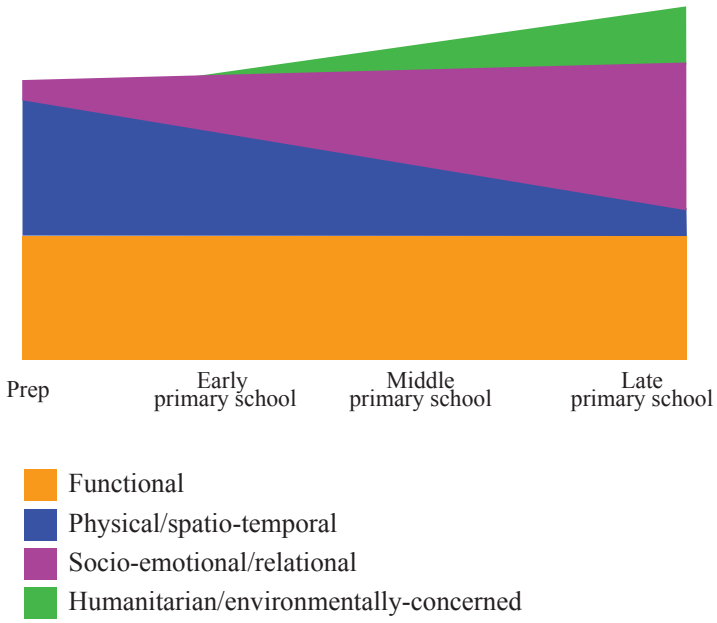
Taking on this multi-dimensional and multi-theoretical understanding of its development challenges previous theories of development that looked at its development from one point of view, either focused on internal or external factors, or with a phase-progressive view, as opposed to a holistic emergence view. The proposed approach also resolves previous conflicting findings in the literature of breaking points across age when children shift from one dimensional understanding towards another, for example, from physical towards socio-emotional. It also expands on findings by Selman et al. (1977) where some children escalate quicker or slower than others across dimensions in leadership cognition development (Selman et al., 1977).

Guided by the findings in the present research, I propose a comprehensible theory of children's ILTs development in primary school, as illustrated in Figure 51. In this model, which I have denominated the *Funpstehe Model*[6], children's understanding of leadership across primary school is structured and regulated by a functional core base, over which perceptual dimensions appear and can either expand, or contract across time. The functional core acts as a stable headland over which another dimension lands. At the beginning, physical-spatial perceptions converge with the functional core and while dissipating, they give space to the arrival of a new wave of perception within the socio-emotional dimension. Then, this process is repeated again, and notions within humanitarian and environmental dimensions emerge. And, while physical-spatial notions decrease across primary school, its sediments can still be found in the older children. Then, perceptions in socio-emotional and humanitarian and environmentally concerned dimensions appear to be heading towards a crest later, after primary school.

[6] *Funpstehe* after functional, physical-spatio-temporal, socio-emotional, and humanitarian/environmentally concerned

Figure 51

Children's development of ILTs: The Funpstehe Model



*Note: This figure shows a proposed model of development of children's ILTs across primary school guided by dimensional understanding.

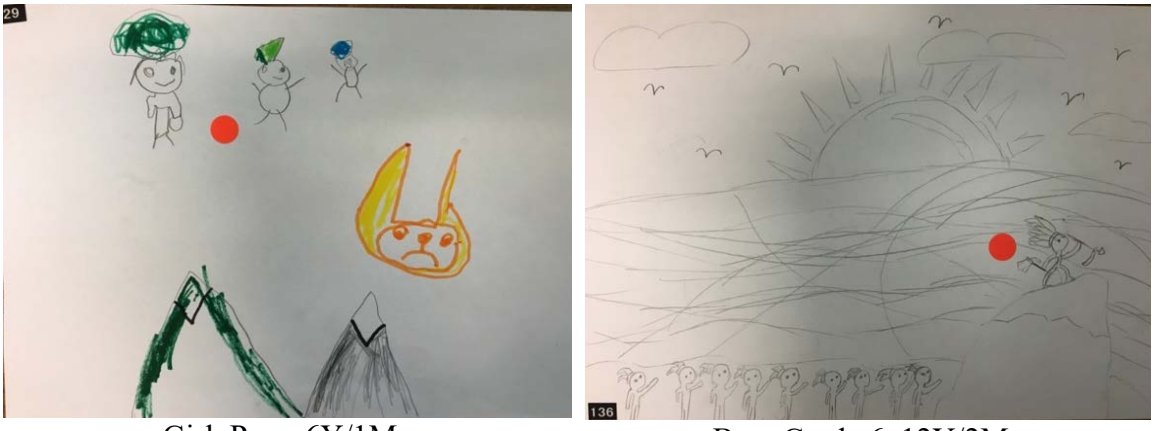
Because physical-spatial notions decrease, and socio-emotional, and humanitarian and environmentally concerned notions grow, there are moments across primary school where more children in certain grades present more perceptual content towards one of these aspects. This behaviour allows the theory to be structured across the four points in time (early primary school, middle primary school, and late primary school). However, the moments of maximum display for each dimension, do not intend to overlook the relevance of the amplitude reached by each dimension across grades. On the contrary, while showing a developmental trend across primary school, it also explains the emergence of unique combinations of dimensional understanding in some

children across grades (Ayman-Nolley & Ayman, 2005; Selman et al., 1977; Yarrow & Campbell, 1963). So, in this model, same-age children can present an equidimensional understanding of leadership, but also, an older child can show a similar dimensional understanding of leadership as a younger child or vice versa. For example, a child in Grade 1 can show a humanitarian and environmentally concerned notion of leadership, which is more frequent in children in Grade 6, and a six grader can still present a physical/spatio-temporal notion, even though they are infrequent in this age group. Or, both younger children and older children can refer to the same perceptual referent, as found in 'the big hat' prototype ('The leader have the big hat' Girl 029, Prep, 6Y/1M = 'And he has the biggest hat out of all of them' Boy 136, Grade 6, 12Y/2M) presented in the results chapter.

Figure 52

The 'big hat' prototype

Child 029 *Child 136*



Girl, Prep, 6Y/1M Boy, Grade 6, 12Y/2M

*Note: This figure shows the same perceptual reference one of the youngest children and one of the oldest children in the present sample.

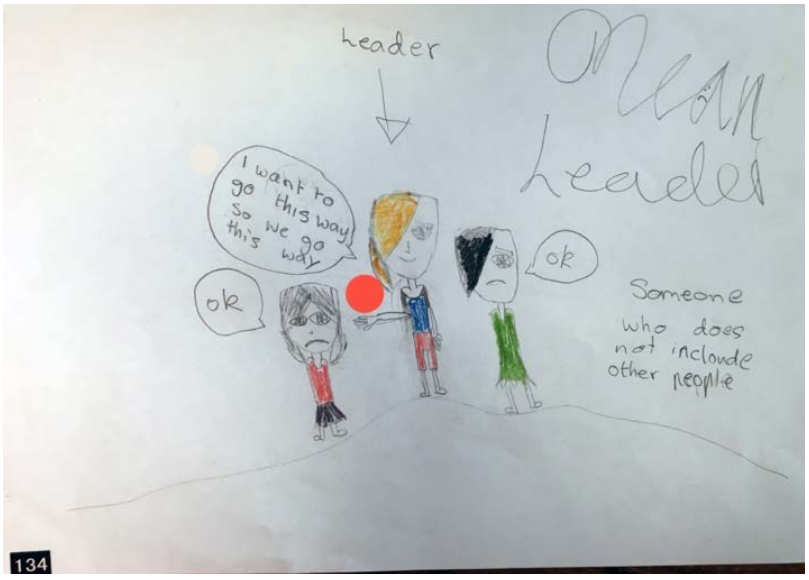
Consequently, the evidence gathered in the present study shows that the development of the leadership understanding in children does not respond to a strict ordered sequence, as previously thought in age-related children's perception studies (Broich, 1929; DeHaan, 1962), nor is only dependent on socio-cognitive advancement, nor is it U or J shaped as suspected by Ayman-Nolley and Ayman (2005) and colleagues. It is a process of emergence of becoming more visible or prominent guided by the constant interaction between internal and external factors that affect uniquely each child and expand and grow their understanding of leader to become as sophisticated as it can be towards a sociocentric notion of leader.

Experiential leadership plays a key role. The study has found extensive evidence showing that children's ILTs development is individual, and considerably influenced by experiences (Sacks, 2009; Selman & Jaquette, 1977). Cases found in the data such as the line leader prototype and *follow the leader* (Sacks, 2009) referents in the early years, but also the parents, or teacher referents, sport trainers, or their parents' bosses, show that they are placing their ideas of leaders in situations they experience firsthand, mostly as followers, but also as leaders. It shows that children are sensitive to social roles that they are exposed to, for example, a working class suburb gives high frequency to tradespersons, or the frequency of royal referents (Queen, King, knight) might relate to the fact that Australia is a federation, a constitutional monarchy and a parliamentary democracy that has a Queen, who resides in the United Kingdom and is represented in Australia by a Governor-General. So, accumulation of leadership

experience amongst a context, is the main drive in their content development, which links to connectionist models of cognition where experience (Brown & Lord, 2001b; Elman, 2005; McClelland & Jenkins, 2014; Robson, 2006; Seidenberg, 1994), more than age, is the main reason for the progress of the leadership construct.

Exhibit 94

Child 134



Researcher: So, can you please describe your drawing to me?

Girl: Well, this one is about someone that is a leader of a group, and the other people are too scared to leave, and she's really rude to them and she didn't treat them with respect. She doesn't let anyone ideas, and includes what everyone else wants to do, she just does what she wants to do.

Researcher: Cool and let me have a look. So why don't they just leave?

Girl: Oh, because well this has happened to me before. If they leave, the drama will happen. Like the leader will get the other friends to gang up on that one person, you don't like that person. (Girl, Grade 5, 10Y/10M)

Interview excerpt 15

Child 087

Researcher: What do you think is a leader?

Speaker 2: Well, a leader, when there's a parade, and there's people following her, and she's carrying a spatula, and she's trying to make everybody happy. [And leaders are] supposed to be in a parade all the time, and make everybody feel happy, not sad.

Researcher: Perfect. So, how do you know when someone is being a leader?

Speaker 2: Well, I have actually seen the leader before, and it was in a parade, and it was at the zoo. And, I saw somebody lost, and I saw that she was ... The lady was going to pick her up and take her back to her home. (Girl, Prep, 5Y/10M)

Children's citations are proximal, close, and current, gathered from experiences that have made an impact in them. This is important because, up to a certain point, the experiences of leadership throughout their relations with caregivers, teachers, and school leaders, or community members are the drivers of their ideas. So certain stimuli found in their day to day experiences (Sacks, 2009; Salmond & Fleshman, 2010) as individuals, family members, students, friends, and group members, is central to their development of the leadership schemata. These initial environments are created to support the development of children, family, school, sport, dance, art groups, faith groups, and child-entertainment. So yes, congruent with developmental theories, early relationships or experiences with leaders in familiar and educational contexts, seed and shape initial and future ideas and expectations of leadership (Keller, 1999; Shondrick et al., 2010) and influence the establishment of leadership traits in children (Ayman-Nolley & Ayman, 2005; Liu et al., 2012; Oliveira, 2016).

But then, there comes a point, sometimes simultaneously, since evidence can be found in children as young as six years old, where they begin to report absorbing information from new and more environments, mostly technologically driven, which are part of current home environments. Some examples are news in TV and radio, Google, Internet, YouTube, or parents' conversations about their work environments. So, they begin to be exposed to new political, organisational, cultural, and entertainment environments (Ayman-Nolley & Ayman, 2005; Hess & Easton, 1960; Massey, 1975; Okamura, 1968). Access to this information expands their awareness of leaders and these stimuli increase their understanding of the social structures that surround them (Piaget, 1932; Selman & Jaquette, 1977; Selman et al., 1977) as local and world citizens. This access to mass communication impacts their ideas of leaders, significantly boosting their understanding, expanding it into new dimensions, orientations, and processes of categorisation. So, by the time they are in the senior years, school and family appear to no longer be influencing their ideas of leaders. As found in the present research, most of their ideas are coming from the most commented upon political news or most recognised exemplars from the political context.

This finding is important because it shows that children as young as six years old are within earshot to information about leaders that they watch or listen in their environments, influencing their development, and specifically their ideas of leaders. Most importantly, these stimuli are driving their understanding of humanitarian and environmentally concerned notions of leaders. The exploratory data also shows that sometimes children discuss these events with parents or caregivers, but in other

occasions, there is no discussion around these issues. So, children are arriving to this phase of understanding of the leadership construct because they are exposed to new information either accidentally or mediated by caregivers or parents. Rarely is it guided by educational models. So, permissiveness to media access, parent's technological consumption, and media presence in family environments have a direct impact on children's leader cognition, which results in the appearance of socially recognised personalities or models of leadership and wider category structures of leaders in the children's depictions. The fact that such access may happen at different ages, explains why sometimes younger children hold a more sophisticated, abstract, socially informed, understanding of a leader, than older children.

Exhibit 95

Child 019

Girl 019: So that's the president of this state, and he's really royal, so he has the red carpet, and then these are some stairs and some bushes to the side. Here's the sky, and he's saying, "I'm the state president and I work for you." (Girl, Grade 3, 8Y/6M)

The results also show that children then pick up some of these ideas, which can be violent. For example, missiles, hatred, bombings, racism, war, and walls were common in the oldest children. This can be explained by the fact that, at the time of data collection, Trump and Kim Jong-un were on the news. In 2018, the *Build the Wall* act was introduced in the US and also, in June 2018, right in the data collection time, the US President Trump met with North Korean leader Kim Jong-un in Singapore. But also, some other permeating ideas, sad or hopeful, that made the news at other times, such as former Australian Prime Minister Kevin Rudd delivering an official apology to Indigenous Australians on 13 February 2008, or Obama addressing the media sadly when finishing his second term as US President in 2017.

So, these results not only confirm that media can be a source of leader ideas, it further denotes what kind of information is getting to them, where, and how. They are influenced by these environments, which are not created or curated specifically for children. However, it has an impact on their ideas or models of leaders. This opens questions on what should be the role of media in the development of children's ideas? Or whether we should be providing safe spaces for the development of leadership knowledge at an educational level? or, perhaps, we should be introducing discussions about civics, politics, and current affairs in younger children to help them make sense of these inputs? Furthermore, seeing that Donald Trump's figure penetrates 7% of children's ideas of leadership in this sample in Australia, raises important questions such as whether we want to dismiss the impact of such stimuli, leaving it aside with no discussion? Do we want other referents to be noted in the same or a higher percentage?

Exhibit 96

Child 262

Researcher: Do you know why you chose Trump? Is that the first thing that came into your mind?

Boy: Yeah, because I forgot what the Australia's leader was called. So he was the first thing that came into it.

Researcher: And how did you find about him?

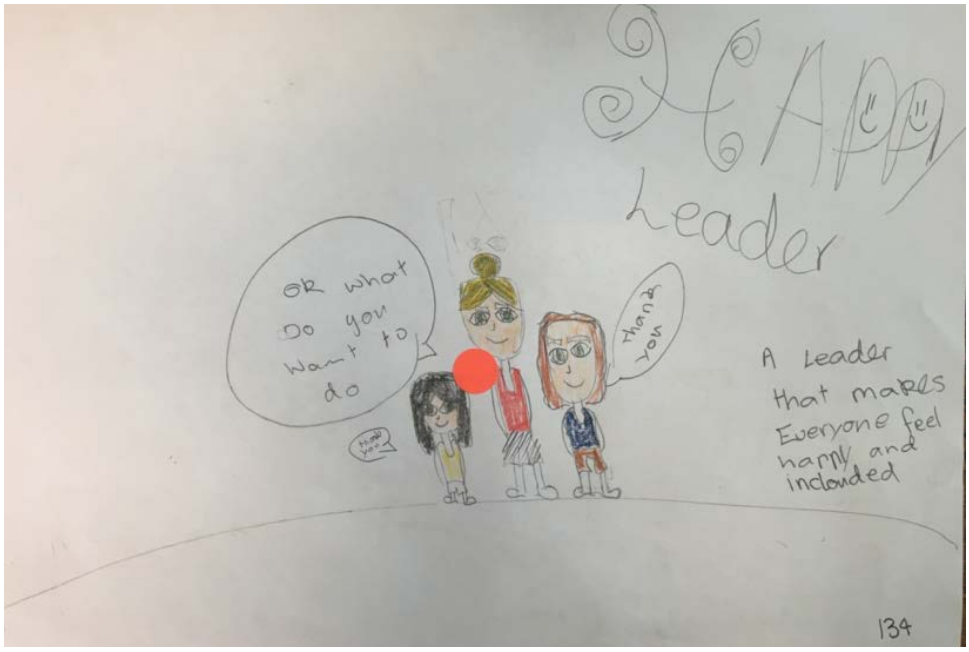
Boy: It's everywhere on the news. (Boy, Grade 3, 8Y/9M)

Furthermore, the models that children experience directly or indirectly, inspire ideal visions of what they would hope a leader to be. So, guided by an experiential understanding of leadership contrasts, and also, by the lack of exemplars that they would like to see, children develop illusory referents or content, surpassing referents found in the real world, and portraying ideal or imaginary models of how they would dream or would like the leader to be. In Exhibit 97, the girl decided to draw a ‘happy leader’ in response to a ‘mean leader’ which was noted in Exhibit 94, reflecting an

experience she encountered with her friends. Other examples are found in Exhibit 64, Child 130, in the results chapter, who noted a leader curing cancer, stopping homelessness, child slavery, and hiring people who want to work. Another example can be found in Exhibit 60, Girl 125, in the results chapter, who depicted a non-existent current female Australian prime Minister political leader. These imaginary ideas are also ILTs and can be observed as a call-out for discussion, an enquiry for identifying spaces for conversation or debate of what they hope a leader to be, and what they believe the leader of the next generation should represent.

Exhibit 97

Child 134



Girl: Well, this is a leader that makes everyone feel like they belong in there, and that they feel that their ideas can be included. She decided, unlike the other ones, she was like everyone else choose what they want to do, like if they wanted to go this way or that way. I'm feeling they're just going to go this way, and, yeah. (Girl, Grade 5, 10Y/10M)

Experiential leadership is also important because it impacts gender preference guided by social roles. The influence of the political context experienced through media is the highest influencer of male ideas of leaders in girls, as illustrated in Appendix QQ, especially older, suspected to be due to their increased interest in the humanitarian dimension of leaders. As found in the study, up until Grade 5 girls note a high preference for female leaders, in average 73%. But the older girls in Grade 6 only chose a female leader 44% of the times and this is worthy of discussion. I suspect that oldest girls shifting gender preference to male leaders is because of the absence of role models in the political context, because most of them drew male political leaders. This evidence raises groundwork for a theory of *'think leader-think politician-think male'* bias in the older girls, and it is novel because previous studies (Ayman, 1993; Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Leffler et al., 2006; Liu et al., 2012; Oliveira, 2016) had generalised gender preference across all ages.

Exhibit 98
Child 154

Girl: The leaders are walking across the street.

Researcher:	Awesome. And can you tell me please if it's a man or a woman?
Girl:	A man.
Researcher:	Cool. Very nice. Okay, so now I'm going to ask you a few questions about what you think. Can you tell me what is a leader for you?
Girl:	My dad kind of acts like a leader of the house.
Researcher:	Excellent. And any other ideas of what is a leader for you?
Girl:	Some presidents. (Girl, Grade 5, 10Y/9M)

The fact that boys choose a male leader 96% of the times, also raises a question of why, in contrast, girls up to Grade 5 are choosing male leaders about 30% of the times. Besides the impact of political referents, results also show that ideas are influenced by the father figure, the fact that the Principal at the school is male, patriarchal households (see Exhibit 98), and also just because they grant leader status to a male leader who has made an impact, for example, a boy in the class who the girl catalogues as a good line leader (Girl 253, Grade 2, 7Y/11M). This evidence is important not only because it reaffirms that experience is guiding their ideas, it reflects where the male-referents that impact a non-gender-equal notion of leaders are coming from and also exemplifies the extents of the male political figure presence in media on girls' ideas of leaders.

In conclusion, children appear to pursue gender self-similarity, in other words, tend to pick leaders from their same gender, and that's why they most often choose models from their own gender that they have direct experience with, and or who have made an important impact. This tendency was reported in adult ILT studies where

individuals search for similarity of characteristics and behaviour in 'the other' (Byrne, 1971; Dulebohn et al., 2016; Engle & Lord, 1997). However, in the case of gender, a gender split is often biased by which leaders they know, rather than by what gender they think leaders should be, challenging theories of children holding gender-stereotypic ideas (Frost, 2016). So, children utilise the images of leadership they experience and face at different times, driving the contemplations that encompass their assumptions and future possibilities of leaders (Greenhalgh & Maxwell, 2019). But occasionally they can be critical and where they think that there should be a different kind of political leader, they would represent that.

The leader-adult bias. The fact that a majority of children (70%) drew an adult as a leader points to the idea that perhaps, children hold a *'think leader-think adult'* bias, where children most often see a leader as someone who is in the adult stage. In this case, social context appears to be, once more, what influences these preferences. Perhaps because the leader denominated referents in their context are mostly adults, like politicians, teachers, or the school principal, children most often choose adult referents. But, say, for example, in ancient times, when there were child monarchs, like in ancient Egypt, where pharaoh Tutankhamen inherited the throne in the 14th century B.C. at the age of 9 or 10, or Ptolemy XIII who came to power in 51 B.C. at the age of 11 or 12 years old (Andrews, 2012), or later in Europe in the 1500s, where for example, Mary, Queen of Scotland accessed to the throne of England when she was 17 years old (Fraser, 1999), the results would perhaps be different. If we had conducted a similar study back then, the children perhaps would have depicted more young leaders than

adult leaders. In modern times, conducting a similar study in Stockholm, in Sweden, where world renowned and media-loved young climate activist Greta Thunberg is from, could perhaps result in more adolescent fueled leader referents.

Interestingly, the youngest children in Prep show an opposing trend, naming a child leader as often as an adult leader. This is because the youngest children in Prep are highly influenced by the 'line leader' model, which is implemented by the schoolteachers to appoint a child to be responsible for leading the line when the class group needs to walk from one place to another. This finding is interesting because it shows more evidence that, through experience, the youngest children can see that the leadership status can be attributed to one of them. And even though the nomination is made by an adult, this responsibility role (line leader) shows that the youngest children see either themselves, or other children as leaders, challenging theories that the youngest children more often depict only adult leaders (Sacks, 2009) and adult role models (Lord & Maher, 1991). So while the youngest children choose a child leader half of the times, children in middle grades only choose one 10% of the times. And then, in Grade 5, there is a change once again, where around one in four leaders is a child leader. This can be explained by the drawing content where child leaders are schoolgirls, boys, or captains. From this time, the school offers leadership experiences to students, such as school captains, sport house captains and vice-captains, student representatives at the school's council, managing office and admin duties, and looking after one of the Prep kids through the 'buddy system'. And even though these programs

raise the content of child leaders during this time, they substantially decrease in the last year of school, where only two children drew a child leader.

All this evidence reiterates the impact of experiences of leadership in children's thinking (Sacks, 2009). If we wanted to augment children's perceptions of their own leadership, or empower children's identity as leaders, there are practical avenues. (Salmond & Fleshman, 2010) found that children who rate themselves higher in leadership traits and skills, are those who report having more leadership experiences or being more influenced by their parents. Children show desirability to influence their own and other's actions (Salmond & Fleshman, 2010), they associate their own leadership development with roles of responsibility (Sacks, 2009), and their ILTs are influenced by leadership programs, experiences and roles implemented at school (Sacks, 2009; White & Lippitt, 1960). Additionally, as they grow, they increasingly become more interested in either taking on, or granting a leadership roles (Schyns et al., 2011).

So, the fact that child-leaders are almost absent in the middle years, while they are higher at the end of school because of the school's leader programs, and that they are at their highest at the beginning of school due to the impact of the 'line leader' experience, reveals the power of the school system over children's ideas of leaders (Sacks, 2009). Also, the fact that the line leader prototype is still somewhat present in children in the senior years shows the extent to where experiences as leaders permeate across time. All this evidence shows that children's self-perception as leaders across primary school behaves in an inverse J-shaped manner (Salmond & Fleshman, 2010),

which raises questions of whether providing children with more leadership experiences, would observe higher levels of leadership identity which, according to the literature (Catrambone et al., 1996; Catrambone & Markus, 1987; Ehrhart, 2012; Engle & Lord, 1997; Offermann et al., 1994; Schyns & Schilling, 2011) may be linked to factors that affect the development of adults ILTs.

Boys and girls, girls and boys, pretty similar. Boys' and girls' ILTs develop similarly. The cultivation of ideas across dimensions and functional orientation, and also, across factors, shows a similar pace, and with close variation through the four key points in time (Prep, early primary, middle primary, and late primary school). Both girls and boys in the present sample are attentive to the leader being directive, informative, helpful, caring, and happy. Also, both value the leader's knowledgeability and confidence and are observant to the leader's appearance, including being older, being tall, or having a hairdo. This discovery is novel in children's theory of ILTs, and contests previous literature stating that gender impacts children's perceptions of leadership because boys and girls present differences in ideas, preferences, and functional characteristics of leaders (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Broich, 1929; Nemerowicz & Rosi, 1997; Selman & Jaquette, 1977; Yamaguchi & Maehr, 2004).

But then, exploring in-depth the marginal differences between boys and girls is enlightening, because it reveals how socially nourished stimuli impacts progressively gender-differentiated ideas. This is especially latent in the small differences found in the language that they use sometimes to label and categorise the physicality of a leader.

Girls use words such as cute and pretty, and boys, instead, use strong-looking, cool, spiky hair. This evidence shows that, as they mirror the modus operandi of the gender-differentiated world that they're immersed in, of girls to cute and boys to strong, they adapt gender-differentiated language that impacts the labels they apply to a leader's attractiveness.

Evidence found in the present study also shows how as children grow older, they increasingly reflect socially influenced ideas of gender role behaviours. Initially, the younger children show very similar ideas across gender, where besides dimensional, orientation, and trait notions being the same, children depict similar role models, especially the line leader prototype, or the teacher, however small differences can be found in boys noting the leader's conspicuousness, especially the leader being big or having possessions.

Then, more differences seem to emerge around six years old, where boys start to show more inclination towards violence content or lips downwards in their drawings, and girls begin to show a mild tendency towards depicting emotional conflict. Furthermore, tyranny content grows some more in boys, by describing a leader mostly as angry, or scary looking. Even slightly, this crucial point is showing the beginning of differentiated ideas in boys and girls and raises questions of why at this time? Is this caused by environmental factors of boys play war, and girls play dolls?

As previously shown, during this time, children begin to be exposed to new environments and access to new stimuli, especially from media or entertainment-informed sources. So, it appears that once they reach middle primary school, they are

actively pursuing gender-similarity in their referents since boys tend to describe more often political leaders, military, or socially recognisable figures from sports and entertainment contexts, while girls, show more preference for teachers and the Queen. Is this because sport events coverage is widely more focused on male sport? And perhaps the most covered female referent in Australia may be the Queen? Or because the majority of schoolteachers are female? Or perhaps, are boys somehow more exposed to, or sensitive to media or technological-influenced environments during this time? These are questions for future research, however the present study finds that these social role preferences reflect slightly in the characteristics they may consider about a leader, for example, boys being slightly more inclined to a leader's conspicuousness, dynamism, tyranny, and playfulness in connection to political, sports, or entertainment models, and girls, to a leader's sensitivity, intelligence, or creativity in connection to their higher notations of teachers as leaders. But the key point here is that, while pursuing gender self-similarity, and within an environment encapsulating certain roles to genders, differentiated ideas are in emergence.

Lastly, in late primary school, boys and girls show more similarity choosing a male political figure or exemplar most of the time, though girls, also choose school-related leader roles (school principal, or school child captain), perhaps searching for gender-similar reachable roles, which are not being found in the political context. Regardless, gender-self-similarity dissipates, as previously shown, and girls turn to the male political exemplars that are commonly found the public sphere.

Summarising, gender differences are superficial and appear to be socially fed by stereotyped attributions influenced by the language that is projected on to them depending on their gender, and also gender-guided social roles. But the way they notice and discern leaders develops at the same pace and guided by very similar beliefs. The results show that differences appear to be ignited by external stimuli, rather than internal ones, and experiences of leadership appears to be responsible for it. As they become socially conditioned, gender-stereotypic ideas emerge and begin to take part in their experience, which is reflected mildly in their ILTs at this point in time.

Consequently, the present research has found that the differences across genders are trivial, and that by looking at their development in depth, it is precarious to say that, across all ages, all girls think alike, or all boys think alike. Furthermore, the evidence discovered in the present study shows that there may be avenues for minimising differences and magnifying the reality of the development of ILTs: the similitudes.

RQ2 How do children's ILTs relate to adult ILTs?

The results in the present study reveal that children's ILTs develop towards adult ILTs while becoming increasingly sophisticated. Significantly, in early primary school about 80% of children's ILTs can be consigned to factors known to be present in generic models of adult ILTs (i.e., sensitivity, charisma, dynamism, strength, dedication, well-groomed, attractiveness, intelligence, creativity, tyranny, and masculinity). And by the time they reach the final year, this has grown to 92%, as illustrated in Figure 53.

Figure 53

Emerging ILTs model

*Note: This figure shows the distribution of 1,003 notations about a leader categorised as adult-related ideas, unique-child ideas contained in adult factors as per ILTs generalisability theory, and unique child ideas across grade groups.

Furthermore, at the beginning of primary school, over 20% of children's ideas include items reported as adult sample items in ILTs generalisability theory (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994). And this proportion, as shown in Figure 53, increases by the time they reach the end of primary school, with a third of their ideas found in adult generalisable ILTs (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994). These items or ideas about a leader found commonly in adults and children, such as helpful, caring, well-dressed, well-groomed, dedicated, bold, knowledgeable, powerful, dominant, and tall, are born in the early years of schooling, around five or six years old, and are embedded in children's ideas of leaders across primary school.

Only 18% of ideas in the beginning of primary school are child-exclusive, meaning that they cannot be consigned to adult generalisable ILTs factors. These ideas include a leader's conspicuousness such as older, big, having stuff, being fast, or strong-

looking, and also ideas of the leader being playful, cheerful, or happy. But then, by the time they reach the final years, these ideas are only found 6% of the times, and only include the leader being positive, older, or joyful, which perhaps may be found further ahead in individual adult ILTs.

The evidence found in the present study also shows that, just like adults, children across primary school, hold leadership narratives and apply labels, categories, and typologies to make sense of the leadership phenomena. Also, just like adults, children refine their ILTs to fit diverse contexts, so adult and children's ILTs can vary similarly, due to exposure to types of leaders, for example, from sports, politics, or entertainment (Offermann et al., 1994). Consequently, children are making sense of a leader across multiple knowledge structures, just like adults, becoming more profound and strengthened with experience.

On one hand, through verbal language which can be in the form of labels or descriptions of experiences, for example, 'brave', or 'isn't afraid of saying what they think'. On the other hand, the high level of experience-based content shows that, just like adults, ILTs are constructed and developed by the diverse encounters that individuals have, directly or indirectly, with leaders (Lord & Shondrick, 2011) and emotional content tracked to specific leadership models reflects the operation of connectionist systems (Hanges et al., 2000; Lord et al., 2001). Lastly, because children have also reported their sensorimotor experiences in the dynamics of leadership, such as the leader being fast, big, or walking at the front, which expose the process of perception through corporality (Sparrowe, 2014), it can be established that their ILTs

reflect on embodied-embedded perspectives (Niedenthal et al., 2005) where the body, static and in movement, filters and calibrates external stimuli (Gapenne, 2014).

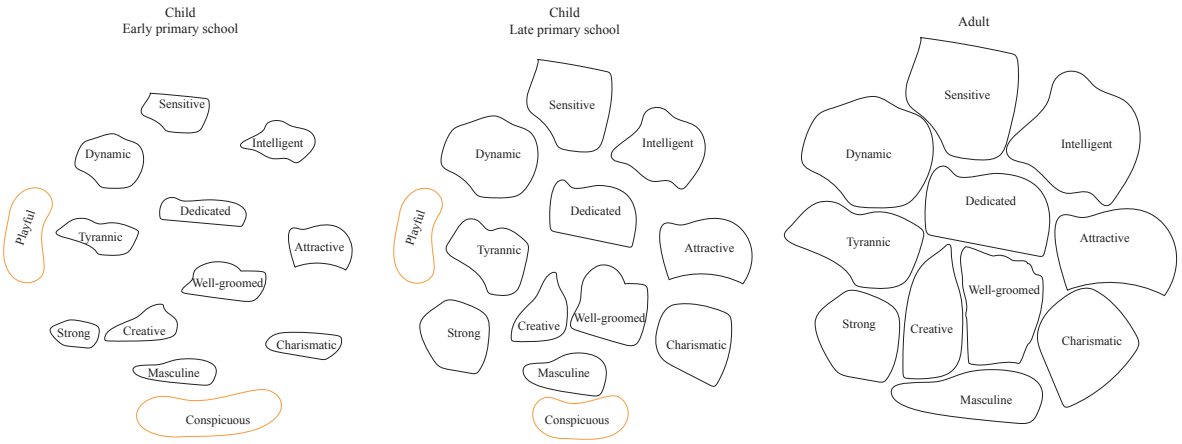
Furthermore, when comparing ILTs in the oldest children and in the adults in Offermann and Coats (2018) study, the findings show that characteristics of the leader being caring, dedicated, focused, good decision-maker, and determined equate with those found in adults' ILTs by Offermann and Coats (2018). Even though the children's scale is measured in terms of frequency and the adults' in measurements of factor loading, the commonality is striking and provides evidence that children's ILTs are forming into adult ILTs at a much earlier age than previously thought. The roots of these factors are found in some of the youngest children suggesting an emergence model rather than the phase model previously advanced.

Some causal findings indicated that children and adult ILTs are connected. Because children could draw a leader (Ayman-Nolley & Ayman, 2005) that adults also recognise, or because both adults and children were likely to choose the same candidate in a simulated voting environment (Antonakis & Dalgas, 2009). Also because the idea of the leader being a good listener, emerged later in childhood, and pervaded into adolescence (DeHaan, 1962), or because CEO's managerial styles reflected childhood upbringing and parental styles (Bernile et al., 2017). But the novel findings in the present study, showing such high resemblance in knowledge processing, content, and perhaps preference, between adult and children ILTs, are important because they point us in a new theoretical direction, where researchers cannot assume that ideas of leaders in adults and children develop as separate entities, but rather as one whole system.

Seeing that children's ILTs are contained mostly in adult factors, and that they develop in similar ways, really points to the conclusion that children's ILTs are indeed the early foundation of adult ILTs. This discovery not only confirms that children's ILTs are connected to adult ILTs but provides groundwork for developing emergence models of adult ILTs. Children's ILTs not only shape the adult leader and adult follower, they are forming adult ILTs. Consequently, human ILTs are one entity conformed of factors, including the leader being sensitive, charismatic, dedicated, strong, dedicated, well-groomed, attractive, intelligent, creative, tyrannic, and masculine (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994). These factors are set in the early years of schooling, and become loaded across time, as illustrated in Figure 54.

Figure 54

Naturally formed ILTs factors



*Note: this figure visualises how adult factors in ILTs generalisability theory (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994) can be

already found in children in early primary school, and that they appear to expand or fill, as children grow older, and into adulthood.

Throughout this loading, ideas that are within one factor at some point, can either stay formed until adulthood, or be transformed at another point in time. For example, in the first scenario, the idea of the leader being ‘helpful’, is born in early primary school and continues to be noted in late primary school and later, in adulthood. And in the second scenario, the child idea of a leader being ‘nice’ may be transformed into the adult idea of the leader being ‘kind’. Or the child idea of a ‘bossy’ leader, may be transformed into the adult idea of a ‘domineering’ leader. In this case, the progression of language comprehension mixed with the continuous adjustment and increased capacity for abstraction, simultaneously expands children’s capacity for cognitive operation (Anthony et al., 2003) and consequently, their mental models or recognised identifiers of leadership.

These findings are important because, by seeing that children’s ILTs are actually emerging adult ILTs, provides a new angle when addressing leadership development. So far, almost all efforts at leader development have been targeted at adults ignoring development through people’s early lives (Day, 2000; Riggio & Lee, 2007). Even theories of leader development (Hammond, Clapp-Smith, & Palanski, 2017; Spisak, O'Brien, Nicholson, & van Vugt, 2015) focus on adults and largely ignore development during childhood. But perhaps effective leader development is best directed toward

children, when there is more neural plasticity (Kolb & Gibb, 2011) and malleability (Cantor, Osher, Berg, Steyer, & Rose, 2019)?

If children and adult ILTs are structurally so similarly, which can actually be explained by the fact that meaning-processes in children are born in the nexus of social interaction between children and adults (Golinkoff et al., 2019), the major differences in their conceptions of leaders are rather denotative and connotative, where the grown-up, who accumulates leadership experience, and masters forms of communication, both verbal and non-verbal, reflects broader value systems of leaders than those found in the children. So, even though children's ILTs can be consigned to adult ILTs, their content is unique because it elicits their culture of leadership, their language of leaders, which is forming towards adult ILTs. Accordingly, they utilise concepts that they use and understand, as well as labels and descriptions of situations with leaders gathered from their day to day and surrounding environments.

Lastly, differences may also be dimensional, we know from the present study that children's ILTs are guided by a multi-dimensional cognitive structure across physical/spatial-temporal, functional, socio-emotional, and humanitarian-environmentally concerned notions. However, it is unknown how these dimensions are reflected in adult ILTs, as they are usually measured in organisational settings. These are questions to address in future research.

6.2 Directions of future research

6.2.1 Developmental validation and generalisation. The first step towards future research would be to confirm the proposed developmental theory by testing its limits and boundaries in similar studies in other populations. Previous research has assumed that a leader schema develops either across-ages (Broich, 1929; DeHaan, 1962), social-cognition (Selman & Jaquette, 1977; Selman et al., 1977), through experience (Sacks, 2009; Salmond & Fleshman, 2010), or following a U-shaped or J-shaped form (Ayman-Nolley & Ayman, 2005). However, the evidence in the present research shows that its development is much more individual, guided by internal and external factors, and highly influenced by personal experience and environmental triggers. Such development can be observed holistically across key points in time, as proposed in the present study. Applying the method to a different sample would test if the developmental trends and adult factor structures found in the present sample are replicated in other children. Such exploration may be in other countries or government systems, or in different settings, for example one-gender schools, religious schools, at homes, or summer camps. Further exploration could occur in transitory situations like war, post-conflict, or after a natural disaster or epidemic. This would test if the developmental model applies in a range of other contexts.

At least in the sample analysed, over half of children's characterisations of a leader lie within dynamism and sensitivity characteristics. And within these, the leader being directive, informative, helpful, and caring are significant traits found across all grade groups. Furthermore, the most stable ideas across primary school are a leader's

dynamism and playfulness. Adhering this finding to discoveries gathered previously in the literature where, regardless of age, children most often associate a leader with a human being, and their ideas are firstly functional, mostly positive, and also non-violent (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Liu et al., 2012; Oliveira, 2016), can mark a foundation towards future children's ILTs generalisability research, however attentive to developmental variations. A new area of children's ILTs generalisability research challenges previous approaches to generalisation of leader ideas guided by social role content, where across cultures, teachers, political representatives, and military personnel are associated with leadership roles (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Liu et al., 2012; Oliveira, 2016). As found, this may not reflect the youngest children's perceptions, and social role content changes more rapidly than dimensions, functional orientations, and traits or characteristics. Social role content seems to relate to the time of childhood and the experience-filled stimuli surrounding such time. Focusing on characteristics that children associate to a leader, gives more continuity in data when looking at children's ideas of leaders, and also translates their content into adult ILTs language, which opens up new avenues for research of adult ILTs antecedents.

6.2.2 Before and after. Another area of research is found across the emergence model proposed in the present study. What happens before primary school, and what happens after, in adolescence, and in early adulthood before individuals become working adults?

Figure 55

Future research

*Note: This figure illustrates gaps for future research.

The present study finds that adult ILTs show a pattern of emergence that moves slowly across primary school years. But we are not sure when these ideas are actually emerging. Adult factors are already in emergence by the time children reach primary school. This evidence points towards the fact that the true emergence of the leader construct is probably happening beforehand, perhaps when children begin to show interest in leadership by incorporating adult 'leaders' such as fathers, mothers, or teachers into their role play (Pigors, 1933; Rosenblith, 1959), or in three-year or four-year old pre-school/kindergarten as their leader themed experiences of play (*follow the leader, Simon says*) are noted in children's perceptions in primary school (Sacks, 2009). Or could it be prior to that? Stavans and Baillargeon (2019) found that by the second year of life, infants already hold expectations towards their leaders, can distinguish

between leadership-based and dominance-based power, and assign responsibilities to leaders. So future research can enlighten the time of when the real emergence of adult and child ILT begins.

Another potential area of research involves exploring the developmental trajectory that follows primary school. If 30% of children's ILTs are adult ILTs by grade 6, there is still a journey to go, where adult leadership ideas will continue to set. Basically, 70% of development into wide-ranging adult ideas may happen between 12 and 18 to 20 years old. Adult ILTs generalisability studies have been conducted with undergraduate students, sometimes first-year (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994), which means that 18 to 20 year old ILTs have been considered in the determination of generalisable adult items. This evidence places adolescent development of ILTs in a centre stage, necessary for the full comprehension of the emergence of adult ILTs.

Surprisingly, but similar to children ILTs studies, research on adolescents understanding of the leadership concept has been largely ignored. There have been only a few studies looking at young people's ILTs. Frost (2016) ILTs study looked at leadership expectations held by adolescents in the last two years of secondary school education as young as 16 years old, Salmond and Fleshman (2010) explored young girls' perceptions of leaders, and Sacks (2009) explored leadership development in adolescents between 14 and 18 years old. Betts, Morgan, and Castiglia (2008) developed an empirical study looking at undergraduate students, and the "GLOBE Student" ILT research project by Čater et al. (2013) looked at university students in five

different countries, and Keller (1999) looked at ideal leader images in 20 year old people.

These studies in adolescents and young people's ideas of leaders and ILTs, found that young people give more importance to personality and character traits than skills, though they think they all are relevant. Also that the most relevant leadership traits for adolescents are "passion, motivation, courage and initiative" (Sacks, 2009, p. 121). It was also found that during adolescence, youth prefer a vision of leadership associated with social change (Salmond & Fleshman, 2010), and that the leadership concept progresses towards notions of humanitarianism (DeHaan, 1962; Pigors, 1933). So, in connection with the findings in the present research, it is anticipated that the humanitarian dimension, and sensitivity ideas continue to grow, and dynamism ideas, decrease during adolescence.

Also, opportunities and experiences they have to exercise leadership and to relate to leaders (Sacks, 2009; Salmond & Fleshman, 2010), such as participation in teams and groups, and experiences where they represent their peers (Sacks, 2009; Salmond & Fleshman, 2010) continue to impact their ideas of leaders, identity, and aspirations. Other findings in the forementioned studies of adolescents are that family role models impact their ideas (Salmond & Fleshman, 2010), that ideal leader images mirror descriptions of perceived parental traits, and that there is variation between perceiver's genders (Betts et al., 2008). But, this only shows what we already have consistently found through extensive evidence in the present study. Future research should focus on how adolescents ILTs develop, and how their ILTs relate to adult ILTs,

or moreover, how adult ILTs continue to emerge throughout adolescence. These research initiatives should also explore the environments that influence these ideas, for example digital technology and social media. If secondary school students have ILTs that are very similar to those held by working adults (Frost, 2016), middle high school is showing to be highly likely the most accelerated time of development of ILTs, which is worthy of future study.

6.2.3 Categorisation. Exploring how children are grouping ideas together in terms of hierarchies, and also across negative and positive thresholds, is another area of research to be developed.

Interview excerpt 16

Child 033

Researcher: What is a leader for you?

Girl: Okay. It depends on the person pretty much. You've got politicians. You've got leaders at home. You've got leaders at school. There's lots of leaders in people's lives. For example, at home, their parents at home might be the leaders, or their caretaker might be the leader of something important because they're important to them. Or the government's important, too. Or the principal of your school. Or the head of something is important. That's a type of leaders. And there are two kinds of leaders, good leaders and bad leaders. (Girl Grade 6, 12Y/3M)

Hierarchical categorisation. According to the literature children use categorisation processes (Rosch, 1978) that develop fist in the basic level category, then superordinate, and lastly subordinate (Mervis & Crisafo, 1982; Robson, 2006; Rosch, 1978). In leadership, the process of categorisation is developed through experience and is progressively refined to fit specific contexts, for example, business leaders,

Australian business leaders, religious leaders, and female leaders (Lord & Shondrick, 2011). In the present study, some children talk about a basic level categorisation, for example, political leader, military leader, but also subordinate, where they can differentiate a category, for example, in the school setting, teacher, principal, or school captain. Children may also reference superordinate level of understanding, defining a leader through a scale of importance (see Exhibit 99). These are all adult-like hierarchical structures, which confirms that children and adults process information across the three-levels.

However according to Robson (2006), children need the contextual reference to be able to differentiate the leader from non-leader, while adults are non-dependent on a context or situation (Offermann & Coats, 2018). This means that children most often would think of a context, to define the leader and grant leadership status. And then, if viable, would move to another level, differentiating one particular leader from the other leaders in the same context. But adults can first decide if the individual is a leader or not, before relating the person to a context, and then move on to differentiate the role in a subordinate level. Looking roughly across the data, it shows that most children's ideas of leaders are held within a context. However, in 12 depictions and narratives, the leader was not specifically linked to a context, the environment was rather neutral or unknown. So perhaps, occasionally, children may categorise information in an adult-alike way if exposed to substantial knowledge and experience in leadership phenomena?

Exhibit 99

Child 131 (detail leader scale)

Girl:	So basically, the leader is second in the leader board, so basically for this person he's nearly a king or queen like I said. He's nearly as high up…
Researcher:	What does it measure?
Girl:	It measures how. I don't really know how to explain it. It's like how important, I guess, you are.
Researcher:	Yes. So down here-
Girl:	It's like no one really cares about them, which is kind of unfortunate.
Researcher:	And then here?
Girl:	Is like the average person,
Researcher:	Right, and then up here is the most important?
Girl:	Yeah.
Researcher:	Do you think kings and queens are leaders? Or more than leaders?
Girl:	Yes, I think they're leaders and sometimes even more than leaders. I think they're people.
Researcher:	You like them?
Girl:	Yeah.

Researcher: Cool, and now these little parts over here. What does this one mean?

Girl: It basically means that leaders are mostly on the top, basically, so they can tell this guy what to do and this guy can tell this guy what to do… (Girl, Grade 6, 10Y/11M)

On the other hand, future research could also explore how are these categories being determined by the children? In the data there is evidence that experiences of power within the hierarchical structures in their immediate societal environments (Palich & Hom, 1992) are influencing these structures. For example, the dad, the mom, the principal, but also the king, the queen, the prime minster, or the president model. But categorisation processes in children are also following experiential stimuli, for example standing on a line, waiting to cross the road, or in worry of nuclear bomb dropping, or the quality of the environment. Subsequently, these experiences of being part of a family, a school, or the world, appear to also influence the hierarchical structuring in their understanding of leadership. This evidence raises questions of stimuli variation in children's categorisation of leaders.

Seeing an advancement in this area of research could test if actively, in a sufficient sample, children are following progressively the three-step matching process (basic-> superordinate-> subordinate) (Mervis & Crisafo, 1982; Robson, 2006; Rosch, 1978) when processing information about leaders. Further investigating children's noted role prototypes, within basic, subordinate, or superordinate levels of categorisation models (Lord et al., 1984; Phillips & Lord, 1982) would also move forward literature on children's grouping of ILTs and significance of categories in shaping children's value

systems and leadership sensemaking. For example, if a child develops their ILTs in a military context, does this produce a different hierarchy to the child who developed their ILTs in a civilian context? If an adult was not exposed to religious leaders in childhood, would they not endorse religious guided leadership traits or exemplars in their adult ILTs? Furthermore, would they not grant leadership status or present followership inclination towards such model? These questions are yet to be answered, and an avenue for future research exploring how children's ILTs develop in terms of leadership hierarchical categorisation theory. And more importantly, further enlighten how children's ILTs hierarchies emerge, how they expand (Ayman-Nolley & Ayman, 2005), and how they become more differentiated across childhood (McClelland & Jenkins, 2014) and into adulthood.

Negative and positive threshold. On the other hand, development of categorisation across negative and positive thresholds is yet another area to be explored. So far exploratory data shows the youngest children may be unable to discern between good or bad leadership (Selman et al., 1977), and that positive and negative referents as well as measurements of leader's effectiveness within positive and negative notions emerge in middle primary school (Ayman-Nolley & Ayman, 2005; Yarrow & Campbell, 1963). It is believed that with development of connectionist models of cognition, children establish leader prototype boundaries including positive and negative thresholds (Hinton, 1989).

Exploring this threshold was not within the reach of the present study, however, the researcher gathered ideas of what children thought a good leader and a bad leader is.

And even though this data has not been coded nor deeply analysed, a glimpse shows that ideas of the good and the bad leader appear to be influenced by behavioural expectations aligned with their experiences of what is catalogued as 'good-behaviour' in their family or school. For example, in the youngest children, as they experience the line leader, they talk about a good leader being the one who keeps walking and doesn't stop, and a bad leader the one that pushes the other kids in the line and stops suddenly.

So interpretations of positive and negative leadership, may be linked to perceptions of good vs bad behaviour implied by families or by the teachers, hence, mediating the effects of implicit theories on social judgments (Engle & Lord, 1997). In moving ahead research of prototypic and anti-prototypic notions of leaders in children, it is recommended to look through the nature of the experiences that children have and investigate if those experiences develop within the positive or negative threshold. For example, the majority of the tyrannical notions were associated with Donald Trump and Kim Jong-un, providing further evidence that the models that they experience and make an impact, influence children's perceptions of good and bad leadership behaviour. Understanding more how these ideas develop can also connect to studies on expectations that children bring to the leader/follower relationship (Offermann et al., 1994) in particular contexts. This also expands our understanding of children's judgement-making process of leaders, and motivations for followership, which would be practical for people in leadership positions in children's settings.

6.2.4 Gender differentiation. Whether male and female ideas are similar or different is a diverging area in both adult and children ILT theory. Extensive research has emphasised the differences between men and women (Nancy Cantor & Walter Mischel, 1979; Den Hartog et al., 2005; Offermann et al., 1994) and boys' and girls' (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Broich, 1929; Nemerowicz & Rosi, 1997; Selman & Jaquette, 1977; Yamaguchi & Maehr, 2004) ILTs. These theories say that men and boys define a leader in more functional ways (Schyns & Meindl, 2005) (Broich, 1929; Nemerowicz & Rosi, 1997) and that women and girls describe leaders in more sensitive ways (Schyns & Meindl, 2005).

The present research has found that ILTs across gender are rather similar, develop equally, and that differences are elusive. So, the findings align with children and adult ILT research noting more androgynous perceptions of leadership (Offermann & Coats, 2018) with broader similarities in male and female ILTs. For example, acknowledgement of the leader's role as essential for effective social functioning (Broich, 1929; Nemerowicz & Rosi, 1997; Salmond & Fleshman, 2010), preference in helpful, humane-orientated leadership (Paris et al., 2009) over dominant (Broich, 1929; Nemerowicz & Rosi, 1997; Salmond & Fleshman, 2010), and similar ratings or notations across factors (sensitivity, dedication, tyranny, charisma, attractiveness, masculinity, intelligence, and strength) (Offermann et al., 1994).

But pointing and amplifying variations appears to unveil a slow emergence of externally influenced gender-stereotyped content. The kind of leader roles that children encounter, behavioural expectations projected onto them because of their gender, or the

type of language that they receive, appear to be responsible for the small gap of differentiation. This gap may progress into the bigger and wider differences in adulthood. This idea, which can also be seen as a theory of emergence of gender-leader-stereotyped content is worthy of exploration because they may develop alongside adult-related ideas. Also these gender-stereotyped ideas are sensitive to the type of society (e.g. Western or Eastern) and can be influenceable with policies and programs (Ayman-Nolley & Ayman, 2005) or by more women appearing in leadership roles (Koenig et al., 2011; Schyns & Meindl, 2005).

6.2.5 Media and digital entertainment exposure. The present study has only grasped the astronomical impact that media, and online and digital sources have over children's ideas of leaders, at least in the present sample. The impact is found in children as young as six, however, it is unknown how exactly are they seizing such stimuli. Is it because they are in range? Or is it because they begin to listen or understand the input? Or perhaps, in some cases parents are more flexible, and children are more curious? Exploring tendencies in media consumption by parents, media noise in household environments, as well as parents' and caregivers' roles in children's access and consumption, will further enlighten our understanding of how these environments are influencing children's ideas of leaders.

6.3 Limitations

There are limitations in what can be generalised from this study. First, the sample is drawn from one source. However, this location was chosen because it is a broadly typical suburb, with a broadly typical school, with a broadly typical student body in Australia, which is a typical Western democracy. So, even though there are minor idiosyncrasies that are specific to the population where the study took place, it is a broadly typical Australian primary school, where the findings could safely be extrapolated to other public primary schools with multicultural student bodies in Australian conurbations.

Having established the safe zone for generalisation, it also defines the boundaries where the study's findings will begin to be limited. In the schools, suburbs, states, and countries where there are major differences, experimental replications will help establish the generalisation limitations of these findings. And it is well established that contextual factors will influence the way children conceptualise leadership. Oliveira (2016), for example, has illustrated the power of religion to influence children's leadership conceptualisations. That was not a factor in the current study as the school is largely secular. So, generalising to faith schools and strongly religious schools is cautioned against. A replication, perhaps using experimental designs, could help reveal the influence of such environmental factors. Other variations that might influence the development of children's leadership conceptualisations include levels of affluence, both much lower and much higher (Cooper & Stewart, 2013; Salmond & Fleshman, 2010; Selman & Jaquette, 1977), the philosophy of the school, single gender schools,

special needs schools, and so forth. The school in this study was chosen to be as representative of mainstream Australian primary schools as possible to maximise the opportunities for generalisation. But this implies that the greater the difference to these mainstream characteristics that other environments might be, the greater the need for replication.

Despite it being a practical choice and one in line with previous studies, the capture of data in the school setting must also be mentioned as a limitation. This is a limitation because the setting may influence the ideas that children portray; for example, being close to referents such as the teacher, may cause a higher level of this role content in their depictions or answers. Or the fact that the data was captured in the art room, which has artworks, posters, or photographs, may impact their ideas when drawing the picture, or answering questions. Even though the researcher emphasised to the children the importance of depicting their own ideas, as each of them were of high importance, and all of them were right, low levels of copying could have impacted the data. These would be low since the teacher and researcher were present during the drawing activity, overseeing that children worked individually, and children were sitting in a six-seater table with enough distance between each other. However, future studies should be conducted in home or neutral settings so that both the situational influence and the influence of child-situation interactions on the development of children's leadership conceptualisations can be examined.

The study has applied a serviceable method to the study of children's ILTs which has proven to uncover unprecedented rich data about their thinking of leaders.

This required laborious manual qualitative data analysis due to children's differences in language skills and knowledge. In future, this kind of analysis may be facilitated by taking the findings in the present study to develop blanks or other more easily administered measures, perhaps including the development of new software designs, for more efficient study of this subject. This study has highlighted the importance of key words like verbs or adjectives and phrase-based content in determining children's ILTs. Throughout data collection, it was also notable that the method uncovers deep, meaningful notions through body language; as they describe their ideas, which is also a rich source of information that may be utilised in future research applying digital video into children's thinking research practice.

Lastly, the fact that the study is a qualitative analysis, and even though the data collected was sourced from children's own language and their images, the researcher's personal views and experience impact the analysis. This has been minimised by intercoder reliability through a process of agreement by three coders: the researcher, a member from the school context, and a member of the supervisory team.

6.4 Major contributions

6.4.1 To theory. One major contribution to theory that changes our understanding of ILT emergence is that children's development of ILTs is indeed the emergence of adult ILTs. The discovery that the majority of children's ILTs can be consigned to generalisable factors found in adult ILTs is a major finding. It changes the way that we conceptualise the relationship between adult and children's ILTs. Previously, it was believed that children and adult ILTs were somehow connected because early childhood

experiences had been found to impact upon individual differences in adult ILTs (Hunt, Boal, & Sorenson, 1990; Keller, 1999; Ligon, Hunter, & Mumford, 2008). Also, because adults tended to rework childhood leadership scenarios in the workplace (Keller, 1999), or because CEO's managerial styles have been found to relate life experiences such as childhood relationships (Bernile, Bhagwat, & Rau, 2017). This study demonstrates that they are not only connected, but children's ideas are actually adult ideas in formation, and they share the same factor-structure.

This discovery also shows that, while so many research efforts have focused in addressing leadership development in adults, the real moment where these ideas, expectations, and behaviours are forming has been sidelined. Consequently, we have a very fine picture of what leadership cognition turns out to be in adulthood, but immense gaps in knowledge of how it gets there, or why. So, the present study changes the way we think about literature because it reveals that so many efforts to understand leader development have missed the most important moments shaping how adults conceptualise leadership. The study's findings provide a call for research into leader development to focus on the developmental stages in the early years, in childhood, and in adolescence.

The second major contribution to the literature is an explanatory theory of ILT development through childhood, inclusive of all ages across primary school, which was non-existent prior to the present study. Drawing widely from over 100 years of published work on the development of children's conceptualizations of leadership across psychology, learning, and social development arenas, and the small corps of

work looking at the formation of children's ILTs, I propose a multi-dimensional and multi-theoretical model for its development, which I have denominated the *Funpstehe Model*[7]. This model changes the way children ILTs theory was conceived overlooking age differences (Broich, 1929; DeHaan, 1962), and focusing mostly on gender, social role content (Ayman-Nolley & Ayman, 2005; Liu et al., 2012), and context (Oliveira, 2016). The proposed approach provides a deep insight into the development of leadership thinking in children by moments of progression, inclusive of physical, spatio-temporal, functional, socio-emotional, and humanitarian dimensions that are not only about what gender the leader is, or what the leader does, but where the leader is, how the leader stands out, how the leader feels, wants, and looks like. It also explains the emergence of unique combinations of dimensional understanding in some children across grades (Ayman-Nolley & Ayman, 2005; Selman et al., 1977; Yarrow & Campbell, 1963) and resolves incongruences in the literature such as the age when children shift from one phase or stage into the other.

Consequently, the present study has expanded significantly our understanding of children's ILTs, challenging notions that children's development is broadly age-based (Broich, 1929; DeHaan, 1962), or dependent on social-cognition (Selman & Jaquette, 1977; Selman et al., 1977). Or that children ILTs develop in U or J-shaped form (Ayman-Nolley & Ayman, 2005). The present study has demonstrated that development occurs through an emergence approach, and that research on content should also explore characteristics or traits of leaders, because it links adult and children content.

---

[7] *Funpstehe* after functional, physical-spatio-temporal, socio-emotional, and humanitarian/environmentally concerned

The third major contribution is that the present study creates a new theory of children ILTs sophistication highlighting environmental triggers. Casual findings by Selman and Jaquette (1977) noted that perceptions of leadership develop dynamically across age, while becoming more complex and nuanced throughout childhood. Previously, the literature found that leadership conceptualisation and ILT sophistication build with verbal and non-verbal language development and emotional capability (Broich, 1929; DeHaan, 1962), also with the development of social skills (Selman & Jaquette, 1977), and additionally, as they witness or exercise leadership themselves (Sacks, 2009; Salmond & Fleshman, 2010). However, it was unknown how this progression evolved across moments of development. The present study has contributed to this area by exploring in depth, in a scientific quantified way, how these approaches grow and expand, as children's ideas and referents of a leader develop across primary school.

From a dimensional point of view, it shows that most children in primary school present one-dimensional perceptions of leaders, often functional, or physical/spatio-temporal. And as children grow older, they often show a growing tendency to present three-dimensional narratives. So, complexity from this point of view, is guided by dimensional combinations with physical, spatial, socio-emotional, or humanitarian ideas. From a quantified point of view, it is found that children in early primary school more often include one or two descriptors about a leader, then from middle primary school, they most often include three, four, or five. Hence, sophistication can be explored by children's capacity to denote more information about a leader. This

quantification changes the way we think about children's development of the leadership construct and impacts future research because it opens up possibilities to measure, track, and compare how children advance in their understanding of leadership through a quantified lens, complementing the research on leadership development and systematic variation of children ILTs.

Lastly, the present study has made a contribution to methodology by thoroughly applying an innovative method to the investigation of children's ILT that mixes drawing, narrative, and interview, which has provided a wealth of rich data inclusive of new ideas about a leader that had not been explored in a big sample. These ideas include notions of character, behaviour, and personality which have expanded our understanding of the labels, categories, and typologies that children use to make sense of the leadership phenomena and how they differentiate and develop. Early studies in children's development of leadership (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960) had utilised either one or a combination of observation, interviews, focus groups, and questionnaires. These methods were perceived as invasive by children, as the language of the tool is being imposed rather than absorbed.

Previous children ILT studies had noted the effectiveness of drawings and the importance of gathering verbal information to complement the data from the depictions (Ayman-Nolley & Ayman, 2005; Liu et al., 2012; Oliveira, 2016). However, this had only been addressed by asking children to write two phrases about their drawings (Ayman-Nolley & Ayman, 2005; Liu et al., 2012), or by a post-drawing interview with a small group of 28 children (Oliveira, 2016). These previous approaches were

problematic because they did not give children the necessary time and space to 'complete' their drawing verbally, leaving space for mis and over-interpretation, or the sample was either too small, or age-specific (middle primary school).

The present research thoroughly explored how to address the implementation of the verbal component to the drawing in the data collection to increase validity and avoid imposing predisposed ideas through language. The researcher received advice by expert on young children's meaning-making and communication, Honorary Professor Susan Kay Wright, Chair of Arts Education at the Melbourne Graduate School of Education, University of Melbourne, and also investigated theories and methods on researching children's drawings and creative narratives.

Combining narrative with the drawing is crucial and this combination might be usefully implemented in future research exploring children's conceptualisations. Through the narrative, children describe the drawing's details and provide further insight into what they think, which goes beyond social roles and contexts, or smiles and violence, beyond brown skin being a sign of ethnicity, as previously explored (Ayman-Nolley & Ayman, 2005; Liu et al., 2012). As children speak their drawing out, they engage in a creative conversation, where they tell a story, illustrate the significance of their characters, they open their minds and feelings, and denote the intensity of the experience of leadership.

6.4.2 To practice. The major contribution to practice is that children's ideas of leaders are influenceable through experience. We know from studies across the past 100 years that children develop their conceptualizations of leadership as they age, as they

become more socially aware, and as they experience or witness leadership (Ayman-Nolley & Ayman, 2005; Broich, 1929; Chauvin & Karnes, 1984; DeHaan, 1962; Hess & Easton, 1960; Okamura, 1968; Pigors, 1933; Sacks, 2009; Salmond & Fleshman, 2010; Selman, Jaquette, & Lavin, 1977). But additional to these, the results in the present sample show that most of children's ideas of leaders are coming from personal experiences, which gives a higher stand to the role of experiential (Sacks, 2009; Selman & Jaquette, 1977) and embodied cognition (Lord & Shondrick, 2011; Wilson & Foglia, 2017) to the development of their ideas. So, as children travel across physical and emotional progression in a social context and environment, each child embarks in a kind of perceptual selectivity, not apprehending all leadership stimuli, but individually curating it. This curation is not necessarily guided by play but guided by poignant emotional content. So, there is something particular about choices, which may be rooted in personal experiences, emotions, motivations, attitudes, and beliefs. Consequently, children's ideas for leaders are intuitively formed, children's personal stories are guiding their ideas of leaders. These narratives of leadership are free form and this selective attention when processing leadership, is important in practice because it reveals that what is guiding children's ideas is perceptive impact, and personal connection, which can be measured by exposure and experience.

However, the data and the literature show that ILTs can be shaped, for example, by religious teaching, as found extensively by Oliveira (2016) in her studies in Catholic schools in the Philippines, who depicted Jesus most of the times. But in a multi-faith and secular environment such as the one where the present study was conducted,

religious content is practically absent. The evidence also shows that girls' tendency to note male leaders most of the time can be influenceable with policies and programs (Ayman-Nolley & Ayman, 2005), and also by the presence of more female leaders (Greenhalgh & Maxwell, 2019). In other cases, ILTs have been found to be shaped by history teaching, guided by frequency of mentions of Martin Luther King in the US (Ayman-Nolley & Ayman, 2005) or by Nelson Mandela referent in this sample (See example of data source 3 in Appendix C) where the girl mentioned that learned about this particular leader in class. Nonetheless, the fact that only one child talked about a leader learned in class, as opposed to numerous children noting leaders that are part of their lives and environments who affect them directly, like raining missiles on Australia, or standing in a line, or waiting in a classroom, shows, that in practice, in this setting, more commonly, leadership is not being deliberately influenced, nor guided by family, educative or, political initiatives.

The present study shines a light on how important life experiences are in the formation of ILTs in children. It reveals that situational stimuli influence how and what children think about leadership. Which then takes us to the following questions: Do we want to influence or nurture these ideas? Do we want more gender-equal ideas of leaders? Do we want more diversity in political exemplars? Do we want more types of political leaders, like Indigenous Australians or environmental leaders present in their ideas? Do we want more child-leader models? Children in preparatory classes were the only ones where notions of politics, society, and other environmental issues did not appear in their ILTs: Do we want children in preparatory classes to be taught about

these matters so that might be able to make sense of these matters in future years? And, if children with learning disabilities move slower across this emergence (Selman & Jaquette, 1977; Selman et al., 1977), as found with a child in year 3 who did not draw or describe a leader, do we want to design enquiry methods and programs to understand and nurture the advancement across the emergence model towards development of critical thinking of leaders in this group of children?

Perhaps these questions trigger ethical discussions of whether it is right to attempt to shape children's leadership conceptualizations and the challenges such developers might face. But the evidence really shows that we are already shaping their conceptualisations in quite a chaotic way. Whatever is hitting stronger in the mainstream media is really what is shaping most of their ideas as soon as they have access to them. So, the present research is revealing the role that media plays as central influencer in children's ideas of leaders, where the oldest children often mirror the high volume content that the media presents across forms. And this evidence only shows that, in practice, possibly by broadcasting more diverse, equitable, less violent, catastrophic content, would reciprocate in reduce biased and negative violent ideas of leaders in the next generation. However, of course media cannot be tamed, we are living in an age where it appears to control itself, enjoying its divisive effect.

Which takes us to the key questions to practice: Do we want media to lead the development of children's ideas of leaders? Is this what we want especially in a time of fake news, misinformation, and disinformation, when adults show the highest decline in trust to the media? The study finds that children are taking these stimuli and owning

them, sometimes assimilating them by themselves, with no space for discussion, practice, or learning. Perhaps now, more than ever, and stimulated by the findings of this study, educators need to help children understand civics, politics, media, society, truth, and related topics.

The future is a matter of everyone's leadership. A preoccupation into the Earth's sustainability has augmented the fact that the leaders calling the shots now, are impacting the environment of the future. Affecting directly the future generations. And this has seen a significant rise in activism towards climate change and global warming, environmental life changes, and incorporation of sustainable teaching into school's curriculums. All in pro of a sustainable future.

But we shouldn't only be influencing leadership towards a healthy state of our world for future generations. We should also be influencing now, the leadership moulding the mind of the people of the future, diverting the one leaning towards increased division, and ascending the one building humanity. Carbon footprint is physical pollution. Biased minds are cognitive pollution. We need both addressed as we head towards a sustainable future.

So, immediate action needs to happen around disinformation, media amplification, and manipulation, incorporating discussion about responsible and sustainable media consumption, and development of trusted sources of information, in schools and in the public sphere.

For schools, this study has suggestions for how the development of leadership in children might be nurtured. Current leadership initiatives at the school such as school

captains, or house captains, are found to be influencing in very small percentages only the older children's ideas of leaders. Also, the line leader strategy is also a significant platform for the introduction of the leadership construct at the school, though may not be seen as a leadership program at the time. The present research calls for a better effort. Some ideas that come to mind include experience-based guided leadership education across all grades in the primary school curriculum, critical thinking in media content, introduction to social and environmental leaders in Prep, diverse political leader workshops in the higher grades, and out of school designed experiences of leadership.

The design of future programs or initiatives should consider an experiential-approach guided by the interests and life stories from the particular group of children, and also, in accordance with the different levels of understanding. This angle is important because, even if you teach children about leaders who have shaped the world in class, they are reflecting those that impact their everyday life, with whom they can share or build stories. So future initiatives must be personally meaningful to them, igniting a personal connection.

Another contribution to practice is directed to parents, caregivers, social workers, school leaders, educators, and people working with children because the findings in the present study can be utilised as frameworks to understand what children are attributing to and expecting from the leaders that they interact with. According to ILT theory, when an individual encounters a potential leader, that potential leader is compared to the individual's ideas of what a leader is (Lord & Shondrick, 2011). The

more these ideas match, the more the leader will be accepted and allowed to influence the other (House et al., 2002; Junker & van Dick, 2014; Kenney et al., 1996). Moreover, these ideas are contextually distinctive, and socially shared (Shondrick et al., 2010). The point is that only when the leader matches sufficiently across ILT patterns in a group (Lord et al., 2020), leaders are granted leader identity (DeRue & Ashford, 2010). So, when people working with children know how children see a leader, they can pursue corresponding strategies when appointing leaders or designing programs and services. This new knowledge then, can be a determinant for educational and other child-focused organisations, impacting on children's performance, satisfaction, commitment, in a similar way as found in adult work contexts.

Lastly, the present study will be particularly beneficial for the average government primary schools in Australia, where the socially determined ideas of leader discovered in the present study, are a close reflection to the world of leaders in the mind of this particular group of children.

7

Conclusion

This thesis looks at how constructions of leadership develop focusing on the early signs of leadership to contribute to the literature on the development of leadership thinking. This study has focused solely on the understanding of the mental model of 'leader', and it takes an Implicit Leader Theory (ILT) perspective that looks at lay theories of what leaders are and how they behave. To further understand the content of the leader construct, it has reviewed almost 100 years of research on children's perceptions of leaders within the disciplines of psychology, learning, and social development. It has also reviewed the literature on children ILTs. Importantly, to develop a better understanding of how ILTs develop in children, this thesis examined the leader mental models of 251 children between five and 12 years old from a public primary school in Australia.

The present study has made a significant contribution to theory and practice revealing that children's ILTs are the early foundation of adult ILTs. Children's ILTs are contained mostly in factors known to be present in generic models of adult ILTs (i.e., sensitivity, charisma, dynamism, strength, dedication, well-groomed, attractiveness, intelligence, creativity, tyranny, and masculinity) and this resemblance grows across primary school. This finding has opened new directions for future research where it is recommended that leadership development should be studied transversely across human life.

Additionally, this thesis has found that children's leadership conceptualisation does not develop in a strict series of steps, as previously thought. The understanding of leaders emerges as a multifaceted framework of concepts where the leader is perceived within physical/spatio-temporal, functional, socio-emotional, and humanitarian/environmentally-concerned dimensions, which I have denominated the *Funpstehe Model*. This emergence across dimensions is influenceable and nurturable because children's ideas are highly induced by environmental triggers and personal experience. So children's development cannot be observed as a cohort, like adults. Ideally, development in children should be observed case by case. However, there are key moments across these early years of schooling where shared patterns across characteristics, interests, or expectations of leaders can be detected. These can be used as guiding principles to address and drive future research and practice.

The evidence that environmental stimuli and experiences influence children's leadership conceptualisations is critical for practice. It helps us acknowledge that the way we construct or deconstruct their experiences of leadership, and the way we empower or disempower their leadership potential, shapes their ideas. But more than that, it reveals that political and social forms of media are key factors that are powerfully influencing the way their leadership conceptualisations form and therefore how future generations will define leadership. The stimuli society is giving children through media is creating social biases in the way children conceptualise leadership. The most notable example of these biases in this study is that leaders are usually men.

As children receive our stigmatised version of the world, alongside noncurated, sometimes fake, or untruthful political information, we should reflect on whether we, as parents, researchers, educators, or simply responsible adults, want to jump onboard this train of thought. When I say this, I don't mean that we, as adults, should grab the control panel and drive the train to the leader destination that we want. It means that, now that we know how children are actually thinking about leaders, and much our childhood experience influences our adult minds, we should be mindful of our roles in the development of the leaders of tomorrow and build leadership truly fit for children while envisioning the future leader to be. A collaboration between those who perhaps hold the most pure, least biased version of leaders in the human mind, and us, adults, who hold elaborated, experienced, critical notions of the role of leaders in our world, could shift the direction of development of the next generation of leaders, towards an equitable thinking, inclusive of the needs and interests of present and future generations.

References

Ahlbrand, W. P., & Reynolds, J. A. (1972). Some social effects of cross-grade grouping. *The Elementary School Journal, 72*(6), 327-332. Retrieved from http://www.jstor.org/stable/1000459

Ahn, J., & Filipenko, M. (2007). Narrative, imaginary play, art, and self: Intersecting worlds. *Early Childhood Education Journal, 34*(4), 279-289. doi:10.1007/s10643-006-0137-4

Alipour, K. K., Mohammed, S., & Martinez, P. N. (2017). Incorporating temporality into implicit leadership and followership theories: Exploring inconsistencies between time-based expectations and actual behaviors. *The Leadership Quarterly, 28*(2), 300-316. doi:10.1016/j.leaqua.2016.11.006

Amodio, D. M. (2014). The neuroscience of prejudice and stereotyping. *Nature Reviews. Neuroscience, 15*(10), 670-682. doi:10.1038/nrn3800

Andrews, E. (2012, 22 August 2018). 6 child monarchs who changed history. *History stories.* Retrieved from https://www.history.com/news/6-child-monarchs-who-changed-history

Anthony, J. L., Lonigan, C. J., Driscoll, K., Phillips, B. M., & Burgess, S. R. (2003). Phonological sensitivity: A quasi-parallel progression of word structure units and cognitive operations. *Reading Research Quarterly, 38*(4), 470-487.

Antonakis, J., & Dalgas, O. (2009). Predicting elections: Child's play! *Science (New York, N.Y.), 323*(5918), 1183. doi:10.1126/science.1167748

Ashmore, R. D., & Del Boca, F. K. (1979). Sex stereotypes and implicit personality theory: Toward a cognitive-Social psychological conceptualization. *Sex Roles, 5*, 219-248. doi:10.1007/BF00287932

Australian Bureau of Statistics. (2016). 2016 Census QuickStats - Reservoir, Vic.

Australian Bureau of Statistics. (2020). Schools. Retrieved from https://www.abs.gov.au/statistics/people/education/schools/latest-release

Australian Institute for Teaching and School Leadership. (2019). *Spotlight: Diversity in school leadership*. Retrieved from https://www.aitsl.edu.au/docs/default-source/research-evidence/spotlight/spotlight-diversity-in-school-leadership.pdf?sfvrsn=93effa3c_2

Aycan, Z. (2013). Convergence and divergence of paternalistic leadership: A cross-cultural investigation of prototypes. *Journal of International Business Studies, 44*(9), 962-969. Retrieved from http://ezproxy.deakin.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=bas&AN=BAS919833&authtype=sso&custid=deakin&site=eds-live&scope=site

Ayman, R. (1993). Leadership perception: The role of gender and culture. In M. M. Chemers & R. Ayman (Eds.), *Leadership theory and research: Perspectives and directions* (pp. 137-166). New York: Academic Press.

Ayman-Nolley, S., & Ayman, R. (2005). Children's implicit theories of leadership. In B. Schyns & J. R. Meindl (Eds.), *Implicit leadership theories: Essays and explorations* (pp. 227-274). Greenwich: Information Age.

Ayman-Nolley, S., Ayman, R., & Leone, C. (2006). *Gender differences in the children's implicit leadership theory: Costa Rican and American comparison*. Paper presented at the International Congress of Cross-Cultural Psychology, Spetses, Greece.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* New Jersey: Prentice-Hall.

Banks, M. (2001). *Visual methods in social research*. London: SAGE Publications Ltd.

Bass, B. M. (1990). From transactional to transformational leadership: Learning to share the vision. *Organizational Dynamics, 18*, 19-31.

Baumgardner, T. L., & Lord, R. G. (1990). *A prescription for aspiring leaders: Implications of expert-novice schema differences and alternative leadership categorization models*.

Beer, J. S., & Ochsner, K. N. (2006). Social cognition: A multi-level analysis. *Brain Research, 1079*(1), 98-105. doi:10.1016/j.brainres.2006.01.002

Benne, K. D., & Sheats, P. (1948). Functional roles of group members. *Journal of Social Issues, 4*(2), 41-49. doi:10.1111/j.1540-4560.1948.tb01783.x

Bernile, G., Bhagwat, V., & Rau, P. R. (2017). What doesn't kill you will only make you more risk-loving: Early-life disasters and CEO behavior. *Journal of Finance, 72*(1), 167-206. doi:10.1111/jofi.12432

Betts, S. C., Morgan, W., & Castiglia, B. (2008). *Who's a leader? Students, implicit theories of leadership.* Paper presented at the Allied Academies International Conference: Proceedings of the Academy of Organizational Culture, Communications & Conflict (AOCCC).

Billsberry, J., & Meisel, S. (2009). *Leadership is in the eye of the beholder*: Routledge.

Billsberry, J., Mueller, J., Skinner, J., Swanson, S., Corbett, B., & Ferkins, L. (2018). *Reimagining leadership in sport management: lessons from the social construction of leadership*: Human Kinetics.

Bjorklund, D. F., & Causey, K. B. (2017). *Children's thinking: Cognitive development and individual differences*: SAGE Publications.

Borman, W. C. (1987). Personal constructs, performance schemata, and "folk theories" of subordinate effectiveness: Explorations in an army officer sample. *Organizational Behavior and Human Decision Processes, 40*, 307-322. doi:10.1016/0749-5978(87)90018-5

Bower, G. H., & Forgas, J. P. (2000). Affect, memory, and social cognition. *Cognition and Emotion*, 87-168.

Braun, S., Peus, C., & Frey, D. (2018). Connectionism in action: Exploring the links between leader prototypes, leader gender, and perceptions of authentic leadership. *Organizational Behavior and Human Decision Processes, 149*, 129-144. doi:10.1016/j.obhdp.2018.10.003

Broich, K. (1929). Leadership challenge in children's group. *Journal of Applied Psychology, 32*, 164-212.

Brown, D. J., & Lord, R. G. (2001a). How people evaluate others in organizations. In M. London (Ed.), *How people evaluate others in organizations* (pp. 181-202). Retrieved from https://ezproxy.uow.edu.au/login?url=https://ebookcentral.proquest.com/lib/UOW/detail.action?docID=474626

Brown, D. J., & Lord, R. G. (2001b). Leadership and perceiver cognition: Moving beyond first order constructs. In M. London (Ed.), *How people evaluate others in organizations* (pp. 181-202): Lawrence Erlbaum Associates Publishers.

Brown, D. J., Scott, K. A., & Lewis, H. (2004). Information processing and leadership. In J. Antonakis, A. T. Cianciolo, & R. J. Sternberg (Eds.), *The nature of leadership* (pp. 125-170). Thousand Oaks, CA: Sage Publications.

Brungardt, C. (1997). The making of leaders: A review of the research in leadership development and education. *Journal of Leadership Studies, 3*(3), 81-95.

Bugental, D. B., & Shennum, W. A. (1984). "Difficult" children as elicitors and targets of adult communication patterns: An attributional-behavioral transactional analysis. *with discussion, 49*(1), 1-79. doi:10.2307/1165910

Butina, M. (2015). A narrative approach to qualitative inquiry. *Clinical Laboratory Science, 28*(3), 190-196. doi:10.29074/ascls.28.3.190

Byrne, D. (1971). The attraction paradigm. *Personality social psychology bulletin, 35*, 880-893. doi:10.1177/0146167209334782

Calder, B. J. (1977). An attribution theory of leadership. In B. M. Staw & G. R. Salancik (Eds.), *New directions in organizational behavior* (pp. 179-204). Chicago: St. Clair Press.

Calvo, P., & Gomila, T. (2008). *Handbook of cognitive science: An embodied approach*: Elsevier Science.

Cantor, N., & Mischel, W. (1979). Prototypes in Person Perception. *Advances in Experimental Social Psychology, 12*, 3-52. doi:10.1016/S0065-2601(08)60258-0

Cantor, N., & Mischel, W. (1979). Prototypes in person perception. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology* (Vol. 12). New York: Academic Press.

Cantor, P., Osher, D., Berg, J., Steyer, L., & Rose, T. (2019). Malleability, plasticity, and individuality: How children learn and develop in context. *Applied Developmental Science, 23*(4), 307-337. doi:10.1080/10888691.2017.1398649

Capuano, G. (2012). 2011 Census – Where are the most multicultural communities? *Australian census.* Retrieved from https://blog.id.com.au/2012/population/australian-census/2011-census-multicultural-communities/

Carter, N., Bryant-Lukosius, D., DiCenso, A., Blythe, J., & Neville, A. J. (2014). The use of triangulation in qualitative research. *Oncology Nursing Forum, 41*(5), 545-547. doi:10.1188/14.ONF.545-547

Čater, T., Lang, R., & Szabo, E. (2013). Values and leadership expectations of future managers: Theoretical basis and methodological approach of the GLOBE Student project. *Journal for East European Management Studies, 18*, 442-462.

Catrambone, R., Beike, D., & Niedenthal, P. (1996). Is the self-concept a habitual referent in judgments of similarity? *Psychological science, 7*, 158-163. doi:10.1111/j.1467-9280.1996.tb00349.x

Catrambone, R., & Markus, H. (1987). The role of self-schemas in going beyond the information given. *Social Cognition, 5*, 349-368. doi:10.1521/soco.1987.5.4.349

Chambers, C. T., & Johnston, C. (2002). Developmental differences in children's use of rating scales. *Journal of Pediatric Psychology, 27*(1), 27-36.

Chauvin, J. C., & Karnes, F. A. (1982). Reliability of a leadership inventory used with gifted students. *Psychological Reports, 51*(3, Pt 1), 770-770. doi:10.2466/pr0.1982.51.3.770

Chauvin, J. C., & Karnes, F. A. (1984). Perceptions of leadership characteristics by gifted elementary students. *Use of Ideal Leader Inventory, 6*, 238-240. doi:10.1080/02783198409552826

Chouinard, M. M. (2007). Children's questions: A mechanism for cognitive development. *Monographs of the Society for Research in Child Development, 72*(1), 1-121. doi:10.1111/j.1540-5834.2007.00413.x

Coates, E., & Coates, A. (2006). Young children talking and drawing. *International Journal of Early Years Education, 14*(3), 221-241. doi:10.1080/09669760600879961

Coates, E., & Faulkner, D. (2011). *Exploring children's creative narratives* (1 ed.). New York: Routledge.

Cobb-Moore, C., Danby, S., & Farrell, A. (2009). Young children as rule makers. *Journal of Pragmatics, 41*(8), 1477-1492. doi:10.1016/j.pragma.2007.04.013

Cohn, T. S., Fisher, A., & Brown, V. (1961). Leadership and predicting attitudes of others. *Journal of Social Psychology, 55*(2), 199-206. Retrieved from http://ezproxy.deakin.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=sih&AN=17247545&site=eds-live&scope=site

Cooper, K., & Stewart, K. (2013). Does money affect children's outcomes?: A systematic review [Press release]. Retrieved from http://ezproxy.deakin.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsafs&AN=edsafs.a137893&authtype=sso&custid=deakin&site=eds-live&scope=site

Cox, S. (2005). Intention and meaning in young children's drawing. *International Journal of Art & Design Education, 24*(2), 115-125.

Creswell, J. W. (2013). Qualitative inquiry & research design: Choosing among five approaches. *Journal of Chemical Information and Modeling, 53*, 448. doi:10.1111/1467-9299.00177

Cunliffe, A. L. (2001). Managers as practical authors: Reconstructing our understanding of management practice. *Journal of Management Studies, 38*(3), 351-371.

Daniels-Beirness, T. (1989). Measuring peer status in boys and girls: A problem of apples and oranges? In *Social competence in developmental perspective* (pp. 107-120): Springer.

Davis, H. A. (2003). Conceptualizing the role and influence of student-teacher relationships on children's social and cognitive development. *Educational Psychologist, 38*(4), 207-234. doi:10.1207/S15326985EP3804_2

Davis, J. (2001). Revising psychoanalytic interpretations of the past. An examination of declarative and non-declarative memory processes. *The International Journal Of Psycho-Analysis, 82*, 449-462.

Day, D. V. (2000). Leadership Development: A review in context. *The Leadership Quarterly, 11*, 581. doi:http://dx.doi.org/10.1016/S1048-9843(00)00061-8

de Vries, R. E., & van Gelder, J. L. (2005). *Leadership and need for leadership: Testing an Implicit Followership Theory*. Greenwich: Information Age.

Deal, T. E., & Peterson, K. D. (2016). *Shaping school culture*: Wiley.
DeHaan, R. F. (1962). *A study of leadership in school age children*. Holland: Hope College Press.
Den Hartog, D. N., House, R. J., Hanges, P. J., Ruiz-Quintanilla, S. A., & Dorfman, P. W. (1999). Culture specific and cross-culturally generalizable implicit leadership theories. *The Leadership Quarterly, 10*, 219-256. doi:10.1016/S1048-9843(99)00018-1
Den Hartog, D. N., Koopman, P., Schyns, B., & Meindl, J. R. (2005). Implicit theories of leadership at different hierarchical levels. In B. Schyns & J. R. Meindl (Eds.), *Implicit leadership theories: Essays and explorations* (pp. 135-158). Greenwich: Information Age.
Department of Education and Training Victoria. (2015). *Guidelines for conducting research in Victorian government schools or early childhood settings* Melbourne: Department of Education and Training
Department of Education and Training Victoria. (2018). What Preps Learn.
DeRue, D. S., & Ashford, S. J. (2010). Who will lead and who will follow? A social process of leadership identity construction in organizations. *Academy of Management Review, 35*(4), 627. Retrieved from http://ezproxy.deakin.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=53503267&authtype=sso&custid=deakin&site=eds-live&scope=site
Dove, G. (2016). *Beyond the body? The future of embodied cognition*: Frontiers Media SA.
Draxler, B. (2015). John McWhorter on the future of language. *Popular Science, 287*(6), 10. Retrieved from http://ezproxy.uow.edu.au/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=f6h&AN=110602154&site=eds-live
Duehr, E. E., & Bono, J. E. (2006). Men, women, and managers: Are steretypes finally changing? *Personnel Psychology, 59*(4), 815-846. doi:10.1111/j.1744-6570.2006.00055.x
Dulebohn, J. H., Wu, D., & Liao, C. (2016). Does liking explain variance above and beyond LMX? A meta-analysis. *Human Resource Management Review*. doi:10.1016/j.hrmr.2016.09.008
Eagly, A. H., & Heilman, M. E. (2016). Gender and leadership: Introduction to the special issue. *The Leadership Quarterly, 27*, 349-353. doi:10.1016/j.leaqua.2016.04.002
Easterby-Smith, M., Thorpe, R., & Jackson, P. P. R. (2015). Management and business research. 377.
Eby, L. T., Cader, J., & Noble, C. L. (2003). Why do high self-monitors emerge as leaders in small groups? A comparative analysis of the behaviors of high versus low self-Monitors. *Journal of Applied Social Psychology, 33*, 1457-1479. doi:10.1111/j.1559-1816.2003.tb01958.x
Eccles, J. S. (2007). Families, schools, and developing achievement-related motivations and engagement. In J. E. Grusec & P. D. Hastings (Eds.), *Handbook of socialization: Theory and research* (pp. 665-691). New York, NY: The Gilford Press.
Eden, D., & Leviatan, U. (1975). Implicit leadership theory as a determinant of the factor structure underlying supervisory behavior scales. *Journal of Applied Psychology, 60*, 736-741. doi:10.1037/0021-9010.60.6.736
Edwards, C. A. (1994). Leadership in groups of school-age girls. *Developmental Psychology, 30*, 920-927. doi:10.1037/0012-1649.30.6.920
Ehrhart, M. G. (2012). Self-concept, implicit leadership theories, and follower preferences for leadership. *Zeitschrift fur Psychologie / Journal of Psychology, 220*, 231-240. doi:10.1027/2151-2604/a000117
Eichenbaum, H. (2002). *The cognitive neuroscience of memory*. New York, NY: Oxford University Press.
Eisner, E. W. (2002). *The arts and the creation of mind*: Yale University Press.
Ellis, N. C. (2019). Essentials of a theory of language cognition. *Modern Language Journal, 103*(1 [Supplement]), 39-60. doi:10.1111/modl.12532
Elman, J. L. (2005). Connectionist models of cognitive development: Where next? *Trends in Cognitive Sciences, 9*(3), 111-117. doi:10.1016/j.tics.2005.01.005
Engle, E. M., & Lord, R. G. (1997). Implicit theories, self-schemas, and leader-member exchange. *Academy of Management Journal, 40*(4), 988-1010.

Epitropaki, O., & Martin, R. (2004). Implicit leadership theories in applied settings: Factor structure, generalizability, and stability over time. *Journal of Applied Psychology, 89*, 293-310. doi:10.1037/0021-9010.89.2.293

ERIC. (2013). *Ethical guidance: Harms and benefits*.

Fairhurst, G. T., & Grant, D. (2010). The social construction of leadership: A sailing guide. *Management Communication Quarterly, 24*, 171-210. doi:10.1177/0893318909359697

Faulkner, D., & Coates, E. (2011). *Exploring children's creative narratives*. In D. Faulkner & E. Coates (Eds.), (1st ed. ed.). Retrieved from http://ezproxy.uow.edu.au/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=cat03332a&AN=uow.b3075215

https://ezproxy.uow.edu.au/login?url=https://ebookcentral.proquest.com/lib/uow/detail.action?docID=672444

Felfe, J. (2005). Personality and romance of leadership. In *Implicit leadership theories: Essays and explorations* (pp. 135-158).

Felfe, J., & Schyns, B. (2014). Romance of leadership and motivation to lead. *Journal of Managerial Psychology, 29*, 850-865. doi:10.1108/JMP-03-2012-0076

Firmansyah, F. M., & Jones, J. J. (2019). Did the Black Panther Movie Make Blacks Blacker? Examining Black Racial Identity on Twitter Before and After the Black Panther Movie Release. In (pp. 66-78). Cham: Springer International Publishing.

Fiske, S. T., & Taylor, S. E. (1984). *Social cognition* (1st ed.). Reading, MA: Addison-Wesley.

Fong, G. T., & Markus, H. (1982). Self-schemas and judgments about others. *Social Cognition, 1*, 191-204. doi:10.1521/soco.1982.1.3.191

Ford, J. D. L., & Ismail, K. M. (2006). Perceptions of effective leadership among Central Eurasian managers: A cultural convergence–divergence examination within a globalization context. *Journal of International Management, 12*(2), 158-180. doi:10.1016/j.intman.2006.02.013

Foti, R., Keller Hansbrough, T., Epitropaki, O., & Coyle, P. (2014). Special issue: Dynamic viewpoints on implicit leadership and followership theories. *The Leadership Quarterly, 25*, 411-412. doi:10.1016/j.leaqua.2014.02.004

Fraser, A. (1999, 06 February 2020). Mary, Queen of Scots. Retrieved from https://www.britannica.com/biography/Mary-queen-of-Scotland

Frost, D. E. (2016). Development of implicit leadership theories prior to training or employment. *Journal of Applied Business Research, 32*, 555-568.

Gapenne, O. (2014). The co-constitution of the self and the world: Action and proprioceptive coupling. *Frontiers in Psychology, 5*. doi:10.3389/fpsyg.2014.00594

Gardner, J. W. (1990). *On leadership*: New York: Free Press.

Gauntlett, D. (2007). *Creative explorations: New approaches to identities and audiences*: London ; New York : Routledge, 2007.

Gelman, S. A., & Roberts, S. O. (2017). How language shapes the cultural inheritance of categories. *Proceedings of the National Academy of Sciences of the United States of America, 114*(30), 7900. Retrieved from http://ezproxy.uow.edu.au/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=edsjsr&AN=edsjsr.26486128&site=eds-live

Gerstner, C. R., & Day, D. V. (1994). Cross-cultural comparison of leadership prototypes. *The Leadership Quarterly, 5*(2), 121-134.

Giessner, S. R., & Schubert, T. W. (2007). High in the hierarchy: How vertical location and judgments of leaders' power are interrelated. *Organizational Behavior and Human Decision Processes, 104*, 30-44. doi:10.1016/j.obhdp.2006.10.001

Golinkoff, R. M., Hoff, E., Rowe, M. L., Tamis-LeMonda, C. S., & Hirsh-Pasek, K. (2019). Language matters: Denying the existence of the 30-million-word gap has serious consequences. *Child Development*(3), 985. doi:10.1111/cdev.13128

Gopnik, A., & Schulz, L. (2007). *Causal learning: Psychology, philosophy, and computation*: Oxford University Press.

Graham, A., Powell, M., Taylor, N., Anderson, D., & Fitzgerald, R. (2013). *Ethical research involving children*.

Greenhalgh, A. M., & Maxwell, C. I. (2019). The Mirror and the Window: Making Implicit Perceptions of Leadership Explicit. *Journal of Management Education, 43*(6), 598-629. Retrieved from http://ezproxy.uow.edu.au/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1232376

http://dx.doi.org/10.1177/1052562919851186

Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: Attitudes, self-esteem, and stereotypes. *Psychological Review, 102*, 4-27. doi:10.1037/0033-295X.102.1.4

Grusec, J. E., & Hastings, P. D. (2014). *Handbook of socialization: Theory and research*: Guilford Publications.

Hammond, M., Clapp-Smith, R., & Palanski, M. (2017). Beyond (just) the workplace: A theory of leader development across multiple domains. *The Academy of Management Review, 42*(3), 481-498. doi:10.5465/amr.2014.0431

Hamre, B., Hatfield, B., Pianta, R., & Jamil, F. (2014). Evidence for general and domain-specific elements of teacher-child interactions: Associations with preschool children's development. *Child Development*(3), 1257. doi:10.1111/cdev.12184

Hamre, B., & Pianta, R. C. (2001). Early teacher–child relationships and the trajectory of children's school outcomes through eighth grade. *Child Development, 72*(2), 625-638.

Hanges, P. J., Lord, R. G., & Dickson, M. W. (2000). An information-processing perspective on leadership and culture: A case for connectionist architecture. *Applied Psychology: An International Review, 49*, 133-161. doi:10.1111/1464-0597.00008

Harter, S., & Whitesell, N. R. (1991). Developmental changes in children's understanding of single, multiple and blended emotion concepts. In C. Saarni & P. L. Harris (Eds.), *Children's understanding of emotion*. Cambridge: CUP.

Hartog, D. N., Muijen, J. J., & Koopman, P. L. (1997). Transactional versus transformational leadership: An analysis of the MLQ. *Journal of Occupational and Organizational Psychology, 70*(1), 19-34.

Hekman, D. R., Johnson, S. K., Maw-Der, F. O. O., & Wei, Y. (2017). Does diversity-valuing behaviour result in diminished performance ratings for non-white and female leaders? *Academy of Management Journal, 60*(2), 771-797. doi:10.5465/amj.2014.0538

Hess, R. D., & Easton, D. (1960). The child's changing image of the President. *Public Opinion Quarterly, 24*(4), 632. Retrieved from http://ezproxy.deakin.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=11953187&site=eds-live&scope=site

Hilgard, E. R. (1980). The trilogy of mind: Cognition, affection, and conation. *Journal of the History of the Behavioral Sciences, 16*(2), 107-117. Retrieved from http://ezproxy.deakin.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=30h&AN=45877458&authtype=sso&custid=deakin&site=eds-live&scope=site

Hinton, G. E. (1989). Connectionist learning procedures. *Artificial Intelligence, 40*(1-3), 185-234. doi:10.1016/0004-3702(89)90049-0

Hofstede, G. (1976). Nationality and espoused values of managers. *Journal of Applied Psychology, 61*(2), 148-155. doi:10.1037/0021-9010.61.2.148

Hofstede, G. (1991). *Cultures and organizations: Software of the mind*. Maidenhead, UK: McGraw Hill.

Holton, J. A. (2010). The coding process and its challenges. *Grounded Theory Review, 9*(1), 21-40. Retrieved from http://ezproxy.uow.edu.au/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=49005540

Hong, Y.-y., Levy, S. R., & Chiu, C.-y. (2001). The contribution of the lay theories approach to the study of groups. *Personality and Social Psychology Review, 5*(2), 98-106. doi:doi:10.1207/S15327957PSPR0502_1

House, R. J. (2004). An overview of the GLOBE research program. In V. Gupta (Ed.), *Transformative organizations: A global perspective*. India: SAGE Publications.

House, R. J., Javidan, M., Hanges, P., & Dorfman, P. (2002). Understanding cultures and implicit leadership theories across the globe: An introduction to project GLOBE. *Journal of World Business*. doi:10.1016/S1090-9516(01)00069-4

Hunt, J. G., Boal, K. B., & Sorenson, R. L. (1990). Top management leadership: Inside the black box. *The Leadership Quarterly, 1*, 41-65. doi:10.1016/1048-9843(90)90014-9

Hutton, I., Jiang, D., & Kumar, A. (2014). Corporate policies of Republican managers. *Journal of Financial and Quantitative Analysis, 49*(5-6), 1279-1310.

Jablin, F. M., & Kron, K. J. (1994). *Task/work relationships: A life-span perspective*. Thousand Oaks, CA: SAGE Publications.

Jennings, H. H. (1943). *Leadership and isolation: A study of personality in inter-personal relations.* (Vol. 1). New York: Longmans, Green.

Junker, N. M., & van Dick, R. (2014). Implicit theories in organizational settings: A systematic review and research agenda of implicit leadership and followership theories. *The Leadership Quarterly, 25*(6), 1154-1173.

Keller, T. (1999). Images of the familiar: Individual differences and implicit leadership theories. *The Leadership Quarterly, 10*, 589-607. doi:10.1016/S1048-9843(99)00033-8

Keller, T. (2003). Parental images as a guide to leadership sensemaking: An attachment perspective on implicit leadership theories. *Leadership Quarterly, 14*, 141-160. doi:10.1016/S1048-9843(03)00007-9

Kenney, R. A., Blascovich, J., & Shaver, P. R. (1994). Implicit leadership theories: Prototypes for new leaders. *Basic & Applied Social Psychology, 15*(4), 409-437. doi:10.1207/s15324834basp1504_2

Kenney, R. A., Schwartz-Kenney, B. M., & Blascovich, J. (1996). Implicit leadership theories: Defining leaders described as worthy of influence. *Personality and Social Psychology Bulletin, 22*, 1128-1143. doi:10.1177/01461672962211004

Killen, M., Pisacane, K., Lee-Kim, J., & Ardila-Rey, A. (2001). Fairness or stereotypes? Young children's priorities when evaluating group exclusion and inclusion. *Developmental Psychology, 37*(5), 587-596. Retrieved from http://ezproxy.deakin.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edswss&AN=000170776800003&authtype=sso&custid=deakin&site=eds-live&scope=site

Klepsch, M., & Logie, L. (1982). Children draw and tell: An introduction to the projective uses of children's human figure drawings.

Koenig, A. M., Eagly, A. H., Mitchell, A. A., & Ristikari, T. (2011). Are leader stereotypes masculine? A meta-analysis of three research paradigms. *Psychological Bulletin, 137*(4), 616-642. doi:10.1037/a0023557

Kolb, B., & Gibb, R. (2011). Brain plasticity and behaviour in the developing brain. *Journal of the Canadian Academy of Child and Adolescent Psychiatry = Journal de l'Academie canadienne de psychiatrie de l'enfant et de l'adolescent, 20*(4), 265-276. Retrieved from https://pubmed.ncbi.nlm.nih.gov/22114608
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3222570/

Konst, D., & van Breukelen, W. (2005). Effects of hierarchical positions of target persons on social inference: Schema use and schema content in perceiving leaders and subordiantes. In B. Schyns & J. R. Meindl (Eds.), *Implicit leadership theories: Essays and explorations*. Greenwich: Information Age.

Koopman, P. L., Hartog, D. N. D., Konrad, E., & al, e. (1999). National culture and leadership profiles in Europe: Some results from the GLOBE study. *European Journal of Work & Organizational Psychology, 8*(4), 503-520. doi:10.1080/135943299398131

Kopytko, R. (2001). From cartesian towards non-cartesian pragmatics. *Journal of Pragmatics: An Interdisciplinary Journal of Language Studies, 33*(6), 783-804. doi:10.1016/S0378-2166(01)80029-1

Kukkonen, T., & Chang-Kredl, S. (2018). Drawing as social play: Shared meaning-making in young children's collective drawing activities. *International Journal of Art & Design Education, 37*(1), 74-87.

Lakomski, G. (2001). Organizational change, leadership and learning: Culture as cognitive process. *International Journal of Educational Management, 15*(2), 68-77. doi:10.1108/09513540110383791

Lange-Küttner, C. (2014). Do drawing stages really exist? Children's early mapping of perspective. *Psychology of Aesthetics, Creativity, and the Arts, 8*(2), 168-182. doi:10.1037/a0036199

Lankau, M. J., & Chung, B. G. (2009). A comparison of American and international prototypes of successful managers. *Journal of Leadership Studies, 3*(1), 7-18. doi:10.1002/jls.20091

Lee, S. Y., Recchia, S. L., & Shin, M. S. (2005). "Not the same kind of leaders": Four young children's unique ways of influencing others. *Journal of Research in Childhood Education, 20*(2), 132-148.

Leffler, H., Ayman, R., & Ayman-Nolley, S. (2006). *Do children possess the same stereotypes as adults? An exploration of children's implicit leadership theories*. Paper presented at the International Congress of Applied Psychology, Athens, Greece.

Leman, P. J. (2005). Authority and moral reasons: Parenting style and children's perceptions of adult rule justifications. *International Journal of Behavioral Development, 29*(4), 265-270. doi:10.1177/01650250544000044

Levy, S. R., Chiu, C.-y., & Hong, Y.-y. (2006). Lay theories and intergroup relations. *Group Processes & Intergroup Relations, 9*(1), 5-24. doi:doi:10.1177/1368430206059855

Liden, R. C., Sparrowe, R. T., & Wayne, S. J. (1997). Leader-member exchange theory: the past and potential for the future. *Research in Personnel and Human Resources Management1, 15*, 47-119.

Ligon, G. S., Hunter, S. T., & Mumford, M. D. (2008). Development of outstanding leadership: A life narrative approach. *The Leadership Quarterly, 19*(3), 312-334.

Lindahl, R. (2006). The role of organizational climate and culture in the school improvement process: A review of the knowledge base. *Education Leadership Review, 7*, 19–29.

Literat, I. (2013). "A pencil for your thoughts": Participatory drawing as a visual research method with children and youth. *International Journal of Qualitative Methods, 12*(1), 84-98. doi:10.1177/160940691301200143

Liu, L., Ayman, R., & Ayman-Nolley, S. (2012). Children's image of leadership in China. In S. Turnbull, P. Case, G. Edwards, & D. Schedlitzki (Eds.), *Worldly Leadership* (pp. 105-134): Springer.

Lord, R. G. (2005). Preface: Implicit leadership theory. In B. Schyns & J. R. Meindl (Eds.), *Implicit leadership theories: Essays and explorations* (pp. ix–xiii). Greenwich, CT: IAP.

Lord, R. G., Brown, D. J., Harvey, J. L., & Hall, R. J. (2001). Contextual constraints on prototype generation and their multilevel consequences for leadership perceptions. *The Leadership Quarterly, 12*, 311-338. doi:10.1016/S1048-9843(01)00081-9

Lord, R. G., & Brown, D. J. F., Steven J. (1999). Understanding the dynamics of leadership: The role of follower self-concepts in the leader/follower relationship. *Organizational Behavior and Human Decision Processes, 78*(3), 167-203.

Lord, R. G., Epitropaki, O., Foti, R. J., & Hansbrough, T. (2020). Implicit leadership theories, implicit followership theories, and dynamic processing of leadership information. *Annual Review of Organizational Psychology and Organizational Behavior*, 49. doi:10.1146/annurev-orgpsych-012119-045434

Lord, R. G., Foti, R. J., & De Vader, C. L. (1984). A test of leadership categorization theory: Internal structure, information processing, and leadership perceptions. *Organizational Behavior and Human Performance, 34*, 343-378. doi:10.1016/0030-5073(84)90043-6

Lord, R. G., Foti, R. J., & Phillips, J. S. (1982). A theory of leadership categorization. In J. G. Hunt, U. Sekaran, & C. Schriesheim (Eds.), *Leadership, beyond establishment views* (Vol. 6). Carbondale: SIU Press.

Lord, R. G., & Maher, K. J. (1991). *Leadership and information processing: Linking perceptions and performance.* London and New York: Routledge.

Lord, R. G., & Shondrick, S. J. (2011). Leadership and knowledge: Symbolic, connectionist, and embodied perspectives. *The Leadership Quarterly, 22*, 207-222. doi:10.1016/j.leaqua.2010.12.016

Loue, S. (2007). *Textbook of research ethics: theory and practice*. US: Springer
Lowenfeld, V., & Brittain, W. L. (1947). *Creative and mental growth*. New York, NY: Macmillan Company.
Malavâe-Lâopez, L. M., & Duquette, G. (1991). *Language, culture and cognition : A collection of studies in first and second language acquisition*. Clevedon, Avon, England: Multilingual Matters.
Malchiodi, C. A. (1998). *Understanding children's drawings*: Guilford Press.
Malley, A. L., Ritchie, S. A., Lord, R. G., Gregory, J. B., & Young, C. M. (2018). Incorporating embodied cognition into sensemaking theory: A theoretical examination of embodied processes in a leadership context. In *Current topics in management* (pp. 151-182): Routledge.
Malmendier, U., Tate, G., & Yan, J. (2010). *Overconfidence and early-life experiences: The impact of managerial traits on corporate financial policies* (08982937). Retrieved from http://ezproxy.deakin.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=61421663&site=eds-live&scope=site
Mareschal, D. (2003). The acquisition and use of implicit categories in early development. In L. M. Oakes & D. H. Rakison (Eds.), *Early category and concept development: Making sense of the blooming, buzzing confusion* (pp. 360-383). Retrieved from http://ezproxy.deakin.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=cat00097a&AN=deakin.b2426308&authtype=sso&custid=deakin&site=eds-live&scope=site
Martinko, M. J., & Gardner, W. L. (1987). The leader/member attribution process. *Academy of Management Review, 12*(2), 235-249.
Massey, J. A. (1975). The missing leader: Japanese youth's views of political authority. *American Political Science Review, 69*(1), 31-48. Retrieved from http://ezproxy.deakin.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=30h&AN=46101436&site=eds-live&scope=site
Matthews, A., Lord, R. G., & Walker, J. (1989). The development of leadership perceptions in children. *Unpublished manuscript, University of Akron*.
Mawson, B. (2011). Children's leadership strategies in early childhood. *Journal of Research in Childhood Education, 25*(4), 327-338. doi:10.1080/02568543.2011.605207
Mayall, B. (1994). *Children's childhoods: Observed and experienced*: Falmer Press.
McClelland, J. L., & Jenkins, E. (2014). Nature, nurture and connections: Implications of connectionist models for cognitive development. In K. VanLehn (Ed.), *Architectures for intelligence: The twenty-second Carnegie symposium on cognition* (pp. 41-74). London, UK: Taylor & Francis Group.
Meadows, S. (1993). *The child as thinker: The development and acquisition of cognition in childhood*: Routledge.
Mervis, C., B., & Crisafo, M., A. (1982). Order of acquisition of subordinate, basic, and superordinate-level categories. *Child Development, 53*(1), 258. doi:10.2307/1129660
Molden, D. C., & Dweck, C. S. (2006). Finding 'meaning' in psychology: A lay theories approach to self-regulation, social perception, and social development. *American Psychologist*(3), 192. Retrieved from http://ezproxy.deakin.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsggo&AN=edsgcl.145024046&site=eds-live&scope=site
Montessori, M. (1983). *The secret of childhood* (B. Carter, Trans.): Sangam Books.
Moore, M. S. (1990). Understanding children's drawings: developmental and emotional indicators in children's human figure drawings. *Journal of Educational Therapy, 3*, 35-47.
Mouw, J. M., Van Leijenhorst, L., van den Broek, P., Saab, N., & Danel, M. S. (2017). Contributions of emotion understanding to narrative comprehension in children and adults. *European Journal of Developmental Psychology*, 1-16. doi:10.1080/17405629.2017.1334548
Murray, J. a. (2017). *Building knowledge in early childhood education: Young children are researchers*: Routledge.

Naidoo, L. J., Kohari, N. E., Lord, R. G., & DuBois, D. A. (2010). "Seeing" is retrieving: Recovering emotional content in leadership ratings through visualization. *The Leadership Quarterly, 21*(5), 886-900. doi:10.1016/j.leaqua.2010.07.014

National Health and Medical Research Council, Australian Research Council, & Australian Vice-Chancellors'Committee. (2007). *National Statement on Ethical Conduct in Human Research 2007 (Updated May 2015)*. https://www.nhmrc.gov.au/guidelines-publications/e72: National Health and Medical Research Council

Nemerowicz, G. M., & Rosi, E. (1997). *Education for leadership and social responsibility*. London: Falmer Press.

Niedenthal, P. M., Barsalou, L. W., Winkielman, P., Krauth-Gruber, S., & Ric, F. (2005). Embodiment in attitudes, social perception, and emotion. *Personality & Social Psychology Review, 9*, 184-211.

O'Neill, A. (2020, 02 November 2020). Number of countries with women in highest position of executive power 1960-2020. Retrieved from https://www.statista.com/statistics/1058345/countries-with-women-highest-position-executive-power-since-1960/

Offermann, L. R., & Coats, M. R. (2018). Implicit theories of leadership: Stability and change over two decades. *The Leadership Quarterly, 29*(4), 513-522. doi:https://doi.org/10.1016/j.leaqua.2017.12.003

Offermann, L. R., Kennedy, J. K., & Wirtz, P. W. (1994). Implicit leadership theories: Content, structure, and generalizability. *The Leadership Quarterly*. doi:10.1016/1048-9843(94)90005-1

Ojeda, A. H., Ree, M. J., & Carretta, T. R. (2010). Personality similarities and differences between Mexican and American business leaders. *Journal of Leadership Studies, 4*(2), 40-47. doi:10.1002/jls.20167

Okamura, T. (1968). The child's changing image of the Prime Minister: A preface to the study of political socialization in contemporary Japan. *The Developing Economies, 6*(4), 566-586.

Oliveira, K. A. C. (2016). Children's implicit leadership theories in middle childhood: Christian children's perceptions in the Cavite Province. *Journal of Research on Christian Education, 25*(3), 251-272.

Owen, H. (2007). *Creating leaders in the classroom: How teachers can develop a new generation of leaders*. London: Routledge.

Padesky, C. A. (1994). Schema change processes in cognitive therapy. *Clinical Psychology & Psychotherapy, 1*(5), 267-278. doi:10.1002/cpp.5640010502

Palich, L. E., & Hom, P. W. (1992). The impact of leader power and behavior on leadership perceptions: A lisrel test of an expanded categorization theory of leadership model. *Group & Organization Management, 17*(3), 279. doi:10.1177/1059601192173007

Paris, L. D., Howell, J. P., Dorfman, P. W., & Hanges, P. J. (2009). Preferred leadership prototypes of male and female leaders in 27 countries. *Journal of International Business Studies*(8), 1396. Retrieved from http://ezproxy.deakin.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsgao&AN=edsgcl.210752261&authtype=sso&custid=deakin&site=eds-live&scope=site

Patton, M. Q. (1999). Enhancing the quality and credibility of qualitative analysis. *Health services research, 34*(5 Pt 2), 1189.

Perszyk, D. R., & Waxman, S. R. (2018). Linking language and cognition in infancy. *Annual Review of Psychology, 69*, 231-250. doi:10.1146/annurev-psych-122216-011701

Phillips, J. S., & Lord, R. G. (1982). Schematic information processing and perceptions of leadership in problem-solving groups. *Journal of Applied Psychology, 67*(4), 486.

Piaget, J. (1932). *The moral judgment of the child* (M. Gabain, Trans.). Glencoe, Illinois: The Free Press.

Piaget, J., Tomlinson, J., & Tomlinson, A. (1929). *The child's conception of the world*. New York: Harcourt, Brace & Company.

Pigors, P. (1933). Leadership and domination among children. *Sociologus, 9*, 140-157.

Plaks, J. E., Levy, S. R., & Dweck, C. S. (2009). Lay theories of personality: Cornerstones of meaning in social cognition. *Social and Personality Psychology Compass, 3*, 1069-1081. doi:10.1111/j.1751-9004.2009.00222.x

Pradhan, S., & Jena, L. K. (2019). Does meaningful work explains the relationship between transformational leadership and innovative work behaviour? *Vikalpa: The Journal for Decision Makers, 44*(1), 30-40. doi:10.1177/0256090919832434

Qi, W., & Michelle, D. L. (2000). Same beginnings, different stories: A comparison of American and Chinese children's narratives. *Child Development, 71*(5), 1329. Retrieved from http://ezproxy.uow.edu.au/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=edsjsr&AN=edsjsr.1131977&site=eds-live

Quaglia, R., Longobardi, C., Iotti, N. O., & Prino, L. E. (2015). A new theory on children's drawings: Analyzing the role of emotion and movement in graphical development. *Infant Behavior and Development, 39*, 81-91. doi:https://doi.org/10.1016/j.infbeh.2015.02.009

Raven, B. H., & Erchul, W. P. (1997). Social power in school consultation: A contemporary view of French and Raven's bases of power model. *Journal of School Psychology, 35*(2), 137-171. doi:10.1016/S0022-4405(97)00002-2

Reservoir West Primary School (2018, 20/10/2020). [Characteristics of the school].

Rice, M., Bunker, K. D., Kang, D. H., Howell, C. C., & Weaver, M. (2007). Accessing and recruiting children for research in schools. *West J Nurs Res, 29*(4), 501-514. doi:10.1177/0193945906296549

Riggio, R. E., & Lee, J. (2007). Emotional and interpersonal competencies and leader development. *Human Resource Management Review, 17*(4), 418-426. doi:10.1016/j.hrmr.2007.08.008

Robson, S. (2006). *Developing thinking and understanding in young children: An introduction for students*: Routledge.

Rosch, E. (1978). *Principles of categorization*. Hillsdale, NJ: L. Erlbaum Associates.

Rosenblith, J. F. (1959). Learning by imitation in kindergarten children. *Child Development, 30*, 69-80. Retrieved from http://ezproxy.deakin.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eue&AN=520305253&site=eds-live&scope=site

Rosette, A. S., Leonardelli, G. J., & Phillips, K. W. (2008). The white standard: Racial bias in leader categorization. *Journal of Applied Psychology, 93*, 758-777. doi:10.1037/0021-9010.93.4.758

Rowley, S. J., Kurtz-Costes, B., Mistry, R., & Feagans, L. (2007). Social status as a predictor of race and gender stereotypes in late childhood and early adolescence. *Social Development, 16*(1), 150-168. doi:10.1111/j.1467-9507.2007.00376.x

Ruble, T. L., Cohen, R., & Ruble, D. N. (1984). Sex stereotypes. *American Behavioral Scientist, 27*(3), 339. Retrieved from http://ezproxy.deakin.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=4666372&authtype=sso&custid=deakin&site=eds-live&scope=site

Rush, M. C., Thomas, J. C., & Lord, R. G. (1977). Implicit leadership theory: A potential threat to the internal validity of leader behavior questionnaires. *Organizational Behavior and Human Performance, 20*, 93-110. doi:10.1016/0030-5073(77)90046-0

Sacks, R. E. (2009). *Natural born leaders: An exploration of leadership development in children and adolescents.* (Doctor of Philosophy). University of Toronto, Toronto.

Sahgal, P., & Pathak, A. (2007). Transformational leaders: Their socialization, self-concept, and shaping experiences. *International Journal of Leadership Studies, 2*(3), 263-279.

Salmond, K., & Fleshman, P. (2010). The development of children's perceptions of leadership. In K. O'Connor (Ed.), *Gender and women's leadership: A reference handbook*. Thousand Oaks: SAGE Publications, Inc.

Schein, V. E., Mueller, R., Lituchy, T., & Liu, J. (1996). Think manager - think male: A global phenomenon? *Journal of Organizational Behavior, 17*(1), 33. Retrieved from http://ezproxy.deakin.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsjsr&AN=edsjsr.2488533&authtype=sso&custid=deakin&site=eds-live&scope=site

Schneider, D. (1973). Implicit personality theory: A review. *Psychological Bulletin, 79*, 294-309. doi:10.1037/h0034496

Schoar, A., & Luo, Z. (2011). Shaped by booms and busts: How the economy impacts CEO careers and management styles. *NBER Working Papers*, 1. Retrieved from http://ezproxy.deakin.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=90437338&site=eds-live&scope=site

Schwartz, S. H., & Rubel, T. (2005). Sex differences in value priorities: Cross-cultural and multimethod studies. *Journal of Personality and Social Psychology, 89*, 1010-1028. doi:10.1037/0022-3514.89.6.1010

Schyns, B., Felfe, J., & Blank, H. (2007). Is charisma hyper-romanticism? Empirical evidence from new data and a meta-analysis. *Applied Psychology: An International Review, 56*, 505-527. doi:10.1111/j.1464-0597.2007.00302.x

Schyns, B., Kiefer, T., Kerschreiter, R., & Tymon, A. (2011). Teaching implicit leadership theories to develop leaders and leadership: How and why it can make a difference. *Academy of Management Learning and Education, 10*, 397-408. doi:10.5465/amle.2010.0015

Schyns, B., & Meindl, J. R. (2005). An overview of implicit leadership theories and their application in organization practice. In B. Schyns & J. R. Meindl (Eds.), *Implicit leadership theories: Essays and explorations* (pp. 15-36). Greenwich: Information Age.

Schyns, B., & Schilling, J. (2011). Implicit leadership theories: Think leader, think effective? *Journal of Management Inquiry, 20*, 141-150. doi:10.1177/1056492610375989

Seidenberg, M. S. (1994). Language and connectionism: The developing interface. *Cognition, 50*(1-3), 385-401. doi:10.1016/0010-0277(94)90037-X

Selman, R. L., & Jaquette, D. (1977). *Stability and oscillation in interpersonal awareness: A clinical-developmental analysis.* Paper presented at the Nebraska symposium on motivation.

Selman, R. L., Jaquette, D., & Lavin, D. R. (1977). Interpersonal awareness in children: Toward an integration of developmental and clinical child psychology. *American Journal of Orthopsychiatry, 47*(2), 264-274. doi:10.1111/j.1939-0025.1977.tb00981.x

Shamir, B. (1992). Attribution of influence and charisma to the leader: The romance of leadership revisited. *Journal of Applied Social Psychology, 22*, 386-407. doi:10.1111/j.1559-1816.1992.tb01546.x

Shin, M. S., Recchia, S. L., Lee, S. Y., Lee, Y. J., & Mullarkey, L. S. (2004). Understanding early childhood leadership: Emerging competencies in the context of relationships. *Journal of Early Childhood Research, 2*, 301-316. doi:10.1177/1476718X04046649

Shondrick, S. J., Dinh, J. E., & Lord, R. G. (2010). Developments in implicit leadership theory and cognitive science: Applications to improving measurement and understanding alternatives to hierarchical leadership. *The Leadership Quarterly, 21*(6), 959-978.

Siegler, R. S. (2000). The rebirth of children's learning. *Child Development, 71*(1), 26-35. doi:10.1111/1467-8624.00115

Silverman, D. (2006). *Interpreting qualitative data: Methods for analyzing talk, text and interaction*: SAGE Publications.

Simina, V., & Hamel, M.-J. (2005). CASLA through a social constructivist perspective: WebQuest in project-driven language learning. *ReCALL, 17*(2), 217-228. doi:10.1017/S0958344005000522

Singh, R., Bhullar, N., & Sankaran, K. (2019). Leader-versus-member and fair-versus-biased categorisations as safeguards against negative effects of demographic diversity on group attraction. *IIMB Management Review, 31*(1), 7-19. doi:10.1016/j.iimb.2018.08.003

Smith, L., & Gasser, M. (2005). The development of embodied cognition: Six lessons from babies. *Artificial Life, 11*(1/2), 13-30. doi:10.1162/1064546053278973

Smith, L., Sera, M., & Gattuso, B. (1988). The development of thinking. In E. E. Smith & R. J. Sternberg (Eds.), *The psychology of human thought* (pp. 366-390). NY: Cambridge University Press.

Soundy, C. S. (2012). Searching for deeper meaning in children's drawings. *Childhood Education*(1), 45. Retrieved from http://ezproxy.deakin.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsgao&AN=edsgcl.312618331&authtype=sso&custid=deakin&site=eds-live&scope=site

Sparrowe, R. T. (2014). *Leadership and social networks: Initiating a different dialog*: Oxford University Press.
Spisak, B. R., O'Brien, M. J., Nicholson, N., & van Vugt, M. (2015). Niche construction and the evolution of leadership. *The Academy of Management Review, 40*(2), 291-306. doi:10.5465/amr.2013.0157
Squire, L. R., & Zola, S. M. (1997). Amnesia, memory and brain systems. *Philosophical Transactions of the Royal Society of London B: Biological Sciences, 352*(1362), 1663-1673.
State Government of Victoria. (2016). Darebin City. *Know your council.* Retrieved from https://knowyourcouncil.vic.gov.au/councils/darebin
State Government of Victoria. (2019). *Summary statistics for Victorian schools*. Retrieved from https://www.education.vic.gov.au/Documents/about/department/brochurejuly.pdf
Stavans, M., & Baillargeon, R. (2019). Infants expect leaders to right wrongs. In (Vol. 116, pp. 16292-16301).
Steele, W., & Kuban, C. (2013). *Working with grieving and traumatized children and adolescents: Discovering what matters most through evidence-based, sensory interventions*: Hoboken : Wiley, 2013.
Stein, N. L., & Glenn, C. G. (1975). *An analysis of story comprehension in elementary school children: A test of a schema*. Retrieved from http://ezproxy.uow.edu.au/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED121474
Steyn, M., & Moen, M. (2017). Drawing sadness: what are young children telling us? *Early Child Development and Care*, 1-15. doi:10.1080/03004430.2017.1301936
Stogdill, R. M. (1948). Personal factors associated with leadership: A survey of the literature. *The Journal of Psychology, 25*(1), 35-71. doi:10.1080/00223980.1948.9917362
Suchy, Y., & Holdnack, J. A. (2013). Assessing Social Cognition Using the ACS for WAIS–IV and WMS–IV. In J. A. Holdnack, L. W. Drozdick, L. G. Weiss, & G. L. Iverson (Eds.), *WAIS-IV, WMS-IV, and ACS* (pp. 367-406). San Diego: Academic Press.
Swanson, S., Skinner, J., Mueller, J., Billsberry, J., & Kent, A. (2019). Leader prototypicality in sport: The implicit leadership theories of women and men entering sport management careers. *Sport Management Review*. doi:10.1016/j.smr.2019.08.002
Sy, T., Shore, L. M., Strauss, J., Shore, T. H., Tram, S., Whiteley, P., & Ikeda-Muromachi, K. (2010). Leadership perceptions as a function of race-occupation fit: the case of Asian Americans. *The Journal of applied psychology, 95*, 902-919. doi:10.1037/a0019501
Tavares, G. M., Sobral, F., Goldszmidt, R., & Araújo, F. (2018). Opening the implicit leadership theories' black box: An experimental approach with conjoint analysis. *Frontiers in Psychology, 9*(FEB). doi:10.3389/fpsyg.2018.00100
Thomas, M. S. C., & Mareschal, D. (2001). Metaphor as categorization: A connectionist implementation. *Metaphor & Symbol, 16*(1/2), 5-27. doi:10.1080/10926488.2001.9678883
Trawick-Smith, J. (1988). "Let's say you're the baby, OK?" Play leadership and following behavior of young children. *Young Children, 43*, 51-59.
Triandis, H. C. (2004). The many dimensions of culture. *Academy of Management Executive, 18*, 88-93. doi:10.5465/AME.2004.12689599
Tryon, C. M. (1939). Evaluations of adolescent personality by adolescents. *Monographs of the Society for Research in Child Development, 4*(4), i-83. doi:10.2307/1165430
Tumarkin, M. (2013). Crumbs of memory: Tracing the 'more-than-representational' in family memory. *Memory Studies, 6*, 310-320. doi:10.1177/1750698013482648
Van Manen, M. (1990). Researching lived experience: Human science for an action sensitive pedagogy. 202.
Van Quaquebeke, N., & Van Knippenberg, D. (2012). Second-generation leader categorization research: How subordinates' self- and typical leader perceptions moderate leader categorization effects. *Journal of Applied Social Psychology, 42*(6), 1293-1319. doi:10.1111/j.1559-1816.2012.00899.x

van Teijlingen, E. R., Rennie, A.-M., Hundley, V., & Graham, W. (2001). The importance of conducting and reporting pilot studies: The example of the Scottish Births Survey. *Journal of Advanced Nursing, 34*(3), 289-295. doi:10.1046/j.1365-2648.2001.01757.x

Varela, F. J., Rosch, E., & Thompson, E. (1993). *The embodied mind: cognitive science and human experience* (Paperback edition. ed.): MIT Press.

Volgelstein, R. B., & Bro, A. (2020, 18 September, 2020). Women's power index. *Women and Foreign Policy Program.* Retrieved from https://www.cfr.org/article/womens-power-index

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*: Harvard Univ. Press.

Walters, J., & Stinnett, N. (1971). Parent-child relationships: A decade review of research. *Journal of Marriage and the Family, 33*(1), 70-111. Retrieved from http://ezproxy.deakin.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=swh&AN=0801.75&site=eds-live&scope=site

Wegner, D. M., & Vallacher, R. R. (1977). Implicit psychology: An introduction to social cognition.

Wells, G. (2009). *The meaning makers learning to talk and talking to learn* (2nd ed. ed.): Multilingual Matters.

Wellsby, M., & Pexman, P. M. (2014). Developing embodied cognition: Insight from children's concepts and language processing. *Frontiers in Psychology, 5*. doi:10.3389/fpsyg.2014.00506

Wetton, N. M., & McWhirter, J. (1998). Images and curriculum development in health education. In J. Prosser (Ed.), *Image-based research: A sourcebook for qualitative researchers* (pp. 263-283). London, UK: Falmer Press.

White, R. K., & Lippitt, R. (1960). *Autocracy and democracy: An experimental inquiry*. New York: Harper & Brothers.

William, A. G., & Taylor, E. S. (2012). A convergence/divergence perspective of leadership competencies managers believe are most important for success in organizations: A cross-cultural multilevel analysis of 40 countries. *Journal of Business and Psychology, 27*(1), 15. Retrieved from http://ezproxy.deakin.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsjsr&AN=edsjsr.41474903&authtype=sso&custid=deakin&site=eds-live&scope=site

Williams, M., & Moser, T. (2019). The art of coding and thematic exploration in qualitative research. *International Management Review, 15*(1), 45-55. Retrieved from http://ezproxy.uow.edu.au/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=135847332

Wilson, R. A., & Foglia, L. (2017). Embodied cognition. In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy* (Spring 2017 ed.). Stanford, California: Metaphysics Research Lab, Stanford University.

Wright, S. (2007). Young children's meaning-making through drawing and 'telling': analogies to filmic textual features. *Australian Journal of Early Childhood*(4), 37. Retrieved from http://ezproxy.deakin.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsgao&AN=edsgcl.172511990&authtype=sso&custid=deakin&site=eds-live&scope=site

Wright, S. (2014). The art of voice: The voice of art – understanding children's graphic-narrative-enactive communication. In D. Machin (Ed.), *Handbook of Visual Communication* (pp. 517-537). Berlin: De Gruyter Mouton.

Yamaguchi, R. (2001). Children's learning groups: A study of emergent leadership, dominance, and group effectiveness. *Small Group Research, 32*, 671-697. doi:10.1177/104649640103200601

Yamaguchi, R., & Maehr, M. L. (2004). Children's emergent leadership: The relationships with group characteristics and outcomes. *Small Group Research, 35*, 388-406. doi:10.1177/1046496404263272

Yarrow, M. R., & Campbell, J. D. (1963). Person perception in children. *Merrill-Palmer Quarterly, 9*(1), 57-72. Retrieved from http://ezproxy.deakin.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=1965-01360-001&site=eds-live&scope=site

Yukl, G. A. (1989). *Leadership in organizations*. Englewood Cliffs, NJ: Prentice-Hall.
Yukl, G. A. (2012). Effective leadership behavior: What we know and what questions need more attention. *Academy of Management Perspectives, 26*(4), 66-85. doi:10.5465/amp.2012.0088
Yukl, G. A., & Falbe, C. M. (1991). Importance of different power sources in downward and lateral relations. *Journal of Applied Psychology, 76*(3), 416-423. doi:10.1037/0021-9010.76.3.416
Zhu, C., Devos, G., & Tondeur, J. (2014). Examining school culture in Flemish and Chinese primary schools. *Educational Management Administration & Leadership, 42*(4), 557-575. doi:doi:10.1177/1741143213502190
Zwaan, R. A., & Radvansky, G. A. (1998). Situation models in language comprehension and memory. *Psychological Bulletin, 123*(2), 162-185. doi:10.1037/0033-2909.123.2.162

Appendices

Appendix A

Caregivers' country of birth

Table 17

Caregiver's country of birth

Caregivers' place of birth	
Australia	338
India	19
China	12
Lebanon	12
New Zealand	11
UK	8
Saudi Arabia	6
Romania	5
Sri Lanka	5
England	4
Japan	4
Malaysia	4
Pakistan	4
Somalia	4
Vietnam	4
Cambodia	3
Chile	3
Egypt	3
Greece	3
Ireland	3
Italy	3
Singapore	3
USA	3
Bosnia and Herzegovina	2
Eritrea	2
Germany	2
Hong Kong	2
Indonesia	2
Jordan	2

Kenya	2
Macedonia	2
Mauritius	2
Scotland	2
Switzerland	2
Argentina	1
Colombia	1
Djibouti	1
Georgia	1
Iraq	1
Malta	1
Portugal	1
Russia	1
Sicily	1
Sudan	1
Tanzania	1
Thailand	1
Turkey	1
Venezuela	1
Total	500

*Note: This table shows children's parents' and caregivers' (n=500) country of birth.

Appendix B

Coding manual

Table 18

Coding manual graphic mode

CODING MANUAL	Characteristics and Themes	Quantitative/Qualitative content	Data	Outcome
1st pool of data)				
Adapted from (Wright, 2014). Inclusive of Ayman-Nolley and Ayman (2005).	Filmic textual features	**Number of leaders**	#	Frequency of presence of multiple leaders vs one single leader
		Number of followers (none, implied, drawn)	#	Frequency of presence of multiple leaders vs one single leader
		Objects	list	Objects frequently present in leadership depictions
		Animals	list	Animals frequently present in leadership depictions
		Nature	list	Nature frequently present in leadership depictions
		Place (city, school, home)	list	Locations more frequent
		Time (day/night/unknown)	list	Times of the day where the leadership depiction is more frequent
		Physical actions (lifting an arm, pointing, standing, sitting, running)	list	Physical actions more frequent in leadership depictions
		Lips (upwards, straight, downwards, not identifiable)	list	Emotional features more frequent in leadership depictions
	Art elements	**Proportion of the size of the leader vs other**	list	Power of leader judged by proportion of size

		characters (larger/smaller/equal)		
		Emphasis on a special feature in the drawing (marks, lines, textures, shadings, proportions)	list	Significance of leadership features by emphasis on parts of drawing
	Symbols	**Gender (male/female/unknown)**	selection	Frequency Gender of leader
		Ethnicity (not identifiable, specific, **colour of skin, white/no colour, coloured black/brown and other colours**)	selection	Frequency Ethnicity of leader
		Social Role (self, child, military personnel, teacher, parent, entertainer, head of state, fantasy character, religious leader, sports leader and famous people)	list	Social roles frequently associated with leaders
		Letters	list	Letters associated with the leader depiction
		Words	list	Words associated with the leader depiction
		Phrases	list	Phrases associated with the leader depiction
		Numbers	list	Numbers associated with the leader depiction
		Flags	list	Flags associated with the leader depiction
		Logos	list	Logos associated with the leader depiction
	Visual icons	Speech bubbles (yes/no)	selection	Frequency of presence of this visual icon in drawings
		Whoosh lines (yes/no)	selection	Frequency of presence of this visual icon in drawings
		Dotted lines (yes/no)	selection	Frequency of presence of this visual icon in drawings
		Marks to connect or separate objects (yes/no)	selection	Frequency of presence of this visual icon in drawings

		Arrows (yes/no)	selection	Frequency of presence of this visual icon in drawings
	Spatial-temporal relationships leader to follower(s)	In front/behind	selection	Frequency of presence this spatial-temporal relationship between leader and follower
		Close/distant (<,>,= cms to followers)	selection	Frequency of presence this spatial-temporal relationship between leader and follower
		Above/below	selection	Frequency of presence this spatial-temporal relationship between leader and follower
		Proximal	selection	Frequency of presence this spatial-temporal relationship between leader and follower
		Surrounded	selection	Frequency of presence this spatial-temporal relationship between leader and follower

*Note: This table shows the drawing coding manual followed to codify the graphic content of the drawings. It is adapted from Wright (2014), and inclusive of (Ayman-Nolley & Ayman, 2005) coding manual for analysis of children's ILTs (in **bold**).

Table 19

Coding manual narrative mode

CODING MANUAL	Characteristics and Themes	Quantitative/Qualitative content	Data	Outcome
2nd pool of data				
Coded guided by the verbal description about the drawing provided by the child. Guided by Wright (2014), Mouw, Van Leijenhorst, van den Broek, Saab, & Danel (2017), and Stein & Glenn (1975) and Zwaan & Radvansky (1998). Inclusive	Verbal representation (Wright, 2014)	Non-fictional	Real, true life, personal (often presented in first person)	Frequency of style of narrative about the drawings
		Literal	Descriptive, factual, exact, unembellished (often delivered in third person; omniscient)	

of Ayman-Nolley and Ayman (2005).		Fictional	Imaginary, unreal fantastic, illusory	
		Metaphoric	Rhetorical, symbolic, allegorical, abstract	
	Situation model	Protagonist(s)	List	According to the child, is the leader the protagonist in the narrative of the drawing?
		Story Setting	Place (city, school, government house, home)	Does the child mention the location? If so, which locations are more Frequent
			Time (day/night/unknown)	Does the child mention the time? If so, what times of the day where the leadership depiction is more Frequent
		Events	List	According to the child, is the drawing about the leader leading?
		Presence of violence (none, verbal, physical, both)		According to the child, is the drawing violent?
	Physical narrative (What	**Type (human, animal, other)**		According to the child, who is the leader?

	does a leader look like?)	**Gender (male/female/unknown)**	selection	Does the child mention the gender of the leader? If so, what is the Frequency of leader gender?
		Ethnicity (not identifiable, specific, **colour of skin, white/no colour, coloured black/brown and other colours**)	selection	Does the child mention the ethnicity of the leader? If so, what is the Frequency of leader ethnicity?
		Size	list	Does the child mention the size of the leader? If so, what is the Frequency of leader size?
		Age	list	Does the child mention the age of the leader? If so, what is the Frequency of leader age?
		Build	list	Does the child mention the build of the leader? If so, what is the Frequency of leader build?
		Social Role (self, child, military personnel, teacher, parent, entertainer, head of state, fantasy character, religious leader, sports leader and famous people)	list	Does the child mention the social role of the leader? If so, what is the Frequency of leader social role?
		Other	list	Does the child mention other leader physical attributes? If so, what is the Frequency of those attributes?
	Functional narrative	What does a leader do to get things done?	list	Does the child mention leader functional attributes? If so, what is the Frequency of those attributes?

		What are the leader's goals?	list	
	Emotional narrative	What does a leader do to get others to follow?	list	Does the child mention leader emotional attributes? If so, what is the Frequency of those attributes?
		What are the leader's emotions?(Stein & Glenn, 1975; Zwaan & Radvansky, 1998)	list	
		What motivates the leader? (Stein & Glenn, 1975; Zwaan & Radvansky, 1998)	list	
		Culture standards (binary oppositions such as good/bad, right/wrong, just/unjust) (Wright, 2014)		
		Emotional features (smiling, crying, hugging, angry)		

*Note: This table shows the drawing coding manual followed to codify the narrative content of the drawings. Guided by (Wright, 2014), Wright (2014), (Mouw et al., 2017), (Stein & Glenn, 1975), and (Zwaan & Radvansky, 1998), and inclusive of (Ayman-Nolley & Ayman, 2005) coding manual for analysis of children's ILTs (in **bold**).

Appendix C

Example of data sources from three children (early, middle, and late primary school)

Example of data source 1 (early primary school)

Child 126 (Girl, Prep, 5Y/4M)

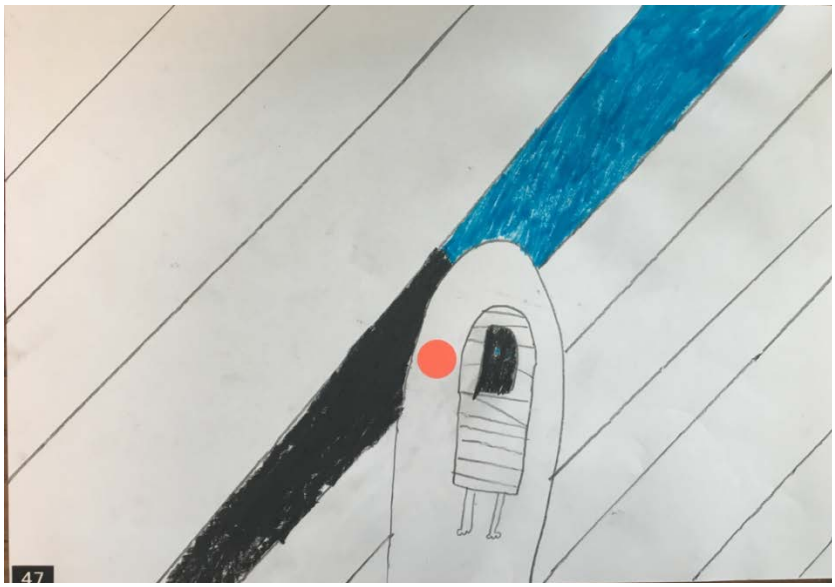
Researcher:	Now, the first question is if you can please describe your drawing to me. Tell me what's happening in your drawing. What's going on?
Girl:	Leading everyone through the park.
Researcher:	Okay. So, where is the leader?
Girl:	Here.
Researcher:	And, is it a boy or a girl?
Girl:	Girl.
Researcher:	And is she a grown-up or is she a child? R what do you think?
Girl:	She is 10.
Researcher:	Ah, I see. And she's got green hair, is that?
Girl:	Yeah.
Researcher:	And what's this on her hair?
Girl:	That is a hat.
Researcher:	Cool. And why is she the only one wearing a hat?
Girl:	Because she's a leader.
Researcher:	Oh, right. So, only the leaders can wear a hat.
Girl:	Yeah.
Researcher:	And what else is she wearing?
Girl:	A pink dress.
Researcher:	Beautiful. Cool. They all have different colours in their faces right?
Girl:	Yeah.
Researcher:	How come?
Girl:	Because, I want their faces to be different.
Researcher:	Cool. That's such a good idea. Any reason why you made her face brown?
Girl:	Because, I want her to look like chocolate.

Researcher: Cool. Alright. And are these other characters boys or girls?
Girl: Boys and girls.
Researcher: Excellent. So, what is this in his mouth? Is that something in particular?
Girl: No.
Researcher: That's okay. And what is this black?
Girl: That is the hair of her.
Researcher: Oh, okay. Alright. Let's see, are they happy?
Girl: Yeah.
Researcher: Okay. And there is a...?
Girl: Dog.
Researcher: A dog, cool. Excellent. Okay. Now, let's go up here. It's sunny.
Girl: Yeah.
Researcher: What are these lines over here?
Girl: I did that rockets because I did a mistake.
Researcher: Oh, okay. So, this is not meant to be there?
Girl: Yeah.
Researcher: Okay. And these?
Girl: Clouds.
Researcher: Beautiful. And this one over here?
Girl: It's a tree.
Researcher: And what about this?
Girl: That's rockets as well.
Researcher: Rockets.
Girl: Mm-hmm (affirmative)
Researcher: So, what kind of rockets? Like fire?
Girl: No, if you do mistakes you have to put these.
Researcher: Oh, brackets.
Girl: Yeah.
Researcher: So whenever you do a mistake, you put them in brackets. Got it. What's this part?
Girl: That's a watering if you get thirsty.
Researcher: A water fountain?
Girl: Yeah.
Researcher: Oh, great and these lines?
Girl: Those are the streets' lines.
Researcher: Street lines.
Girl: Yeah.
Researcher: Perfect! It’s great. Thank you so much. Now I'm going to ask you a few questions about what you think.
Girl: Okay.
Researcher: And anything you answer is fine, okay?
Girl: Okay.
Researcher: So what do you think is a leader?
Girl: I think it leads to the park wherever you go.
Researcher: Cool. And what do you think leaders are supposed to do?
Girl: Lead everyone to the park.
Researcher: Mm-hmm (affirmative). What do you think makes a good leader?
Girl: It's that everybody go to the park.
Researcher: Mm-hmm (affirmative)
Girl: I think so
Researcher: And what do you think makes a bad leader?
Girl: It says, "Let's go see a bad dog."
Researcher: Sorry, can you say that again, please?
Girl: "Let's go see a bad dog."

Researcher: Oh, if the leader says, "Let's go see a bad dog."
Girl: Yeah.
Researcher: Yeah, that makes it a bad leader. Why?
Girl: Because if a bad leader is bad and says that, everyone will say no, and then she pulls everybody's hand very strong.
Researcher: Oh, I see. Right, okay. So, how do you think a person gets to be the leader?
Girl: Because if they're nice, they get to be a leader.
Researcher: Mm-hmm (affirmative). Anything else? Why do you think she got to be the leader?
Girl: Because she is a teacher, she's very good.
Researcher: She's the teacher. Great. Alright. And the last question is, if you can please tell me the name of someone who you think is a good leader.
Girl: This is my name.
Researcher: This is your name?
Girl: Yes.
Researcher: So you're this? Is this you?
Girl: Yeah, I'm the leader.
Researcher: You're the leader?

Example of data source 2 (middle primary school)

Child 047 (Boy, Grade 4, 8Y/8M)



Researcher: The first question is if you can please describe your drawing to me. What did you draw? What's happening in your drawing?
Boy: So this is God first emerging from earth and I believe, I'm pretty sure he died so that's why I just drew him because my grandparents believe in God. So I drew him.
Researcher: Cool. So God is, for you, a representation of a leader?
Boy: Yeah.
Researcher: And why is he?
Boy: Because my parents believe in him and-
Researcher: Mm-hmm (affirmative). Do you know what's the name of these ... does this God have a name or it's just God?
Boy: It's just God.
Researcher: And is it a particular religion or nothing ... ?

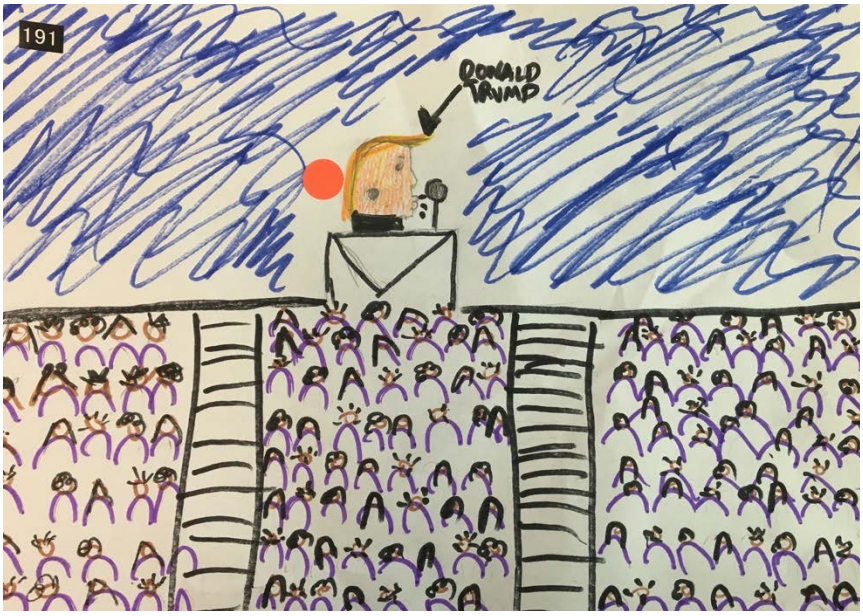
Boy: What do you mean by that?
Researcher: Well you know there are many Gods and people believe in different Gods and there are some popular religions that are very ... but is this a particular God or is it someone that you created? Your version of God?
Boy: My version of God.
Researcher: Awesome. So can you talk to me about him? What is he ... why does he look like that?
Boy: Because I'm pretty sure he died and then ... yeah, so he's wrapped around bandages and the black was because he died and ... yeah.
Researcher: And there are some eyes, are those eyes?
Boy: Yeah.
Researcher: And so you don't know exactly ... like he died but he still can see, right? Is that what- ?
Boy: No he can't, he can't see.
Researcher: He can't?
Boy: He's just pretty much got those eyes for no reason but, yeah, he can't see.
Researcher: Okay cool. And so his arms would be inside?
Boy: Yeah.
Researcher: And then you can see his feet, right? His legs?
Boy: Yeah.
Researcher: And what is this around him?
Boy: That's the cave.
Researcher: Ah and this background, what is it? You don't have to have all the answers. Like sometimes we just draw because we just-
Boy: Yeah I just wanted to do a background.
Researcher: Oh cool. And what about these two colours back there? Why did you only colour in these two ... ?
Boy: [inaudible 00:02:25] and I didn't, also I didn't have time.
Researcher: Ah, but if you would have had more time you would have coloured all of it? Any reason why you decided to pick blue and black?
Boy: Probably because the [inaudible 00:02:39]
Researcher: Ah cool.
Boy: It blends in.
Researcher: Excellent. Alright so would you say that you're religious though? Like you say that your grandparents and your parents believe in God, do you?
Boy: Yeah they do believe in God.
Researcher: And you?
Boy: Yeah.
Researcher: Okay. Cool. So I'm just going to ask you a few questions about what you think. So what is a leader for you?
Boy: A person that can decide what people are going to do. And lets people come to the countries and if they want to go they can decide what people do. Others do.
Researcher: Mm-hmm (affirmative). And when you say what people come to the country, so the leader can decide who comes?
Boy: Like that.
Researcher: Okay, and what do you think a leader is supposed to do?
Boy: Lead people maybe?
Researcher: And can you give me an example, maybe of how a leader leads?
Boy: You please ... so say you want to, one person in your family wants to come to a country and then a leader says, "Can you ask your cousins, say, like, what your phone number is?" And then you ask that and then you come back to the leader. But, say, for God, that would be for people. It's a little bit different.
Researcher: Yeah, yeah. I know. So let's keep talking about ... then you ask the leader with the phone number?

Boy: Yeah.
Researcher: What happens after, like, you ask- ?
Boy: And then they can call them and then give them a piece of like a certificate maybe and then they can come to that country.
Researcher: Gotcha, got it. Yeah that's pretty much ... Alright, so besides that, what else do you think leaders are supposed to do?
Boy: Well if they had a son or daughter.
Researcher: Sorry, what was that?
Boy: If they had a son or daughter.
Researcher: Yeah.
Boy: And they wanted them to do something like ... I don't know. Maybe go ask someone because they're busy at the moment, they could go tell them and then the leader would give them the message to tell them about what the message is and then they could probably contact them back.
Researcher: Great.
Boy: I'm not sure what to say.
Researcher: It's okay. So basically they can also pass on messages?
Boy: Yeah.
Researcher: Is that what you're saying? Cool. Alright. So what do you think makes a good leader?
Boy: A king, queen or someone nice that they can ... yeah, someone nice.
Researcher: And what do you think makes a bad leader?
Boy: People that put kids away from their parents and then they go to a yard and their parents go to jail and then ... because they were trying to leave to a better country because they're making bad choices.
Researcher: Mm-hmm (affirmative). Do you know a leader who has done that?
Boy: I think there's one, but I can't think of his name.
Researcher: That's alright. Okay and how do you think a person gets to become a leader?
Boy: Maybe ... I'm not really sure. Maybe like they sign up and then they show them what they've got to ... they show them what they could do and the person that gets ... so like an election or if they get the most votes that's how they become a leader.
Researcher: Yeah, that's pretty good. You knew the answers. Okay and the last question is if you can please tell me the name of someone who you think is a good leader.
Boy: Malcolm Turnbull-
Researcher: And why?
Boy: ... and then Queen Elizabeth.
Researcher: Okay. So let's start with Malcolm Turnbull. Why do you think he's a good leader?
Boy: Because he would let people into Australia if they wanted to come to Australia. Even though he's not around anymore he's-
Researcher: There's been a change.
Boy: Yeah. He would let people into Australia and-
Researcher: And that's good because ... ?
Boy: That's good because ... so they know that ... so ... I'm not really sure.
Researcher: That's okay, it's complex. But it's good to try and ... how do you find out about him and what happens?
Boy: So ... can you repeat that question please?
Researcher: Yeah. How do you know about Malcolm Turnbull, where do you find out about these things?
Boy: Television.
Researcher: Yeah.
Boy: The news.
Researcher: Ah yeah, you watch the news?

Boy: Yeah, with my parents.
Researcher: With your parents? In the evening?
Boy: Yeah.
Researcher: Okay, cool. And why do you think Queen Elizabeth is a good leader?
Boy: Sorry, can you repeat?
Researcher: Queen Elizabeth, you said she's also a good leader, I was just wondering why do you think she's a good leader?
Boy: I don't know, I just like that she could be like a ... she is a queen and that she would ... like I said about Malcolm Turnbull, she would probably let people ... actually no, I'm not sure about that. I think she lets people in to ... I think, I'm pretty sure she lets people into the UK if they wanted to come and she can tell Malcolm Turnbull what to do, if it's a good thing or a bad thing. But if they don't listen then I'm pretty sure that that's not a really good choice to do.
Researcher: Cool. Well that's it, thank you so much.

Example of data source 3 (late primary school)

Child 191 (Girl, Grade 6, 11Y/7M)



Researcher: Um, yeah, can you please describe your drawing to me.
Girl: So, this is the leader. He's speaking into a microphone. And these are all the seats, with all the people.
Researcher: Mm-hmm (affirmative). And who is the leader?
Girl: Donald Trump.
Researcher: And can you tell me more about him?
Girl: So, he's putting on a lecture about, like, he wants to change America, make it great again, and he doesn't want to, he's, like, a bit racist. Like, he wants to build a wall between Mexico, and he doesn't really want to let dark people into his country and the Muslim culture.
Researcher: I'm just going to get this closer (laughs).
Girl: And ... yeah. And he's trying to like change the way that he makes people feel about him.
Researcher: Mm-hmm (affirmative). What are these three...
Girl: Oh, like The Voice.
Researcher: Oh, right, cool. And where is this happening?

Girl: Like in those big rooms with the stage and the microphone and the seats and all that.
Researcher: Yeah. So it's like an indoor area.
Girl: Yeah.
Researcher: Like a massive area. And he's obviously like on a-
Girl: There's, like, stuff, like the box, and like-
Researcher: Yeah, yeah, yeah. What's the name of that?
Girl: I forgot.
Researcher: The pod... No. The podium?
Girl: Yeah.
Researcher: Yeah. Awesome, okay. And so there is a lot of people here.
Girl: Yup.
Researcher: And who are they, because-
Girl: They're like...
Researcher: They're like, all different-
Girl: Like, some of them are leaders and some of them are people that want to listen to his, like what he has to say. And how his ideas are running and what he wants to do to change and others are just, like, leaders listening to him so they can get ideas.
Researcher: Cool. And these are stair-
Girl: Yes.
Researcher: Okay cool. That's really good. Thank you. Now I'm going to ask you a few questions about other, like, leadership.
Girl: Yeah.
Researcher: So what is a leader for you?
Girl: Kind of like a prime minister, or like a president. And other leaders are like your idols and who you want to be like.
Researcher: Mm-hmm (affirmative).
Girl: And like people in your family might be leaders.
Researcher: Mm-hmm (affirmative).
Girl: They might be like, the boss of stuff. Like a leader of a company, like the manager, might be.
Researcher: Cool. And what do you think leaders are supposed to do?
Girl: Um, change the law, try to make things better, and money.
Researcher: Mm-hmm (affirmative). Okay, what do you mean when you say, "make things better"?
Girl: Say, if, like fairness, they try to make things more, like, give everybody like the same right.
Researcher: Yeah.
Girl: Yeah.
Researcher: Cool. And what do you think makes a good leader?
Girl: Them to be fair. They treat everybody with respect, like give the same rights to white people as well as dark people and spread awareness and have good reasons behind why they want to be a leader.
Researcher: And what makes a bad leader, for you?
Girl: Like, Donald Trump said he wants to build a wall and he doesn't let Muslims or dark people; he doesn't want to let them into his country. Like I don't think that's really fair.
Researcher: Mm-hmm (affirmative).
Girl: And, he should give it the same fairness to everyone.
Researcher: Mm-hmm (affirmative).
Girl: Like treat them with respect.
Researcher: Mm-hmm (affirmative). How do you find out about these things?
Girl: On the news.

Researcher: Yeah.
Girl: And like everyone gossips about it.
Researcher: Yeah, I know, definitely. Okay, and how does one become a leader?
Girl: Um, they obviously have to fight with other leaders, give really, really good reasons behind, as to why they want to be a leader, really strong reasons people believe that he or she should rule.
Researcher: How do you make people believe that you're a leader.
Girl: Like reasons, have a good influence, don't be a bad person.
Researcher: Mm-hmm (affirmative). Cool. And the last question is if you can tell me the name of someone who you think is a good leader.
Girl: Nelson Mandela.
Researcher: And how did you find out about him?
Girl: I think I first found out about him in grade three, or grade four or five, I can't remember. But he got put in jail because he wanted to make, I don't know a lot about him, but I know he wanted to make things fair and change, (coughs) sorry.
Researcher: Yeah, yeah.
Girl: Thank you.
Researcher: Yeah, it's alright.
Girl: Yeah.
Researcher: Yeah. So what do you like about him?
Girl: That he was trying to give, I think he was trying to give rights to everyone. But then he got put in jail which I don't think was a very fair thing to do.
Researcher: Mm-hmm (affirmative). Yeah, okay. That's it.
Girl: Yeah.
Researcher: Thank you so much.
Girl: Thank you.

Appendix D

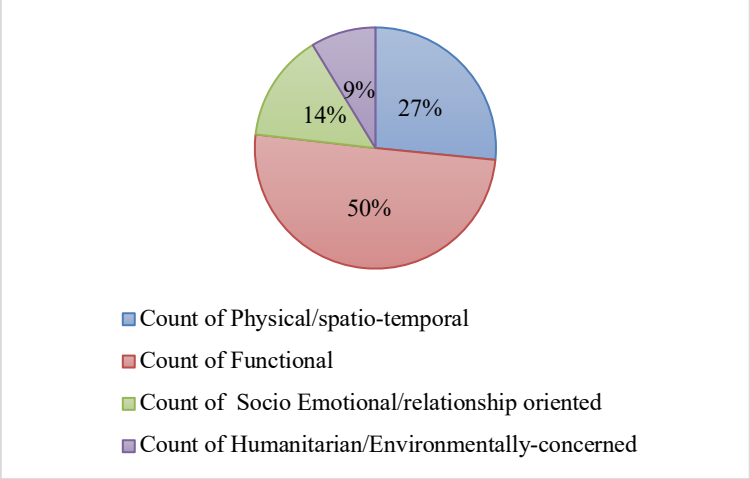
Dimensional analysis of children's perceptions

Drawing narratives' analysis

Looking specifically at children's drawing narratives from the total number of drawings (n=272), it was found that, besides associations with social roles, and consistent with the literature, children made 414 notations about the leader across four leadership dimensions including: 1) physical and spatio-temporal (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960; Sacks, 2009; Selman et al., 1977), 2), functional (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960), 3), socio-emotional (Ayman-Nolley & Ayman, 2005; Nemerowicz & Rosi, 1997; Oliveira, 2016; Salmond & Fleshman, 2010; Selman et al., 1977; Yarrow & Campbell, 1963), and 4), and also humanitarian (DeHaan, 1962; Sacks, 2009; Selman & Jaquette, 1977). When a drawing narrative included more than one dimension, it was noted.

Figure 56

Distribution of leadership dimensions across all drawing's narratives



*Note: This figure shows 414 notations of leader across four dimensions: physical/spatio-temporal, functional, socio-emotional, and

humanitarian/environmentally concerned. Measured from the leader drawings' narratives.

The distribution of these notations (n=414) across the whole group, as shown in Figure 56, indicates that the majority (50%) of children's descriptions of leaders are within functional notions of leadership (208 descriptions out of 414). However, 27% of the times, children included referents within physical/spatio-temporal notions of leadership (110 descriptions), 14% (60 descriptions) within the socio-emotional dimension, and 9% (36 descriptions) within the humanitarian dimension. The humanitarian dimension was extended to incorporate children's environmentally concerned attributes of leadership.

Table 20

Distribution of leader's notations within leadership dimensions across grades

Dimension	Prep	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grand Total
Physical/spatio-temporal	33	16	17	20	5	9	10	110
Functional (Task-oriented/action-based)	25	29	23	48	19	29	35	208
Follower relationship oriented/ Socio Emotional	4	3	6	18	5	10	14	60
Humanitarian/Environmentally-concerned		2	5	6	5	5	13	36
Total count of notations	62	50	51	92	34	53	72	414

*Note: This table shows 414 notations of leader within four key dimensions across grades. Measured from the leader drawings' narratives.

However, the results also show that functional notions are still frequent in the youngest children. Hence, while in Prep more than half of children's mentions (33 notations= 53%, out of 62 gathered from 48 drawings) were within the physical or spatial dimension, 25 notations (40%) were within functional notions of leadership, and in low frequency, (4 notations= 6%) notions were attributed to socio-

emotional/relational features of the leader. The results also show that, from Grade 1 and onwards, the functionality dimension of the leader is the prominent dimension and most stable, presenting similar frequency across grades (Grade 1= 29 notions =58%; Grade 2= 23 notions= 45%; Grade 3= 48 notions= 52%; Grade 4= 19 notions= 56%; Grade 5= 29 notions= 55%; Grade 6= 35 notions = 49%). The other three dimensions are variable where the physical/spatio-temporal dimension decreases (Prep= 53% of frequency, Grade 6= 14% frequency), and the socio-emotional/relational, or humanitarian increases (Socio-emotional/relational in Prep= 4 notions = 6%, Grade 6= 14 notions =19%; Humanitarian/environmentally-concerned in Prep= 0%, Grade 6= 13 notions =18%) as children grow older.

Table 21

Distribution of dimensional combination of children's narratives across grades

Dimensional combination per grade	Count
Prep	**48**
Physical/spatio-temporal and functional	16
Physical/spatio-temporal	14
Functional	7
Social-role oriented only	4
NA	3
Physical/spatio-temporal, functional, and socio-emotional/relational	2
Physical/spatio-temporal and socio-emotional/relational	1
Socio-emotional/relational	1
Grade 1	**39**
Functional	14
Physical/spatio-temporal and functional	11
Physical/spatio-temporal	4
Social-role oriented only	3
NA	3
Functional and socio-emotional/relational	2
Functional and humanitarian/environmentally-concerned	1
Physical/spatio-temporal, functional, socio-emotional/relational, and humanitarian/environmentally-concerned	1
Grade 2	**32**
Physical/spatio-temporal and functional	10
Functional	7
Functional and humanitarian/environmentally-concerned	1

NA	3
Physical/spatio-temporal	2
Functional and socio-emotional/relational	2
Functional, socio-emotional/relational, and humanitarian/environmentally-concerned	1
Humanitarian/environmentally-concerned	1
Physical/spatio-temporal and humanitarian/environmentally-concerned	1
Physical/spatio-temporal and socio-emotional/relational	1
Physical/spatio-temporal, functional, and humanitarian/environmentally-concerned	1
Physical/spatio-temporal, functional, and socio-emotional/relational	2
Grade 3	**53**
Functional	16
Physical/spatio-temporal and functional	11
Functional and socio-emotional/relational	9
Physical/spatio-temporal, functional, and socio-emotional/relational	7
Functional and humanitarian/environmentally-concerned	3
Physical/spatio-temporal	2
Functional, socio-emotional/relational, and humanitarian/environmentally-concerned	2
Social-role oriented only	2
NA	1
Grade 4	**21**
Functional	7
Functional and humanitarian/environmentally-concerned	4
Functional and socio-emotional/relational	3
Physical/spatio-temporal and functional	2
Physical/spatio-temporal, functional, and socio-emotional/relational	2
Social-role oriented only	2
Physical/spatio-temporal, functional, and humanitarian/environmentally-concerned	1
Grade 5	**38**
Functional	13
Functional and socio-emotional/relational	7
Physical/spatio-temporal	5
Physical/spatio-temporal and functional	4
Functional and humanitarian/environmentally-concerned	4
Social-role oriented only	2
Socio-emotional/relational	2
Functional, socio-emotional/relational, and humanitarian/environmentally-concerned	1
Grade 6	**41**
Functional	10
Functional and humanitarian/environmentally-concerned	10
Functional and socio-emotional/relational	6
Physical/spatio-temporal, functional, and socio-emotional/relational	5

Physical/spatio-temporal	2
Physical/spatio-temporal, functional, and humanitarian/environmentally-concerned	2
Social-role oriented only	2
Socio-emotional/relational	2
Functional, socio-emotional/relational, and humanitarian/environmentally-concerned	1
Physical/spatio-temporal and functional	1
Grand Total	**272**

*Note: This table shows the distribution of dimensional combination of narratives of drawings (n= 272) across grades.

Exploring in detail the distribution of dimensional combination in narratives across grades, as shown in Table 21, provides further information in search of developmental tendencies. Hence, in determining the dimensions included in each drawing narrative, it was found that in Prep the dimensional compositions with highest frequency (63% of a total of 48 narratives) were Physical/spatio-temporal and functional (16 narratives = 33%) and physical/spatio-temporal only (14 narratives= 29%). Then in Grade 1, the combinations with highest frequency (64% of a total of 39 narratives) were functional (14 mentions= 36%), and physical/spatio-temporal and functional (11 mentions= 28%). This shows that by Grade 1, children may replace the focus on physical/spatio-temporal notions towards more functional notions, that can often be combined with physical/spatio-temporal notions of leaders. Children in Grade 1 (n=39) were between six years and one month and seven years and seven months.

Subsequently, in Grade 2, the most prominent combinations (53% out of 32 narratives) were Physical/spatio-temporal and functional (10 narratives =31%), followed by functional (7 narratives= 22%), which is a similar trend as the one found in children in Grade 1. Similarly, in Grade 3, the same combinations were the highest in frequency (51% out of 53 narratives) including functional (16 narratives= 30%), and

physical/spatio-temporal and functional (11 narratives= 21%). Nevertheless, in Grade 3, 16 of narratives (30%) also included characteristics within the socio-emotional/relational dimension, where nine narratives (17%) were combined with functional notions, and seven narratives (13%), combined with both functional notions, and physical/spatio-temporal notions. This analysis shows a clear turn in perception towards a more socio-emotional/relational dimension of leaders in Grade 3, during middle primary school, where children in the present sample were between eight years and four months and nine years and nine months.

The narratives from children in Grade 4, were highest in frequency (11 narratives out of 21= 52%) within functional and functional in combination with humanitarian/environmentally concerned dimensions of leadership (functional= 7 narratives= 33%; functional and humanitarian/environmentally concerned= four narratives= 19%). Additionally, notions within functional and socio-emotional/relational dimensions were observed (three narratives= 14%). In this grade, notions within humanitarian/environmentally concerned dimensions of leadership start to become more frequent, while also maintaining a sensitivity towards the leader's functionality as well as socio-emotional/relational aspects. The physical/spatio-temporal aspects of leadership become infrequent from this grade onwards, even though it can still be found in the upper grades, as shown in Table 21. Following on the drawing narratives in Grade 5, the notions in highest frequency (53% out of 38 narratives) were within functional (13 narratives= 34%), and functional and socio-emotional/relational (seven narratives= 18%), which shows a continuum in children's tendency to note functional and socio-emotional features more often than notions within physical/spatio-temporal or humanitarian/environmentally-concerned.

Lastly, the dimensional combinations highest in frequency (49%= 20 narratives out of 41) for the oldest children in Grade 6, included functional (10 narratives= 24%), and functional in combination with humanitarian/environmentally-concerned (10 narratives= 24%). Additionally, six narratives (15%) were a combination of functional and socio-emotional features, as shown in Table 21, and illustrated in Figure 57.

Figure 57

Distribution of dimensional combination of children's narratives across grades

*Note: This figure shows the distribution of dimensional combination of narratives of drawings (n= 272) across grades.

In conclusion, the analysis of drawing narratives in light of the notions of development identified in the literature review, shows that in the present sample, and in line with the literature, Prep children have more notions of physical/spatio-temporal than any other group. Then in middle primary grades, children present more tendency for notions within the socio-emotional dimension, and in the final grade, there is more attention to attributes within the humanitarian and environmentally concerned dimension of leaders. However, the functional notions of leadership appear to be noted from an early age, in Prep, where children can be aware that the leader is meant to do something, not only be physically salient by size or possessions, or in a particular place within the space. This finding opposes previous literature on children's perception of leaders, stating that the youngest children are only aware of physical/spatio-temporal notions, and only become aware of the leader's functionality in middle primary school.

Exhibit 100

Child 189

Researcher: Okay. So the first question is if you could please tell me everything about your drawing?

Girl: So, the leaders trying to lead the other people to the science table.

Researcher: Right.

Girl: There's lots of bottles with interesting things in them.

Researcher:	Mm-hmm (affirmative)
Girl:	And this picture, the boy leader is trying to lead the other people to the dance room. They are trying to dance and one person's already there.
Researcher:	Alright, why do you think she is the leader?
Girl:	Cause, she is taller, and she's older, and science is a bit tricky to do if you're just a little child.
Researcher:	Excellent. Why is he the leader?
Girl:	Because, he is taller, and he wants to dance. (Girl, Prep, 6Y/1M)

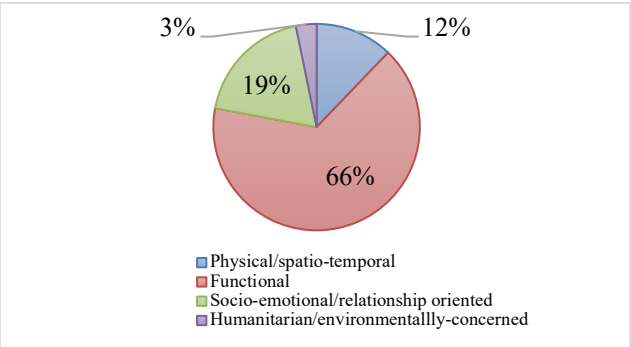
Furthermore, results in Figure 57 show that children in Prep can have a three-dimensional understanding of leadership, mostly physical/spatio-temporal, but also functional and sometimes socio-emotional/relational. Subsequently, it provides evidence supporting the theory that children in Prep and younger, most possibly will not show humanitarian or environmentally concerned notions of leadership. Also, from Grade 1 and onwards, children navigate across four-dimensional notions of leadership, where the functionality dimension of the leader is the prominent dimension and most stable across grades. Also, that reference within the physical/spatio-temporal dimension decreases, while those within the socio-emotional/relational and humanitarian/environmentally-concerned increase as children grow older.

Interview question analysis

When answering the interview question Q1 What is a leader? children (n= 245) made 526 notations about the leader within the four leadership dimensions identified in the literature review: 1) physical and spatio-temporal (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960; Sacks, 2009; Selman et al., 1977), 2), functional (Broich, 1929; DeHaan, 1962; Hess & Easton, 1960), 3), socio-emotional (Ayman-Nolley & Ayman, 2005; Nemerowicz & Rosi, 1997; Oliveira, 2016; Salmond & Fleshman, 2010; Selman et al., 1977; Yarrow & Campbell, 1963), and 4), and also humanitarian (DeHaan, 1962; Sacks, 2009; Selman & Jaquette, 1977). When a child's answer noted more than one dimension, it was coded. The distribution of these notations (n=526), as shown in Figure 58, show a similar distribution to the one found in the drawing narratives, however the interview results give a higher frequency to children's notations within the functional dimension (346 notations= 66%), and also place the socio-emotional/relationship dimension second in highest frequency (99 notations= 19%), followed by physical spatio-temporal notations (64 notations= 12%), and less frequently humanitarian or environmentally concerned notions, with 11 notations (3%).

Figure 58

Distribution of leadership dimensions across children's answers to Q1 What is a leader?



*Note: this figure shows the distribution of children's (n=245) notations of leaders (n=526) grouped across four dimensions. Measured from the children's answers to *Q1 What is a leader?*

Table 22

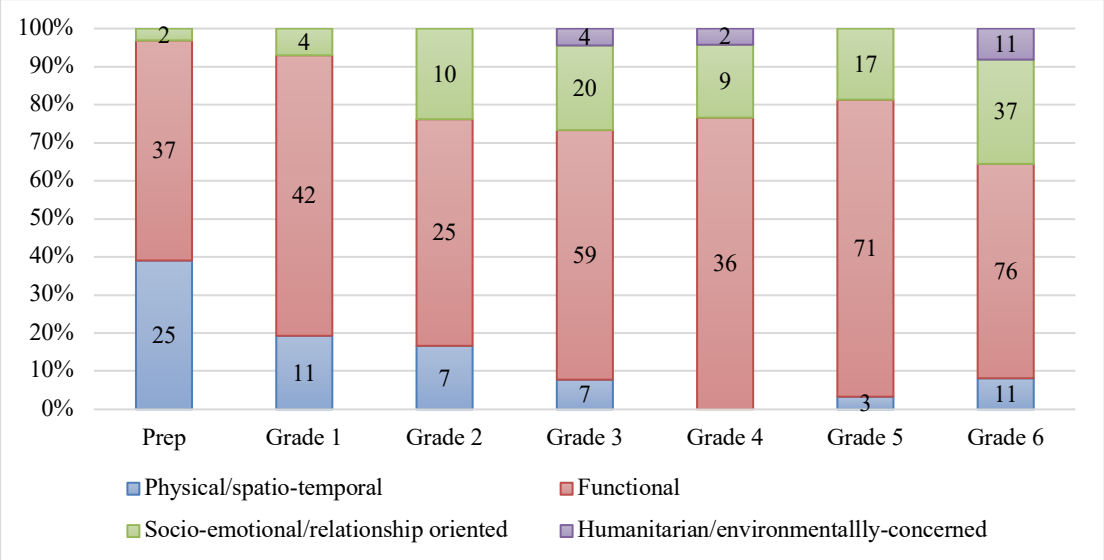
Distribution of leader's notations within leadership dimensions across grades

Dimension	Prep	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Total
Physical/spatio-temporal	25	11	7	7		3	11	64
Functional	37	42	25	59	36	71	76	346
Socio-emotional/relationship oriented	2	4	10	20	9	17	37	99
Humanitarian/environmentally-concerned				4	2		11	17
Total	64	57	42	90	47	91	135	526

*Note: this table shows the distribution of children's (n=245) notations of leaders (n=526) grouped across four dimensions across grades. Measured from the children's answers to *Q1 What is a leader?*

Figure 59

Distribution of leader's notations within leadership dimensions across grades



*Note: this figure shows the distribution of children's (n=245) notations of leaders (n=526) grouped across four dimensions across grades. Measured from the children's answers to *Q1 What is a leader?*

Additionally, interview analysis shows the prominence of functional notions over other dimensions across grades (37 notations= 58% in Prep, 42 notations 74% in Grade 1, 25 notations= 60% in Grade 2, 59 notations= 66% in Grade 3, 36 notations= 77% in Grade 4, 71 notations= 78% in Grade 5, and 76 notations= 56% in Grade 6). The analysis also provides further evidence of increased frequency of socio-emotional notations from Grade 2 onwards, and the emergence of humanitarian or environmentally concerned notions in middle primary school. Lastly, it also provides additional indication of the tendency for physical/spatio-temporal notions of leadership to decrease as children grow older. While in Prep, this dimension accounted for 25 notations (39%), in Grade 3 only 8% of the notations were within this dimension, and none in Grade 4. Next, the results explore the combination of dimensions per children's answers to the *Q1 What is a leader?* as a strategy to determine more detailed developmental tendencies of the leadership construct across primary school.

Table 23

Distribution of dimensional combination of children's interview narratives across grades

Count of Dimensional combination	Prep	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grand Total
Physical/spatio-temporal	12	6	6	2				26
Physical/spatio-temporal and functional	13	8	1	3		2	1	28
Functional	17	20	17	24	10	22	12	122
Functional and socio-emotional/relational	1	4	2	14	6	10	9	46
Socio-emotional/relational			2	1	1	1	2	7
Physical/spatio-temporal, functional and socio-emotional/relational				1		1	4	6

Physical/spatio-temporal and socio-emotional/relational	1							1
Functional and humanitarian/environmentally-concerned					1		3	4
Functional, socio-emotional/relational and humanitarian/environmentally-concerned				2			1	3
Socio-emotional/relational and humanitarian/environmentally-concerned							1	1
Humanitarian/environmentally-concerned							1	1
No ILT	1	1	2	1				5
Grand Total	45	39	30	48	18	36	34	250

*Note: This table shows the distribution of dimensional combination of notations per answers (n=250) to the interview *Q1 What is a leader?* across grades.

Exploring in detail the distribution of dimensional combination in narratives across grades, as shown in Table 23, shows once again, that single-functional descriptors are the highest in frequency across grades (Prep= 17 answers out of 45= 38%, Grade 1= 20 answers out of 39= 51%, Grade 2= 17 answers out of 30= 57%, Grade 3= 24 answers our of 48= 50%, Grade 4= 10 answers out of 18= 56%=, Grade 5= 22 answers out of 36= 61%=, Grade 6= 12 answers out of 34= 35%).

Compared to the analysis of drawing narratives, the results show that most of Prep children's notations of a leader were either functional (38% of 45 answers), physical-spatio-temporal (27%) or a combination of both of these dimensions (29%). Additionally, children in Grade 1 show a similar tendency, with the particularity that 10% (four answers), combined functional notation(s) with socio-emotional/relational. This tendency is also found in children in Grade 2, who also included socio-emotional notations in four (10%) answers. Then, by Grade 3, the data shows an increase towards the inclusion of more notions within the socio-emotional/relational dimension (14 answers out of 48= 29%) in children's answers, which shows stability in terms of

frequency towards the highest grades (Grade 4= 6 answers= 33%, Grade 5= 10 answers= 28%, Grade 6= nine answers= 26%). This shift was also found in the drawing analysis, where children expand notations within the relationship of the leader with followers, around eight years old. Lastly, the results from the interview question *Q1 What is a leader?* analysis show that children as young as eight years, in Grade 3, include notations within humanitarian, or socially concerned dimensions of leaders.

Interview excerpt 17

Child 230

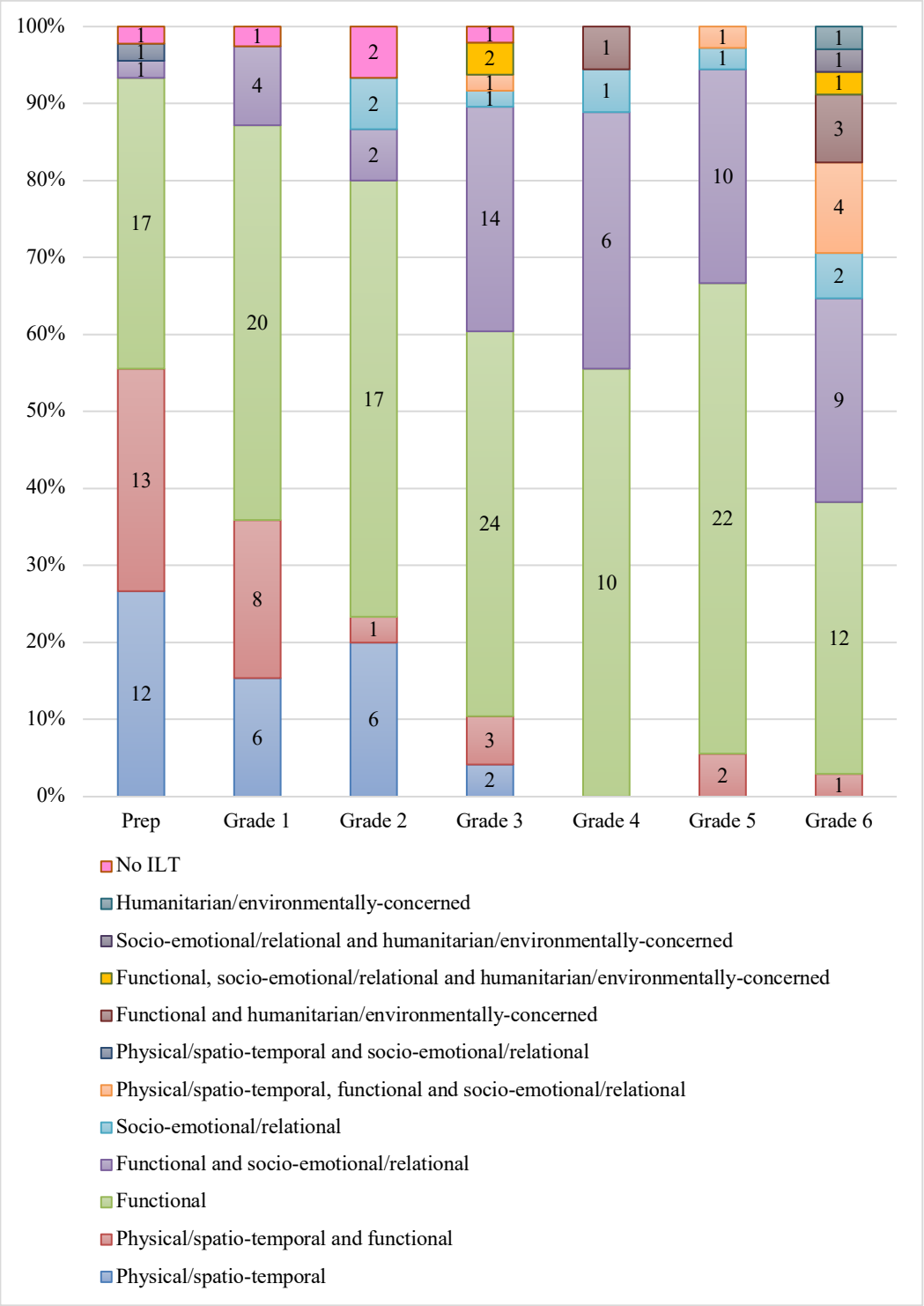
Researcher: So, what do you think is a leader?

Boy: I think it's someone that helps people and get along with Victoria and goes to the state parliament and talks about different things with other prime ministers from other countries. And they're talking about different changes and stuff… And they help people, I guess, get going, and I also think they support people that don't have that much money, and single moms and stuff. (Boy, Grade 3, 8Y/8M)

Similar to the drawing analysis, the older children in Grade 6 were the group with highest frequency of notations within the humanitarian/environmentally-concerned dimension (18%= 6 answers out of 34). This dimension was combined with functional notions (two answers), also with functional and socio-emotional/relational notions (one) or only with socio-emotional notions (one), as shown in Figure 60.

Figure 60

Distribution of dimensional combination of children's interview narratives across grades



*Note: This figure shows the distribution of dimensional combination of notations per answers (n=250) to the interview *Q1 What is a leader?* across grades.

Appendix E

Orientation analysis

To conduct the analysis of functional orientation, the data required actions to be combined for analysis. For example, ‘tells what to do’ with ‘says what to do’, and also with ‘tells people what to do’. Or ‘tells how to do it’ with shows ‘how to do things’. This process was conducted following a two-step categorisation coding (researcher -> Member supervisory team). Based on Yukl (2012) hierarchical taxonomy of leadership behaviour, children’s answers were grouped under four categories including task-oriented, relations-oriented, change-oriented, and external. Task activities included, following on (Ayman-Nolley & Ayman, 2005) studies, actions done or undertaken and competences, both negative and positive. Also, following on Yukl (2012) theory, it also included actions where the leader clarified, planned, monitored, or solved problems (Yukl, 2012, p. 68). On the other hand, relations-oriented or maintenance notions were coded, guided by Ayman-Nolley and Ayman (2005) studies, when the focus was on the leader’s dynamics with others, including communicating, and caring, and also supporting, developing, recognising, or empowering others, as noted by (Yukl, 2012, p. 68). Additionally, also guided by Yukl (2012) hierarchical taxonomy of leadership behaviour, when children noted leader’s actions with a focus on change, for example, advocating, envisioning a transformation, or noting aspects of innovation, or facillitating collective learning, they were coded as change-oriented. Lastly, notations related to external aspects such as the leader networking, or representing, were also coded as external, guided by Yukl (2012) hierarchical taxonomy of leadership behaviour. This categorisation of the data required some actions to be combined for analysis. For example, ‘tells what to do’ with ‘says what to do’, and also with ‘tells

people what to do'. Or 'tells how to do it' with shows 'how to do things'. This process was conducted following a two-step categorisation coding (researcher -> Member supervisory team).

Table 24

Distribution of categories of a leader's actions across grades

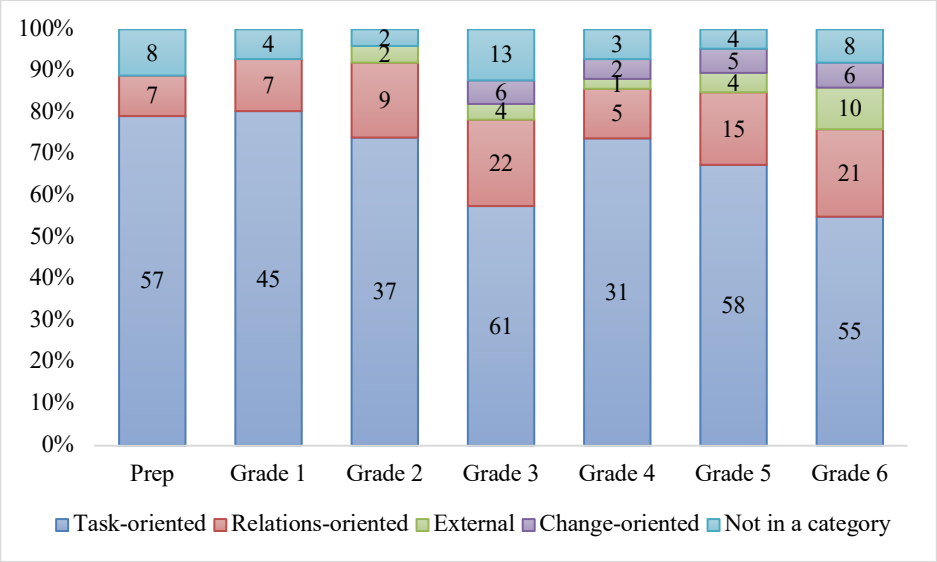
Category	Prep	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grand total
Task-oriented	57	45	37	61	31	58	55	344
Relations-oriented	7	7	9	22	5	15	21	86
External			2	4	1	4	10	21
Change-oriented				6	2	5	6	19
Not in a category	8	4	2	13	3	4	8	42
Grand Total	72	56	50	106	42	86	100	512

*Note: This table shows the distribution of categories of actions of the leader (n=512) across grades following a two-step categorisation coding (researcher -> Member supervisory team).

As shown in Table 24, from the total of notations of actions of the leader (n=512), 344 (67%) were task-oriented, 86 (17%) were relations-oriented, 21 (4%) were external, and 19 (4%) were change-oriented. Additionally, 42 (8%) of the notations were coded as 'not in a category', including notations where functional referents were associated to the leader's character, for example, 'tells herself no one can control her' (Girl 266, Grade 6, 11Y/4M), or notations referencing a leader's lifestyle, for example, 'lives alone' (Girl 026, Grade 2, 8Y/3M).

Figure 61

Distribution of categories of a leader's actions across grades



*Note: This figure shows the distribution of categories of actions of the leader (n=512) across grades following a two-step categorisation coding (researcher -> Member supervisory team)

The results illustrated in Table 24 and Figure 61, show evidence that children's functional notions can be task, maintenance, or change oriented (Ayman-Nolley & Ayman, 2005; Benne & Sheats, 1948; DeHaan, 1962; Yamaguchi & Maehr, 2004; Yukl, 2012). And even though DeHaan (1962) found that around middle primary school, children begin to discriminate between the leader's task and maintenance roles, in the present sample, task and maintenance notions are found across all grades, and change-oriented notions are only found in children from Grade 3 onwards. The results also show that children can also hold external notions from Grade 2 and onwards, mostly coded for actions where the leader is networking by either giving a speech, talking on a podium, or a stage. Furthermore, it also shows that the youngest children can acknowledge the leader's maintenance role within a group by looking after the group, helping the group, or trying to make everybody happy, as shown in Exhibit 11.

Additionally, the results show that relations-oriented notions tend to increase as children grow older, with the exception of Grade 4, which may be due to the fact that this grade comprised a smaller sample. Nevertheless, the data shows that across primary school, task-based features decrease, and relational-features increase, as shown in Figure 61. So while in Prep, task-based features are noted in 57 notations (79% of the times), and in Grade 1, 45 (80%), by Grade 2, they fall to 37 (74%), then by Grade 3, they are found in 61 notations (58%), then they increase again in Grade 4 (31= 74%), but decrease again in the final years (Grade 5= 58= 67%), and by Grade 6, it shows the lowest frequency with 55 notations (55%). On the other hand, relations-oriented features are noted 10% of the times (seven notations) in Prep, and grow consistently until Grade 3 (Grade 1= seven = 13%, Grade 2= nine notations = 18%, Grade 3= 22 notations = 21%), then decrease in Grade 4 (five= 12%), to grow consistently once again (Grade 5= 15= 17%), where the oldest children show an equal percentage of notations as those in Grade 3 (Grade 6= 86= 21%), as shown in Figure 61.

The finding that children also hold external or change-oriented notions of the leader's functions are closely linked to the emergence of the association of leaders with political figures in Grade 2 and its increased impact from Grade 3 onwards. Table 25 exemplifies the ILTs content within these two categories from Grade 2 until Grade 6.

Table 25

External and change-oriented content in children's ILTs

Category	Grade 2	Grade 3	Grade 4-6
External	Talks on a stage	Gives a speech	Gives a speech
	Speaks in a microphone on a stage	Holds a microphone	Gives opinions on things and like what they think
		Talks a speech	Speaks a speech in Parliament
		Talks to the public	Takes information from all the citizens
			Talks about why they want to stay in government
			Protects their pack
			Makes a speech
			Says "Vote for me, keep Earth a safe place"
			Says "Vote for me"
			Talks on a podium
			Says "We will triumph"
			Gives opinions about what they think
			Protects their country
Change-oriented	NA	Says "This is the world"	Teaches a new dance
		Talks about different changes and stuff	Announces all women should have the right to vote and equal civil rights.
		Creates something	Argues for the right of something
		Makes improvements	Changed the world
		Does stuff for cancer, homelessness, meat consumption	Thinks of important things that affect society
		Speaks about something that prime ministers talk about like the world and what they can change and stuff.	Fights for people's rights
			Talks about their ideas
			Fights for something
			Teaches people new things
			Fights to be a leader
			Yells what they will do in the future
			Gives reasons to vote for them
			Lectures what they want to change

*Note: This table shows exemplifies the content categorised as change-oriented or external when coding the leader's actions from Grade 2 onwards.

Appendix F

Leader's life stage

From a total of 272 drawings, children provided information about the leader's life stage when describing their drawings (233 drawings = 86%), as illustrated in Table 26. From these, the majority of children described an adult as a leader (183 drawings = 79%), some drew a child (39 drawings = 17%) and this tendency was prevalent in Prep children, especially girls. Within the drawings of child leaders, in only five drawings, children pictured themselves as the leader. Additionally, 10 drawings (4%) were of an adolescent. On the other hand, only one boy in Grade 5 made emphasis that his drawing was of a person, of no specific age or gender. Within the drawings of child leaders, in only five drawings, children pictured themselves as the leader. Additionally, 10 drawings (4%) were of an adolescent. On the other hand, only one boy in Grade 5 made emphasis that his drawing was of a person, of no specific age or gender. From those drawings where children provided information about the leader's life stage (233 drawings = 86%) as illustrated in Table 26, beyond children's high frequent notion of an adult leader (183 drawings = 79%), it was found that the youngest children show a different preference than the older children, depicting a leader as a child in 50% of the cases.

Table 26

Number of drawings made by children per grade and gender, that depicted an adult leader, a child leader, an adolescent leader, or either.

Life stage of leader in drawing	Grade																					
	Prep			Grade 1			Grade 2			Grade 3			Grade 4			Grade 5			Grade 6			
	F	M	Prep Total	F	M	Grade 1 Total	F	M	Grade 2 Total	F	M	Grade 3 Total	F	M	Grade 4 Total	F	M	Grade 5 Total	F	M	Grade 6 Total	Grand Total
Adult	9	10	19	17	8	25	10	14	24	19	20	39	11	8	19	10	12	22	21	14	35	183
Child	**15**	6	**21**	3	2	5	1		1		3	3	1		1	5	1	6	2		2	39
Adolescent					2	2	4		4	2		2				1		1	1		1	10
Either																	1	1				1
Grand Total	26	22	48	22	17	39	18	14	32	23	30	53	12	9	21	17	21	38	27	14	41	233

*Note: This table shows the number of drawings of adult leaders, child leaders, adolescent leaders, and either gender, across children's grade and gender (n=233). From the drawings depicting a child as the leader (39 drawings), more than half were drawn by children in Foundation year (21 drawings) and were mostly girls (15 drawings).

Then, by Grade 1, only five drawings were of child leaders and then, in Grade 2, there was only one drawing of a child leader. And even though in Grade 5 it increases to six drawings of child leaders, it drops again in Grade 6 to only two drawings of child leaders.

Table 27

Type of roles of child leaders drawn.

Role of child leader drawn	Grade																					
	Prep			Grade 1			Grade 2			Grade 3			Grade 4			Grade 5			Grade 6			
	F	M	Prep Total	F	M	Grade 1 Total	F	M	Grade 2 Total	F	M	Grade 3 Total	F	M	Grade 4 Total	F	M	Grade 5 Total	F	M	Grade 6 Total	Grand Total
Line leader	7	4	11		1	1					1	1										13
School girl	1		1													3		3	1		1	5
Self	4		4																1		1	5
Friend	1		1				1		1													2
School boy	1		1														1	1				2
Games leader		1	1																			1
Has the biggest hat	1		1																			1
Parade leader																1		1				1
Raining Tacos											1	1										1
School captain																1		1				1
Follow the leader				1		1																1
School child leader											1	1										1
Dancer													1		1							1
Baker				1		1																1
unknown		1	1																			1
NA					1	1																1
Older sister				1		1																1
Grand Total	**15**	**6**	**21**	**3**	**2**	**5**	**1**		**1**		**3**	**3**	**1**		**1**	**5**	**1**	**6**	**2**		**2**	**39**

*Note: This table shows the leader role in the drawings of child leaders (n=39) across children's grade and gender (n=233). The category with highest frequency of child leaders is 'line leader'.

Appendix G

Variety of social roles

In this study, leaders' roles were coded throughout the drawings and confirmed through the children's narrative of the drawing. From the total of 272 drawings, children assigned a role to a leader in 234 drawings (86%). Additionally, from the total of children in the sample (n=245), 69 children (28%), assigned one or several roles to their definition of leadership when answering the interview question Q1 What is a leader? (e.g., 'A leader is like a teacher who leads children to do something' Girl 247, Grade 1, 7Y/2M). Some children included different examples or roles of leaders in their answer, and each role mentioned was counted as a descriptor in the analysis. By cross-referencing the assigned roles given to leaders in the interview and in the drawing narratives, 168 different role descriptors were obtained and listed in Table 28. These roles assigned to leaders included references to what a leader is, what a leader is like, what they lead, what they have, what they run, what they show, where they go, and what they own. When possible, the gender associated to each role was coded.

Table 28

List of roles assigned to leaders across gender

	Gender of role				
Assigned role	Female	Male	Unknown	Either	Grand Total
Teacher	22	10	12	1	45
Line leader	6	12	19		37
Political leader	7	16			23
Boss	1		20		21
Donald Trump		11			11
School principal		2	7		9
Queen	9				9
Army leader	1	5	3		9
Follow the leader	1		6		7
Parade leader	4	3			7
King		7			7
Soldier	2	4			6

Dog carer	3	3			6
President			6		6
Kim Jong-un		5			5
in charge			6		6
Self	5	1			6
Builder	2	2	1		5
School girl	5				5
a country			5		5
Father		5			5
Mother	5				5
Prime minister			4		4
Teenager school leader	3	1			4
Queen Elizabeth	3				3
Friend	2		1		3
Parents	1			2	3
Living thing			3		3
Role model			3		3
Coach		2	1		3
Monster		1	2		3
Captain			3		3
School leader			3		3
Head			3		3
Politicians			3		3
Museum guide	2				2
Manager			2		2
Cheerleader	2				2
Lumberjack		2			2
Main person			2		2
Shark		2			2
Dad		2			2
Lion King		2			2
Police Officer	1	1			2
Turtle		2			2
Band leader		1	1		2
Office worker		2			2
School boy	1	1			2
has power			2		2
Movie character			2		2
Wolf		2			2
leads a class			2		2
is important			2		2
Cartoon character			2		2
Imaginary character			2		2
Bus driver		1	1		2

Office leader	1		1		2
Malcolm Turnbull		2			2
Gardener		2			2
Soccer captain		2			2
Office boss	1	1			2
School captain	1		1		2
Jesus		2			2
You			2		2
Crossing patroller	1				1
A light for boats to sail and light when they can't see			1		1
Biology Manager				1	1
Number one		1			1
a place			1		1
Ninja		1			1
on top			1		1
Nelson Mandela		1			1
Ant		1			1
Nurse	1				1
Darth Vader		1			1
the founder		1			1
Classmate			1		1
leads the country			1		1
Boss of their job			1		1
Owns the building and the work site			1		1
at the top		1			1
School child leader		1			1
Aboriginal leader		1			1
Ministers			1		1
leads a continent			1		1
War boss		1			1
Earth leader		1			1
Designer		1			1
Teenager		1			1
leads people like a tour			1		1
main role			1		1
has control			1		1
Royal	1				1
Simpson character (new)		1			1
Ronaldo		1			1
Building			1		1
Teacher (surgery)		1			1
Black Panther		1			1

Raining Tacos		1	1
Office manager		1	1
leads a band or song		1	1
Artist	1		1
War teacher		1	1
Animal lover		1	1
lead or leash		1	1
has a role to lead people		1	1
Knight		1	1
leads a hospital		1	1
Rabbit	1		1
Object		1	1
Teacher (surf)	1		1
is famous	1		1
Kevin Rudd		1	1
Police Chief		1	1
Judge		1	1
Doctor		1	1
Teacher (dance)	1		1
is dead (Jesus)		1	1
Jarryd Roughead		1	1
Dancer	1		1
in front of someone		1	1
Was crucified		1	1
in control		1	1
Country leader		1	1
Protest leader		1	1
Snake		1	1
is in a big league		1	1
Paramedic	1		1
Tribe leader		1	1
Pack leader		1	1
Superior		1	1
Burger (Fortnite)		1	1
Human brain		1	1
Older sister	1		1
has to be followed		1	1
Hotel leader	1		1
Birthday man		1	1
is higher		1	1
Barack Obama		1	1
has power to make choices		1	1
Baker	1		1
Has the biggest hat		1	1
Astronaut		1	1

Hamburger			1		1
Has the most things			1		1
Is good or bad			1		1
God		1			1
leads an army			1		1
has a spatula			1		1
Sponge Bob		1			1
like a lot of people			1		1
Games leader		1			1
leads a job			1		1
Spider		1			1
Scout leader			1		1
Tour guide			1		1
leads a company			1		1
Firefighter		1			1
has a bit of power often			1		1
goes to the State Parliament			1		1
Fancy man		1			1
Has leaders in their family			1		1
Grand Total	105	157	177	4	442

*Note: This table shows 168 different roles or descriptions of roles assigned across 442 mentions of a leader's role, with their frequency, and gender, when known. The data was obtained from 234 drawings (86% n=272) where children assigned a role to a leader and the answers of 69 children (28% n=250) that assigned one or several roles to their definition of leadership when answering the interview question *Q1 What is a leader?*

Within these wide variety of social roles assigned to a leader, and amongst the many infrequent assigned roles, the results show that the assigned roles with highest frequency across all the sample, were teacher (45 mentions, 10% of total 442 descriptors), line leader (37 mentions, 8%), political leader (23 mentions, 5%), boss (21 mentions, 5%), Donald Trump (11 mentions, 2%), and school principal, Queen, and army leader, each with nine mentions, 2% each.

Table 29

Distribution of roles with highest frequency assigned to a leader across grade

	Prep	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Total
Teacher	4	8	11	12	4	3	3	45
Line leader	23	5	4	4		1		37
Political leader			1	7	2	3	10	23
Boss	3	1	5	6	2	1	3	21
Donald Trump		1		3	2	3	2	11
School principal				4	1		4	9
Other	27	26	21	47	28	25	37	211
Total	57	41	42	83	39	36	59	356

*Note: This table is based on n=356 mentions of a human role assigned to a leader across grades, showing the six highest frequent assigned roles to a leader across the sample. Based on Prep= 57 mentions, Grade 1= 41 mentions, Grade 2= 42 mentions, Grade 3= 83 mentions, Grade 4= 39 mentions, Grade 5= 36 mentions and Grade 6= 59 mentions.

Appendix H

Social role categories

A next level of data analysis was conducted to determine role categories within the vast variety of roles assigned to leaders. From the 168 different roles or descriptions of roles, 105 (63%) were human roles such as teacher, lumberjack, gardener, doctor, and also specific exemplars, a specific person that most resembles the leadership category (Lord et al., 2020), such as former Australian Prime Minister Kevin Rudd, or Queen Elizabeth. Then 32 (19%) were descriptions of the characteristics of a role, for example, ‘is at the top’ or ‘runs a company’. Occasionally (5%), leader roles were given to animals such as the lion, wolf, and shark. Lastly, 22 (13%) roles or descriptions were categorised as other, including non-specific role notions such as ‘birthday man’ ‘living thing’, or ‘human brain’; objects such as a ‘leash’, or ‘building’, or references to experiences of leadership such as the person leading the game ‘follow the leader’, or aspirations, for example ‘it’s my dream to be a leader’. The analysis then focused on determining categories within human roles guided by thematic similitude. For example, different teachers such as surf or dance teachers, were merged with the broader teacher category, as show in Table 30.

Table 30

Categories of roles assigned to leaders by highest frequency

Categories	Sum of Grand Total
Teacher	**49**
Teacher	45
Teacher (dance)	1
Teacher (surf)	1
Teacher (surgery)	1
War teacher	1
Political leader	**42**
Political leader	23
President	6
Prime Minister	4

Politicians	3
Aboriginal leader	1
country leader	1
Earth leader	1
ministers	1
Protest leader	1
Tribe leader	1
Exemplar	**37**
Donald Trump	11
Kim Jong-un	5
Queen Elizabeth	3
Jesus	2
Malcolm Turnbull	2
Barack Obama	1
Black Panther	1
Burger (Fortnite)	1
Darth Vader	1
God	1
Is dead (Jesus)	1
Jarryd Roughead	1
Kevin Rudd	1
Nelson Mandela	1
Raining Tacos	1
Ronaldo	1
Simpson character (new)	1
Sponge Bob	1
Was crucified	1
Line leader	**37**
Line leader	37
School Leader	**28**
School principal	9
School girl	5
Teenager school leader	4
school leader	3
School boy	2
School captain	2
School child leader	2
Classmate	1
Boss	**23**
Boss	21
Boss of their job	1
War boss	1
Royal leader	**17**

Queen	9
King	7
Knight	1
Entertainer	**16**
Parade leader	7
Cheerleader	2
Movie character	2
Museum guide	2
Dancer	1
Shows people like a tour	1
Tour guide	1
Family member	**16**
Father	5
Mother	5
Parents	3
Dad	2
Older sister	1
Military leader	**15**
Army leader	9
Soldier	6
Tradesperson	**11**
Builder	5
Bus driver	2
Gardener	2
Lumberjack	2
Child	**10**
Self	6
Friend	3
Games leader	1
Sport leader	**8**
Coach	3
football captain	3
Soccer captain	2
Emergency service leader	**8**
Police Officer	2
Doctor	1
Firefighter	1
Leads a hospital	1
Nurse	1
Paramedic	1
Police Chief	1
Office leader	**7**
Office boss	2

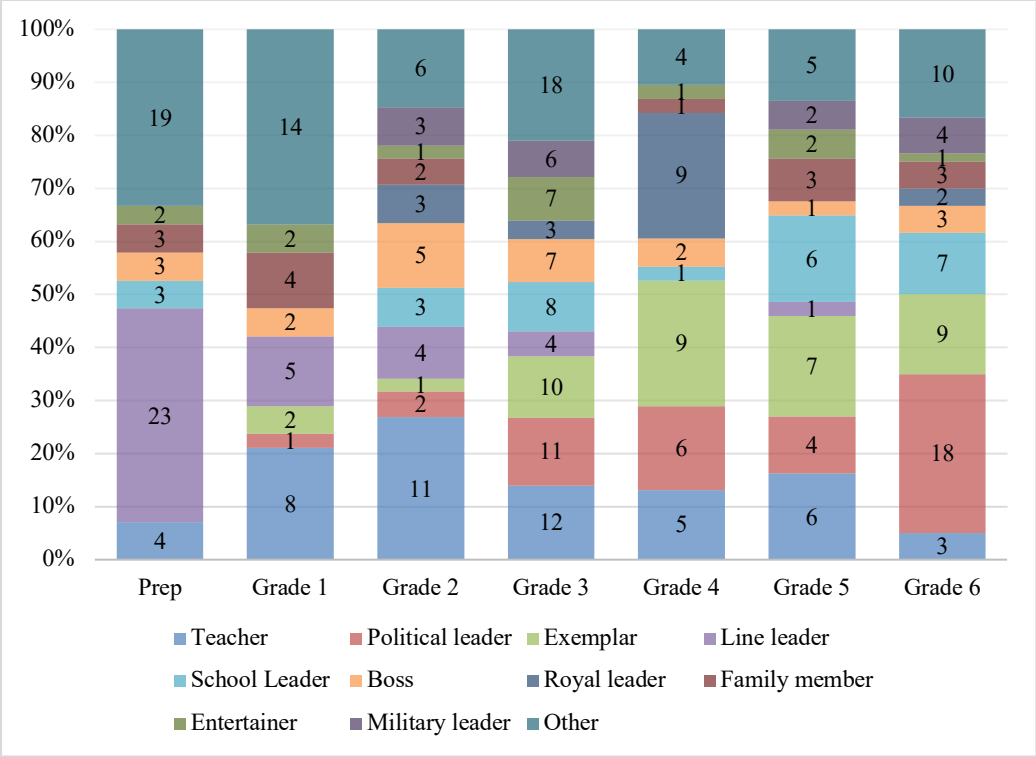
Office leader	2
Office worker	2
Office manager	1
Dog carer	**6**
Dog carer	6
Hospitality leader	**3**
Baker	1
Has a spatula	1
Hotel leader	1
Head	**3**
head	3
Role model	**3**
role model	3
Manager	**3**
Biology Manager	1
manager	2
Band leader	**3**
band leader	2
Leads a band or song	1
Creative	**2**
Artist	1
Designer	1
Astronaut	**1**
Astronaut	1
Owner	**1**
Owns the building and the work site	1
Ninja	**1**
Ninja	1
Entrepreneur	**1**
Founder	1
Animal lover	**1**
Animal lover	1
Volunteer	**1**
Crossing patroller	1
Scout leader	**1**
scout leader	1
Job leader	**1**
Leads a job	1
Judge	**1**
judge	1
Grand Total	**356**

*Note: This table shows the resulting categories of roles (human) assigned to leaders as per (n=356) mentions, and their frequency.

The resulting role categories with highest frequency (n=356), included teacher (49 mentions = 14%), political leader (42 mentions = 12%), line leader (37 mentions = 10%), school leader (28 mentions = 8%), and boss (23 mentions = 6%). These results show similar results to those found in the analysis of singular roles (Figure 62). Teacher remains the role with highest frequency (14%), however political leader, with its variations (e.g. president, Prime Minister, Aboriginal leader), is the role category with the second highest frequency (12%). Then, line leader is the third most frequent role category (10%). Subsequently, variations of school leaders (8%), such as school captain, school principal, school child leader, conform the next level in most frequent category of roles associated with a leader. Lastly, boss (6%) including variations such as war boss, or job boss also conform a category with high frequency as shown in Figure 62.

Figure 62

Categories of roles assigned to leaders with highest frequency across grades



*Note: This figure is based on n=356 mentions of a role (human/humanised) assigned to a leader grouped within thematic categories across grades. It shows the ten categories with highest frequency across the sample.

Table 31

Frequency of role categories assigned to leaders across grades

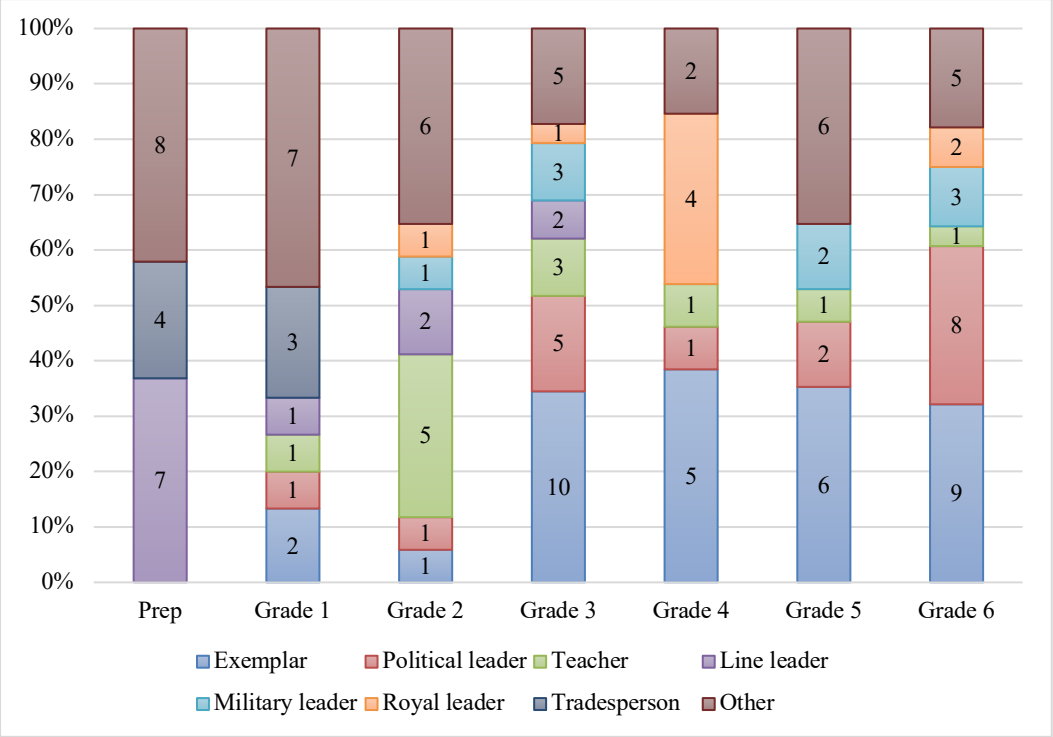
Role category	Prep	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grand total
Teacher	4	8	11	12	5	6	3	49
Political leader		**1**	**2**	**11**	**6**	**4**	**18**	**42**
Exemplar		2	1	9	9	7	9	37
Line leader	23	5	4	4		1		37
School Leader	3		3	8	1	6	7	28
Boss	3	2	5	7	2	1	3	23
Royal leader			3	3	9		2	17
Family member	3	4	2		1	3	3	16
Entertainer	2	2	1	7	1	2	1	16
Military leader			3	6		2	4	15

Other	19	14	6	18	4	5	10	76
Total	57	38	41	85	38	37	60	356

*Note: This table is based on n=356 mentions of a human role assigned to a leader across grades, showing the ten highest frequent assigned roles to a leader across the sample. Based on Prep= 57 mentions, Grade 1= 38 mentions, Grade 2= 41 mentions, Grade 3= 85 mentions, Grade 4= 38 mentions, Grade 5= 37 mentions and Grade 6= 60 mentions.

Figure 63

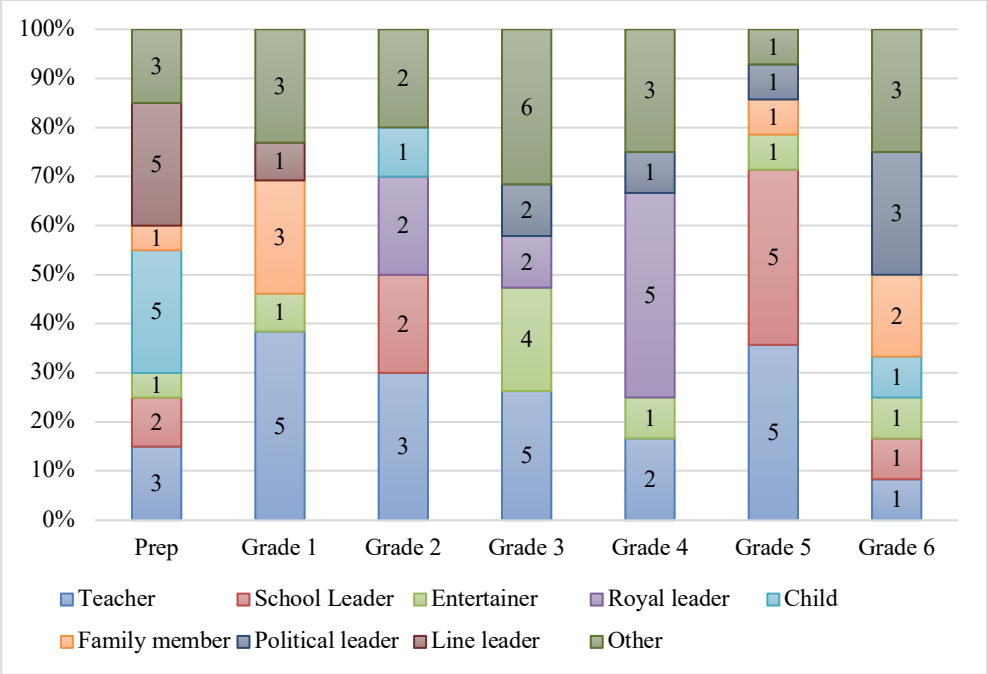
Male assigned roles across grades



*Note: This figure is based on n=138 mentions of a role assigned to a male leader.

Figure 64

Female assigned roles of leaders



*Note: This figure is based on n=100 mentions of a of a role assigned to a female leader

Appendix I

Exemplar analysis

Another category of roles associated with a leader, is conformed of specific leader exemplars or famous people, as well as recognised political, entertainment, or religious figures (37 mentions = 11%), the exemplar Jesus was described and named by the same child, subsequently, it was counted down to one as detailed in Table 32. These are specific persons that most resemble the leadership category for an individual (Lord et al., 2020). Within these, the exemplars with the highest frequency were political figures including Donald Trump (11 mentions = 31%), Kim Jong-un (5 mentions = 17%), Queen Elizabeth II (3 mentions = 8%), Malcolm Turnbull (2 mentions = 6%), and others such as Barack Obama, Nelson Mandela, and Kevin Rudd. Exemplars mentioned only once included religious figures Jesus and God, and sport leaders Jarryd Roughead and Ronaldo. On the other hand, movie characters were also mentioned such as Darth Vader, Black Panther, Sponge Bob, Simpsons, and characters from the online video, Fortnite, and the YouTube hit song Raining Tacos. From these 17 different examples of socially recognisable exemplars of leaders, 16 were male and one was female (Queen Elizabeth).

Table 32

Exemplars of leaders reported by the children and frequency across grades

Exemplar	Prep	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Total
Donald Trump		1		3	2	3	2	11
Kim Jong-un				1		2	3	6
Queen Elizabeth					2	1		3
Jesus					1			1
Malcolm Turnbull				2				2
Barack Obama							1	1
Black Panther				1				1
Burger (Fortnite)				1				1
Darth Vader		1						1
God					1			1
Jarryd Roughead				1				1

Kevin Rudd							1	1
Nelson Mandela							1	1
Raining Tacos				1				1
Ronaldo			1					1
Simpson character							1	1
Sponge Bob						1		1
Total	0	2	1	10	6	7	9	35

*Note: This table is based on n=35 mentions of an exemplar of a leader and its frequency of mentions across the sample.

Table 33

Exemplars of leaders reported by the children and frequency across grade groups

Exemplar	Early	Middle	Late
Donald Trump	1	5	5
Kim Jong-un	0	1	5
Queen Elizabeth	0	2	1
Jesus	0	2	0
Malcolm Turnbull	0	2	0
Barack Obama	0	0	1
Black Panther	0	1	0
Burger (Fortnite)	0	1	0
Darth Vader	1	0	0
God	0	1	0
Jarryd Roughead	0	1	0
Kevin Rudd	0	0	1
Nelson Mandela	0	0	1
Raining Tacos	0	1	0
Ronaldo	1	0	0
Simpson character (new)	0	0	1
Sponge Bob	0	0	1
Total	3	17	16

*Note: This table is based on n=35 mentions of an exemplar of a leader and its frequency of mentions across the sample.

When exploring the exemplars across grades, as illustrated in Table 34, results show that the youngest children (Prep) do not include exemplars in their ILTs. Once

again, this is consistent with previous findings where younger children reference more often roles from their immediate context (DeHaan, 1962; Palich & Hom, 1992), in this case, line leader and teacher. Subsequently, by grouping these exemplars across contextual themes, such as political, religious, and entertainment, the study shows that older children progressively assign a leadership role to an exemplar, most often, male and political. In this sample, 17 children in Grades 3 and 4, and 22 children in Grades 5 and 6 associated a leader with a political role, as shown in Table 31.

Table 34

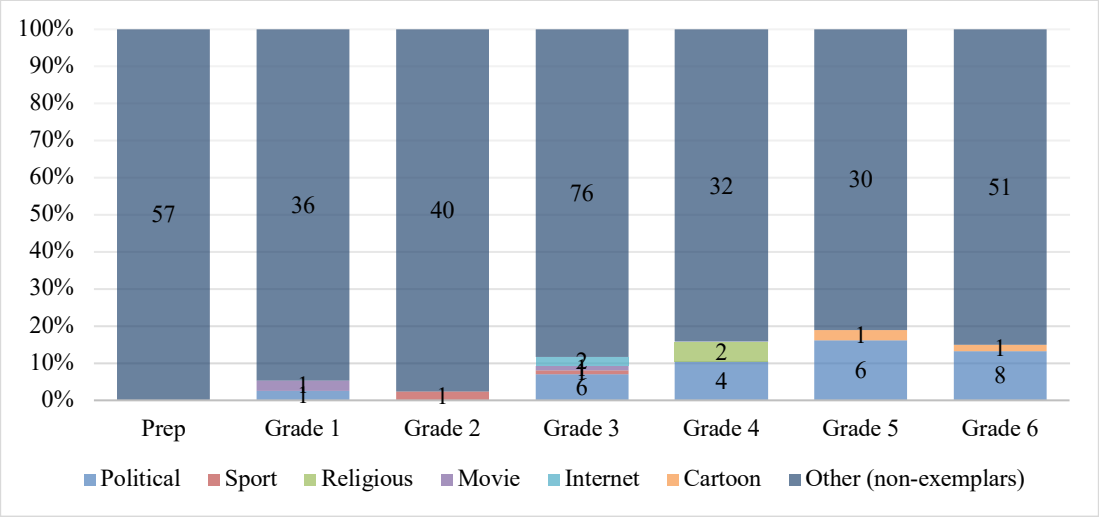
Distribution of exemplars grouped by context across grades

Type	Prep	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grand Total
Political		1		5	4	6	8	24
Sport			1	1				2
Religious					2			2
Movie		1		1				2
Internet				2				2
Cartoon						1	1	2
Other (non-exemplars)	57	36	40	76	32	30	51	322
Total	57	38	41	85	38	37	60	356

*Note: This table is based on n=356 mentions of a human role assigned to a leader across grades, showing the number of exemplars (n=34) grouped by context vs other roles or descriptions of leaders across the sample.

Figure 65

Distribution of exemplars grouped by context across grades



*Note: This figure is based on n=356 mentions of a human role assigned to a leader across grades, showing the distribution of exemplars (n=34) across grades. Based on Prep= 57 mentions, Grade 1= 38 mentions, Grade 2= 41 mentions, Grade 3= 85 mentions, Grade 4= 38 mentions, Grade 5= 37 mentions and Grade 6= 60 mentions.

Appendix J

Sources of information

Table 35

Sources of information when noting exemplars

Source	Prep	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grand Total
Media	**2**		**5**	**4**	**6**	**4**	**1**	**22**
News						3	2	5
"Researcher: Right. Cool. How did you know about him? Boy: On the news. Researcher: Okay. So you watch the news? Boy: My parents watch it, so I have to watch it."						1		1
Because I've seen him on the news.						1		1
Donald Trump: On the news.							1	1
It's on the news or the newspaper.								
Yeah. I like watching the news. It's nice. I watch them More so later in the afternoon.							1	1
The news most of the time.						1		1
TV	1	2		2				5
Because, I watch a lot of the Hawthorn games				1				1
I don't know I just watch sometimes watch the news and he's on the news sometimes.				1				1
I just know him because I think I heard him on TV.		1						1
I've watched videos and songs, he's very popular.		1						1
News	1							1
(blank)				2				2
I watched in on the news.				1				1
Yeah, it's everywhere on the news. [Trump]				1				1
Billboards				1				1
I've been seeing stuff about it on walls. It said three, and it said Labour- Not on walls. Like three sides. I'm pretty sure on the Labour side it said that they've won 17 times in a row. I just saw it. I was just- On a house. Yeah, I usually see it there. Once I found a green sign down there- Yeah, sign in like ... not a pool. What's it called? A river, and there's a video of it so you can't really see it.				1				1

TV: BTN (ABC) and The Project		1	1
"Not asked. I know about what's going on: Interviewee: Or kind of stuff doing BTN at school, and then, it could be really nice and then every Sunday I can do the project a little, I don't know Researcher: What's that project like? What's BTN or? Interviewee: BTN is Behind The News. Researcher: What's that? Interviewee: It's a news, sponsored by kind of [rocker 00:04:18] news things and for kids. Researcher: So, in school you would watch like news for kids? Interviewee: Yeah. Researcher: And that's how you found out about leaders. That's what you're sort of saying? Interviewee: Not really. But I get a good idea of what's going on. Like, I know there's a new Prime minister because that's pretty big, and the project is kind of like a thing on channel 10. And it's like the news kind of. Researcher: So, channel 10 has like a version for news for children. Something like that? Interviewee: No. Not really for kids. Just news. Researcher: And at school you used to watch it? Is that- Interviewee: The project, no. But BTN movie. Researcher: Aah, you're talking about the project. Got it. Interviewee: Yeah. The project. Researcher: Okay. So you watch that, and that's how you sort of find out about it? Interviewee: Mm-hmm (affirmative). Researcher: Cool. In the end, the question was if you-"		1	1
TV, news	1		1
Television. The news. Researcher: Ah yeah, you watch the news? Speaker 2: Yeah, with my parents. Researcher: With your parents? In the evening? Speaker 2: Yeah.	1		1
TV, magazines	1		1
The news. Magazines and stuff.	1		1
Internet		1	1

Sometimes I'll look it up.					1	1
TV and newspaper				1		1
Girl: You might read the newspaper; you might watch the news. Researcher: Cool. Do you watch the news? Girl: Sometimes, but my dad watches it every single night.				1		1
Google					1	1
When I go to google.					1	1
Gossips					1	1
[Donald Trump] And like everyone gossips about it.					1	1
TV, news and books				1		1
I see on the TV and on news and read about her in books about how good she is.				1		1
News and newspaper					1	1
Speaker 1: Where do you hear about him? Boy: On the news all the time and like the newspaper.					1	1
Entertainment	**1**	**1**	**1**	**1**	**1**	**5**
Movies	1	1	1			3
When I heard the leader, I thought well the movie Black Panther, and Black Panther's the leader.			1			1
Yeah, I've seen it in a movie		1				1
Sports					1	1
Well, I do clinics and stuff with her and she knows me quite well.					1	1
Videogames				1		1
Researcher: You don't know. Okay. That's all right. And, how do you think you came up with this idea [in the drawing]? Boy: Because, I like games a lot. So, I play lots of games. Researcher: You mean, like video games? Boy: Yes. Researcher: Oh, okay. Boy: So, that's why I drew a leader. Researcher: Is this a character from one of your games? Boy: Yeah. Researcher: And, does it have a name? Boy: No. Researcher: Oh, okay. Which game is it? Boy: Battlelands, I think it was. Researcher: Battlelands				1		1

School context	**1**	**1**		**1**	**3**
School	1			1	2
He's taking us on excursions	1				1
Nelson Mandela: I think I first found out about him in grade three, or grade four or five, I can't remember. But he got put in jail because he wanted to make, I don't know a lot about him, but I know he wanted to make things fair and change, (coughs) sorry.				1	1
Friends		1			1
Well, my friend [female same grade], [inaudible 00:06:00], is a ballerina and I really wanted to become a ballerina too and I really wanted to do cheer too and it's really inspiring because [inaudible 00:06:23] showed me a picture of Misty Copeland and some videos. And I just got really inspired of her because she does really good moves and one day I could be a ballerina too.		1			1
Family context		**1**	**1**	**1**	**3**
Family		1			1
Researcher: Mm-hmm (affirmative). How do you know or find out about what Malcolm Turnbull does? Speaker 1: Because I live in this country. Yeah. Researcher: Do you read about it anywhere or ... Speaker 1: Sometimes my parents will talk to me about him.		1			1
Family and then School				1	1
Oh, actually it was in a reading class a couple of weeks ago. And I knew about him for a while. My mum said he was a great person; he did a lot of good things. And I was very into history at the time as well. And I had a history book. And it only had a little bit. I was disappointed that it only had a little bit. And then we had the reading class years later, like a week ago. And I learnt more. And that excited me, and I felt cool. This guy did a lot for society and was really good.				1	1
Parents' Workplace			1		1
Researcher: Do you see her often? Boy: Yeah, when I go to my dad's work, yeah.			1		1

Family		1		1				2
(blank)		1		1				2
And my dad tells me about him.		1						1
I knew ... when I was little, I always know the Prime Ministers of Australia when they come to do their turn. Researcher: How do you find out? Speaker 2: From my dad because he listens to a radio station. There was a lot of news about like what's going on in the ACT.				1				1
Not sure						**1**		**1**
(blank)						1		1
Researcher: And do you know much about her? Participant: Well, I'm not actually sure.						1		1
Grand Total	**43**	**40**	**30**	**48**	**18**	**37**	**36**	**252**

*Note: This table is based on n=36 answers to the question *How did you find out about the leader?*

Table 36

Summary sources of information about exemplars

Row Labels	Prep	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grand Total
Media	1	2		5	4	6	4	22
Entertainment		1	1	1	1		1	5
School context		1		1			1	3
Family context		1		2	1		1	5
Not sure						1		1
Total	1	5	1	9	6	7	7	36

*Note: This table is based on n=36 answers to the question *How did you find out about the leader?*

Appendix K

Leader's gender

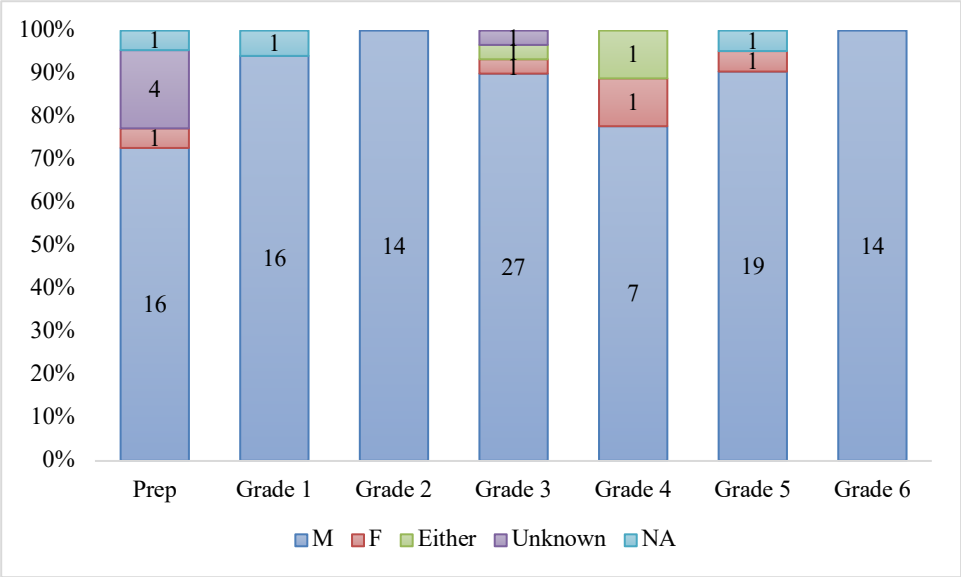
The sample showed that 155 drawings (57%) were of a male leader and 106 drawings (39%) were of a female leader, in eight drawings (3%) the leader's gender was unidentifiable, and in three drawings (1%) the children did not show a preference for the leader's gender, stating that it could be either male or a female. The high tendency of male leaders in previous children ILTs studies has been explained by boys' preference to depict leaders of their own gender more often than girls (Ayman-Nolley & Ayman, 2005; Nemerowicz & Rosi, 1997). Consistently, from 127 drawings by boys in the study, 119 drawings (94%) were of male leaders, only five drawings (4%) were of female leaders, and three drawings (2%) were of either gender. The female leaders drawn by boys included Queen Elizabeth II, a teacher, or a female politician.

On the other hand, in the 145 drawings made by girls, 104 drawings (72%) were of a female leader and 41 drawings (28%) were of a male leader. These results are consistent with previous studies of children's ILTs in Western cultures (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Oliveira, 2016), where girls have a tendency to draw more female leaders, but also, more often draw opposite gender leaders than boys. This means that girls don't always follow gender-similarity trends in their ILTs. Ayman-Nolley and Ayman (2005) found an increase of girls' preference for female leaders comparing US girls in the 90s (57% were of a female leader) with girls in the 2000s (68% were of a female leader). Noting the results from this particular Australian sample which extends over 70%, girls' preference for female leaders is similar to the preferences in US girls in the 2000s. On the opposing side of the spectrum is China, where 61.3% of girls drew a male leader in 2012. This further evidence points towards the idea that in Western cultures, girls are more likely to choose leaders from

their own gender (Ayman-Nolley & Ayman, 2005; Ayman-Nolley et al., 2006; Oliveira, 2016).

Figure 66

Boys' gender preference in their drawings across grades



*Note: This figure shows the number of drawings by boys (n=127) and the gender assigned to the leader across grades.

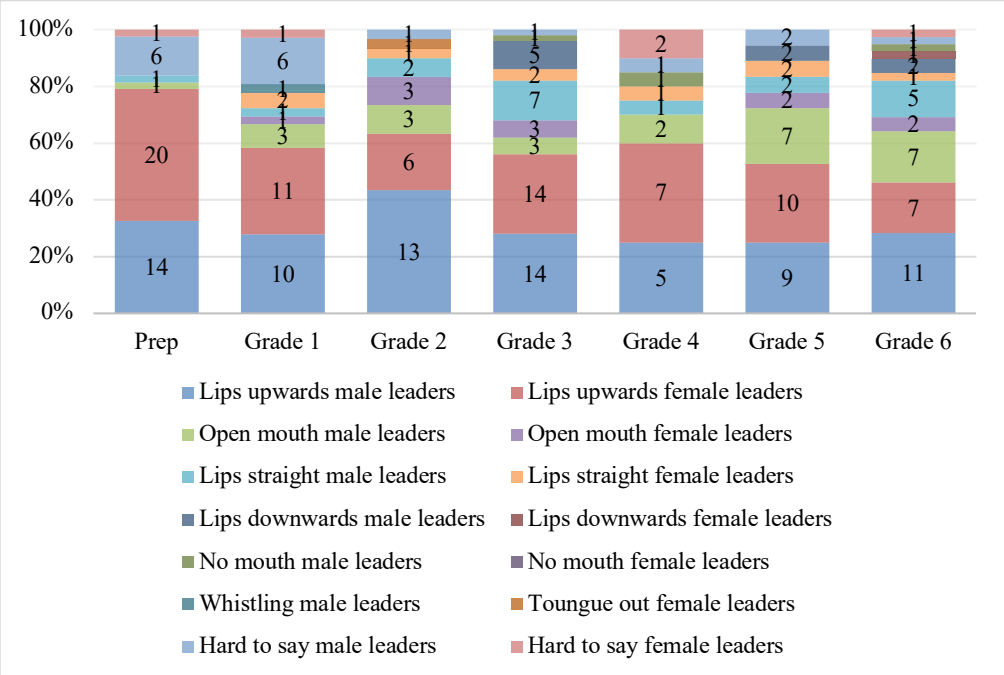
Appendix L

Lips

Lips upwards was taken as an indication for determining that the leader was smiling (Ayman-Nolley & Ayman, 2005). In the present sample, including drawings of male and female leaders (n=254), 151 drawings (59%) were drawn with lips upwards, smiling. Additionally, 37 drawings (15%) presented the leader with the mouth open, 28 drawings (11%) depicted the leader with lips straight, and in 10 drawings (4%) of the pictures, the leader had lips downward. Features such as no mouth, whistling, or the leader sticking the tongue out were coded as other (5 drawings = 2%) and for 23 drawings (9%), it was hard to determine.

Figure 67

Mouth features of drawn leaders across grades and gender of drawn leader



*Note: This figure is based on n=254 drawings of leaders, 152 drawings of male leaders and 102 drawings of female leaders.

Prep children, as shown in Figure 67, drew leaders smiling 79% of the times, and more often female leaders smiling (20 drawings = 43%), than male leaders smiling (14 drawings =33%), which is consistent with Ayman-Nolley and Ayman (2005), however, this tendency did not prevail into the other grades. The results also show that from Grade 1 and onwards, drawings of leaders with open mouth or lips straight increase, while in Prep it only makes 5% (out of 43 drawings), in Grade 1, it grows to 19% (out of 36 drawings), then, by Grade 3, grows to 30% (out of 50 drawings), and in Grade 6, it reaches 38% (out of 39 drawings). These findings are consistent with previous research where the youngest children in primary school often represent leaders smiling, showing a positive ILTs content, which is rarely negative (Ayman-Nolley & Ayman, 2005).

Table 37

Drawings of leaders with lips downwards

	Grand total	Gender of leader	Gender of child
Grade 3	**5**		
Donald Trump	2	M	M
Kim Jong-un	1	M	M
Teacher	1	M	M
Monster man	1	M	M
Grade 5	**2**		
Donald Trump	1	M	M
unknown	1	M	M
Grade 6	**3**		
Political leader	3	2M+1F	F
Total	10		

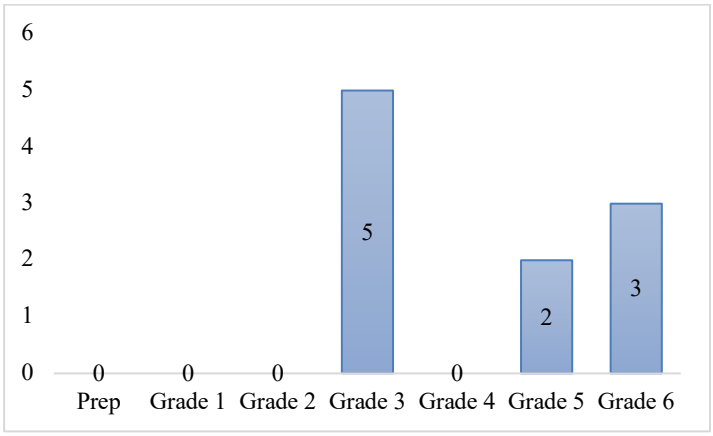
*Note: This table is based on n=272 drawings of leaders, where a total of 10 (4%), depicted the leader with lips downwards.

Figure 68 below also shows that children from Grade 3, 5, and 6 sometimes depicted leaders with lips downwards, however the frequency is low, only 10 drawings

out of 272 (4%). Looking at these drawings in detail shows that children most often trace lips downwards for political leaders (three drawings), or political exemplars (Donald Trump= three drawings and Kim Jong-un= one drawing). Children in Grade 3 drew the most depictions of leaders with lips downwards (five) across grades as shown in Figure 68. Also, boys more often depict lips downward (seven drawings), while the only three girls that drew lips downwards were from Grade 6. Even though the number of drawings featuring lips downwards is low, it supports theories that positive and negative leadership thresholds appear during middle primary school, which causes a peak in negative leaders' frequency during this time (Ayman-Nolley & Ayman, 2005).

Figure 68

Number of drawings with lips downwards



*Note: This figure is based on n=10 drawings of leaders, with lips downwards.

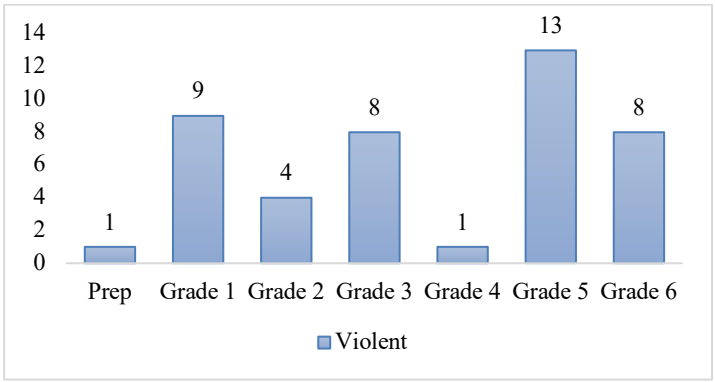
Appendix M

Violence, conflict, and scepticism

To further explore if ILTs become more negative as children grow older, previous children's ILTs studies (Ayman-Nolley & Ayman, 2005) have coded the presence of violence in children's drawings. Subsequently, when drawings depicted violence, including verbal, for example, text such as 'boom' or 'die', and also physical, for example if the drawing showed shooting or killing, it was coded as having violence content (Ayman-Nolley & Ayman, 2005). Additionally, in the present study, when children referenced violent content in their narratives, for example, someone being punched, stealing, or having weapons for 'attacking', or 'smashing' others, it was also coded as having violence content.

Figure 69

Number of drawings depicting violent content per grade



*Note: This figure shows n=43 drawings out of n=272 with violence content across grades.

Table 38

Detail of violence content in early primary school

Early	Content	Theme
Prep	Monster	Fictional
Grade 1	War and blood	War
Grade 1	Bombing	War
Grade 1	Stealing	Stealing
Grade 1	Stealing	Stealing
Grade 1	Stealing	Stealing
Grade 1	Shooting	Shooting
Grade 1	Donald Trump pushing the Queen	Political
Grade 1	Killing a dinosaur	Nature
Grade 1	Killing a dinosaur	Nature
Grade 2	Upset with an employee	Work environment
Grade 2	War	War
Grade 2	Hunting	Nature
Grade 2	Creature	Fictional
Grade 2	Creature	Fictional

*Note: This table details violence content in n=14 drawings out of n=272 in early primary school.

Table 39

Detail of violence content in middle primary school

Middle	Content	Theme
Grade 3	Dislike leader	Work environment
Grade 3	Dislike boss	Work environment
Grade 3	War, dead bodies	War
Grade 3	War	War
Grade 3	Shutting someone up	Shooting
Grade 3	Angry teacher telling a kid off	School environment
Grade 3	Donald Trump, Kim Jong-un, missiles	Political
Grade 3	Donald Trump making Mexicans work	Political
Grade 3	Donald Trump	Political
Grade 3	Donald Trump	Political
Grade 3	Monster	Fictional
Grade 3	Mean tomato	Fictional

Grade 3	Army of big red nosed people	Fictional
Grade 3	Criminal	Crime
Grade 3	Attacking	Attack
Grade 4	Angry boss	Work environment
Grade 4	War	War

*Note: This table details violence content in n=13 drawings out of n=272 in middle primary school.

Table 40

Detail of violence content in late primary school

Late	Content	Theme
Grade 5	Killing boss	Work environment
Grade 5	War	War
Grade 5	Missile	War
Grade 5	Spear warrior	Tribal
Grade 5	Stealing	Stealing
Grade 5	War on the wall	Political
Grade 5	Kim Jong-un bombing	Political
Grade 5	Donald Trump sending missile to China	Political
Grade 5	Angry leader with other leaders yelling into a mic	Political
Grade 5	Animal attack	Nature
Grade 5	Shark attack	Fictional
Grade 5	Shark attack	Fictional
Grade 6	Angry boss	Work environment
Grade 6	Angry boss	Work environment
Grade 6	War	War
Grade 6	War	War
Grade 6	War	War
Grade 6	Big machine gun	War
Grade 6	Tribe leader throwing weapons	Tribal
Grade 6	Kim Jong-un bombing	Political
Grade 6	Donald Trump launching rocket	Political
Grade 6	Donald Trump dies	Political
Grade 6	Australian aboriginals defending the land from settlers	Political
Grade 6	Police catching a thief	Police
Grade 6	Monster	Fictional

*Note: This table details violence content in n=21 drawings out of n=272 in late primary school.

Table 41

Presence of violence and argument in children's drawings across gender

Row Labels	F	M	Grand Total
No violence	111	76	187
Violence	10	**34**	44
Hard to say	13	11	24
Conflict, disagreement, confrontation, argument	**10**	6	16
NO (sarcasm)	1		1
Grand Total	145	127	272

*Note: This table is based on n=272 drawings of leaders, including 145 drawn by girls, and 127 drawn by boys.

As shown in Table 41, from the total of 272 drawings of leaders, 44 drawings (16%) referenced violence, 34 drawings (77%) were drawn by boys, and 10 drawings (23%), were drawn by girls. These results are consistent with findings by Ayman-Nolley and Ayman (2005) where boys have more tendency to draw violent depictions of leadership than girls. Additionally, as shown in Table 41, 16 drawings (6%), depicted conflict, disagreement, confrontation, or argument. From 16 drawings with such content, 10 drawings (63%) were drawn by girls and six drawings (38%) were drawn by boys.

Table 42

Violence and disagreement content across grades

Content	Prep	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grand Total
Non-violent	44	28	23	33	17	20	22	143
Violent	1	9	4	8	1	13	8	43
Conflict, disagreement, confrontation, argument		1	1	7		4	3	16
Sarcasm					1			1
Hard to say	3	1	4	5	2	1	8	21
Total	48	39	32	53	21	38	41	272

*Note: This table is based on n=272 drawings of leaders

Appendix N

Leader's ethnicity

In this study, 218 (80%) of the total drawings (n=272) did not reference an ethnicity when children were asked to describe their leader. There were 43 drawings (16%) where children either specified the ethnicity of the leader or drew an exemplar for whom the ethnicity was coded. As shown in Table children most often (23%) denoted an ethnicity when referring to political leaders (10 drawings from 43). And also, when they depicted military leaders (4 drawings = 9%). Even though the colour used on the face of the leader was not utilised as an indicator of race, the data was measured. In almost half of the sample (125 drawings = 46%) children did not colour the skin of the leader in their drawing, and the ones that did (147), used a vast variety of colours such as pink (14= 10%), peach (10= 7%), and yellow (10= 7%).

Table 43

Ethnicities of leaders

Ethnicity	Count of Ethnicity leader
North American	**13**
Donald Trump	11
Political leader*	2
Australian	**11**
Political leader*	5
Jarryd Roughead	1
Kevin Rudd	1
Malcolm Turnbull	1
Paramedic*	1
Police Officer*	1
Soldier*	1
British	**6**
Queen Elizabeth	3
King*	1
Political leader*	1
Queen*	1
North Korean	**5**
Kim Jong-un	5
African American	**2**
Barack Obama	1
Brazilian	**1**
Ronaldo	1
Australian Aboriginal	**1**
Aboriginal leader*	1
Russian	**1**

Soldier*	1
African	**1**
Nelson Mandela	1
Army leader*	1
Ethiopian	**1**
War boss*	1
New Zealander	**1**
Political leader*	1
Grand Total	**43**

Note: This table shows 43 drawings in which children determined the ethnicity of the leader (18) or named a person for whose ethnicity was coded.

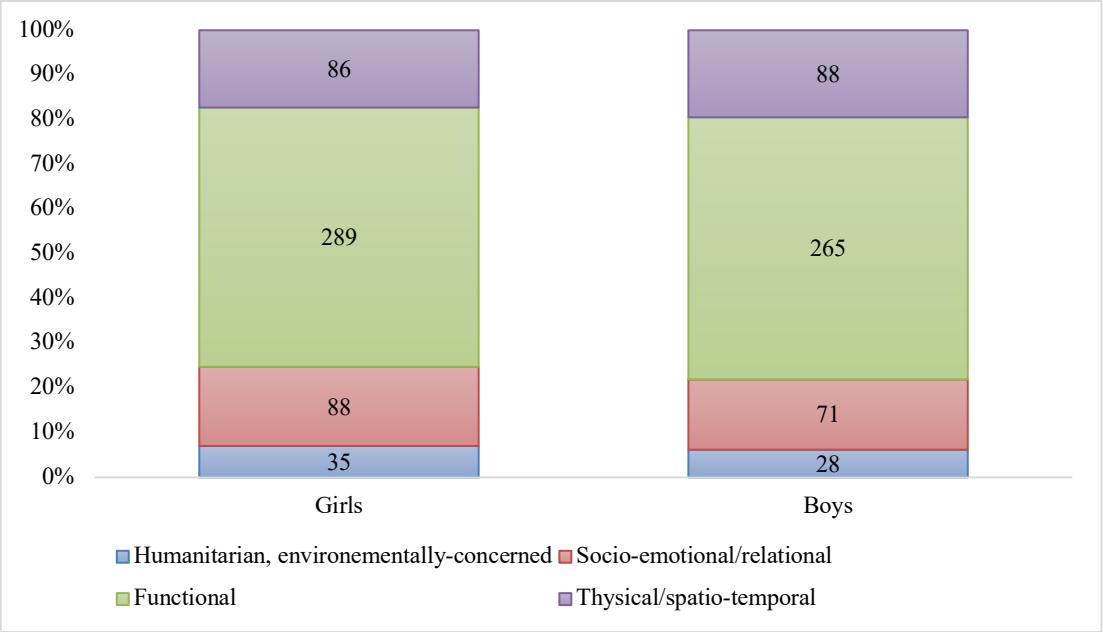
Appendix O

Dimensional analysis comparing boys and girls

By cross-referencing the dimensional notations across boys and girls, both from the drawings' narrative and the answers to the interview *Q1 What is a leader?* the following distribution can be found.

Figure 70

Distribution of leadership dimensions between boys and girls (drawings and interviews combined)

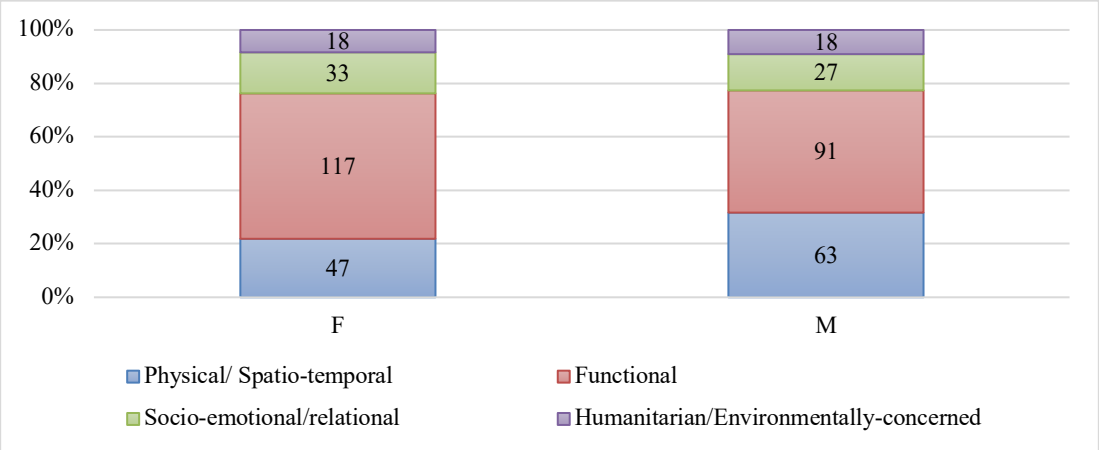


*Note: This figure shows the gender distribution of n= 940 notations from drawings and interviews across four dimensions: physical/spatio-temporal, functional, socio-emotional, and humanitarian/environmentally concerned. Girls= 488 notations, boys= 452 notations.

Detail of drawings analysis

Figure 71

Distribution of leadership dimensions from drawing's narratives across gender of child



*Note: This figure shows the gender distribution of 414 notations from drawings across four dimensions: physical/spatio-temporal, functional, socio-emotional, and humanitarian/environmentally concerned. Girls= 215 notations, boys= 199 notations. Measured from the leader drawings' narratives.

Table 44

Distribution of leadership dimensions from drawing's narratives across gender of child

Dimension	F	M	Grand Total
Physical/ Spatio-temporal	47	63	110
Functional	117	91	208
Socio-emotional/relational	33	27	60
Humanitarian/Environmentally-concerned	18	18	36
Total	215	199	414

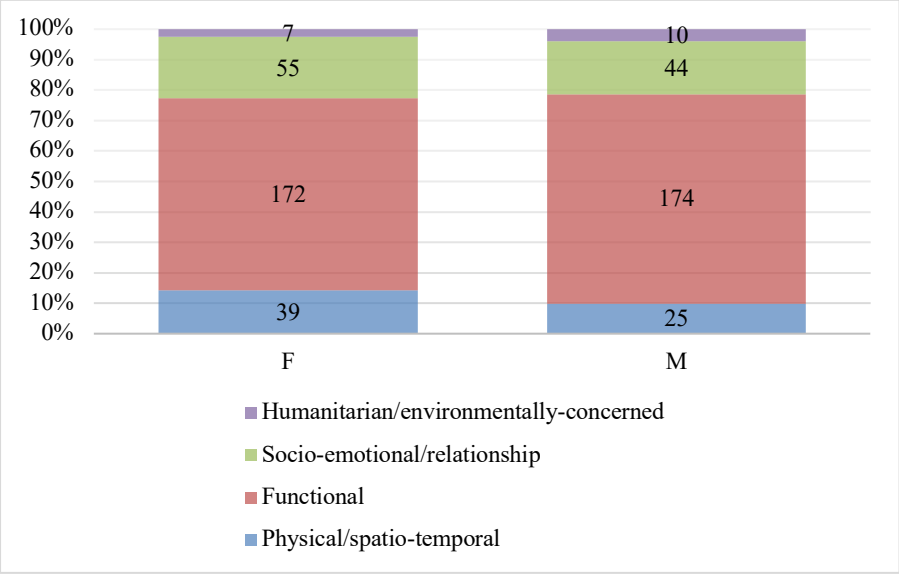
*Note: This figure shows the gender distribution of 414 notations across four dimensions: physical/spatio-temporal, functional, socio-emotional, and humanitarian/environmentally concerned. Girls= 215 notations, boys= 199 notations. Measured from the leader drawings' narratives.

The drawing narratives, as illustrated in Figure 71 and Table 44, show that girls included notations within the functional dimension 54% of the times, and boys 45% (girls= 117 notations= 54%, boys= 91 notations= 45%). Additionally, both genders presented similar tendency to include socio-emotional notations (girls= 33 notations= 15%, boys= 27 notations= 14%) and also, humanitarian or environmentally concerned notations (girls= 18 notations= 8%, and boys= 18 notations= 9%). The drawing narrative analysis showed that boys had more tendency to describe physical/spatio-temporal notations (63 notations= 32%) than girls (47 notations= 22%).

Detail of interview analysis

Figure 72

Distribution of leadership dimensions from interview answers (Q1 What is a leader?) across gender of child



*Note: this figure shows the gender distribution of children's (n=245) notations of leaders (n=526) grouped across four dimensions. Girls= 273 notations, boys = 253 notations. Measured from the children's answers to *Q1 What is a leader?*

Table 45

Distribution of leadership dimensions from interview answers (Q1 What is a leader?) across gender of child

Dimension	F	M	Total
Physical/spatio-temporal	39	25	64
Functional	172	174	346
Socio-emotional/relationship	55	44	99
Humanitarian/environmentally-concerned	7	10	17
Total	273	253	526

*Note: this table shows the gender distribution of children's (n=245) notations of leaders (n=526) grouped across four dimensions. Girls= 273 notations, boys = 253 notations. Measured from the children's answers to *Q1 What is a leader?*

Boys include notations within the functional dimension 69% of the times, and girls 63% of the times (boys= 174 notations= 69%=, girls= 172 notations= 63%). Additionally, and similarly to the drawing narrative analysis, both genders presented similar tendency to include socio-emotional notations (girls= 55 notations= 20%=, boys= 44 notations= 17%) and also, humanitarian or environmentally concerned notations (girls= seven notations= 3%, and boys= 10 notations= 4%). Lastly, opposite to the drawing narrative analysis, the interview analysis showed that girls had more tendency to describe physical/spatio-temporal notations (39 notations= 14%) than boys (25 notations= 10%). In conclusion, the present study did not find conclusive evidence to support the impact of gender of the child over the dimensional notation of leadership in their ILTs.

Appendix P

Orientations across boys and girls

In similar frequency, both boys and girls assign change-oriented notions or external notions to a leader's actions (change-oriented= girls= 13 notations= 5%, boys= eight notations= 3%; external= girls= 11 notations= 4%, boys= eight notations= 3%). Boys present a slightly higher tendency to denote task-oriented actions (171 notations= 72%) than girls (173 notations= 63%), as noted by Yamaguchi and Maehr (2004). Contrastingly, girls presented a slightly higher tendency to assign relations-oriented notations to the leader's actions (55 notations= 20%), than boys (31 notations= 13%) as previously noted (Broich, 1929; Nemerowicz & Rosi, 1997; Piaget, 1932).

Table 46

Comparison of action-based categories across boys and girls

Category	Girls	%	Boys	%
Task-oriented	173	63%	171	72%
Relations-oriented	55	20%	31	13%
Change-oriented	13	5%	8	3%
External	11	4%	8	3%
Not in a category	22	8%	20	8%
Grand Total	274	100%	238	100%

*Note: This table shows the distribution of notations of a leader's actions (n= 512) in drawings and interviews, across boys and girls, grouped within behavioural categories as per taxonomies by Yukl (2012) and Ayman-Nolley and Ayman (2005).

Appendix Q

Role content across gender and across points in time

Table 47

Girls social role assigned to leaders in early primary school

Role category	Prep	Grade 1	Grade 2	Total
	F	F	F	
Line leader	14	2	2	18
Teacher	2	6	5	13
Child	6	0	1	7
School Leader	3	0	3	6
Tradesperson (total)	3	2	0	5
Family member	1	3	0	4
Boss	2	0	2	4
Entertainer	1	1	1	3
Sport leader	0	2	0	2
Royal leader	0	0	1	1
Political leader	0	1	0	1
Exemplar	0	1	0	1
Emergency service leader	0	1	0	1
Military leader	0	0	0	0

*Note: This table shows girl's social role assigned to leaders in early primary school across n=66 notations

Table 48

Boys social role assigned to leaders in early primary school

Role category	Prep	Grade 1	Grade 2	Total
	M	M	M	
Line leader	9	3	2	14
Teacher	2	2	6	10
Boss	1	2	3	6
Tradesperson (total)	2	3	0	5
Family member	2	1	2	5
Military leader	0	0	3	3
Royal leader	0	0	2	2
Political leader	0	0	2	2
Exemplar	0	1	1	2
Entertainer	1	1	0	2
Emergency service leader	1	0	0	1
Child	1	0	0	1
Sport leader	0	0	0	0
School Leader	0	0	0	0

*Note: This table shows boy's social role assigned to leaders in early primary school across n=53 notations

Table 49

Girls social role assigned to leaders in middle primary school

Role category	Grade 3	Grade 4	Total
	F	F	
Teacher	8	4	12
Royal leader	2	8	10
Political leader	6	3	9
Entertainer	7	1	8
School Leader	4	1	5
Sport leader	3	0	3
Military leader	3	0	3
Exemplar	2	1	3
Boss	1	2	3
Emergency service leader	2	0	2
Tradesperson (total)	1	0	1
Line leader	0	0	0
Family member	0	0	0
Child	0	0	0

*Note: This table shows girl's social role assigned to leaders in middle primary school across n=59 notations

Table 50

Boys social role assigned to leaders in middle primary school

Role category	Grade 3	Grade 4	Total
	M	M	
Exemplar	8	8	16
Political leader	5	3	8
Boss	6	0	6
Teacher	4	1	5
School Leader	4	0	4
Line leader	4	0	4
Military leader	3	0	3
Sport leader	0	2	2

Royal leader	1	1	2
Family member	0	1	1
Emergency service leader	1	0	1
Child	1	0	1
Tradesperson (total)	0	0	0
Entertainer	0	0	0

*Note: This table shows boy's social role assigned to leaders in middle primary school across n=53 notations

Table 51

Girls social role assigned to leaders in late primary school

Role category	Grade 5	Grade 6	Total
	F	F	
Political leader	2	15	17
School Leader	5	7	12
Teacher	5	3	8
Exemplar	1	5	6
Family member	2	3	5
Entertainer	2	1	3
Military leader	1	1	2
Emergency service leader	0	2	2
Child	0	1	1
Boss	0	1	1
Tradesperson (total)	0	0	0
Sport leader	0	0	0
Royal leader	0	0	0
Line leader	0	0	0

*Note: This table shows girl's social role assigned to leaders in late primary school across n=57 notations.

Table 52

Boys social role assigned to leaders in middle primary school

Role category	Grade 5	Grade 6	Total
	M	M	
Exemplar	6	4	10
Political leader	2	3	5
Military leader	1	3	4
Boss	1	2	3
Royal leader	0	2	2
Teacher	1	0	1
Sport leader	1	0	1
School Leader	1	0	1
Line leader	1	0	1
Family member	1	0	1
Emergency service leader	1	0	1
Tradesperson (total)	0	0	0
Entertainer	0	0	0
Child	0	0	0

*Note: This table shows boy's social role assigned to leaders in middle primary school across n=30 notations

Appendix R

Leader's gender across dimensions

Table 53

Dimensional distribution attributed to a leaders' gender in children's drawings

Gender leader	Physical/ Spatial-temporal	Task-oriented/ Action-based	Follower relationship oriented/ Socio Emotional	Humanitarianism/Socially concerned/Environmental	Total
M	66	122	35	28	251
F	34	81	25	8	148
Either	1	1			2
Unknown	6	2			8
NA	3	2			5
Grand Total	110	208	60	36	414

*Note: This table shows the distribution of dimensions assigned to depictions of male and female leaders of n=414 notations about the leader in children's narratives about their drawing.

Table 54

Dimensional distribution attributed to male and female leaders' gender in children's drawings

Dimension	M	%	F	%
Physical/ Spatial-temporal	66	26%	34	23%
Task-oriented/ Action-based	122	49%	81	55%
Follower relationship oriented/ Socio Emotional	35	14%	25	17%
Humanitarianism/Socially concerned/Environmental	28	11%	8	5%
Total	251	100%	148	100%

*Note: This table shows the distribution of dimensions assigned to depictions of male and female leaders of n=399 notations about the male and female leader in children's narratives about their drawing.

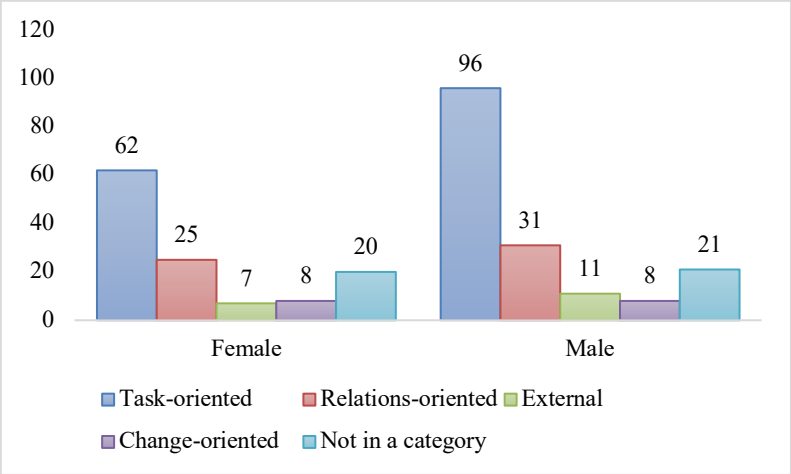
Appendix S

Leader's gender across functional orientation

The analysis looked whether a category was more associated with a leader's gender. In 223 notations (44%) of the total of notations of a leader's actions (n=512), the gender of the leader was unknown. However, 167 (33%) were associated with a male leader, and 122 (24%) with a female leader. Then three (1%) were noted for answers that specified the leader being both female and male, for example 'it doesn't matter, could be any', or 'mom and dad'. After categorising the actions, it was found, as shown in Figure 73, that the distribution across categories in male leaders and female leaders is similar. However, there is a slight tendency for male leaders to be associated more often with task-based features (96 notations= 57%), than female leaders (62 notations= 51%). In contrast to research noting that female leaders are more often associated with relations-oriented actions (Ayman-Nolley & Ayman, 2005), the results show a similar proportion in relations-oriented notations given to male and female leaders, as shown in Figure 73. Additionally, the frequency of change-oriented notions and external notions, was similar for male and female leaders. Further research into gender-related notions of leaders would help explore further these tendencies.

Figure 73

Comparison of frequency of action-based categories assigned to female and male leaders



*Note: This figure shows the distribution of notations of a leader's actions (n= 289) assigned to female and male leaders, grouped within behavioural categories as per taxonomies by Yukl (2012) and Ayman-Nolley and Ayman (2005).

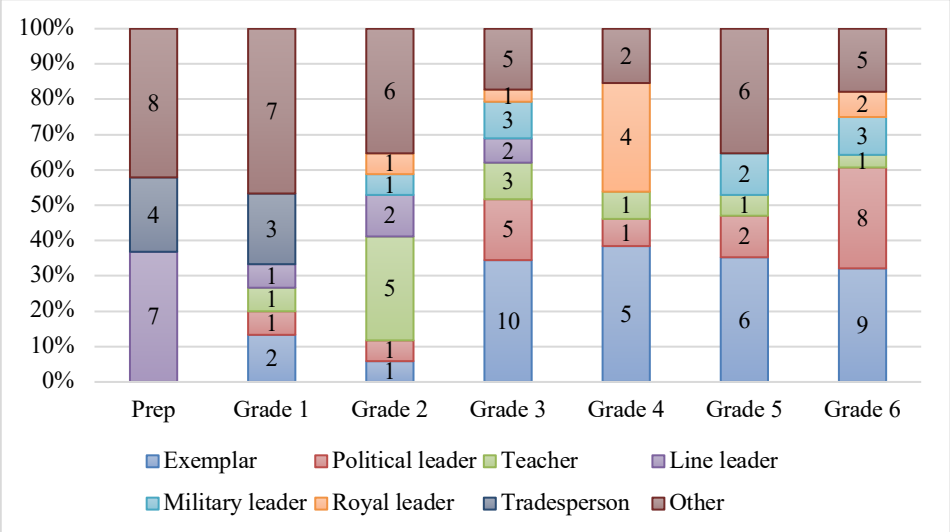
Appendix T

Social roles attributed to leaders across grades

Younger children in Prep see a male leader more often as the line leader (7 mentions= 37% from a total of 19), and sometimes as a tradesperson (4 mentions = 21% from a total of 19), due to their fathers' job, as confirmed by the drawing narrative. Then, in Grade 2, children associated a male leader with a teacher (5 mentions = 29% from a total of 17), and infrequently a political figure, or an exemplar (only once each from 17 mentions). Then there is a significant change in Grade 3, where children begin to associate a male leader with an exemplar or a political figure 52% of the times (15 mentions out of 29) , and then by Grade 6, the tendency grows to male leaders being associated with current political figures 61% of the times (17 mentions of a total of 28). The older children in Grade 6 included in equal proportion exemplars (8 mentions of political exemplars e.g. Donald Trump, Kim Jong-un = 29% of a total of 28) as well as political roles (8 mentions of political roles e.g. Prime Minister, President = 29% of a total of 28).

Figure 74

Male roles assigned to a leader across grades

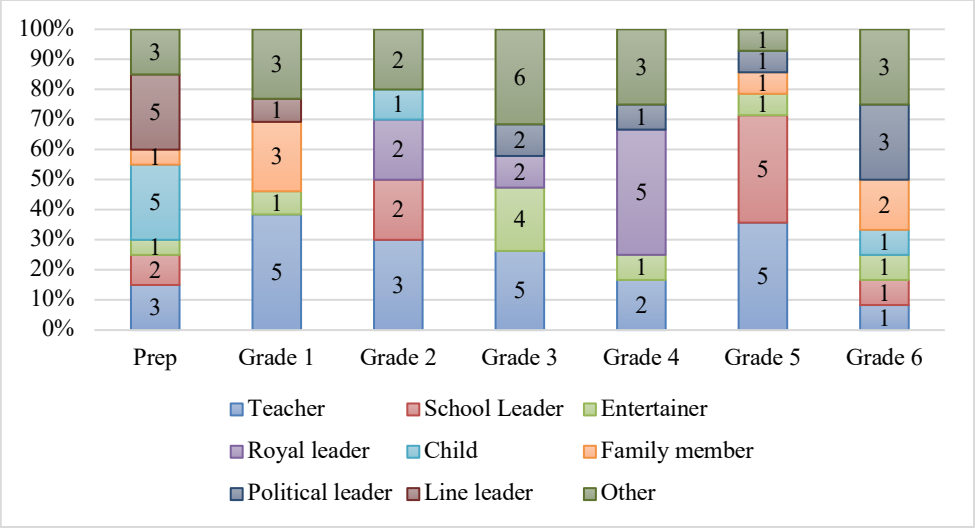


*Note: This figure shows the roles assigned to male leaders across grades. Data was obtained from (n=138) mentions of a role assigned to a male human distributed in Prep= 19 mentions, Grade 1= 15 mentions, Grade 2= 17 mentions, Grade 3= 29 mentions, Grade 4= 13 mentions, Grade 5= 17 mentions, and Grade 6= 28 mentions.

On the other hand, as shown in Figure 75, the analysis of social roles attributed to female leaders across grades shows that the role teacher is similarly attributed to a female leader across grades, except in Grade 6, where only one child depicted a female teacher. Additionally, the youngest children associate a female leader with a child (5 mentions= 25% of a total of 20 mentions), or a line leader (5 mentions= 25% of a total of 20 mentions). Then by Grade 1, children most often associate female leaders with teacher (5 mentions= 38% of a total of 13 mentions) or a family member e.g. mom or sister (3 mentions= 23% of a total of 13 mentions). Then, in middle grades, the most common roles associated with female leaders are entertainer (Grade 3, 4 mentions= 21% of 19 mentions), and queen (Grade 4, 5 mentions= 42% of 12 mentions). Consequently, children in Grade 5 associate a female leader with teacher and school leader (Grade 5, each with 5 mentions= 36% of 14 mentions), which is similar to the youngest children, however, towards the end of primary school, in Grade 6, children associate a female leader more often with a political leader (3 mentions= 25% of a total of 13), family member e.g. mom or sister (2 mentions= 17% of a total of 12 mentions), or emergency service provider such as nurse, paramedic or police officer (2 mentions= 17% of a total of 12 mentions).

Figure 75

Female roles assigned to a leader across grades



*Note: This figure shows the roles assigned to female leaders across grades. Data was obtained from (n=100) mentions of a role assigned to a female human distributed in Prep= 20 mentions, Grade 1= 13 mentions, Grade 2= 10 mentions, Grade 3= 19 mentions, Grade 4= 12 mentions, Grade 5= 14 mentions, and Grade 6= 12 mentions.

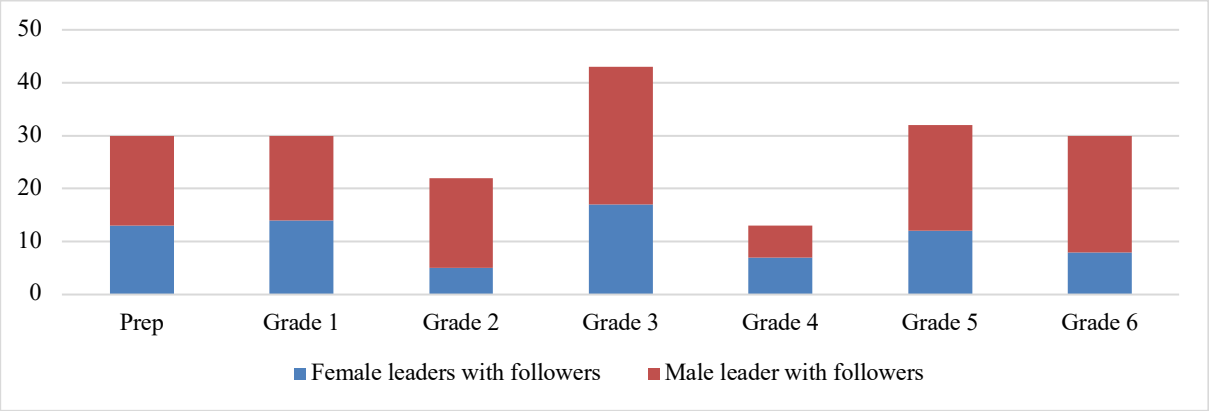
Appendix U

Followers across leader's gender

From 272 drawings, 200 (74%), included followers. From these, 124 (62%), were male leaders, and 7 (38%) were female leaders.

Figure 76

Drawings including followers across grades and gender of leader



*Note: This figure is based on n=200 drawings of leaders accompanied by followers, 124 drawings of male leaders and 76 drawings of female leaders.

Table 55

Drawings including followers across grades and gender of leader

Leader gender	Prep	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grand Total
Female leaders with followers	13	14	5	17	7	12	8	76
Male leader with followers	17	16	17	26	6	20	22	124
Total	30	30	22	43	13	32	30	200

*Note: This table is based on n=200 drawings of leaders accompanied by followers, 124 drawings of male leaders and 76 drawings of female leaders.

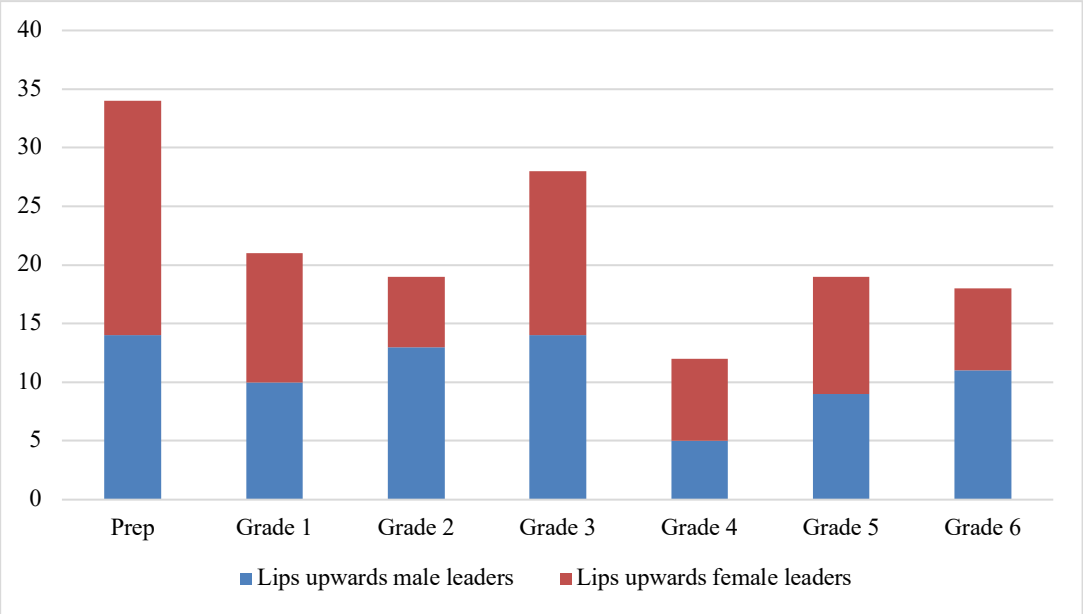
Appendix V

Lips upwards across leader's gender

From the total of drawings where the leader featured lips upwards (151 drawings), 76 drawings (50%) were of a male leader and 75 drawings (50%) were of a female leader, subsequently, there wasn't a clear tendency of female leaders being drawn with smiles more often than male leaders. Prep children, as shown in Figure 77, drew leaders smiling 79% of the times, and more often female leaders smiling (20 drawings = 43%), than male leaders smiling (14 drawings =33%). In some cases, male leaders were drawn more often smiling than female leaders, for example, in Grade 2, 13 drawings of a total of 30 (43%) drew a male leader smiling, and six drawings (20%), drew a female leader smiling. Similarly, the older children in Grade 6, depicted more male leaders smiling (11 drawings out of 39 =28%), than female leaders smiling (7 drawings =18%).

Figure 77

Lips forwards of drawn leaders across grades and gender of drawn leader



*Note: This figure is based on n=151 drawings of leaders, 76 drawings of male leaders and 75 drawings of female leaders with lips upwards.

Table 56

Lips forwards of drawn leaders across grades and gender of drawn leader

Grade	Lips upwards male leaders	Lips upwards female leaders
Prep	14	20
Grade 1	10	11
Grade 2	13	6
Grade 3	14	14
Grade 4	5	7
Grade 5	9	10
Grade 6	11	7
Total	76	75

*Note: This table is based on n=151 drawings of leaders, 76 drawings of male leaders and 75 drawings of female leaders.

Appendix W

Descriptor sophistication

Table 57

Number of unique descriptors per children's answer of what is a leader across grades

Number	Prep	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Total
1	25	21	13	13	3	3	1	79
2	11	14	8	14	3	17	5	72
3	7	1	5	8	3	8	11	43
4		1	1	7	5	4	6	24
5				4	3	2	5	14
6	1	1		1	1		1	5
7			1			2	3	6
8							1	1
9								0
10								0
11								0
12							1	1
Total	44	38	28	47	18	36	34	245

*Note: This table shows the distribution across grades of the number of unique descriptors (n=526 descriptors) from 245 children's answers to the question *Q1 What is a leader?*

As shown in Table 57, the youngest children more often answer with only one descriptor or phrase, for example 25 (57%) of Prep children, and 21 (55%) of Grade 1 provided only one descriptor. This tendency diminishes progressively across grades and only three (8%) of children in Grade 5 and one (3%) child in Grade 6 provided one descriptor. On the other hand, from Grade 3, and onwards, there seems to be an emerging trend for children to include three, four, or five descriptors in their answers. While, 19 (40%) of children in Grade 3, and 22 (65%) of children in Grade 6 included between three and five descriptors, only seven (16%) Prep children, and two (5%) children in Grade 1 included such number of unique descriptors.

Appendix X

Appendix dimensional sophistication

The drawing analysis observed whether the number of dimensions would increase with age progression. As shown in Table 58, the results illustrate that, regardless of the combination, children's narratives of their drawings in the present sample included descriptions within one dimension more often (124 drawing narratives of 272= 46%). Secondly, children provided bi-dimensional notations of leaders (110 narratives = 40%), and less often three-dimensional (27 narratives= 10%). Results also show that children in Grade 6 were the group that had the highest frequency of three-dimensional notions (eight drawing narratives out of 41= 20%), while the youngest children in Prep, only 4% (two narratives out of 48) and no narrative in children in Grade 1 displayed three-dimensional narratives. This evidence suggests that even though children most often describe the leaders within a one-dimensional or bi-dimensional framework, children in Grade 3 and Grade 6 show a higher tendency towards three-dimensional narratives.

Table 58

Distribution of number of dimensions across grades

Count of Summary of dimensions	Prep	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grand Total
One-dimensional	26	21	10	20	9	22	16	124
Bi-dimensional	17	14	15	23	9	15	17	110
Three-dimensional	2		4	9	3	1	8	27
Four-dimensional		1						1
NA/unknown	3	3	3	1				10
Total of drawings	48	39	32	53	21	38	41	272

*Note: This table shows the number of dimensions covered in each children's drawing narrative across grades.

Appendix Y

Sophistication role descriptions

Besides roles assigned to leaders and specific exemplars, some children mentioned a phrase describing the role of the leader. In total, role descriptions included 21 different general descriptions of the role of a leader as shown in Table 59.

Table 59

Descriptions of the role assigned to a leader

General	Sum of Grand Total 29
Is in charge	6
Main person	2
Has power	2
Is important	2
Has a bit of power often	1
Has a role to lead people	1
Has control	1
Has power to make choices	1
Has the biggest hat	1
Has the most things	1
Has to be followed	1
Is at the top	1
Is famous	1
Is good or bad	1
Is higher	1
Is in control	1
Is number one	1
Is superior	1
Like in front of someone	1
Main role	1
On top	1
Contextual	**16**
Leads a country	5
Leads a class	2
goes to the State Parliament	1
Has a light for boats to sail and light when they can't see	1
Has leaders in their family	1
Is in a big league	1
is royal	1
Leads a continent	1
Leads an army	1
Runs a company	1
Runs the country	1
Grand Total	**45**

*Note: This table shows the frequency of mentions of phrases or descriptions of a leader's role (n=45) divided into general notions of the role of a leader and those linked to a context.

The number of descriptions about a leader's role consistently increases with the progression of grade level as shown in Table 60. Even though the general descriptions of the role of a leader are infrequent.

Table 60

Number of phrases or general descriptions of a leader's role across grades

General description of role	Prep	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grand Total
Is in charge			1		1	2	2	6
Has power						1	1	2
Has to be followed		1						1
Has the most things							1	1
Is superior							1	1
Has power to make choices						1		1
On top						1		1
Is number one						1		1
Main role						1		1
Main person			1				1	2
Like in front of someone			1					1
Is in control				1				1
Is important						1	1	2
Is higher							1	1
Has the biggest hat	1							1
Is good or bad							1	1
Is famous				1				1
Has control							1	1
Is at the top							1	1
Has a role to lead people				1				1
Has a bit of power often					1			1
Total	1	1	3	3	2	8	11	29

*Note: This table shows the frequency of mentions of phrases or descriptions of the general role of a leader (n=29) across grades.

Appendix Z

Evidence of impact of context

Table 61

Contexts from where social roles were assigned in children's drawings

Context	Prep	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grand Total
School	13	7	14	9	2	9	4	58
Political context		1	1	11	2	7	13	35
Royalty			1	3	8	1	2	15
Family	5	3	1			2	2	13
Animals	3	1	4	2			1	11
Military		1	1	4		2	3	11
Unknown	4	3	1			1		9
Sports		1	1	3	2	1		8
Dog	3	1		2				6
Parade	1	1	1	1		2		6
Unidentified				1		1	3	5
Friends	1	2	1			1		5
NA	1	2	2					5
Office			2	1	1		1	5
Movies		1		3				4
Self	2			1			1	4
TV show						2	1	3
Tradesmen	3							3
Dance School				1	1	1		3
Fantasy	1			2				3
Police				1		1	1	3
NO	1	1	1					3
Birthday		2						2
Children	2							2
Village						1	1	2
Gardening		2						2
Religion					2			2
Hospital		1				1		2
Videogames				1	1			2
Family, friends and School	2							2
YouTube				1			1	2
Tradeswomen	1			1				2
Nature	1					1		2
Zoo / School	1							1
Dinosaurs		1						1

Hotel				1				1
Animals / Pokémon			1					1
Museum							1	1
Family (Dad is a scientist)					1			1
Theatre				1				1
Office, Royalty and Sports							1	1
Tribe							1	1
Family / Animals		1						1
Unidentified (could be Austin Powers)						1		1
Playground	1							1
Environment		1						1
Boats		1						1
Surf school						1		1
Camping		1						1
Toilet				1				1
Political context and movies					1			1
Human body						1		1
Fire Department	1							1
TV series / videogames						1		1
Animals and family							1	1
Bakery		1						1
Country				1				1
University							1	1
History							1	1
Music		1						1
Shopping mall	1							1
Ambulance							1	1
Space		1						1
Ninjas		1						1
Art Gallery				1				1
Grand Total	**48**	**39**	**32**	**53**	**21**	**38**	**41**	**272**

*Note: This table shows the contexts from where social roles were assigned in n=272 drawings of a leader.

Appendix AA

97 leader's actions

When children mentioned the leader performing an action, both in the answer to the *Q1 What is a leader?* and in the drawing narrative, it was noted. In combination, there were 512 mentions of actions, from these, 301 (59%) were obtained from the drawing narratives and 211 (41%) from the interview *Q1 What is a leader?* A frequency analysis showed that across the 512 mentions, there were 97 different actions associated with a leader, shown in Table 62.

Table 62

Frequency of actions of the leader across grades

Action	Prep	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grand Total
Tells	12	14	8	25	8	14	13	94
Leads	20	11	8	11	2	7	11	70
Gives	1	3	1	6		7	11	29
Says		5	2	6	2	7	5	27
Makes	2	1	4	1	2	3	8	21
Teaches	1	3	3	4	1	8		20
Takes	3	5	1	2		3	2	16
Talks		1	1	6		1	2	11
Helps	2	1		2	3	1	2	11
Shows	2	2		3	2	1	1	11
Protects			3	3			5	11
Does		1	1	3	1	3	1	10
Looks	1	2	1	1		1	4	10
Goes	**6**		2	1				9
Walks	3	2	1	1			1	8
Tries	3	1		1	1	1	1	8
Guides	1			2	1	1	3	8
Has	2				1	1	2	6
Speaks			1	1			**4**	6
Commands			1	1	1	2	1	6
Asks		1	1	2		1	1	6
Decides		1		2	1		1	5
Rules			1		**4**			5
Overlooks					3			3
Explains			1	1			1	3
Fights						1	2	3
Smiles	2			1				3
Directs				1			2	3
Points	1		1			1		3
Gets mad				1			2	3
Bosses	1				2			3

Works	2							2
Keeps	1						1	2
Writes				2				2
Calls	1					1		2
Hunts			2					2
Pushes		1					1	2
Sends						2		2
Should							2	2
Thinks						1	1	2
Gets				1		1		2
Manages					1		1	2
Rewards				2				2
Plays	1					1		2
Lets			1			1		2
Creates				1				1
Argues							1	1
Buys	1							1
Lives			1					1
Warns			1					1
Lies						1		1
Chases						1		1
Yells						1		1
Wins	1							1
Lectures							1	1
Abuses						1		1
Was				1				1
Demands	1							1
Knows				1				1
Shouts						1		1
Screams				1				1
Can	1							1
Is				1				1
Builds						1		1
Says				1				1
Bakes		1						1
Holds				1				1
Agree				1				1
Trains					1			1
Drinks				1				1
Runs					1			1
Wants				1				1
Hands out			1					1
Overspends						1		1
Starts						1		1
Controls							1	1
Stands						1		1
Cheers up						1		1
Spends							1	1
Changed					1			1
Punishes						1		1
Meets				1				1
Provides							1	1
Bullied				1				1

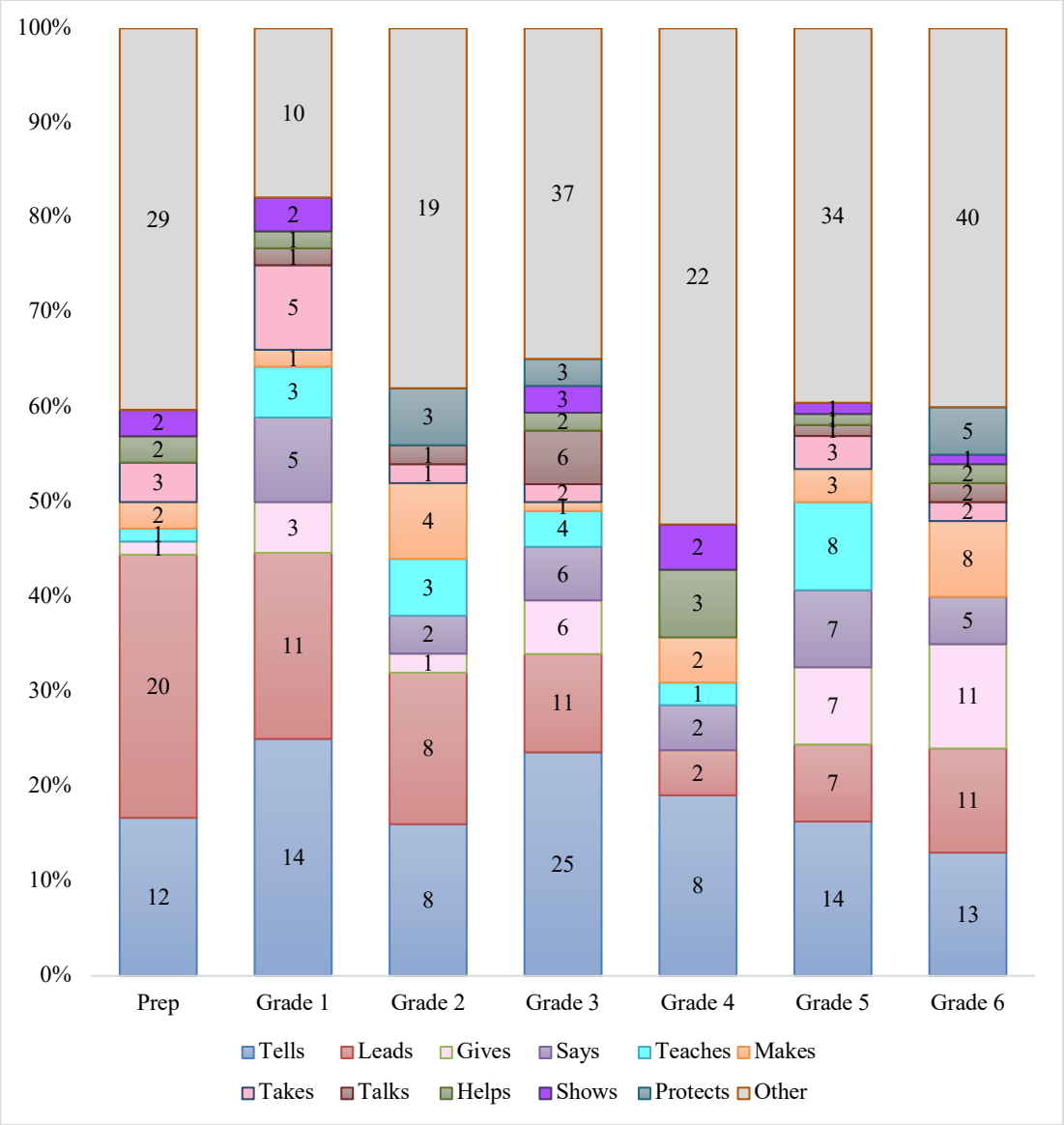
Forgives			1					1
Brings							1	1
Flies							1	1
Blends						1		1
Fills out						1		1
Shoots			1					1
Throws							1	1
Announces					1			1
Promises						1		1
Acts				1				1
Encourages						1		1
Separates					1			1
Emerges					1			1
Grand Total	**72**	**56**	**50**	**106**	**42**	**86**	**100**	**512**

*Note: This table shows the frequency distribution of 512 notions of the actions of a leader noted by the children in the present sample across grades

Even though children mentioned a wide array of actions, as shown in Table 62, the ones with highest frequency, and adding up to 62% of the total of notations (512), are ‘tells’ (94 notations= 18%) and ‘leads’ (70 notations= 14%), followed by ‘gives’ (29 notations= 6%), ‘says’ (27 notations= 5%), ‘makes’ (21 notations= 4%), ‘teaches’ (20 notations= 4%). Additionally, other notations such as ‘takes’ (16 notations= 3%), ‘talks’, ‘helps’, ‘shows’, and ‘protects’ (each with 11 notations= 2%), are within the highest frequent notions of a leader’s actions perceived by the present sample, as illustrated in Figure 78.

Figure 78

Distribution of leader's highest frequent actions across grades



*Note: This figure shows the distribution of the 12 highest frequent descriptors of a leader's actions (n=512) across grades.

When exploring these perceptions across grades, as illustrated in Figure 78 and Table 62, most of the actions are found across all the grades. However, 'teaches' is not found in the oldest children in Grade 6, and 'says' and 'talks', are not found in children in Prep. Additionally, the combination of the leader either 'telling' or 'leading' tends to decrease over time (Prep= 22 notations= 45%, Grade 1= 25 notations= 45%, Grade 2=

16 notations= 32%, Grade 3= 36 notations= 34%, Grade 4= 10 notations= 24%, Grade 5= 21 notations= 24%, Grade 6= 24 notations= 24%) giving more weight to other features such as ‘gives’ ‘says’ and ‘makes’, as seen in Grade 6 (‘gives’= 11 notations= 11%, ‘makes’= eight notations= 8%, and ‘says’= five notations= 5%).

Appendix BB

General overview of characteristics of a leader's character, appearance, and behaviour

In total, from n=272 drawing narratives, and n=245 answers to the *Q1 What is a leader*? 1,002 descriptors of a leader were obtained. A descriptor is a unique idea, attached to a leader's appearance, character, or behaviour. From n=1002 descriptors, 151 (15%) were about the leader's appearance, 340 (34%) about a leader's character, and 511 (51%), about a leader's actions or behaviour. When exploring this data across grades, as illustrated in

Table 63, the data shows, that children across all grades include more notations about a leader's actions than those of a leader's character or appearance (Prep= 72 notations= 60%, Grade 1= 56 notations= 57%, Grade 2= 50 notations= 48%, Grade 3= 106 notations= 54%, Grade 4= 41 notations= 43%, Grade 5= 86 notations= 48%, Grade 6= 100 notations= 48%), however the youngest children show the highest frequency. Then, as children grow older, they increase notations about a leader's character. So, while children in Prep and Grade 1 gave notations that were about a leader's character 20% of the times, children in Grade 2 gave character's notations 29% of the times, and children in Grade 3, 28% of the times. Then, children in the higher Grades show an increase in frequency of mentions of a leader's character (Grade 4= 45%, Grade 5 and Grade 6= 44% each).

Table 63

Distribution of frequency of notations of a leader's appearance character and behaviour across grades

Notions	Prep	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Total
Appearance	25	23	24	35	12	14	18	151
Character	24	20	30	54	43	78	91	340
Actions	72	56	50	106	41	86	100	511
Total	121	99	104	195	96	178	209	1002

*Note: This table shows the distribution across grades of n=1,002 notations of a leader, including appearance, character, and behaviour.

Additionally, the analysis of Table 63 shows that notations about the leader's appearance (Prep= 21%, Grade 1= 24%, and Grade 2= 23%), are similarly frequent to the leader's character in the youngest children, from Grade 3, onwards notations about a leader's appearance constantly decrease up until Grade 5, so while children in Grade 3, noted the leader's appearance 18% of the times, children in Grade 4 noted it 13% of the times, and children in Grade 5, 8% of the times. Lastly, children in Grade 6, noted it 9% of the times.

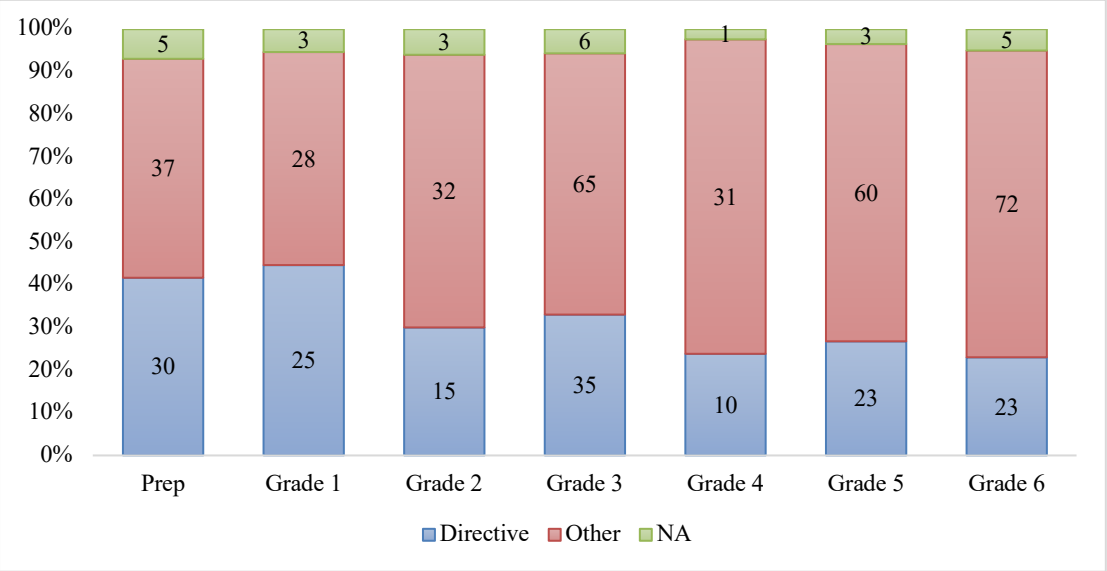
Appendix CC

Directive notions of a leader

The highest frequent function of a leader, directive (161 notations= 31%), was obtained from children's notions of a leader giving direction to other or others, for example, 'telling what to do', 'telling to go', 'giving orders', or 'guiding where to go'. It also includes notations of the leader leading 'somewhere', 'what to do', or 'leading children'. So while children in Prep and Grade 1 presented directive notions often (Prep= 72 notations= 42%, Grade 1= 25 notations= 45%), it consistently decreased as children grew older (Grade 2= 15 notations =30%, Grade 3= 35 notations= 33%, Grade 4= 10 notations= 24%=, Grade 5= 23 notations= 27%, and Grade 6= 23 notations= 23%).

Figure 79

Detail of coded function 'directive' and distribution across grades



*Note: This table shows the trait 'directive' after three-step thematic coding (researcher -> teacher -> Member supervisory team) of 161 notations of a leader's actions across grades in comparison to other descriptors.

Table 64

Detail of coded function 'directive' and distribution across grades

Directive source	Prep	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grand Total
Tells what to do	10	7	5	15	7	9	5	58
Leads people	5	3	5	3	2	6	5	29
Leads something	2	3						5
Tells where to go		1		2			2	5
Tells to do something		2		1		1		4
Leads someone	1	1		1			1	4
Leads stuff	3							3
Gives orders				1			2	3
Leads to the park	2							2
Tells to go		1		1				2
Says what to do		1				1		2
Leads a crew				2				2
Tells to follow them			1			1		2
Tells have to do it				1				1
Says "Follow me"						1		1
Leads what to do	1							1
Leads children to make a line		1						1
Says to build a wall on a podium					1			1
Leads children to places			1					1
Leads a song		1						1
Leads marching band			1					1
Says "come team"				1				1
Leads other trainers				1				1
Says "This way"			1					1
Directs get people to where they want to be							1	1
Takes kids for walk		1						1
Guides the group							1	1
Tells to do bad work	1							1
Directs where to go							1	1
Leads two kids				1				1
Guides to do something						1		1
Says "Attention"		1						1
Leads the group							1	1
Says "Everyone follow me"				1				1
Leads the parade	1							1
Says "Stop"						1		1
Leads the thing		1						1
Says "Today we are doing art"							1	1
Tells when to do things				1				1

Leads across the road	1							1
Leads a group of girls							1	1
Takes you somewhere leading the way				1				1
Guides where to go	1							1
Tells orders						1		1
Just leads						1		1
Leads all the builders	1							1
Leads to something else	1							1
Gives paperwork		1						1
Leads to good or bad things				1				1
Directs				1				1
Leads to a new home							1	1
Leads them all							1	1
Leads them somewhere			1					1
Total	30	25	15	35	10	23	23	161

*Note: This table shows the trait ‘directive’ after three-step thematic coding (researcher -> teacher -> Member supervisory team) of 161 notations of a leader’s actions across grades.

Appendix DD

Traits early primary school

Looking across the frequency of traits coded from notations given to a leader's appearance, character, and actions in Prep, Grade 1, and Grade 2, as illustrated in Table 65, results show that 70 different characteristics are found within early primary school. From these, the most prominent is the leader's functionality by providing direction or leading something, or someone (22%= 70 notations), for example, when the leader is giving plain direction to other or others, such as 'telling what to do', 'saying what to do', 'telling to go', 'giving orders', or 'guiding where to go'. It also includes notations of the leader leading 'somewhere', 'what to do', or 'leading children'. Other common notions, in less frequency, include the leader's informative function (6%= 20), in combination with physical features and spatial connotations such as being big (6%= 19), older (3%= nine notations), strong-looking (2%= five). Taking someone or something physically to another place (5%= 15) is also a common idea within this age group. Additionally, the youngest children also acknowledge sometimes the leader's sensitivity by being helpful (4%= 12), nice (3%= 10), and caring (2%= eight), as illustrated in Table 65.

Table 65

Early primary school noted leader characteristics

Trait	Prep	Grade 1	Grade 2	Total	%
Directive	30	25	15	70	22%
Informative	5	6	9	20	6%
Big	5	11	3	19	6%
Goer	10	2	3	15	5%
Helpful	3	5	4	12	4%
Nice	3	3	4	10	3%
Older	6	0	3	9	3%
Caring	2	3	3	8	2%
Has stuff	2	3	2	7	2%
Teacher	1	3	3	7	2%
Dressed up	3	3	1	7	2%

Dedicated	3	3		6	2%
Inclusive		2	4	6	2%
Facial hair	1	3	2	6	2%
Tall	3	1	2	6	2%
Hairdo	3	0	2	5	2%
Kind			5	5	2%
Cute/pretty			5	5	2%
Strong looking	1		4	5	2%
Confident/themselves	3		1	4	1%
Protective	1		3	4	1%
Powerful	1	2	1	4	1%
Happy	1	2	1	4	1%
Knowledgeable	2	1		3	1%
Doer	1	1	1	3	1%
Good	2	1		3	1%
Productive	2	1		3	1%
Bold	1	1		2	1%
Other appearance	0	2	0	2	1%
Listener		1	1	2	1%
Strong			2	2	1%
Friendly	2			2	1%
Bossy	1	1		2	1%
Goal oriented	1		1	2	1%
Dominant	1		1	2	1%
Playful	2			2	1%
Fast	2			2	1%
Creative		1	1	2	1%
Fancy		2		2	1%
Cheerful	2			2	1%
Pleaser	2			2	1%
Decisive		1		1	0%
Persuasive	1			1	0%
In control	1			1	0%
Encouraging		1		1	0%
Commanding			1	1	0%
Responsible		1		1	0%
Angry/scary looking	1			1	0%
Ruler			1	1	0%
Good decision maker			1	1	0%
Wise		1		1	0%
Joyful		1		1	0%
Trustworthy			1	1	0%
Initiator	1			1	0%
Decision maker			1	1	0%
Responsive		1		1	0%
Determined	1			1	0%

Hard worker	1			1	0%
Clever			1	1	0%
Tough			1	1	0%
Not strict			1	1	0%
Considerate			1	1	0%
Forgiving			1	1	0%
Resourceful	1			1	0%
Dumb		1		1	0%
Likes animals			1	1	0%
Calm			1	1	0%
Empathic			1	1	0%
Pushy		1		1	0%
Mean			1	1	0%
NA	5	3	3	11	3%
Grand Total	120	100	104	324	100%

*Note: This table shows the characteristics of a leader expressed by the youngest children n= 324 in Prep, Grade 1, and Grade 2 coded into traits following a three-step thematic coding (researcher -> teacher -> Member supervisory team) detailed in the methodology section, and grouped within factors and clusters guided by ILTs generalisability theory (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994).

Looking at the factor and cluster distribution in children in early primary school, guided by ILTs generalisability theory (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994), can give further insight into patterns of characteristics assigned to leaders, as shown in Table 66.

Table 66

Factor and cluster distribution of ILTs content in children in early primary school

Factor	Prep	Grade 1	Grade 2	Total	%
Dynamism	**53**	**38**	**37**	**128**	**40%**
Directive	29	25	15	69	21%
Informative	5	6	9	20	6%
Goer	10	2	3	15	5%
Confident/themselves	3		1	4	1%
Powerful	1	2	1	4	1%
Protective			3	3	1%

Productive	2	1		3	1%
Bold	1	1		2	1%
Strong			2	2	1%
In control	1			1	0%
Commanding			1	1	0%
Responsible		1		1	0%
Ruler			1	1	0%
Persuasive	1			1	0%
Tough			1	1	0%
Sensitivity	**13**	**15**	**27**	**55**	**17%**
Helpful	3	5	4	12	4%
Nice	3	3	4	10	3%
Caring	2	3	3	8	2%
Inclusive		2	4	6	2%
Kind			5	5	2%
Listener		1	1	2	1%
Friendly	2			2	1%
Pleaser	2			2	1%
Trustworthy			1	1	0%
Considerate			1	1	0%
Not strict			1	1	0%
Responsive		1		1	0%
Protective	1			1	0%
Forgiving			1	1	0%
Empathic			1	1	0%
Calm			1	1	0%
Conspicuous	**16**	**15**	**10**	**41**	**13%**
Big	5	11	3	19	6%
Older	6	0	3	9	3%
Has stuff	2	3	2	7	2%
Tall	3	1	2	6	2%
Dedication	**8**	**4**	**4**	**16**	**5%**
Dedicated	3	2		5	2%
Doer	1	1	1	3	1%
Goal oriented	1		1	2	1%
Good decision maker			1	1	0%
Decisive		1		1	0%
Decision maker			1	1	0%
Determined	1			1	0%
Hard worker	1			1	0%
Resourceful	1			1	0%
Well-groomed	**6**	**5**	**3**	**14**	**4%**
Dressed up	3	3	1	7	2%
Hairdo	3	0	2	5	2%
Fancy		2		2	1%
Intelligence	**3**	**5**	**4**	**12**	**4%**
Teacher	1	3	3	7	2%
Knowledgeable	2	1		3	1%
Wise		1		1	0%
Clever			1	1	0%
Tyranny	**4**	**4**	**2**	**10**	**3%**
Bossy	1	1		2	1%

Dominant	1		1	2	1%
Angry/scary looking	1			1	0%
Directive	1			1	0%
Pushy		1		1	0%
Mean			1	1	0%
Dedicated		1		1	0%
Dumb		1		1	0%
Playful	**5**	**3**	**1**	**9**	**3%**
Happy	1	2	1	4	1%
Playful	2			2	1%
Cheerful	2			2	1%
Joyful		1		1	0%
Physically skilled	**3**		**4**	**7**	**2%**
Strong looking	1		4	5	2%
Fast	2			2	1%
Masculinity	**1**	**3**	**2**	**6**	**2%**
Facial hair	1	3	2	6	2%
Attractive			**5**	**5**	**2%**
Cute/pretty			5	5	2%
Creativity	**1**	**1**	**1**	**3**	**1%**
Creative		1	1	2	1%
Initiator	1			1	0%
Good and/or bad	**2**	**1**		**3**	**1%**
Good	2	1		3	1%
Charisma		**1**		**1**	**0%**
Encouraging		1		1	0%
Awareness (of domain)			**1**	**1**	**0%**
Likes animals			1	1	0%
NA	**5**	**5**	**3**	**13**	**4%**
NA	5	3	3	11	3%
Other appearance	0	2	0	2	1%
Grand Total	**120**	**100**	**104**	**324**	100%

*Note: This table shows the characteristics n= 324 of a leader expressed by the youngest children in Prep, Grade 1, and Grade 2 coded into traits following a three-step thematic coding (researcher -> teacher -> Member supervisory team) and grouped within factors and clusters guided by ILTs generalisability theory (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994).

The results in Table 66 show that the youngest children perceive a leader mostly as dynamic (40%= 128 notations), by giving direction (21%= 69) and less often, information (6%= 20), also by being a ‘goer’ (5%= 15). Additionally, the youngest children note often a leader’s sensitivity (17%= 55) by being helpful (4%= 12), nice

(3%= 10), caring (2%= eight), inclusive (2%= six), and kind (2%= five). The youngest children are also sensitive to the leader's conspicuousness (13%= 41 notations) guided by the leader being big (6%= 19), older (3%= nine), having stuff (2%= seven), being tall (2%= six notations), or looking strong (2%= five notations).

Lastly, data from the younger children points towards the germination of specific factor perception, for there are infrequent notions within a leader's dedication (5%= 16), well-groomed (4%= 14), intelligent (4%= 12), tyrannic (3%= 10), positive (3%= nine), physically skilled (2%= seven), masculine (2%= six), attractive (2%= five), creative (1%= three notations), and charismatic (0%= one notation). Additionally, there are a few references to the leader being specifically good (1% three), suggesting notions within the positive threshold of perception. Table 67 shows the factor and cluster distribution in early primary school. The highest frequent, dynamism (40%), sensitivity (17%) and conspicuous (13%), add up to 70%. The 30% is divided into mid-frequent and infrequent characteristics that show evidence of emerging content within these factors in this early group.

Table 67

Factor distribution in early primary school

Factor	Prep	Grade 1	Grade 2	Total	%
Dynamism	53	38	37	128	40%
Sensitivity	13	15	27	55	17%
Conspicuous	16	15	10	41	13%
Dedication	8	4	4	16	5%
Well-groomed	6	5	3	14	4%
Intelligence	3	5	4	12	4%
Tyranny	4	4	2	10	3%
Positivity	5	3	1	9	3%
Physically skilled	3		4	7	2%
Masculinity	1	3	2	6	2%
Attractive			5	5	2%
Creativity	1	1	1	3	1%
Good and/or bad	2	1		3	1%
Charisma		1		1	0%
Awareness (of domain)			1	1	0%
NA	5	5	3	13	4%
Grand Total	120	100	104	324	100%

*Note: This table shows the characteristics of a leader expressed by the youngest children n= 324 in Prep, Grade 1, and Grade 2 coded into traits following a three-step thematic coding (researcher -> teacher -> Member supervisory team) and grouped within factors guided by ILTs generalisability theory (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994).

Appendix EE

Informative notions of a leader

Looking in detail at the second highest frequent trait ‘informative’ (15%= 76 notations), where the criteria was based on those cases where the leader provided content beyond ‘directing’, ‘telling’ or ‘leading’ what to do. The leader coded as informative was applied when the leader was either giving out, or holding specified information in the form of instructions, a speech, notes, or tactics, as shown in Table 68.

Table 68

Detail of coded function ‘informative’ and distribution across grades

Informative source	Prep	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grand Total
Gives instructions		1		1		3	2	7
Gives instructions of stuff to do				2		1	1	4
Tells how to do things				1	1		1	3
Gives a speech				1		1	1	3
Tells the plan	1		1				1	3
Gives instructions to people	1		1					2
Makes important announcements					1		1	2
Speaks in front of Parliament							2	2
Talks about their ideas						1		1
Shows you something						1		1
Tells which way is best			1					1
Explains what to do				1				1
Speaks in a microphone							1	1
Gives directions to other people				1				1
Tells a story		1						1
Gives reasons to vote for them							1	1
Shows where people have to go		1						1
Guides the right thing to do				1				1
Speaks a speech in Parliament							1	1
Hands out paper			1					1
Talks about different changes and stuff				1				1
Leads with words				1				1
Talks on a stage			1					1
Lectures what they want to change							1	1
Tells instructions							1	1
Makes a speech							1	1
Writes notes about the meeting				1				1
Explains the mission							1	1
Shows where to go				1				1

Points a way						1		1
Shows you where to go	1							1
Points at the board			1					1
Speaks about something that prime ministers talk about like the world and what they can change and stuff.				1				1
Speaks in a microphone on a stage			1					1
Gives instructions of difficult stuff		1						1
Talks				1				1
Points where to go	1							1
Talks a speech				1				1
Says decisions and changes							1	1
Talks about different things with other prime ministers from other countries.				1				1
Says things you should do			1					1
Talks on a podium							1	1
Shows people the way							1	1
Talks to the public				1				1
Tells stuff that is happening				1				1
Explains			1					1
Tells the right thing to do		1						1
Gives directions						1		1
Tells what should be done						1		1
Shows people where they are going and where to go		1						1
Tells what direction and place they need to go							1	1
Shows people where to go				1				1
Tells when they're not doing the right thing							1	1
Shows tactics					1			1
Writes notes				1				1
Shows them where to go	1							1
Announces all women should have the right to vote and equal civil rights.					1			1
Shows to follow them					1			1
Total	5	6	9	20	5	10	21	76

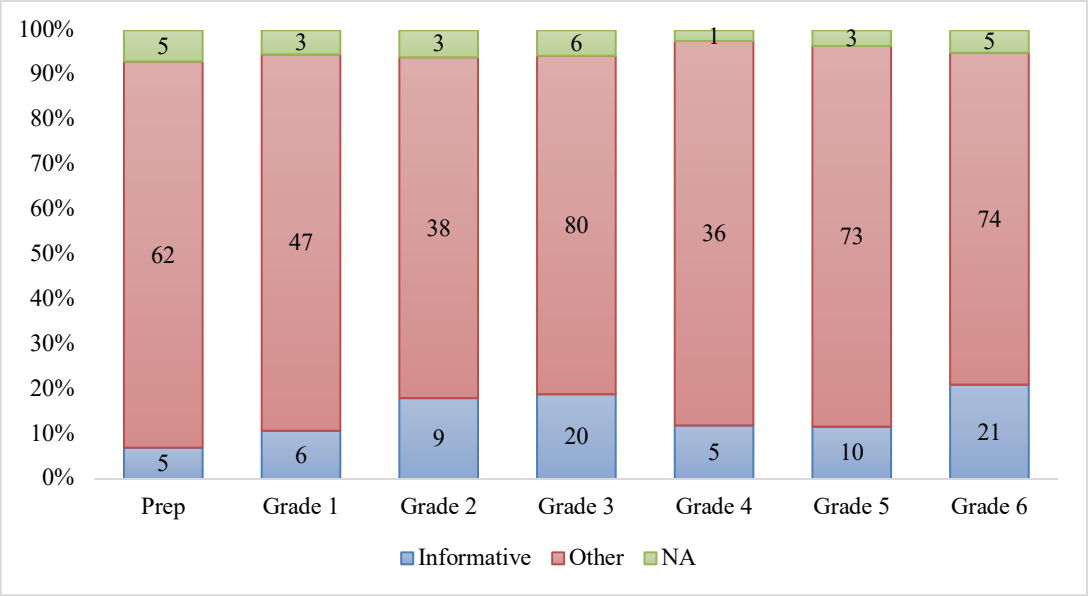
*Note: This table shows the trait ‘informative’ after three-step thematic coding (researcher -> teacher -> Member supervisory team) of 161 notations of a leader’s actions across grades.

As shown in Table 68, descriptors of the leader’s informative behaviour show a contrasting progression in comparison to the directive behaviour. In the youngest

children the frequency is low (Prep= five notations= 7%, Grade 1= six notations= 11%). Then in middle primary school, it increases (Grade 2= nine notations= 18%, Grade 3= 20 notations= 19%). Then in Grade 4 and 5 it decreases to levels similar to the youngest children (Grade 4= five notations= 12%, Grade 5= 10 notations= 12%). However, in the oldest children, in Grade 6, it grows again, being the group where the informative aspect of the leader is the highest (21 notations= 21%), as illustrated in Figure 80. In connection to this finding, Chauvin and Karnes (1984) noted that children towards the end of primary school believe the ideal leader gets ideas clearly across to others.

Figure 80

Detail of coded function 'informative' and distribution across grades



*Note: This figure shows the trait 'informative' after three-step thematic coding (researcher -> teacher -> Member supervisory team) of 161 notations of a leader's actions across grades in comparison to other descriptors.

Appendix FF

Traits middle primary school

Table 69

Middle primary school noted leader characteristics

Trait	Grade 3	Grade 4	Total	%
Directive	35	10	45	15%
Informative	20	5	25	9%
Helpful	9	8	17	6%
Has stuff	8	3	11	4%
Caring	7	1	8	3%
Decisive	2	5	7	2%
Hairdo	5	2	7	2%
Nice	4	3	7	2%
Persuasive		7	7	2%
Dressed up	4	2	6	2%
Knowledgeable	2	4	6	2%
Teacher	5	1	6	2%
Big	5	0	5	2%
Inclusive	2	3	5	2%
Kind	5		5	2%
Other appearance	4	1	5	2%
Recognising	5		5	2%
Angry	2	2	4	1%
Ruler		4	4	1%
Angry/scary looking	1	2	3	1%
Bossy	1	2	3	1%
Doer	2	1	3	1%
Encouraging	2	1	3	1%
Good	2	1	3	1%
Good decision maker	3		3	1%
Listener	3		3	1%
Monitoring		3	3	1%
Powerful	2	1	3	1%
Protective	3		3	1%
Strong	3		3	1%
Bold	2		2	1%
Brave	2		2	1%
Commanding	1	1	2	1%
Confident/themselves	2		2	1%
Cute/pretty	2		2	1%
Dedicated	1	1	2	1%

Facial hair	0	2	2	1%
Friendly	1	1	2	1%
Funny	2		2	1%
Goer	2		2	1%
Hates others	2		2	1%
Loud	1	1	2	1%
Mentor		2	2	1%
Older	2	0	2	1%
Sensitive		2	2	1%
Serious	2		2	1%
Strong looking	2		2	1%
Accurate	1		1	0%
Altruistic	1		1	0%
Annoying		1	1	0%
Bright	1		1	0%
Bully	1		1	0%
Cheerful	1		1	0%
Creative	1		1	0%
Decision maker		1	1	0%
Determined		1	1	0%
Divisive		1	1	0%
Dominant	1		1	0%
Envisioning	1		1	0%
Fast	1		1	0%
Fighter		1	1	0%
Followed		1	1	0%
Funny looking	1		1	0%
Happy		1	1	0%
Idealist		1	1	0%
Initiator	1		1	0%
Joyful		1	1	0%
Likes technology		1	1	0%
Loves what they do	1		1	0%
Managerial		1	1	0%
Outgoing		1	1	0%
Planner		1	1	0%
Playful	1		1	0%
Punisher	1		1	0%
Responsible	1		1	0%
Responsive	1		1	0%
Revolutionary		1	1	0%
Supportive	1		1	0%
Tall	1	0	1	0%

Trustworthy	1		1	0%
NA	6	1	7	2%
Total	195	97	292	100%

*Note: This table shows the characteristics of a leader n= 292 expressed by the children in Grade 3 and 4, coded into traits following a three-step thematic coding (researcher -> teacher -> member supervisory team).

Looking at the factor distribution in children in middle primary school can give further insight into patterns or clusters of characteristics assigned to leaders, as shown in Table 70.

Table 70

Factor distribution of ILTs content in children in middle primary school

Factor Trait	Grade 3	Grade 4	Total	%
Dynamism	**79**	**34**	**113**	**39%**
Directive	35	10	45	15%
Informative	20	5	25	9%
Persuasive		7	7	2%
Ruler		4	4	1%
Goer	2		2	1%
Bold	2		2	1%
Confident/themselves	2		2	1%
Protective	3		3	1%
Powerful	2	1	3	1%
Strong	3		3	1%
Decisive		3	3	1%
Serious	2		2	1%
Brave	2		2	1%
Commanding	1	1	2	1%
Responsible	1		1	0%
Responsive	1		1	0%
Outgoing		1	1	0%
Fighter		1	1	0%
Altruistic	1		1	0%
Managerial		1	1	0%
Punisher	1		1	0%
Envisioning	1		1	0%

Sensitivity	**38**	**18**	**56**	**19%**
Helpful	9	8	17	6%
Caring	7	1	8	3%
Nice	4	3	7	2%
Inclusive	2	3	5	2%
Kind	5		5	2%
Recognising	5		5	2%
Listener	3		3	1%
Sensitive		2	2	1%
Friendly	1	1	2	1%
Trustworthy	1		1	0%
Supportive	1		1	0%
Dedication	**9**	**10**	**19**	**7%**
Decisive	2	2	4	1%
Doer	2	1	3	1%
Monitoring		3	3	1%
Good decision maker	3		3	1%
Dedicated	1	1	2	1%
Decision maker		1	1	0%
Determined		1	1	0%
Planner		1	1	0%
Accurate	1		1	0%
Conspicuous	**16**	**3**	**19**	**7%**
Has stuff	8	3	11	4%
Big	5	0	5	2%
Older	2	0	2	1%
Tall	1	0	1	0%
Tyranny	**9**	**9**	**18**	**6%**
Angry	2	2	4	1%
Angry/scary looking	1	2	3	1%
Bossy	1	2	3	1%
Loud	1	1	2	1%
Hates others	2		2	1%
Dominant	1		1	0%
Divisive		1	1	0%
Annoying		1	1	0%
Bully	1		1	0%
Intelligence	**8**	**7**	**15**	**5%**
Teacher	5	1	6	2%
Knowledgeable	2	4	6	2%
Mentor		2	2	1%
Bright	1		1	0%
Well-groomed	**9**	**4**	**13**	**4%**

Hairdo	5	2	7	2%
Dressed up	4	2	6	2%
Positivity	**6**	**2**	**8**	**3%**
Funny	2		2	1%
Happy		1	1	0%
Playful	1		1	0%
Joyful		1	1	0%
Cheerful	1		1	0%
Funny looking	1		1	0%
Loves what they do	1		1	0%
Charisma	**2**	**3**	**5**	**2%**
Encouraging	2	1	3	1%
Followed		1	1	0%
Revolutionary		1	1	0%
Creativity	**2**	**1**	**3**	**1%**
Initiator	1		1	0%
Creative	1		1	0%
Idealist		1	1	0%
Physically skilled	**3**		**3**	**1%**
Strong looking	2		2	1%
Fast	1		1	0%
Good and/or bad	**2**	**1**	**3**	**1%**
Good	2	1	3	1%
Masculinity	**0**	**2**	**2**	**1%**
Facial hair	0	2	2	1%
Attractive	**2**		**2**	**1%**
Cute/pretty	2		2	1%
Awareness		**1**	**1**	**0%**
Likes technology		1	1	0%
NA	**10**	**2**	**12**	**4%**
NA	6	1	7	2%
Other appearance	4	1	5	2%
Grand Total	**195**	**97**	**292**	**100%**

*Note: This table shows the characteristics of a leader n= 292 expressed by the children in middle primary school in Grade 3 and 4, coded into traits following a three-step thematic coding (researcher -> teacher -> Member supervisory team) and grouped within factors guided by ILTs generalisability theory (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994).

Table 71 shows the factor distribution in middle primary school. The highest frequent clusters, dynamism (39%), sensitivity (19%), dedication (7%), and conspicuous (7%), add up to 72% of children's ILTs. These results are similar to those found in early primary school, however frequency of notions of a leader's dynamism decrease and those within the sensitivity factor, increase slightly, as shown in Figure 81.

Additionally, the leader's conspicuousness presents the bigger reduction (from 13% to 7%) and dedication increases (from 5% to 7%) becoming as frequent as conspicuousness. The remaining 28% of notations are divided into mid-frequent and infrequent characteristics of the leader, that show evidence of content within the remaining 11 clusters. Comparing the frequency of these factors with the younger children, it is found that notions of the leader being 'dressed up' or with a 'hairdo', increase in proportion in this group (from 4% to 6%), as well as tyranny notations (from 3% to 4%), and also those coded under charisma (from 0% to 1%). On the other hand, referents to the leader being intelligent, positive, creative, physically skilled, and domain aware, present the same frequency in children's ILTs, as those found in the youngest (Prep-Grade 2). Referents to the leader's attractiveness decreased (notions of cute and pretty from 2% to 1%), as well as notions of masculinity (facial hair from 2% to 1%). Additionally, in a similar proportion to the youngest children, there are a few references to the leader being specifically 'good' (1%= three), suggesting the presence of ideas within the positive threshold of perception during this time.

Table 71

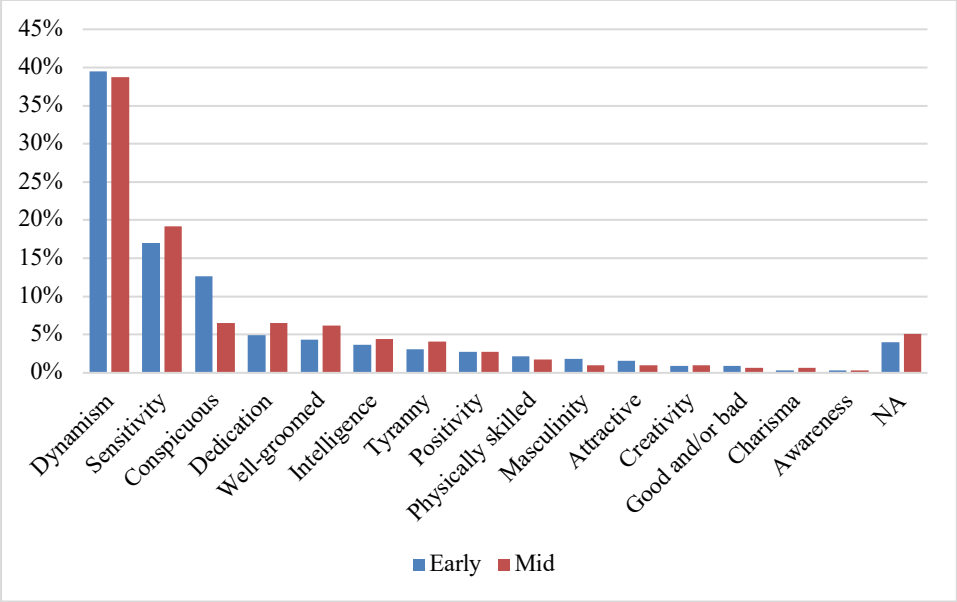
Factor distribution in middle primary school

Factor	Grade 3	Grade 4	Total	%
Dynamism	79	34	113	39%
Sensitivity	38	18	56	19%
Dedication	9	10	19	7%
Conspicuous	16	3	19	7%
Tyranny	9	9	18	6%
Intelligence	8	7	15	5%
Well-groomed	9	4	13	4%
Positivity	6	2	8	3%
Charisma	2	3	5	2%
Creativity	2	1	3	1%
Physically skilled	3		3	1%
Good and/or bad	2	1	3	1%
Masculinity	0	2	2	1%
Attractive	2		2	1%
Awareness		1	1	0%
NA	10	2	12	4%
Grand Total	195	97	292	100%

*Note: This table shows the characteristics of a leader n=292 expressed by the children in middle primary school in Grade 3 and 4, coded into traits following a three-step thematic coding (researcher -> teacher -> Member supervisory team) and grouped within factors guided by ILTs generalisability theory (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994).

Figure 81

Comparison of cluster distribution between early and middle primary school



*Note: This figure compares the percentual distribution of characteristics of a leader within clusters or factors between early primary school n= 324, and middle primary school n=292.

Appendix GG

Traits late primary school

Table 72

Late primary school noted leader characteristics

Trait	Grade 5	Grade 6	Total	Total
Directive	23	23	46	12%
Informative	10	21	31	8%
Helpful	9	19	28	7%
Bold	5	7	12	3%
Caring		12	12	3%
Dedicated	3	7	10	3%
Confident/themselves	4	5	9	2%
Inclusive	4	4	8	2%
Teacher	8		8	2%
Brave	2	5	7	2%
Decisive	1	6	7	2%
In control	2	5	7	2%
Dressed up	4	2	6	2%
Has stuff	1	5	6	2%
Respectful	5	1	6	2%
Angry	3	2	5	1%
Hairdo	1	4	5	1%
Protective		5	5	1%
Thinker	2	3	5	1%
Commanding	3	1	4	1%
Listener	4		4	1%
Nice	4		4	1%
Original	2	2	4	1%
Other appearance	2	2	4	1%
Powerful	3	1	4	1%
Responsible	1	3	4	1%
Selfless	2	2	4	1%
Wise		4	4	1%
Aggressive	2	1	3	1%
Constructive	2	1	3	1%
Encouraging	2	1	3	1%
Friendly	2	1	3	1%
Manipulative	1	2	3	1%
Monitoring	2	1	3	1%
Organised	1	2	3	1%
Positive	1	2	3	1%

Strong	1	2	3	1%
Tall	2	1	3	1%
Angry/scary looking	1	1	2	1%
Doer	1	1	2	1%
Facial hair	2	0	2	1%
Focused	2		2	1%
Followed	1	1	2	1%
Goal oriented	1	1	2	1%
Good ideas person	1	1	2	1%
Happy	2		2	1%
Joyful	1	1	2	1%
Knowledgeable	1	1	2	1%
Mentor	2		2	1%
Older	0	2	2	1%
Skilful		2	2	1%
Skilful	1	1	2	1%
Supportive		2	2	1%
Trustworthy	1	1	2	1%
Victorious	1	1	2	1%
Abusive	1		1	0%
Altruistic		1	1	0%
Ambitious	1		1	0%
Apologetic		1	1	0%
Aspirational		1	1	0%
Bad	1		1	0%
Busy		1	1	0%
Clever		1	1	0%
Committed		1	1	0%
Considered		1	1	0%
Consulting	1		1	0%
Cute/pretty		1	1	0%
Decision maker		1	1	0%
Demanding		1	1	0%
Determined	1		1	0%
Dominant		1	1	0%
Engaged	1		1	0%
Enterprising	1		1	0%
Environmentally aware	1		1	0%
Exemplar	1		1	0%
Experienced	1		1	0%
Fancy		1	1	0%
Fighter	1		1	0%
Follower similar	1		1	0%

Funny looking	1		1	0%
Future aware	1		1	0%
Goer		1	1	0%
Good and bad		1	1	0%
Good decision maker		1	1	0%
Hard worker	1		1	0%
Initiator	1		1	0%
Loquacious	1		1	0%
Loud	1		1	0%
Loves what they do	1		1	0%
Managerial		1	1	0%
Misleading	1		1	0%
Not friendly	1		1	0%
Not liked		1	1	0%
Opinionated		1	1	0%
Outgoing	1		1	0%
Overspender	1		1	0%
Persistent		1	1	0%
Persuasive		1	1	0%
Playful	1		1	0%
Prepared	1		1	0%
Promisor	1		1	0%
Question solver		1	1	0%
Racist		1	1	0%
Resilient	1		1	0%
Responsive	1		1	0%
Rude	1		1	0%
Selfish	1		1	0%
Strict		1	1	0%
Talented	1		1	0%
Tough	1		1	0%
World changer	1		1	0%
NA	3	5	8	2%
Total	178	209	387	100%

*Note: This table shows the characteristics of a leader n= 387 expressed by the children in Grade 5 and 6, coded into traits following a three-step thematic coding (researcher -> teacher -> Member supervisory team).

Looking at the factor distribution in children in late primary school can give further insight into patterns or clusters of characteristics assigned to leaders, as shown in Table 73.

Table 73

Factor distribution of ILTs content in children in late primary school

Factor	Grade 5	Grade 6	Total	%
Dynamism	**63**	**87**	**150**	**39%**
Directive	23	23	46	12%
Informative	10	21	31	8%
Bold	5	7	12	3%
Confident/themselves	4	5	9	2%
Brave	2	5	7	2%
In control	2	5	7	2%
Protective		5	5	1%
Powerful	3	1	4	1%
Commanding	3	1	4	1%
Responsible	1	3	4	1%
Strong	1	2	3	1%
Decisive	1	1	2	1%
Victorious	1	1	2	1%
Tough	1		1	0%
Responsive	1		1	0%
Outgoing	1		1	0%
Fighter	1		1	0%
Goer		1	1	0%
Persuasive		1	1	0%
Altruistic		1	1	0%
Managerial		1	1	0%
Promisor	1		1	0%
Strict		1	1	0%
Ambitious	1		1	0%
Opinionated		1	1	0%
Loquacious	1		1	0%
Aspirational		1	1	0%
Sensitivity	**33**	**44**	**77**	**20%**
Helpful	9	19	28	7%
Caring		12	12	3%
Inclusive	4	4	8	2%
Respectful	5	1	6	2%
Listener	4		4	1%

Selfless	2	2	4	1%
Nice	4		4	1%
Friendly	2	1	3	1%
Trustworthy	1	1	2	1%
Supportive		2	2	1%
Apologetic		1	1	0%
Engaged	1		1	0%
Considered		1	1	0%
Resilient	1		1	0%
Dedication	**15**	**22**	**37**	**10%**
Dedicated	3	7	10	3%
Decisive		5	5	1%
Monitoring	2	1	3	1%
Organised	1	2	3	1%
Doer	1	1	2	1%
Goal oriented	1	1	2	1%
Focused	2		2	1%
Decision maker		1	1	0%
Good decision maker		1	1	0%
Determined	1		1	0%
Hard worker	1		1	0%
Busy		1	1	0%
Committed		1	1	0%
Prepared	1		1	0%
World changer	1		1	0%
Consulting	1		1	0%
Persistent		1	1	0%
Intelligence	**15**	**13**	**28**	**7%**
Teacher	8		8	2%
Thinker	2	3	5	1%
Wise		4	4	1%
Knowledgeable	1	1	2	1%
Mentor	2		2	1%
Skilful		2	2	1%
Skilful	1	1	2	1%
Clever		1	1	0%
Experienced	1		1	0%
Question solver		1	1	0%
Tyranny	**14**	**10**	**24**	**6%**
Angry	3	2	5	1%
Angry/scary looking	1	1	2	1%
Manipulative	1	2	3	1%
Aggressive	2	1	3	1%

Dominant		1	1	0%
Loud	1		1	0%
Rude	1		1	0%
Not liked		1	1	0%
Misleading	1		1	0%
Selfish	1		1	0%
Not friendly	1		1	0%
Abusive	1		1	0%
Overspender	1		1	0%
Racist		1	1	0%
Demanding		1	1	0%
Well-groomed	**5**	**7**	**12**	**3%**
Dressed up	4	2	6	2%
Hairdo	1	4	5	1%
Fancy		1	1	0%
Charisma	**8**	**3**	**11**	**3%**
Encouraging	2	1	3	1%
Constructive	2	1	3	1%
Followed	1	1	2	1%
Follower similar	1		1	0%
Enterprising	1		1	0%
Exemplar	1		1	0%
Positivity	**7**	**3**	**10**	**3%**
Positive	1	2	3	1%
Happy	2		2	1%
Joyful	1	1	2	1%
Playful	1		1	0%
Funny looking	1		1	0%
Loves what they do	1		1	0%
Conspicuous	**3**	**8**	**11**	**3%**
Has stuff	1	5	6	2%
Tall	2	1	3	1%
Older	0	2	2	1%
Creativity	**5**	**3**	**8**	**2%**
Original	2	2	4	1%
Good ideas person	1	1	2	1%
Initiator	1		1	0%
Talented	1		1	0%
Masculinity	**2**	**0**	**2**	**1%**
Facial hair	2	0	2	1%
Good and/or bad	**1**	**1**	**2**	**1%**
Good and bad		1	1	0%
Bad	1		1	0%

Awareness	**2**		**2**	**1%**
Environmentally aware	1		1	0%
Future aware	1		1	0%
Attractive		**1**	**1**	**0%**
Cute/pretty		1	1	0%
Physically skilled			**0**	**0%**
NA	**5**	**7**	**12**	**3%**
NA	3	5	8	2%
Other appearance	2	2	4	1%
Grand Total	**178**	**209**	**387**	**100%**

*Note: This table shows the characteristics of a leader n= 387 expressed by the children in late primary school in Grade 5 and 6, coded into traits following a three-step thematic coding (researcher -> teacher -> Member supervisory team) and grouped within factors and clusters, guided by ILTs generalisability theory (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994).

Table 74

Tyranny traits found in each age group

Early	Mid	Late
Angry/scary looking	Angry/scary looking	Angry/scary looking
Bossy	Bossy	Dominant
Dominant	Dominant	Angry
Dedicated (to steal)	Angry	Loud
Directive (t do bad)	Loud	Demanding
Dumb	Annoying	Abusive
Mean	Bully	Aggressive
Pushy	Divisive	Manipulative
	Hates others	Misleading
		Not friendly
		Not liked
		Overspender
		Racist
		Rude
		Selfish

*Note: This table shows the different traits noted by the children in each stage based on 10 notations in early primary school, 18 in middle primary school, and 24 in late primary school.

Table 75

Factor distribution in late primary school

Factor/cluster	Grade 5	Grade 6	Total	%
Dynamism	63	87	150	39%
Sensitivity	33	44	77	20%
Dedication	15	22	37	10%
Intelligence	15	13	28	7%
Tyranny	14	10	24	6%
Conspicuous	3	8	11	3%
Well-groomed	5	7	12	3%
Positivity	7	3	10	3%
Charisma	8	3	11	3%
Creativity	5	3	8	2%
Masculinity	2	0	2	1%
Physically skilled			0	0%
Attractive		1	1	0%
Good and/or bad	1	1	2	1%
Awareness	2		2	1%
NA	5	7	12	3%
Grand Total	178	209	387	100%

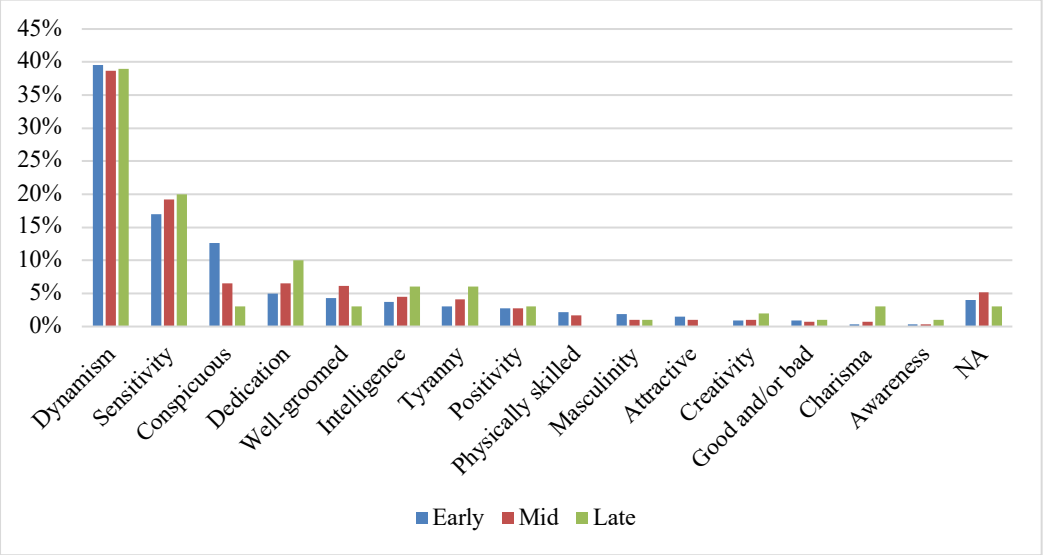
*Note: This table shows the characteristics of a leader n=387 expressed by the children in late primary school in Grade 5 and 6, coded into traits following a three-step thematic coding (researcher -> teacher -> Member supervisory team) and grouped within factors guided by ILTs generalisability theory (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994).

Table 75 shows the factor distribution in late primary school. Dynamism (39%), sensitivity (20%), and dedication (10%) factors, continue to be the clusters with highest

frequency, and dedication continues to increase (early primary school= 5%, middle primary school= 7%, late primary school= 10%), as shown in Figure 82.

Figure 82

Comparison of cluster distribution between early, middle, and late primary school



*Note: This figure compares the percentual distribution of characteristics of a leader within clusters or factors between early primary school n= 324, middle primary school n=292, and late primary school= 387.

Appendix HH

Dynamism traits found across grade groups

Excluding directive and informative notations, which make up for the biggest percentage of notations within the leader's dynamism, each grade group shows diverse frequency in components, as well as distinctive ones, of a leader's dynamism that vary across time, as shown in Table 76.

Table 76

Dynamism traits found in each age group

Early	Mid	Late
Goer	**Persuasive**	**Bold**
Confident/themselves	*Ruler*	**Confident/themselves**
Powerful	**Goer**	Brave
Protective	**Bold**	In control
Productive	**Confident/themselves**	**Protective**
Bold	**Protective**	**Powerful**
Strong	**Powerful**	**Commanding**
In control	**Strong**	**Responsible**
Commanding	Decisive	**Strong**
Responsible	Serious	Decisive
Ruler	Brave	Victorious
Persuasive	**Commanding**	Tough
Tough	**Responsible**	*Responsive**
	*Responsive**	*Outgoing**
	*Outgoing**	*Fighter**
	*Fighter**	**Goer**
	*Altruistic**	**Persuasive**
	Managerial	*Altruistic**
	Punisher	Managerial
	Envisioning	Promisor
		Strict
		Ambitious
		Opinionated
		Loquacious
		Aspirational

*Note: This table shows the traits in each grade group that make up the dynamism cluster, excluding directive and informative notions of the leader. They are

listed in order of frequency from highest to lowest. Bold notions are found across all age groups. Underlined notions are common to early and late grades. Italic notions are common to early and mid-grades. And italic* notions are common to mid and late grades (early primary school= 39, mid primary school= 43, late primary school= 73).

Appendix II

Increasing and decreasing factor behaviour across grade groups

Table 77

Increasing factors across grade groups

Increasing	Early	Mid	Late
Sensitivity	17%	19%	20%
Dedication	5%	7%	10%
Intelligence	4%	4%	6%
Tyranny	3%	4%	6%
Creativity	1%	1%	2%
Charisma	0%	1%	3%
Awareness	0%	0%	1%

*Note: This table shows the percent of notations relating to characteristics grouped within clusters that grew across time.

Table 78

Decreasing factors across grade groups

Decreasing	Early	Mid	Late
Conspicuous	13%	7%	3%
Well-groomed	4%	6%	3%
Physically skilled	2%	2%	
Masculinity	2%	1%	1%
Attractive	2%	1%	

*Note: This table is based on the percent of notations relating to characteristics grouped within clusters that showed negative growth across time for each grade group.

Appendix JJ

Unique traits assigned to each factor at a point in time

Table 79

Number of unique traits assigned to each factor at a point in time

Factor	Prep	Grade 1 and 2	Middle	Late	Total	Growth?
Dynamism	8	13	21	26	68	G
Sensitivity	6	13	11	14	44	G
Dedication	6	6	9	17	38	G
Tyranny	4	6	9	15	34	G
Intelligence	2	4	4	9	19	G
Playfulness*	3	2	7	6	18	G
Conspicuous	4	4	4	3	15	NA
Well-groomed	2	3	2	3	10	NA
Charisma	0	1	3	6	10	G
Creativity	1	1	3	4	9	G
Physically skilled	2	1	2	0	5	NA
Good and/or bad*	1	1	1	2	5	NA
Masculinity	1	1	1	1	4	NA
Awareness*	0	1	1	2	4	NA
Attractive	0	1	1	1	3	NA
Total	40	58	79	109	286	

*Note: This table shows the number of unique traits assigned to each factor at a point in time. G means growth. NA means either decline or stability.

Appendix KK

Comparison of factor frequency between boys and girls

Table 80

Comparison of factor frequency between boys and girls

Factor	Girls	% girls	Boys	% boys	Difference	Total
Dynamism	188	46%	176	53%	-7%	364
Sensitivity	99	24%	59	18%	7%	158
Conspicuous	25	6%	46	14%	-8%	71
Dedication	37	9%	28	8%	1%	65
Tyranny	17	4%	25	7%	-3%	42
Intelligence	27	7%	10	3%	4%	37
Well-dressed/well-groomed	24	6%	12	4%	2%	36
Playful	10	2%	13	4%	-1%	23
Charismatic	8	2%	3	1%	1%	11
Attractive	11	3%	0	0%	3%	11
Physically skilled	3	1%	7	2%	-1%	10
Masculinity	2	0%	8	2%	-2%	10
Good and/or bad	4	1%	4	1%	0%	8
Creativity	4	1%	3	1%	0%	7
Awareness	1	0%	3	1%	-1%	4
NA	11	3%	15	4%	-2%	26
Grand Total	410	100%	335	100%	0%	745

*Note: This table shows the number of notations within a factor in boys (n=335) and girls (n=410)

Total sum percentual differences for boys	23%
Total sum percentual difference for girls	17%

Appendix LL

Comparison of trait-related features between girls and boys

Actions

When comparing the highest frequent traits between girls and boys, as shown in Table 81, where 274 (54%), were made by girls, and 238 (46%) by boys, the results show that the number of notations per trait are often similar, with proportional differences no bigger than 3%. The prevalent difference is found in the actions involving the leader teaching, where girls mentioned it 7% of the times (19 notations), while boys only mentioned it 2% of the times (two notations). This is explained by girl's higher tendency to associate a leader with the social role teacher.

Table 81

Comparison of highest frequent action traits between girls and boys

Trait	Girls	%	Boys	%	Total
Directive	80	29%	81	34%	161
Informative	38	14%	38	16%	76
Teacher	19	7%	2	1%	21
Dedicated	13	5%	5	2%	18
Goer	7	3%	11	5%	18
Caring	11	4%	4	2%	15
Helpful	6	2%	7	3%	13
Protective	5	2%	7	3%	12
Bold	8	3%	4	2%	12
Inclusive	8	3%	3	1%	11
Decisive	7	3%	3	1%	10
Other	61	22%	58	24%	119
NA	11	4%	15	6%	26
Total	274	100%	238	100%	512

*Note: This table shows frequent notations of actions or behaviours of a leader grouped under traits following three-step thematic coding (researcher -> teacher -> Member supervisory team) n=512.

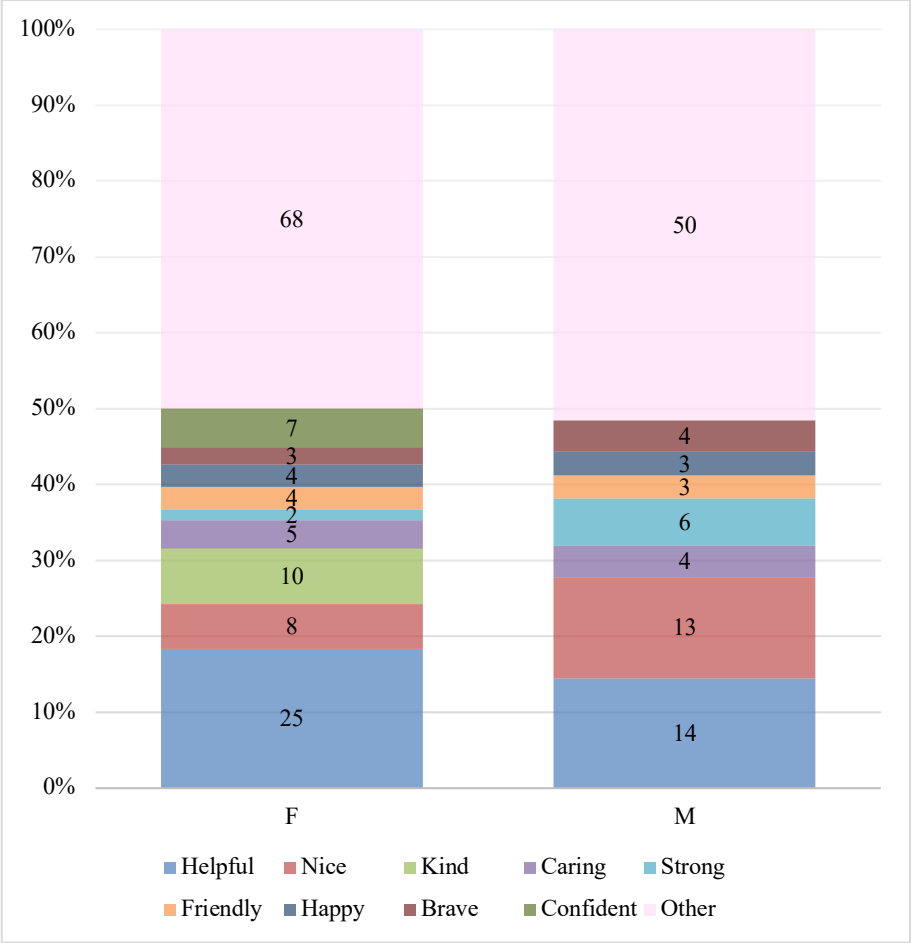
Character

Children's own words. Exploring the characteristics of a leader's character across genders shows that, from the total of 233 notations, 136 notations (58%) were from girls and 97 notations (42%) were from boys. When comparing the characteristics with highest frequency amongst the sample, it shows that both boys and girls, in similar frequency mentioned the leader being 'caring' (girls= five mentions= 4%, boys= four mentions= 4%), 'friendly' (girls= four mentions= 3%=, boys= three mentions= 3%), and 'happy' (girls= four mentions= 3%, boys= three mentions= 3%), as shown in Figure 83.

Mild differences are found in traits such as 'kind' and 'confident' that were unique to girls' descriptions of leaders, while 'nice' was more frequent in boys. Additionally, girls gave more importance to the leader being 'helpful' (25 mentions= 18%) than boys (14 mentions=14%). On the other hand, boys gave more prominence to the leader being 'nice' (13 mentions= 13%), than girls (eight mentions= 6%). Also, the trait 'strong' was most often noted by boys (six mentions= 6%) than girls (two mentions= 1%).

Figure 83

Frequent leader's character traits across gender



*Note: This figure shows the distribution of n=233 highest frequency descriptors of the leader's character across grades.

Children's descriptions or explanations. Exploring the trait categories across children's gender shows that from the n=107 descriptions or explanations of traits, 59 (55%) came from boys, and 48 (45%) from girls. As shown in Table 82, the categories with highest frequency in boys, included the leader being knowledgeable (seven descriptions= 12%), confident (five descriptions= 8%), and decisive (four descriptions= 7%). For girls, equally frequent were the trait categories knowledgeable and confident, each with three mentions (6%), but also inclusive, caring, original, and wise, each also with 6%.

Table 82

Distribution of trait categories across children's gender

Trait category	M	F	Total
Knowledgeable	7	3	10
Confident	5	3	8
Decisive	4	1	5
Helpful	3	2	5
Bold	3	1	4
Listener	3	1	4
Manipulative	3	0	3
Inclusive	2	3	5
Dominant	2	2	4
Constructive	2	1	3
Mentor	2	0	2
Productive	2	0	2
Respectful	2	0	2
Selfless	2	0	2
Caring	1	3	4
Original	1	3	4
Determined	1	2	3
Sensitive	1	1	2
Skilful	1	1	2
Encouraging	1	0	1
Enterprising	1	0	1
Experienced	1	0	1
Followed	1	0	1
Idealist	1	0	1
Initiator	1	0	1
Loud	1	0	1
Organised	1	0	1
Playful	1	0	1
Powerful	1	0	1
Resilient	1	0	1
Responsive	1	0	1
Wise	0	3	3
Altruistic	0	2	2
Brave	0	2	2
Persuasive	0	2	2
Pleaser	0	2	2
Aspirational	0	1	1
Clever	0	1	1
Considered	0	1	1

Exemplar	0	1	1
Focused	0	1	1
Joyful	0	1	1
Loquacious	0	1	1
Resourceful	0	1	1
Selfish	0	1	1
Talented	0	1	1
Total	59	48	107

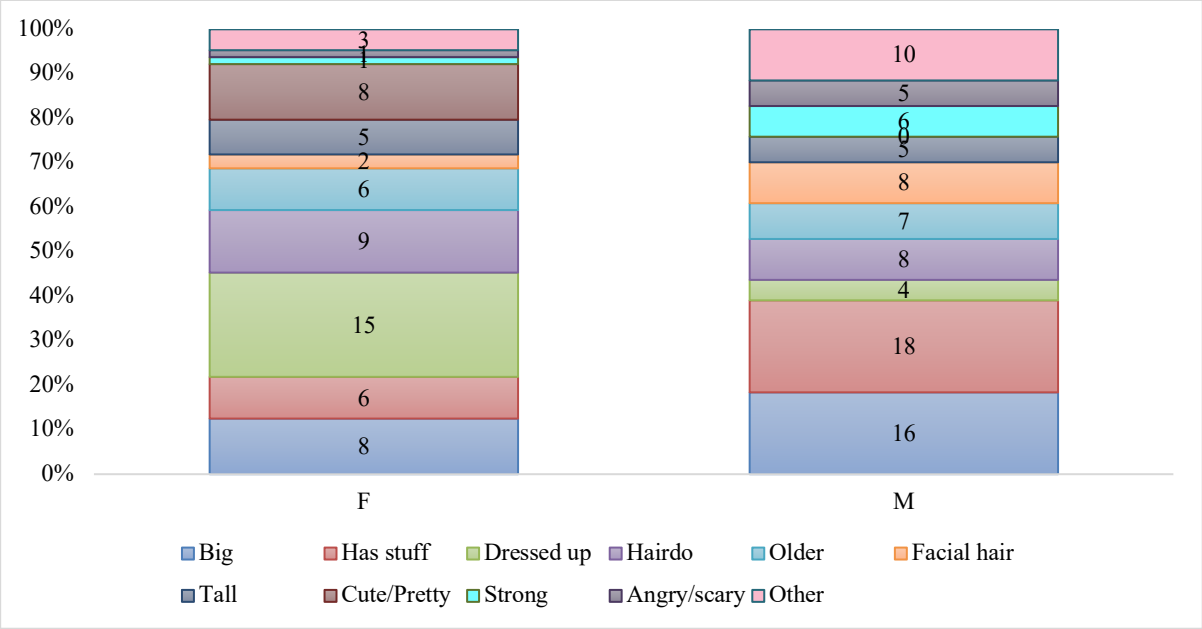
*Note: This table shows the distribution across children's gender of the phrases or explanations (n=107), grouped under 46 categories of traits.

Appearance

Exploring the characteristics of a leader's appearance across genders shows that from the total of 151 notations, 87 notations (58%) were from boys and 64 notations (42%) were from girls. Both boys and girls, in similar frequency mentioned the leader having some kind of hairdo (nine notations by girls= 14%, and nine notations by boys= 10%), being older (six notations by girls= 9%, and seven notations by boys= 8%), and also being tall (each with five notations= 8% in girls and 6% in boys) as shown in Figure 84. Boys, more often than girls, mentioned characteristics such as the leader having stuff (18 notations= 21%), being big (16 notations= 18%), and having facial hair (eight notations= 9%). Boys also often included notations related to the leader being strong or tough-looking (six notations= 7%), and to the leader being angry or scary (five notations= 6%). On the other hand, girls, more often than boys talked about the leader being dressed-up (15 notations= 23%), or cute or pretty (eight notations= 13%), as shown in detail in Table 83.

Figure 84

Characteristics of a leader's appearance across gender



*Note: This figure shows the distribution of n=151 descriptors of the leader's appearance across gender.

Table 83

Characteristics of a leader's appearance across children gender (detailed)

Characteristic	F	M	Total
Big	8	16	24
Has stuff	6	18	24
Dressed nicely	15	4	19
Fixed hair	9	8	17
Older	6	7	13
Facial hair	2	8	10
Tall	5	5	10
Rosy cheeks	4	0	4
Pretty	3	0	3
Cute	1	0	1
Strong-looking	0	5	5
Muscle-y	1	0	1
Tough-looking	0	1	1
Mad-looking	1	0	1
Angry-looking	0	1	1
Long face	0	1	1
Scary-looking	0	2	2

Monster-looking		1	1
Glasses	1	2	3
Small	0	2	2
Ageless	0	1	1
Cool-looking	0	1	1
Double Chin	1	0	1
Funny-looking	0	1	1
Middle age	1	0	1
Normal height	0	1	1
Odd	0	1	1
Wrapped around bandages	0	1	1
Total	64	87	151

*Note: This table shows the distribution of n=151 descriptors of the leader's appearance across children's gender.

Appendix MM

Frequency of adult-related traits identified across four points in time

Table 84

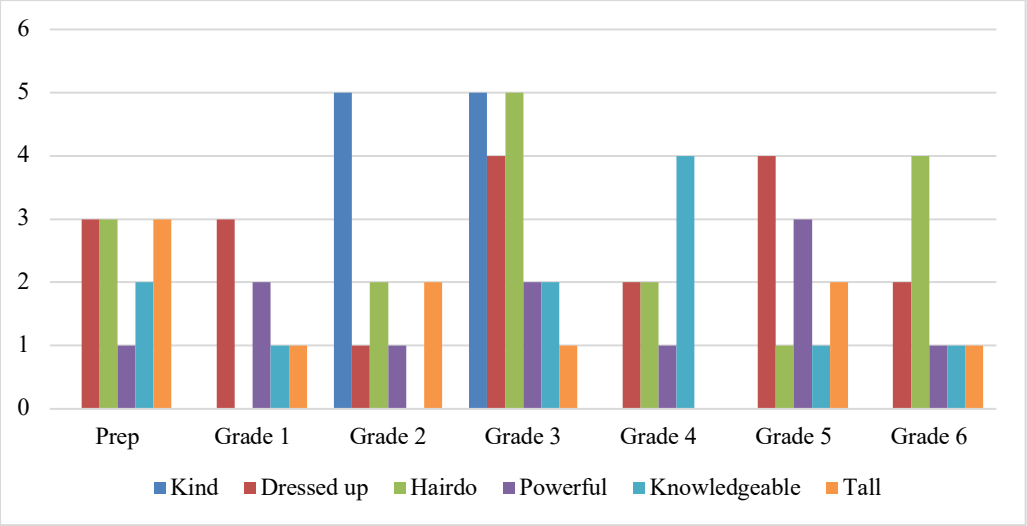
Frequency of adult-related traits identified across four points in time

Trait	Prep	% Prep	Grade 1 and 2	% Grade 1 and 2	Grade 3 and 4	% Grade 3 and 4	Grade 5 and 6	% Grade 5 and 6	Total	Total %	Factor
Helpful	3	3%	9	4%	17	6%	28	7%	57	20%	Sensitivity
Caring	2	2%	6	3%	8	3%	12	3%	28	10%	Sensitivity
Dressed up	3	3%	4	2%	6	2%	6	2%	19	7%	Well-groomed
Hairdo	3	3%	2	1%	7	2%	5	1%	17	6%	Well-groomed
Dedicated	3	3%	2	1%	2	1%	10	3%	17	6%	Dedication
Bold	1	1%	1	0%	2	1%	12	3%	16	6%	Dynamism
Knowledgeable	2	2%	1	0%	6	2%	2	1%	11	4%	Intelligence
Powerful	1	1%	3	1%	3	1%	4	1%	11	4%	Dynamism
Tall	3	3%	3	1%	1	0%	3	1%	10	3%	Well-groomed
Kind			5	2%	5	2%			10	3%	Sensitivity
Cute/pretty			5	**2%**	2	1%	1	0%	8	3%	Attractiveness
Strong			2	1%	3	1%	3	1%	8	3%	Dynamism
Friendly	2	2%			2	1%	3	1%	7	2%	Sensitivity
Commanding			1	0%	2	1%	4	1%	7	2%	Dynamism
Good decision maker			1	0%	3	1%	1	0%	5	2%	Dedication
Wise			1	0%			4	1%	5	2%	Intelligence
Dominant	1	1%	1	0%	1	0%	1	0%	4	1%	Tyranny
Goal oriented	1	1%	1	0%			2	1%	4	1%	Dedication
Original							4	1%	4	1%	Creativity
Selfless							4	1%	4	1%	Sensitivity
Determined	1	1%			1	0%	1	0%	3	1%	Dedication
Creative			2	**1%**	1	0%			3	1%	Creativity
Fancy			2	1%			1	0%	3	1%	Well-groomed
Loud					2	1%	1	0%	3	1%	Tyranny
Followed					1	0%	2	1%	3	1%	Charisma
Manipulative							3	1%	3	1%	Tyranny
Hard worker	1	1%					1	0%	2	1%	Dedication
Clever			1	0%			1	0%	2	1%	Intelligence
Tough			1	0%			1	0%	2	1%	Dynamism
Sensitive					2	1%			2	1%	Sensitivity
Focused							2	1%	2	1%	Dedication
Good ideas person							2	1%	2	1%	Creativity
Empathic			1	0%					1	0%	Sensitivity
Bright					1	0%			1	0%	Intelligence
Demanding							1	0%	1	0%	Tyranny
Initiator							1	0%	1	0%	Creativity
Selfish							1	0%	1	0%	Tyranny
	27	23%	55	27%	78	27%	127	33%	287	100%	

*Note: This table shows the adult-related traits identified across four points in time. From a total of n=1002 notations, 287 in total could be directly traced to sample items as per ILTs generalisability theory (Epitropaki & Martin, 2004; Offermann & Coats, 2018; Offermann et al., 1994)

Figure 85

Leader traits similar in children and adults (stable or oscillating)



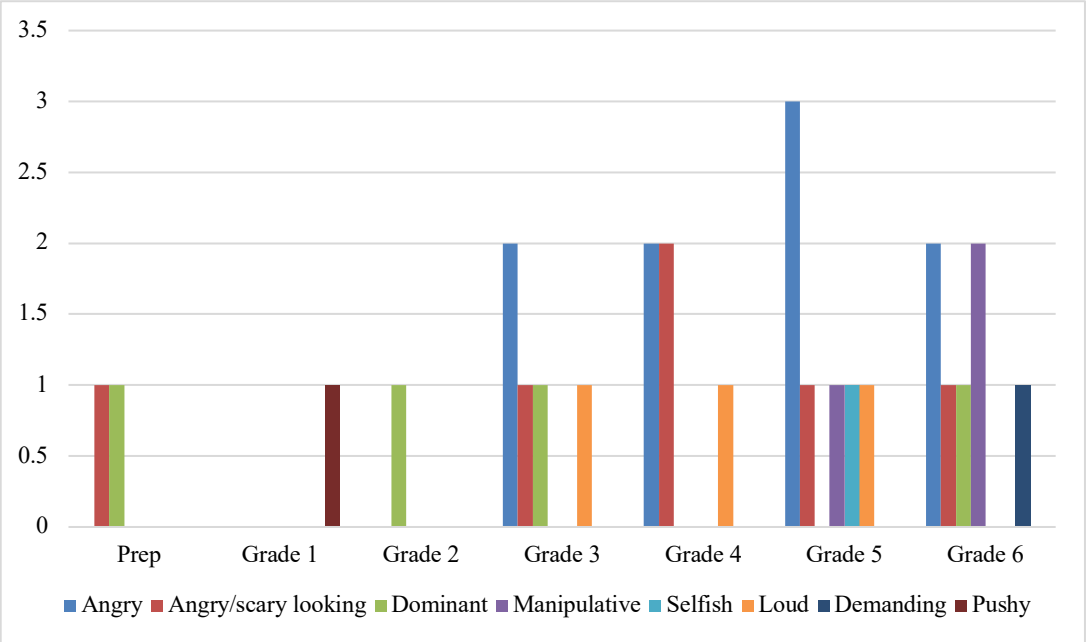
*Note: This figure shows the traits common to children and adults guided by ILTs generalisability theory that show stability or oscillation across primary school. Frequency is calculated over n=1002 notations of a leader's appearance character, or actions.

Appendix NN

Leader traits similar in children and adults within the tyranny factor

Figure 86

Detail of leader traits similar in children and adults within the tyranny factor



*Note: This figure shows isolated traits common to children and adults guided by ILTs generalisability theory. Frequency is calculated over n=1002 notations of a leader's appearance character, or actions. The traits angry and angry/scary-looking have been coded as variables of the leader being intimidating.

Appendix OO

Child unique traits categorised within adult factors

Table 85

Prep children unique traits categorised within adult factors

Trait	Prep	%
Directive	29	24%
Goer	10	8%
Informative	5	4%
Confident/themselves	3	3%
Nice	3	3%
Productive	2	2%
Pleaser	2	2%
Good	2	2%
In control	1	1%
Persuasive	1	1%
Protective	1	1%
Doer	1	1%
Resourceful	1	1%
Teacher	1	1%
Bossy	1	1%
Angry/scary looking	1	1%
Directive	1	1%
Facial hair	1	1%
Initiator	1	1%
Total	67	56%

*Note: This table shows the unique traits noted by Prep children categorised within adult factors gathered from n=67 notations about a leader.

Table 86

Grade 1 and 2 children unique traits categorised within adult factors

Trait	Total	%
Directive	40	20%
Informative	15	7%
Nice	7	3%
Inclusive	6	3%
Teacher	6	3%
Goer	5	2%
Facial hair	5	2%
Protective	3	1%
Listener	2	1%
Doer	2	1%
Confident/themselves	1	0%
Productive	1	0%
Responsible	1	0%
Ruler	1	0%
Trustworthy	1	0%
Considerate	1	0%
Not strict	1	0%
Responsive	1	0%
Forgiving	1	0%
Calm	1	0%
Decisive	1	0%
Decision maker	1	0%
Bossy	1	0%
Pushy	1	0%
Mean	1	0%
Dedicated	1	0%
Dumb	1	0%
Encouraging	1	0%
Total	109	53%

*Note: This table shows the unique traits noted by Grade 1 and 2 children categorised within adult factors gathered from n=109 notations about a leader.

Table 87

Grade 3 and 4 children unique traits categorised within adult factors

Trait	Total	%
Directive	45	15%
Informative	25	9%
Persuasive	7	2%
Nice	7	2%
Decisive	7	2%
Teacher	6	2%
Inclusive	5	2%
Recognising	5	2%
Angry	4	1%
Ruler	4	1%
Angry/scary looking	3	1%
Bossy	3	1%
Listener	3	1%
Protective	3	1%
Monitoring	3	1%
Doer	3	1%
Encouraging	3	1%
Confident/themselves	2	1%
Goer	2	1%
Brave	2	1%
Serious	2	1%
Hates others	2	1%
Mentor	2	1%
Facial hair	2	1%
Fighter	1	0%
Managerial	1	0%
Outgoing	1	0%
Envisioning	1	0%
Responsive	1	0%
Altruistic	1	0%
Responsible	1	0%
Punisher	1	0%
Supportive	1	0%
Trustworthy	1	0%
Planner	1	0%
Decision maker	1	0%
Accurate	1	0%
Annoying	1	0%
Divisive	1	0%

Bully	1	0%
Revolutionary	1	0%
Initiator	1	0%
Total	168	58%

*Note: This table shows the unique traits noted by Grade 3 and 4 children categorised within adult factors gathered from n=168 notations about a leader.

Table 88

Grade 5 and 6 children unique traits categorised within adult factors

Trait	Total	%
Directive	46	12%
Informative	30	8%
Confident/themselves	9	2%
Inclusive	8	2%
Teacher	8	2%
Brave	7	2%
In control	7	2%
Decisive	7	2%
Respectful	6	2%
Protective	5	1%
Thinker	5	1%
Angry	5	1%
Responsible	4	1%
Nice	4	1%
Skilful	4	1%
Listener	4	1%
Monitoring	3	1%
Organised	3	1%
Aggressive	3	1%
Encouraging	3	1%
Constructive	3	1%
Victorious	2	1%
Trustworthy	2	1%
Supportive	2	1%
Doer	2	1%
Mentor	2	1%
Angry/scary looking	2	1%
Followed	2	1%
Facial hair	2	1%
Goer	1	0%
Persuasive	1	0%
Responsive	1	0%
Altruistic	1	0%
Outgoing	1	0%
Fighter	1	0%
Managerial	1	0%
Loquacious	1	0%
Aspirational	1	0%
Strict	1	0%

Ambitious	1	0%
Promisor	1	0%
Opinionated	1	0%
Apologetic	1	0%
Engaged	1	0%
Considered	1	0%
Resilient	1	0%
Decision maker	1	0%
Busy	1	0%
Committed	1	0%
Prepared	1	0%
World changer	1	0%
Consulting	1	0%
Persistent	1	0%
Experienced	1	0%
Question solver	1	0%
Rude	1	0%
Not liked	1	0%
Misleading	1	0%
Not friendly	1	0%
Abusive	1	0%
Overspender	1	0%
Racist	1	0%
Follower similar	1	0%
Enterprising	1	0%
Exemplar	1	0%
Talented	1	0%
Total	227	59%

*Note: This table shows the unique traits noted by Grade 5 and 6 children categorised within adult factors gathered from n=227 notations about a leader.

Appendix PP

Child unique traits not traceable to adult factors

Table 89

Prep children unique traits not traceable to adult factors

Trait	Prep	%
Older	6	5%
Big	5	4%
Has stuff	2	2%
Playful	2	2%
Cheerful	2	2%
Fast	2	2%
Happy	1	1%
Strong looking	1	1%
Total	21	18%

*Note: This table shows the unique traits noted by Prep children not traceable to adult factors gathered from n=21 notations about a leader.

Table 90

Grade 1 and 2 children unique traits not traceable to adult factors

Trait	Total	%
Big	14	7%
Has stuff	5	2%
Strong looking	4	2%
Older	3	1%
Happy	3	1%
Joyful	1	0%
Good	1	**0%**
Likes animals	1	**0%**
Total	32	16%

*Note: This table shows the unique traits noted by Grade 1 and 2 children not traceable to adult factors gathered from n=32 notations about a leader.

Table 91

Grade 3 and 4 children unique traits not traceable to adult factors

Trait	Total	%
Has stuff	11	4%
Big	5	2%
Good	3	1%
Older	2	1%
Funny	2	1%
Strong looking	2	1%
Happy	1	0%
Joyful	1	0%
Funny looking	1	0%
Cheerful	1	0%
Loves what they do	1	0%
Playful	1	0%
Likes technology	1	0%
Fast	1	0%
Total	33	11%

*Note: This table shows the unique traits noted by Grade 3 and 4 children not traceable to adult factors gathered from n=33 notations about a leader.

Table 92

Grade 5 and 6 children unique traits not traceable to adult factors

Trait	Total	%
Has stuff	6	2%
Positive	3	1%
Older	2	1%
Happy	2	1%
Joyful	2	1%
Playful	1	0%
Funny looking	1	0%
Loves what they do	1	0%
Environmentally aware	1	0%
Future aware	1	0%
Good and bad	1	0%
Bad	1	0%
Big	0	0%
Total	22	6%

*Note: This table shows the unique traits noted by Grade 5 and 6 children not traceable to adult factors gathered from n=22 notations about a leader.

Appendix QQ

Context influencing girls' depictions of male leader across grades

Table 93

Summary of context influencing girls' depictions of male leader

Context	Counts
Political context	11
School	6
Family	2
Military	2
Office	2
Parades	2
Royalty	2
Tradesmen	2
Police	1
Environment	1
Children	1
History	1
Movies	1
Nature	1
Sports	1
Village	1
Unknown	1
Total	38

*Note: This figure shows the contexts that influence girls' depictions of male leaders (n=38).

Table 94

Impact of context influencing girls' depictions of male leader across grades

Context	Male leaders
Prep	6
Tradesmen	2
Family	1
Family, friends and School	1
Children	1
Nature	1
Grade 1	5
Unknown	1
Camping	1
Political context	1
Environment	1
Sports	1
Grade 2	5
School	3
Office	1
Parade	1
Grade 3	4
Military	1
Police	1
Political context	1
Movies	1
Grade 4	3
Royalty	2
Political context	1
Grade 5	3
Political context	1
Parade	1
Military	1
Grade 6	13
Political context	7
School	3
Village	1
History	1
Office	1

*Note: This table shows the contexts that influence girls' depictions of male leaders (n=38) across grades.