


# Language *Does* Matter: But There is More to Language Than Vocabulary and Directed Speech

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In response to Golinkoff, Hoff, Rowe, Tamis-LeMonda, and Hirsh-Pasek's (2018) commentary, we clarify our goals, outline points of agreement and disagreement between our respective positions, and address the inadvertently harmful consequences of the word gap claim. We maintain that our study constitutes a serious empirical challenge to the word gap. Our findings do not support Hart and Risley's claim under their definition of the verbal environment; when more expansive definitions were applied, the word gap disappeared. The word gap argument focuses attention on supposed deficiencies of low-income and minority families, risks defining their children out of the educational game at the very outset of their schooling, and compromises efforts to restructure curricula that recognize the verbal strengths of all learners.

We thank Roberta Golinkoff, Erika Hoff, Meredith Rowe, Catherine Tamis-LeMonda, and Kathy Hirsh-Pasek for their commentary and the editors of *Child Development* for inviting us to respond. We begin by clarifying our position and refocusing attention to our entire argument, including our points about speech addressed to the child. We then outline some points of agreement and disagreement between our respective positions, including a discussion of how our approach to comparative research differs from theirs. We conclude by addressing the inadvertently harmful consequences of taking the word gap argument at face value.

## Clarifying the Goals of Our Study

The goal of our study was to take a second look at the most famous claim made by Hart and Risley (1995; hereafter HR), namely that children living in low-income households hear 30 million fewer words than their affluent counterparts in the early years of life. In recent years this claim has been widely disseminated within and beyond the

academy and it has generated high-profile interventions designed to reduce the gap by teaching poor parents to talk more to their children. As Golinkoff, Hoff, Rowe, Tamis-LeMonda, and Hirsh-Pasek (2018) say, "this catchy phrase" (the 30-million-word gap) has "let the public in on the research" (p. 6). Thanks to the remarkable success of this dissemination (more about this later), many Americans are likely to think that parents from low-income and minority backgrounds do not talk enough to their young children, thereby imperiling their school achievement.

Our argument is two-fold. We argue that a claim that has been so influential deserves more scholarly scrutiny and empirical investigation. We also argue that an emerging interdisciplinary trend, cross-cutting the literatures in psycholinguistics, language socialization, and developmental cultural psychology, requires that we re-think our understanding of the nature of young children's verbal environments. The converging message from these literatures, confirmed by our findings, is that defining the verbal environment *only* in terms of speech directed to the child by a primary caregiver is too narrow. Although copious speech directed to the child in sustained dialog, what Golinkoff et al. call the

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“conversational duet” (2018, p. 10), is the signature style associated with affluent homes in the United States, this practice, like many others, is anomalous in the cross-cultural record (Henrich, Heine, & Norenzayan, 2010; Lancy, 2015). And yet, our study shows that even in Longwood, our middle-class, European American community, families used a combination of directed speech and bystander speech. However, research on directed speech continues to dwarf research on bystander speech. Thus, there are many questions about bystander speech that cannot yet be answered. In our study, we outlined some of the research that needs to be done.

Although we believe that bystander speech is a fruitful topic for further research, we take issue with Golinkoff et al.’s (2018) assertion that such speech is *the* focus of our argument. In fact, we explored three definitions of the verbal environment, only one of which focused on bystander speech: (a) Speech addressed to the child by primary caregivers (consistent with HR and most other literature on vocabulary development); (b) speech addressed to the child by all other family members; and (c) bystander speech, that is, all ambient speech within the child’s hearing. One of our most significant findings pertains to the first definition. Despite the fact that both our Black Belt sample and HR’s Welfare sample were composed of African American families living in low-income households, the number of words that primary caregivers in the Black Belt directed to children was nearly as great as HR’s Professional community (1,838 words per hour for the Black Belt children versus 2,153 words per hour for HR’s Professional children). Furthermore, directed speech by Black Belt primary caregivers was nearly triple the rate of such words in HR’s Welfare community (1,838 words per hour for the Black Belt children versus 616 words per hour for HR’s Welfare children). This difference, along with other variation between groups of similar socioeconomic status (SES) level between our data and those of HR, strongly suggest that community variation in the amount of speech addressed by primary caregivers to their children cannot be predicted by SES alone.

We grant that our study has limitations. A more complete attempt to replicate HR would have included a Professional group, in parallel with HR’s highly educated group (average education of 18 years). Our samples are more heavily weighted toward the lower end of the SES spectrum, where the onus of the word gap claim falls: We had two low-income and two working-class groups, whereas HR had one each. Also, our study focused *only* on

the nature of children’s everyday verbal environments. We do not have outcome variables, and we did not report in this study on measures of the quality of vocabulary, both of which we acknowledge are very important. Neither do we dispute that there are many studies that show a correlation between SES and language-based measures of school achievement. Our study does one vitally important thing: It examines the in-home verbal environments of young children from five socioculturally distinct communities, based on longitudinal ethnographic data, and counts the number of words that their families produced to and around them. Our findings do not support HR’s claim of a massive word gap under their definition of the verbal environment, and when more expansive definitions are applied, the word gap disappears entirely. Despite its limitations, we believe that our study contributes provocative new findings that need to be reckoned with.

### Areas of Agreement and Disagreement

We could not agree more that language matters. Although this is the first time we have studied vocabulary, we have spent our entire careers studying the everyday linguistic practices of young children and their families across a range of diverse sociocultural communities. We regard vocabulary as one small but important part of the enormously complex and heterogeneous phenomenon of language. Whole fields of study (sociolinguistics, linguistic anthropology, language socialization) are devoted to investigating the heterogeneity of language. These fields show that language is culturally organized, sociolinguistically patterned, and exquisitely sensitive to context. From this vantage point, the striking patterns of variability that our study reveals are not just a matter of individual differences, however important, nor can they be reduced to variability by income. Our study shows that a community level of analysis is necessary. Grouping families together simply because they share a given income level ignores fundamental differences between groups (e.g., which languages and dialects are spoken, which genres are preferred) that are at the very heart of how language is spoken and interpreted in the daily lives of its users. We found dramatic variation between communities whose only commonality was income. For example, to say that the differences between the Black Belt and South Baltimore communities is within-group variability is to beg the question of what that statistical

concept means and to deny that sociocultural differences play a role in determining language outcomes.

Differences in assumptions about linguistic heterogeneity shadow the word gap debate in other ways, yielding fundamental differences in approaches to comparative research. The approach taken by HR and valorized by Golinkoff et al. (2018) and others (cf. Hoff, 2013; Rowe, 2018) prioritizes middle-class meanings and practices. In study after study, children and families from low-income, working-class, and minority communities do less well than their more privileged counterparts because the measures that are used derive from mainstream understandings. This approach creates invidious comparisons by arraying children and their families along a single metric that sorts them into haves and have-nots (Miller, Cho, & Bracey, 2005). This approach gives us only half of the picture of variation: It informs us about how nondominant groups fare with respect to mainstream ways but tells us nothing about how dominant groups fare with respect to nonmainstream ways.

We endorse a different approach to comparison that is rooted in interdisciplinary perspectives and methods that seek to understand the full range of variation across groups. Many of the studies from the language socialization and cultural psychology traditions cited in our study take this approach. These studies, like our own, use ethnographic methods or mixed methods that combine ethnography and quantitative analysis. The aim of these methods is to understand each group on its own terms in order to grasp participants' meanings and practices in context and from their own perspective. In this kind of work, researchers try not to be limited by their own cultural lens (e.g., a white middle-class lens) and seek to discover alternate lenses that heretofore may have been unimaginable to them. One example of the latter is that oral narrative may afford working-class children and parents an advantage over their middle-class counterparts (Miller et al., 2005).

This approach not only allows a more comprehensive and balanced understanding of sociolinguistic and cultural variation in language use, but it also assumes that all communities have strengths. In a recent article, Rogoff et al. (2017) argued that this kind of research can help to identify the strengths of communities that are often viewed from a deficit perspective. Contesting the word gap and other deficit models, they advocated a "strengths-based, *additive* approach" (p. 879) on the grounds that people learn better when they can

build on their prior knowledge. They want to promote the learning of new skills and knowledge without undermining existing skills and knowledge. They said, "In today's world, it is often an advantage to know the skills necessary for school. But it is not a deficit to not know how to do so *yet*" (p. 879).

This critique brings us to Golinkoff et al.'s (2018) question,

If the literature has defined experience too narrowly, to the disadvantage of nonmainstream families, this simply leads to the next question: What does explain the average gap in children's accomplishments? Our argument—based in the science—is that poor language skills is part of that answer. (p. 14)

Based on the considerable research already cited here and in our study, we assert that it is a mistake to claim that any group has poor language skills simply because their skills are different. Furthermore, we believe that as long as the focus remains on isolated language skills (such as vocabulary) defined by mainstream norms, testing practices, and curricula, nonmainstream children will continue to fail. We believe that low-income, working-class, and minority children would be more successful in school if pedagogical practices were more strongly rooted in a strengths-based approach as described by Rogoff et al. (2017; cf. Adair, Colegrove, & McManus, 2017; Dyson, 2016; Genishi & Dyson, 2009). Such an approach not only builds on the verbal skills that children bring to preschool, kindergarten, and first grade, but also is likely to create classroom spaces that feel more welcoming and comfortable to children from nonmainstream backgrounds. We believe that this approach is especially important during children's initial experience of school, doubly so if their own parents have little familiarity with school. We also believe that children from nondominant groups would do better in school if their verbal strengths could be seen for what they are, rather than systematically misrecognized (see Miller & Sperry, 2012 discussion of misrecognition; cf. Dyson, 2016 case study of Ta-Von, an African American kindergartner).

But we also believe that the average gap in children's school achievement cannot be explained only in terms of language. Economic disadvantage in and of itself undermines children's achievement. Intractable social structural inequities do likewise, allocating children from nondominant groups to under-resourced schools and dangerous neighborhoods.

Discriminatory policies and practices in schools also play a part (e.g., minority children receive more punitive discipline than their mainstream counterparts: Haight, Gibson, Kayama, Marshall, & Wilson, 2014). In short, there is no easy fix for the gap in school achievement.

### Perpetuating the Word Gap Argument Can Be Harmful

There is a long backstory to our interest in the word gap (Miller & Sperry, 2012), but the more recent story began about a decade ago in Peggy Miller's graduate seminars. She began to encounter students who knew very little about scholarship on the language of low-income, working-class, and minority families, but they knew about HR's book, *Meaningful Differences*, and their claim of a 30-million-word gap. These students regarded this study as definitive, the last word on preschool language environments. Several of these students were teaching assistants in teacher-training courses, where the word gap argument figured prominently.

We began to look into the HR phenomenon. We discovered that despite the study's flaws, HR's book has had a remarkable afterlife. A simple Google Scholar search shows a steady increase in the number of references to the book over the ensuing years, a span of two decades, rising especially after the adoption of the No Child Left Behind Act (2001). What is not conveyed by citation tracking is that the study was usually lauded as a "landmark study," and virtually every citation repeated the word gap claim as though it were unassailable truth. The excitement about this claim has been magnified by its widespread dissemination in the popular press. Until very recently, most of the media coverage has been uncritical, taking the claim at face value.

The fact is that the phrase, "30-million-word gap," is a remarkably effective rhetorical device. No wonder Golinkoff et al. (2018) are reluctant to abandon it, even as they appear to be moving toward placing more weight on quality of talk over quantity. The number is not only memorably large, but it also conveys an aura of precision and urgency. Here is a rich vein of inquiry for Espeland and Stevens's (2008) sociology of quantification (Sperry, Miller, & Sperry, 2015). The discourse in which HR embedded their brilliant phrase adds to the sense of urgency. They said, "By the time [poor, minority] children are 4 years old, intervention programs come too late and can provide too little experience

to make up for the past" (Hart & Risley, 1995, p. 2), a claim that has not been supported by advances in pedagogy (Adair et al., 2017). In a summary of their work in an education journal, Hart and Risley (2003) described the children's deficiency as "the early catastrophe," which includes "not just a lack of knowledge or skill, but an entire general approach to experience" (p. 9). One need only re-read Hart and Risley's work to appreciate that their sense of urgency emanates from a deep desire to help low-income and minority students do better in school and a heartfelt belief that more parental talk to children in the early years would make all the difference.

We now know, however, that the word gap phrase and its accompanying argument can be inadvertently damaging to the very children it is designed to help. Adair et al.'s (2017) study speaks directly to this point. They studied first grade classrooms that served mostly children of LatinX immigrants. The teachers in two of these classrooms had changed their practices to make them richer, more dynamic, and more "agentic." Children initiated their own projects, asked questions without raising their hands, collaborated with one another, talked a great deal, and discussed a wide range of topics. When the children were followed up 3 years later, 91% passed the state assessments, a much higher rate than comparable children in classrooms that followed more restrictive practices.

However, another phase of the study is most relevant to the issue at hand, illustrating how the word gap argument can foster bias toward non-mainstream students. The researchers made a film of these two classrooms with their demonstrably effective pedagogical practices and showed it to more than 200 teachers, administrators, and children from schools serving the same population. They found striking uniformity among the teachers and administrators: Although they approved of the practices in the film, they were convinced that the LatinX immigrant children in their classrooms could not handle such sophisticated learning because they lacked the necessary vocabulary. They attributed this lack to the children's parents, who they assumed did not talk to their children enough. These teachers and administrators echoed the word gap argument to an uncanny degree. Adair et al. (2017) concluded, "Teachers and administrators considered vocabulary a sort of gateway to children being agentic, as if the children needed to reach a certain level of vocabulary in order to handle or deserve more sophisticated learning experiences" (p. 312). When Adair et al. showed the same film to

the young children in these schools, they found that the children uniformly rejected the practices that they saw depicted in the film. They judged the filmed children's learning to be terrible because they were not obedient to the teacher and talked too much and too loudly. Adair et al. argued that these children had absorbed an impoverished model of learning from the more restricted practices in their classrooms.

In conclusion, we believe that it is time to turn a skeptical eye to the word gap claim and its accompanying argument. Our findings do not support HR's claim of a massive word gap in speech addressed to the child, and when more expansive definitions of the verbal environment are applied, the word gap disappears entirely. The word gap argument incorrectly focuses all the attention on the supposed deficiencies of very young children and their parents. These misconceptions risk defining low-income, working-class, and minority children out of the educational game at the very outset of their educational careers while inadvertently reinforcing a deficit perspective, whether acknowledged or not. As Adair et al. (2017), Dyson (2016), and others have shown, there are effective pedagogical innovations that help young children build on their verbal strengths without sacrificing high standards of literacy, innovations that may never get their fair share of the limelight as long as all of the attention remains on a single variable (income), a single linguistic element (vocabulary), and a single definition of the verbal environment (speech addressed to the child).

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