A Whole-Life Perspective of Sustainable Careers:
The Nature and Consequences of Nonwork Orientations

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Highlights

- Agreeableness is positively related to NWO family and community
- Extraversion and openness are positively related to NWO private life and community
- Self-enhancement work values are positively related to all three NWO dimensions
- Different profiles of NWO and work role commitment exist
- Whole life profile is associated with more work–nonwork enrichment
Abstract
Developing a sustainable career necessitates actively considering nonwork roles relative to one’s career. However, little is known about who is more or less likely to consider nonwork roles, and what consequences this entails for a sustainable career development. To address this issue, we investigated the nomological net of nonwork orientations (NWO) in two studies, with five samples (total $N = 2,679$). Study 1 explored the nomological net of NWO and found that among students and employees, people high in agreeableness more strongly considered the family and community role, whereas those high in extraversion and openness showed higher NWO for private life and community. Moreover, students and employees who endorsed self-transcendence work values scored higher on NWO. Study 2 examined how different combinations of NWO and work role commitment relate to work–nonwork conflict and enrichment with latent profile analysis. Across three samples including younger, age-heterogenous, and older workers, we identified five distinct profiles: average levels, work focused, personal life focused, family and personal life focused, and whole-life focused (i.e., high in NWO and work role commitment). Notably, people with a whole-life profile (between 6% and 29% of the samples) reported more work–nonwork enrichment, and a tendency for less work–nonwork conflict compared to individuals predominately focused on either work or personal life. Moreover, we found some meaningful age group differences which call for more research into lifespan dynamics in sustainable careers. Overall, the results of the studies help to better understand the meaning of NWO and how they relate to a sustainable approach to career development.

Keywords: nonwork orientations; personality; work values; work commitment; work–nonwork interface
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A sustainable career refers to “sequences of career experiences reflected through a variety of patterns of continuity over time, thereby crossing several social spaces, characterized by individual agency, herewith providing meaning to the individual” (Van der Heijden & De Vos, 2015, p. 7). A sustainable career is indicated by long-term health, happiness, and productivity (De Vos, Van der Heijden, & Akkermans, 2018). These positive indicators of a sustainable career can be achieved by a dynamic interplay of proactivity and adaptability over a person’s work life that leads to continued person–career fit (De Vos et al., 2018). To understand sustainable careers, it is central to consider aspects of the individual career actor, the context, and the dynamic changes in work experiences over time (De Vos et al., 2018). Of particular importance to the present study is the notion that a sustainable career takes place across different contexts, including a person’s private life (De Vos et al., 2018). Hence, the extent to which a person’s private life contributes to, or hinders, person–career fit over one’s life is a critical factor for successfully developing a sustainable career. Moreover, a sustainable career is characterized by mutually beneficial consequences for the person and for the surrounding context (De Vos et al., 2018), suggesting that effects between the work role and other life roles need to be considered to better understand sustainable careers. The importance of considering the work–nonwork interface to gain a better understanding of sustainable careers is supported by research showing that life role conflict (Allen, Herst, Bruck, & Sutton, 2000) and enrichment (McNall, Nicklin, & Masuda, 2010) are significantly related to all three key indicators of a sustainable career (De Vos et al., 2018)(De Vos et al., 2018)(De Vos et al., 2018) in terms of happiness (e.g., career satisfaction, job satisfaction), health (e.g., stress, life satisfaction), and productivity (e.g., job performance, organizational citizenship behaviors). Hence, the understanding of what enables a sustainable career could be significantly enhanced by considering the work–nonwork interface in career development.

The perspective of sustainable careers as unfolding over time at the intersection of multiple life contexts corresponds well to a contemporary approach to career development that takes a whole-life perspective and considers the intersection of work and nonwork roles (Greenhaus & Kossek, 2014). A whole-life perspective of career development can be defined as a desire to achieve satisfaction and effectiveness in multiple life roles, and making career decisions with an awareness of their effects on other life domains (DiRenzo, Greenhaus, & Weer, 2015). Numerous studies have examined the work–family interface (Allen, Cho, & Meier, 2014). However, a work–nonwork perspective of career development is still in its
infancy because existing research has only sparsely addressed how people make career
decisions, plan their career, and engage in career self-management while considering
nonwork roles (Greenhaus & Kossek, 2014). To advance this research, Hall, Kossek, Briscoe,
Pichler, and Lee (2013) introduced the notion and measurement of nonwork orientations
(NWO), defined as the degree of concern that one has for other roles relative to one’s career.
Central to the theoretical understanding of NWO is the notion that life outside of work is
multidimensional and includes several roles, including family, personal life, and community
(Hall et al., 2013). Specifically, Hall et al. (2013, p. 541) defined the family dimension of
NWO as “the degree to which one attaches importance to family needs relative to one’s career
role,” whereby family refers broadly to all people (e.g., partner, children, parents) with whom
one shares a life and/or home. The personal life dimension of NWO is defined as “a focus on
the time for oneself to pursue personal interests (e.g., hobbies, learning, the arts, and
exercise), while at the same time engaging in a career”; and the community orientation of
NWO as “a high concern for being able to engage in service to the community where one
lives at the same time one is pursuing a career.” Empirical studies conducting confirmatory
factor analyses with the NWO measure (Hall et al., 2013; Hirschi, Herrmann, Nagy, & Spurk,
2016) have confirmed the notion that NWO consist of empirically distinct, but correlated,
subfacets pertaining to family, personal life, and community. Hence, NWO is not a unitary
construct, but refers to a more general concept that manifests in different ways. Hence,
“concern for other roles” and “relative to one’s career” as key defining characteristics of
NWO can take on a range of more specific meanings, as expressed in the three subfacets of
the NWO measure, such as placing high importance on being able to engage in a nonwork
role besides one’s work role, or taking nonwork roles into account when making career
decisions. In the following, we thus use the term NWO as an overarching concept that broadly
refers to the extent to which people consider nonwork life roles in relation to their work role
or career. Hence, NWO shares some overlap with the constructs of nonwork role involvement
and nonwork centrality, which refer to the level of psychological involvement in nonwork
roles and the perceived importance of nonwork roles in one’s life (Michel, Kotrba,
Mitchelson, Clark, & Baltes, 2011). Similar to nonwork role involvement and centrality,
NWO entail a concern for nonwork roles and thus a certain level of role importance and
involvement. However, in contrast to nonwork role involvement and centrality, NWO are
based on a career development perspective and also entail the notion that nonwork roles are
considered based on their relation to the work role and a career.
The concept of NWO is based on the theoretical notion that people need to manage their careers, including the relations between work and nonwork roles, in an increasingly self-directed way (Hall et al., 2013). In addition, the concept of NWO is based on the presumption that personal values and priorities play a major role in how people allocate resources between life roles in the career self-management process (Hall et al., 2013). NWO are therefore tightly linked to sustainable careers because NWO are a way in which people can exert agency and derive meaning in their career by considering how various life roles relate to their work role and career. Moreover, NWO represent personal values and preferences that guide career development (i.e., the “person” dimension of a sustainable career). In addition, NWO also address the importance of considering the context in which careers take place for understanding sustainable careers (De Vos et al., 2018) because NWO tap into a consideration of the relation of work to one’s private life. Finally, a sustainable career requires the active preservation and generation of resources (De Vos et al., 2018), and NWO represent a concern for how resources are allocated to different life domains (Hall et al., 2013). In sum, examining NWO taps into a series of core theoretical components of a sustainable career, and can thereby provide important insights and expand the theoretical understanding of sustainable careers by clarifying how people actively consider nonwork roles in relation to their work and career role when trying to manage their careers in a sustainable way.

However, such an understanding is currently hampered by the fact that there is not yet much research on NWO. Hall et al. (2013) showed that people with a stronger protean career orientation show higher NWO in relation to family, personal life, and community service. In an extension of this research, Hirschi et al. (2016) showed that, across genders and for younger as well as older employees, NWO were generally unrelated to different indicators of career success, with the exception that a stronger NWO family orientation positively related to career satisfaction. Hence, we lack a more complete understanding of the nomological net of NWO and the conditions under which NWO relate to various outcomes. That is, we do not know the typical characteristics of people with strong NWO, for example, in terms of their basic personality traits, the things that they value in their careers, or the emphasis they put on their work role. Moreover, we know little about how NWO are related to variables that are critical to understanding sustainable careers, such as experiences at the work–nonwork interface, and potential boundary conditions of these effects. In sum, to better understand how people can develop sustainable careers, it is critical to gain more understanding of the nature and implications of NWO.
To address these issues, the general aims of our paper are to contribute to a better understanding of the nature of NWO and to clarify how NWO are related to different constructs that are important for sustainable careers. To achieve these aims, we will (1) clarify the nomological net of NWO in relation to personality traits, work values, and work role commitment, and (2) explore whether different profiles of NWO and work role commitment exist, and how they relate to work–nonwork conflict and enrichment. In sum, we will improve the understanding of a key issue for sustainable careers by making contributions to a better understanding of (a) the personal characteristics of people who actively consider nonwork roles when managing their careers, (b) how a consideration of nonwork roles relates to commitment to the work role, and (c) how different combinations of NWO and work role commitment relate to key indicators of a successful work–nonwork integration as key components of being able to have a sustainable career.

We present two studies encompassing five distinct samples, including university students and heterogenous samples of employees from different age groups. In Study 1, we aim to better understand what psychological characteristics are related to NWO, and explore the nomological net of NWO among university students and employees in terms of personality traits and work values. Study 2 aims to clarify the relation of NWO with work role commitment by establishing distinct groups of employees regarding their NWO and work role commitment profiles, and to examine if such profiles differ in their relation to work–nonwork conflict and enrichment. Both studies thus contribute to a better understanding of the nature of NWO, and their relation to various constructs, which are important in the context of sustainable careers. The studies differ by including samples from different career stages (i.e., university students in Study 1; younger and older workers in Study 2), which can provide important insights, given that time (and thus age and/or career stage) is a critical variable for understanding sustainable careers (De Vos et al., 2018). Moreover, Study 2 goes beyond Study 1 by not only reporting concurrent relations of NWO with other variables, but by also testing potential boundary conditions (i.e., work role commitment) on how and when NWO are related to outcomes of interest for a sustainable career (i.e., work–nonwork conflict and enrichment).

Study 1: NWO in Relation to Personality Traits and Work Values

The aim of this study is to expand the nomological net of NWO to better understand who is more or less likely to consider nonwork roles when managing their careers. Specifically, we aim to explore the relation of NWO with basic personality traits and work values. It is important to consider personality traits in the context of sustainable careers...
because they can effect a person’s ability to deal with the dynamics in career development, such as career shocks (Akkermans, Seibert, & Mol, 2018), because they affect an individual’s exposure and reaction to career dynamics (De Vos et al., 2018). Substantial research confirms that the Big Five traits of neuroticism, extraversion, openness, agreeableness, and conscientiousness affect a range of behaviors and life outcomes that are highly relevant to sustainable careers (i.e., health, happiness, and productivity) because they influence what type of situations people select and how they interpret and react to environmental cues (Roberts, Kuncel, Shiner, Caspi, & Goldberg, 2007). Not surprisingly, basic traits are also meaningfully related to key factors of career decision making, such as vocational interests and career indecision (Brown & Hirschi, 2013). Moreover, traits are also important in the work–nonwork interface because meta-analytic research has suggested that traits are differentially related to experienced work–family conflict (Allen et al., 2012).

Based on the established relation of traits to different career and work–nonwork phenomena, it is reasonable to assume that traits are also meaningfully related to NWO. This relation might be explained by personality trait theory (McCrae & Costa, 1999), which proposes that the Big Five traits are basic tendencies that lead to the development of more specific characteristic adaptations (i.e., personal strivings, attitudes) due to a dynamic process of person–environment interaction. Specifically, for NWO, basic traits could influence the extent to which people are attracted to and engage in nonwork roles, as well as the experiences they have in nonwork roles. For example, extraversion could induce people to be more engaged in their community role because it provides a fit with their extraverted personality traits, which include a tendency to be engaged in social interactions (i.e., certain personality traits lead to attraction to certain social roles or active niche-picking of social roles; Roberts et al., 2007). Relatedly, people high in agreeableness might have more positive experiences in social interactions, for example, in the family role, because they can deal with reactions of their family members in a more positive way (i.e., personality traits affect the reaction to behaviors of other people; Roberts et al., 2007). People high in openness have a tendency to seek out new experiences (McCrae & Costa, 1999) and might thus be more inclined to seek out diverse life experiences in different life roles, leading to more concern for various nonwork roles. Further, more conscientious people might feel compelled to meet various role demands simultaneously, and thereby place more concern on nonwork roles, in relation to the work role, to achieve this aim. Finally, neuroticism might induce people to worry about the extent to which they can adequately meet various role demands, which might either lead to a retraction from being engaged in multiple roles (i.e., low NWO) or,
conversely, lead to a constant concern about how different role demands can be met (i.e., high NWO). Hence, different degrees of role engagement and role experiences because of different personality traits could lead to meaningful differences in the extent to which nonwork roles receive consideration in relation to the work role and career. However, although there is reason to believe that traits could be related to NWO in various meaningful ways, existing theorizing on NWO, or empirical research, does not suggest which specific traits would be more or less related to specific NWO facets. We hence address this issue in an exploratory way:

**Research Question 1: To what degree are the traits of neuroticism, extraversion, openness, agreeableness, and conscientiousness related to NWO?**

In addition, we aimed to explore how NWO relate to work values. Work values represent the relative importance that people place on various desirable aspects of work (Jin & Rounds, 2012). These aspects, for example, can encompass things such as a good salary, job security, helping other people, or having autonomy. Whereas work values can represent a vast array of desirable states or objects, in the present study, we examine work values based on Schwartz’ (1992) circumplex model of universal values. According to broad empirical evidence, there are four different types of values (including work values): self-transcendence values (i.e., enhance the welfare of others), self-enhancement values (i.e., enhance personal interests), conservation values (i.e., pursue security and stability), or openness to change values (i.e., pursue new intellectual and emotional states; Cable & Edwards, 2004; Schwartz, 1992).

Work values are generally seen as an important factor in career development because they represent relatively stable individual beliefs that guide people toward desired career choices (Jin & Rounds, 2012). According to social cognitive career theory (Lent & Brown, 2013; Lent, Brown, & Hackett, 1994), work values induce people to choose careers or show career behaviors because they represent expectations of positive outcomes that increase the desirability of certain career choices and career behaviors. As such, work values are also highly relevant in the context of sustainable careers because they can be an important factor of personal agency and meaning-making, in an attempt to achieve person–career fit. Because of the general importance of work values for career choices and career behaviors, it is reasonable to assume that what people value in their work is meaningfully related to NWO. A relation between work values and NWO can be explained based on the action regulation framework of work–family balance (Hirschi, Shockley, & Zacher, 2019). According to this theoretical perspective, people develop and select goals for work and nonwork roles that are
in accordance with their personal values and under consideration of external demands, resources, and barriers. Work values can hence exert an important influence on the goals that people pursue in work and nonwork roles, which should be expressed by the degree of concern that they have for certain nonwork roles that can help to achieve such goals. Similarly, the social cognitive model of career self-management (Lent & Brown, 2013) asserts that outcome expectations affect career self-management goals and subsequent career self-management behaviors. Because work values represent such outcome expectations, they should meaningfully impact the degree to which someone aspires to manage his or her career under consideration of nonwork roles, if the endorsed values imply that positive outcomes can be attained in nonwork roles. To illustrate, someone who highly values self-transcendence values at work might also be motivated to help other people in the community, and thus show higher NWO regarding the community role. Similarly, someone who places a high value on self-enhancement values at work might also be more motivated to pursue personal development in the leisure role, and thus show higher NWO regarding the personal-life role. However, we lack a clear theoretical basis or prior empirical insight into the specifics of such relations.

Research Question 2: To what degree are the work values of self-transcendence, self-enhancement, openness, and conservation related to NWO?

We examined two distinct samples (i.e., university students and employees) to investigate if similar results occur across samples in very different career stages. We assume that similar patterns of relations should exist among both groups as we explore basic traits and general dimensions of work values in relation to NWO, which should not meaningfully differ between students and workers. Identifying such commonalities would provide strong support for the generalizability of such findings, despite their exploratory nature.

Method

Participants and procedure. We recruited university students from a university in Germany by contacting students per email, with a response rate of approximately 10% (final \( N = 797 \)), which is comparable to other studies with this procedure (Baruch, 1999). The majority of the sample was female (65%). The mean age was 23.84 years (\( SD = 3.34 \)), with 63.6% pursuing a bachelor’s degree, 34.2% a master’s degree, and 1.4% a PhD. Students were enrolled in a wide variety of study fields, with the largest groups being cultural studies (11.4%), education (10%), and business administration (9.9%).

We recruited working adults (\( N = 301 \)) from Germany through an online panel provider from a standing panel of over 300,000 people. The sample was 51.8% female, had a
mean age of 46.23 years ($SD = 13.14$), and worked on average 36.06 hours per week ($SD = 6.99$). They were employed in a diverse number of fields, with the largest representations in finance and insurance (9%) and health care (9%). As a highest degree, 36.2% had completed vocational training, 30.0% had a university degree, 13.3% had completed high school, and 20.5% had not completed formal training beyond compulsory school. A majority of the sample had no children at home (71.1%), with some having one (17.9%), two (7.6%), or three (2.3%) children at home.

**Measures.** The same measures were used in both samples. Means, standard deviations, intercorrelations, and Cronbach's alpha estimates for all scales are reported in Table 1.

**Nonwork orientations.** NWOs were assessed with the German version (Hirschi et al., 2016) of the 14-item scale developed by Hall et al. (2013). This measure contains five items for family (e.g., “My career decisions are made in terms of how they will affect my family”); five items for personal life (e.g., “Finding time for myself is important for my overall quality of life”); and four items for community service (e.g., “It is important for me to have a job that allows me the flexibility to be involved in my community”). Respondents used a 5-point response scale ranging from 1 (strongly disagree) to 5 (strongly agree). As this scale is not frequently used with students, we conducted a confirmatory factor analysis in both samples to compare a 3-factor model in which the items load onto their respective subscale to a 1-factor model, with all items loading onto a single scale, and to three different 2-factor models where two NWO scales were combined into one factor. Results clearly favored the 3-factor model (all $p s < .001$), and showed good model fit in both samples, student sample: $\chi^2 = 189.95$, $df = 74$, $p < .001$; $CFI = 0.98$, $TLI = 0.97$; $RMSEA (90\% CI) = .04 [.04; .05]$, working sample: $\chi^2 = 132.32$, $df = 74$, $p < .001$; $CFI = 0.97$, $TLI = 0.96$; $RMSEA (90\% CI) = .05 [.04; .07]$.

**Big five personality traits.** We used the German language BFI-K personality inventory (Rammstedt & John, 2005) to assess neuroticism, extraversion, agreeableness, conscientiousness (four items each), and openness (five items) on a 5-point response scale ranging from 1 (very inaccurate) to 5 (very accurate).

**Work values.** Work values were assessed with the German version (Hirschi, 2011) of the work values measure by Cable and Edwards (2004). Participants responded to the question “How important is this to you?” by indicating the importance they assign to different work values (three items per work value), that is, altruism (e.g., “Making the world a better place”), relationship (e.g., “Forming relationships with coworkers”), pay (e.g., “Salary level”), prestige (e.g., “Being looked up to by others”), security (e.g., “Being certain of keeping my
job”), authority (e.g., “Definite lines of authority”), variety (e.g., “Doing many different things on the job”), and autonomy (i.e., “Making my own decisions”) on a 5-point response scale ranging from 1 (not important at all) to 5 (extremely important). Following the circumplex model of values by Schwartz and Bilsky (1987), and in accordance with Cable and Edwards, self-transcendence work values were derived by taking the sum of altruism and relationship values. Self-enhancement values are the sum of pay and prestige values. Conservation work values are the sum of security and authority. Openness to change work values are the sum of variety and autonomy.

**Results and Discussion**

**Consideration of control variables.** To account for the potential effect of sociodemographic variables on the relation between NWO and personality traits and NWO and work values, we considered gender and age (in both samples), as well as parental status (no children vs. having children), and working hours (for the employee sample) as potentially relevant control variables because such variables can be meaningfully related to the work–nonwork interface, such as experienced work–family conflict (Byron, 2005). To account for such potential effects, we conducted regression analyses with the three NWO scales as outcome variables, and inserted the controls and the trait or work value of interest as predictors to estimate the relation of the trait or work value with the respective NWO scale, while taking potential effects of controls into account. However, we received the same pattern of results regardless of whether we included control variables or not. Therefore, we report results without controls to make results more interpretable and to increase statistical power (Bernerth & Aguinis, 2016).

**Test of hypotheses.** Among students, results of the correlation analyses (Table 1) showed that family orientation correlated positively only with agreeableness. Personal life orientation correlated positively with extraversion and openness. Community orientation positively related to extraversion, openness, and agreeableness. None of the NWOs showed any relations to neuroticism or conscientiousness. Concerning work values, family orientation correlated positively with self-transcendence and conservation. Personal life orientation correlated positively with self-transcendence and openness. Community orientation correlated positively with self-transcendence and openness, and negatively with self enhancement.

Among workers, results (Table 1) showed that family orientation correlated positively with openness, agreeableness, and conscientiousness. Personal life orientation correlated positively with extraversion, openness, and conscientiousness. Community orientation related positively to extraversion, openness, agreeableness, and conscientiousness. None of the NWO
showed any relationship to neuroticism. Concerning work values, family orientation
correlated positively with self-transcendence. Personal life orientation correlated positively
with self-transcendence, self-enhancement, and openness. Community orientation correlated
positively with self-transcendence and openness.

Concerning our first research question, the results showed across the two samples that
extraversion and openness were positively related to community and personal life
orientations, whereas agreeableness was positively related to community and family
orientations. Neuroticism showed no association to NWO. In the worker sample only,
conscientiousness was positively related to all NWOs. In sum, our findings suggest that NWO
are meaningfully related to personality traits across students and workers. However, this
relation seems to differ for different dimensions of NWO because no trait was consistently
related to all three dimensions of NWO across both samples.

For the second research question, for both students and workers, self-transcendence
was positively related to all NWOs. Students with a stronger family orientation also valued
conservation, whereas workers did not. Workers with a stronger personal life orientation
valued self-enhancement in addition to self-transcendence and openness. Students with a
stronger community orientation had less self-enhancement, but this was not the case for
workers. In sum, we can assert that NWO are meaningfully related to different work values,
especially self-transcendence work values. However, the pattern of relations between NWO
and work values seems to be quite heterogeneous and sample-specific.

**Study 2: Profiles of NWO and Work Role Commitment in Relation to Work–Nonwork
Conflict and Enrichment**

In this study, we aim to expand on Study 1 and further examine the relation of NWO
with important other constructs relevant for sustainable careers. Specifically, in this study we
focus on the relation of NWO and work role commitment, including their mutual effects on
the work–nonwork interface. Work role commitment is a specific form of role expectation,
which is an internalized belief or attitude about the personal relevance of the work role, the
standards of performance in this role, and the willingness to commit personal resources (e.g.,
time, energy) to assure success within the work role (Amatea, Cross, Clark, & Bobby, 1986).
In the original conceptualization of NWO, Hall et al. (2013) presumed that strong NWO do
not imply that someone is placing less value on the work role. In fact, NWO were
intentionally not conceptualized as representing different degrees of commitment to the work
role, in contrast to commitments to other life roles. Rather, NWO represent the extent to
which someone considers nonwork roles relative to a career without implying that the work
role is more or less important (Hall et al., 2013). This reasoning would suggest that NWO and work role commitment are largely independent. However, how NWO are related to work role commitment remains empirically uninvestigated, yet clarifying this relation would provide important insight into the nature of NWO.

Theoretically, different possible relations of NWO and work role commitment are plausible. For some, high NWO might go along with high work role commitment and thereby reflect a high level of concern for many life roles, including the work role and various nonwork roles. This notion is supported by research on life-role salience (Niles & Goodnough, 1996) and multiple identities (Ramarajan, 2014), which shows that people can simultaneously place a high value on multiple life roles. This is also reflected in the notion of a whole-life perspective of career development, such as a desire to achieve satisfaction and effectiveness in multiple life roles, and making career decisions with an awareness of their effects on other life domains (DiRenzo et al., 2015). Hence, some people might approach their lives generally, and careers more specifically, with such a whole-life perspective. Indeed, the expansionist view of multiple life roles (Barnett & Hyde, 2001), and the enrichment perspective of the work–family interface (Greenhaus & Powell, 2006), suggest that engagement in multiple life roles can have beneficial effects across roles, for example, due to transfer of resources between life roles, or increased resilience to adverse life events (Barnett & Baruch, 1985; Barnett, Marshall, & Pleck, 1992; Marks & MacDermid, 1996).

Conversely, other people might have high NWO, but low work role commitment, or vice versa. This would reflect a more one-sided consideration of life roles, more unequal saliences across life roles (Niles & Goodnough, 1996), and a lower number of salient identities (Ramarajan, 2014). One reason for such unequal role concerns can be found in role theory (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964) and the scarcity approach to multiple life roles (Marks, 1977), which state that each life role comes with its unique demands, and meeting several role demands simultaneously can significantly strain available resources. Hence, some people might approach their lives and careers in a way that they prioritize certain life roles more than others to avoid resource drain.

The first aim of this study therefore is to provide a more fine-grained understanding of how NWO relate to work role commitment. We used a person-centered approach, applying latent class analysis (LCA) to explore whether different combinations of NWO and work role commitment exist. In contrast to moderation analysis, which assesses the average effect in a sample, LCA has the advantage of taking into account that specific subgroups might exist within a sample, which show unique constellations of variables (Wang & Hanges, 2011). This
allows us to identify and understand subpopulations with specific constellations of NWO and work role commitment, which would remain undetected using moderation analysis.

Based on the presented different theoretical perspectives of how NWO might be linked with work role commitment, subpopulations with different combinations of NWO and work role commitment could exist. Specifically, on a general level, we expect to find four qualitatively distinct groups: (1) high NWO and also high work commitment (i.e., a whole-life perspective). This group would represent people who are strongly committed to the work role while simultaneously actively considering various nonwork roles and how they relate to their work role and career. Based on role theory (Marks, 1977), people invest attention, time, and energy into roles that they deem important, and thus strive to be effective and satisfied in these roles. We hence assume that people in this group have a desire to achieve satisfaction and effectiveness across multiple life roles, and make career decisions under consideration of how they affect other life roles (i.e., have a whole-life perspective when managing their careers); (2) high NWO, but low work commitment (i.e., nonwork focus). This group thus has a nonwork focus by strongly considering nonwork roles relative to their career while not being highly committed to the work role; (3) low NWO, but high work commitment (i.e., work focus). People in this group thus are highly committed to the work role, yet do not strongly consider nonwork roles; and (4) low NWO and low work commitment (i.e., disengaged). This group does not consider nonwork roles, and also is not committed to the work role.

Despite these specific expectations, identifying latent profiles has a strong exploratory character and is highly sample-specific (Wang & Hanges, 2011). To address this limitation, we aim to replicate our findings among three distinct groups of employees: younger employees, older employees, and an age-heterogeneous group. Because nonwork and work remain important life domains throughout the career, we assume that the same combinations of NWO and work role commitment can be found across different age samples. Hence, replicating profiles of NWO and work commitment across age groups would provide strong support for the generalizability of identified subgroups.

**Hypothesis 1**: Across different age samples, there exists four general qualitatively distinct types of profiles of NWO and work role commitment: (1) Whole life perspective, (2) nonwork focus, (3) work focus, and (4) disengaged.

In addition, we wanted to explore potential age differences in these profiles. Examining potential age effects is especially meaningful in the context of sustainable careers because the dimension of time is critical to understanding the inherent dynamics of career
development (De Vos et al., 2018). Hence, a person’s age or career stage might have fundamental effects on the extent to which someone exerts individual agency and creates meaning in career self-management, as well as the ability to attain and maintain person–career fit (De Vos et al., 2018). Examining NWO and work role commitment from a lifespan perspective is specifically meaningful because work motivations (Kanfer & Ackerman, 2004) and the work–nonwork interface (Allen & Shockley, 2012) change with age. Hence, while we expect that certain general combinations of NWO and work role commitment exist across the lifespan, the degree of NWO and work role commitment might change over one’s life course. Such age effects could be explained by socioemotional selectivity theory (Carstensen, Isaacowitz, & Charles, 1999), which asserts that as people age, their time perspective changes from a more open-ended to a more finite view. As a result, changes in preferences can occur, such that a preference for resource acquisition is generally stronger during younger years, whereas a preference for positive emotional experiences generally increases with age (Carstensen, 2006). Because different life roles can differ in their degree to which they can satisfy preferences for resource gains or positive emotional experience, changes in role preferences are likely to occur over time. Due to motivational changes over the life course as predicted by socioemotional selectivity theory, we expect that a work focus is particularly prevalent in younger samples who should be more motivated to increase their work-related resources for later career gains. Conversely, we assume that a whole life perspective becomes more prevalent among older employees, because they should value the positive experiences that result from a more balanced life orientation more.

**Hypothesis 2:** (a) Younger employees are more likely to exhibit a work focus profile compared to older employees; (b) older employees are more likely to exhibit a whole life perspective profile compared to younger employees.

Going beyond identifying subgroups with distinct NWO and work role commitment combinations, this study secondly aimed to examine whether different subgroups show unique relations with work–nonwork conflict and enrichment. Work–nonwork conflict represents a form of inter-role conflict, where work and nonwork roles are mutually incompatible in some respect (Greenhaus & Beutell, 1985). Conversely, work–nonwork enrichment occurs if experiences in one role improve performance or enhance positive affect in the other role (Greenhaus & Powell, 2006). Examining both aspects of the work–nonwork interface is meaningful because they are distinct experiences that can simultaneously occur (Grawitch, Maloney, Barber, & Mooshegian, 2013; Wayne, Butts, Casper, & Allen, 2017).
In our study, we specifically focus on the work-to-nonwork direction in conflict and enrichment. This decision is based on meta-analytic findings that within-domain relations are generally stronger than cross-domain relations, such that work-related variables have a stronger effect on work-to-family conflict and enrichment than on family-to-work conflict and enrichment (Byron, 2005; Lapierre et al., 2017). NWO are neither clearly work nor nonwork related, but are at the interface of both life domains. However, because our focus here is on the work-related variable of work commitment as the key boundary condition of NWO in relation to the work–nonwork interface, focusing on the work-to-nonwork direction specifically seemed appropriate.

We expect that both work-to-nonwork conflict and enrichment are especially high for people who show high NWO in combination with high work role commitment. This is because, based on role theory (Kahn et al., 1964) and the scarcity approach to multiple life roles (Marks, 1977), an active involvement in multiple life roles necessitates that people need to devote considerable resources to meet demands in various roles. This can lead to a lack of resources to meet all role demands simultaneously due to resource drain and thereby more work-nonwork conflict (Edwards & Rothbard, 2000). Hence, if someone shows high work role commitment in combination with high NWO, the resource demands across work and nonwork roles can be incompatible, leading to increased work-to-nonwork conflict.

However, people with multiple role commitments can also benefit more from positive spillover, where resources obtained in one role are more readily used in other roles, leading to more work–nonwork enrichment (Edwards & Rothbard, 2000). This is because a strong role commitment indicates a high role salience, which induces people to actively use resources obtained in other roles to benefit the salient role (Edwards & Rothbard, 2000). Hence, people with high NWO should be especially motivated to use resources obtained in the work role to benefit nonwork roles, leading to more work-to-nonwork enrichment. Moreover, based on conservation of resources theory (Hobfoll, Halbesleben, Neveu, & Westman, 2018), a strong role commitment implies that people invest more resources in that role, which can trigger more resource gains in that role due to positive resource spirals. Hence, investment in the work role due to strong work role commitment can produce more learning and positive experiences at work, which could then be transferred to nonwork roles, again increasing work-to-nonwork enrichment. While existing studies did not examine NWO in combination with work role commitment specifically, meta-analytic research provides indirect support for our reasoning by showing that work and family role commitment is related to more work–
family conflict (Michel et al., 2011), but also more work–family enrichment (Lapierre et al., 2017).

In sum, we expect that employees with a whole-life perspective report higher work–nonwork conflict, but also higher enrichment compared to other profiles. By contrast, we expect people with a disengaged profile (i.e., low overall concern for different life roles) to show the lowest level in both variables. The other two profiles (i.e., nonwork focus, work focus) should be situated somewhere in between these two poles. People in these two groups can be presumed to be unequally engaged in different life roles, and thus focus their time and energy more on one role rather than spreading it out across multiple roles. Hence, they should suffer less from role conflict, but also have fewer opportunities to experience enrichment compared to people with a whole-life perspective, who simultaneously consider work and nonwork life roles. Simultaneously, because people in these two groups show concern for at least some life roles, they should experience more conflict and enrichment compared to people who show less concern for nonwork and work roles more generally (i.e., the disengaged group). We moreover expect that these effects occur irrespective of employee age group as they represent more general processes, that should not meaningfully change over the life course, in how different life role orientations relate to work-nonwork experiences.

_Hypothesis 3: Across age groups, the whole-life profile is associated with the highest and the disengaged profile with the lowest levels of work–nonwork conflict and enrichment._

**Method**

**Participants and procedure.** We collected three distinct samples of (1) younger employees, (2) older employees, and (3) age-diverse employees, all recruited through an online panel provider in Germany. For the younger sample (N = 424), we targeted employees within the age range of 25 to 35 years. On average, employees were 31.89 (SD = 2.77) years old, and 49.30% female. As a highest degree, 44.40% had completed vocational training, 32.90% had a university degree, and 22.70% had not completed formal training beyond school. Of the participants, 66.40% reported they lived without children in the household, 22.50% lived with one child, 8.50% lived with two children, and 2.60% lived with three or more children. On average, participants worked 37.27 hours per week (SD = 6.59).

For the older sample (N = 583), we targeted employees between the ages 50 and 60. On average, the employees were 55.46 (SD = 2.76) years old, and 44.40% were female. As a highest degree, 53.10% had completed vocational training, 20.30% had a university degree, and 26.60% had not completed formal training beyond school. Of the participants, 73.20%
reported they lived without children in the household, 16.50% lived with one child, 8.20% lived with two children, and 2.10% lived with three or more children. On average, participants worked 34.68 hours per week ($SD = 8.57$).

For the age-diverse sample, we targeted employees aged between 18 and 65 years ($N = 574$). On average, employees were 43.24 years old ($SD = 11.42$), and 55.10% were female. As a highest degree, 32.90% had completed vocational training, 22.70% had a university degree, and 44.40% had not completed formal training beyond school. Of the participants, 47.40% reported having children, 43.60% lived with one child in the household, 42.30% lived with two children, and 14.10% lived with three or more children. On average, participants worked 35.34 hours per week ($SD = 7.43$).

**Measures.** Means, standard deviations, intercorrelations, and Cronbach’s alpha estimates for all scales and all samples are reported in Table 3. In cases where no German language version of a measure existed, the measure was translated into German by two of the authors in a parallel translation, and the final version was derived in a reconciliation meeting (Van de Vijver & Leung, 1997).

We assessed NWO with the same measure reported in Study 1. To confirm the factor structure of the NWO scale in the used samples, we conducted confirmatory factor analyses to compare a 3-factor model in which the items load onto their respective subscale to a 1-factor model, with all items loading onto a single scale, and to three different 2-factor models where two NWO scales were combined into one factor. Results clearly favored the 3-factor model (all $ps < .001$), and showed good model fit in all samples; young: $\chi^2 = 143.99$, $df = 74$, $p < .001$; $CFI = 0.98$, $TLI = 0.97$; $RMSEA (90\% CI) = .05 [.04; .06]$; old: $\chi^2 = 188.78$, $df = 74$, $p < .001$; $CFI = 0.97$, $TLI = 0.96$; $RMSEA (90\% CI) = .05 [.04; .06]$; age-diverse $\chi^2 = 145.51$, $df = 74$, $p < .001$; $CFI = 0.97$, $TLI = 0.96$; $RMSEA (90\% CI) = .04 [.03; .05]$.

**Work role commitment.** We used the 5-item occupational role commitment scale by Amatea et al. (1986), with statements such as, “I value being involved in a career and expect to devote the time and effort needed to develop it” on a 5-point response scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

**Work–nonwork interface.** Work–nonwork conflict and enrichment was measured with the 8-item scale from Fisher, Bulger, and Smith (2009), which assesses work interference with personal life (5 items), and work enhancement of personal life (3 items). Sample items from the scale are “My personal life suffers because of my work” (inference/conflict), and “My job gives me energy to pursue activities outside of work that are important to me” (enhancement/enrichment).
**Data analytic approach.** To ensure that the results of our hypotheses tests were not distorted by outliers, and by the latent class solutions in particular, we checked for multivariate outliers using Mahalanobis distance. Employing a p value of < .001, we identified six outliers in Sample 1, five outliers in Sample 2, and one outlier in Sample 3, and removed these cases.

To test Hypothesis 1, we used the LPA approach described above to identify groups of individuals who displayed similar patterns in NWO and work role commitment. We used a stepwise approach, starting with a two-class solution, and added classes successively (Nylund, Asparouhov, & Muthén, 2007). We evaluated the resulting classification solutions based on methodological and theoretical grounds. From a methodological perspective, a good latent profile solution is characterized by (a) small values for log-likelihood, Akaike’s information criterion (AIC), Bayesian information criterion (BIC), sample-size adjusted BIC (SABIC), and (b) a significant bootstrap likelihood ratio test (BLRT), which indicates that the added profile increased model fit. From a theoretical perspective, the identified latent class solution should be interpretable in line with a-priori theoretical considerations. To test Hypothesis 2, and to predict work–nonwork conflict and enrichment based on the identified latent class solution, we used the DU3STEP command in Mplus (Asparouhov & Muthén, 2014; Zhu, Steele, & Moustaki, 2017).

**Results and Discussion**

**Consideration of control variables.** To account for potential effects of sociodemographic variables, we conducted the analyses also controlling for gender, age, number of children living in household, and working hours because these variables are commonly related to experiences at the work–nonwork interface, such as work–family conflict (Byron, 2005). Specifically, we used the residuals of work–nonwork conflict and enrichment in the analyses to account for the effect of the controls on these variables. However, we received the same pattern of results regardless of whether we included the residuals or original values. Therefore, we report results without controls to make results more interpretable and to increase statistical power (Bernerth & Aguinis, 2016).

**Latent profiles of NWO and work role commitment.** Table 4 reports the results of the LPAs using NWO family, personal life, community service, and work role commitment as latent profile indicators in Samples 1, 2, and 3 (Table 4). In all three samples, we identified a six-profile solution based on the standardized mean values of the four latent profile indicators because this solution was theoretically most meaningful and provided acceptable values on the formal decision criteria.
As depicted in Figure 1, the first *average* profile was characterized by more or less average values on all four profile indicators. The average profile was also the largest profile in terms of assigned participants across all samples (Table 4). The second profile, labeled the *work-focused* profile, displayed low values on all NWOs and higher than average values on work role commitment. The *personal life* profile was characterized by high values on NWO personal life, and low values on NWO family and community service, as well as work role commitment. The fourth profile was similar for Sample 2 and 3, but different for Sample 1. In Sample 2 and 3, the *disengaged* profile was characterized by low values on all three NWO dimensions and work role commitment. In Sample 1, we labeled Profile 4 the *personal life and work* profile, based on higher values on NWO personal life and work role commitment, but low values on NWO family and community. The fifth profile, identified across all samples, represented the *family and personal life* profile, indicated by low values on NWO community service and work role commitment, but high values on NWO personal life and family. Finally, the sixth profile, *whole-life*, was characterized by above average and similar scores on all four profile indicators.

Taken together, our results demonstrated that more than one nonwork focus profile may exist, including a focus on personal life and on family and personal life. Specifically, we replicated a six-class latent profile solution across our three samples. Across all three samples, we identified five common profiles, namely *average*, *work focused*, *personal life*, *family and personal life*, and *whole-life*. In addition, we identified a *personal life and work* profile in Sample 1, and a *disengaged* profile in Samples 2 and 3. Thus, we found full support for Hypothesis 1 with regard to the existence of subgroups that could be labeled as whole-life perspective, nonwork focus, and work focus across the three samples. Finally, we found partial support for Hypothesis 1 with regard to the existence of a disengaged profile because we could only replicate this profile in two out of three age group samples. We found no support for H2a, as contrary to our assumption, younger workers were not more but less likely to show a work-focused profile compared to older workers (4% vs. 19%). We also could not support H2b as older workers were not more but less likely to show a whole life perspective profile compared with younger workers (6% vs. 29%).

**Latent profiles as predictors of the work–life interface.** As can be seen in Table 4 with regard to work–nonwork conflict, we found limited differences between the six profiles across the three samples, with two notable exceptions. First, individuals assigned to the *work-focused* profile among young employees (Sample 1) reported the highest work–nonwork conflict, and this value differed significantly from four other profiles. Second, individuals
assigned to the whole-life profile in the age-heterogonous sample (Sample 3) displayed the lowest work–nonwork conflict, with significant differences from three other profiles.

Our analysis revealed the strongest differences across the six profiles with regard to work–nonwork enrichment (Table 4). Across all three samples, we found the whole-life and the average profiles related to the highest values for work–nonwork enrichment, suggesting that individuals with a more balanced perspective of work and nonwork roles experienced the strongest positive reinforcements between work and nonwork. In addition, personal life and family and personal life profiles were associated with the lowest values on work–nonwork enrichment, with significant differences to the whole-life and average profiles.

Taken together, the findings indicate that individuals with a more balanced perspective of work and nonwork experience less conflict and more enrichment, in contrast to individuals who are focused on either their work or their personal life only. More precisely, in line with Hypothesis 2, we found that individuals in the whole-life subgroup experienced the highest levels of work–nonwork enrichment. However, we did not find evidence that individuals in the whole-life subgroup also experienced the highest work–nonwork conflict. In fact, work–nonwork conflict was lowest for the whole-life subgroup in Sample 3. In addition, we did not find support for Hypothesis 3 in terms of the expected lowest values on work–nonwork conflict and enrichment for individuals in the disengaged subgroup. Interestingly, focusing on differences between younger (Sample 1) and older employees (Sample 2), our findings suggest that younger workers, compared to older workers, perceive more pronounced work–nonwork conflict when belonging to the work-focused profile. Contrary to expectation, the observed effect hence seems to differ slightly based on age group.

**General Discussion**

Because work and nonwork life domains are increasingly intertwined for many people (Greenhaus & Kossek, 2014), research on sustainable careers can significantly benefit from a whole-life perspective. By considering nonwork roles relative to one’s career, people can exert agency in their careers according to their values and under consideration of the context where careers unfold. Moreover, NWO can help to preserve and build resources across different life roles, which can contribute meaningfully to a sustainable career that results in long-term health, happiness, and productivity. As such, better understanding NWO is an important component for advancing the theoretical and empirical research on sustainable careers.

Our studies specifically contribute to research on sustainable careers by clarifying the nomological net of NWO. Research thus far has established that NWO are positively related
to a protean career orientation (Hall et al., 2013), but that NWO do not largely differ across gender or between older and younger employees (Hirschi et al., 2016). We expand this research by showing that across students and employees, NWO show meaningful relations to basic personality traits, specifically agreeableness, extraversion, and openness. The findings suggest that people who are more cooperative, empathic, and altruistic in general (i.e., high in agreeableness) also are more willing to consider how their career affects other people, namely people in their family and community. In addition, people who are generally more sociable and energetic (i.e., high on extraversion), as well as more curious and interested in a variety of experiences (i.e., high on openness), are more inclined to consider how their careers affect their community and personal life roles. These results are in line with the theoretical assumption that people become and remain engaged in social roles that correspond to their traits (Roberts et al., 2007), and that this is subsequently reflected in the degree of concern that people have for such life roles. For conscientiousness, our results suggest that this trait is only related to NWO among employees, but not students. This could be explained by how employees are generally more involved in the work role and career than are students, and thus generally face higher work role demands. Being conscientious (i.e., being more dutiful, deliberate, achievement striving) could induce employees to show more concern for nonwork roles in relation to their work role in an attempt to also adequately meet nonwork role demands outside of their work. Conversely, students might face less pressure to meet simultaneous work and nonwork demands, which should weaken the link between being conscientious and showing high NWO.

We moreover established that people who value enhancing the welfare of others through their career (i.e., endorse self-transcendence work values) are also more likely to express NWO. These findings are in line with the assumption that work values affect the work and nonwork goals that people pursue, and thereby also shape the degree of concern that they have for nonwork roles that can satisfy such values (Hirschi et al., 2019). However, the fact that we did not find a consistent pattern across workers and students for the other work values besides self-transcendence suggests that people can be motivated to consider nonwork roles in relation to their careers for a variety of reasons, which also encompass self-enhancement, conservation, and openness. Moreover, it could be that life span (e.g., change in time perspective) or work experiences shape how work values relate to NWO, which calls for future research into this issue. In sum, the insights of our study contribute to a better conceptual understanding of NWO more specifically, and contribute insights into sustainable careers more generally, by clarifying how different person-level constructs linked with
proactivity and adaptability (i.e., personality traits and work values) are related to the extent to which people actively consider nonwork roles in relation to their work role and career.

In addition, our studies expand the theoretical understanding of the meaning of NWO by examining how NWO are related to work role commitment across three age-diverse samples. Our paper thereby provides new insight into how NWO interact with work role commitment in relation to work–nonwork outcomes. Investigating how NWO combine with work role commitment is important because people who strongly consider nonwork roles, while at the same time also are strongly committed to their work role, can be seen as pursuing their career with a whole-life perspective (DiRenzo et al., 2015). This might be differently related to outcomes relevant to a sustainable career (i.e., health, happiness, and productivity) compared to people who only consider nonwork roles, or only the work role. Our study is important because it represents a first attempt to clarify under which conditions NWO are related to other variables of interest for a sustainable career.

We addressed this issue by examining the effects of NWO, in combination with work role commitment, to investigate the specific combinations of these variables among different age groups with latent profile analyses. In sum, the findings support the assertion by Hall et al. (2013) that NWO are not systematically related to work role commitment in a predictable way. Our insights contribute to the literature by empirically showing across several distinct samples that NWO can indeed be related to work role commitment in various ways, and that actively considering nonwork roles in relation to one’s career does not automatically imply that a person is less committed to the work role. Conversely, it seems equally possible that someone can have a strong work role commitment, but at the same time, also have a strong concern for other life roles. For the theoretical understanding of sustainable careers, this implies that being highly committed to a work role does not need to be accompanied by a one-sided resource use and allocation in the work role, at the cost of other life roles. By contrast, our results suggest that people can be active in pursuing their career, while at the same time also considering the consequences of their context, which might be critical not only to long-term health and happiness, but also to sustainable productivity.

Across three distinct samples of younger, older, and age-heterogeneous employees, we were able to show that a considerable number of people can be characterized as having a whole-life approach to their career management, as indicated by above-average NWO and work role commitment. However, contrary to expectation, this profile was particularly prevalent among younger and not older employees. Conversely, older workers were more likely to exhibit a work-focused profile compared to younger employees. This finding would
support the notion that younger employees place a high importance on work-life balance in addition to expecting high rewards in their work role (Twenge, Campbell, & Freeman, 2012). For older employees, it might be that especially childcare responsibilities decline with age and more resources can thus be devoted to the work role, reducing the prevalence of a whole life perspective and increasing the prevalence of a work-focused profile. These findings call for more research into how the mutual relations in attitudes towards work and nonwork change over the life course.

We moreover established that different profiles differ meaningfully in their work–nonwork interface experiences. Interestingly, we did not find a clear pattern of differences in work–nonwork conflict. However, our results suggest that especially younger employees with a work-focused profile experience more conflict. Possibly, younger employees might be more likely to have childcare responsibilities for small children at home compared to older employees. They may thus face especially strong and externally imposed resource demands in the home domain that are incompatible with the resource demands resulting from a strong work investment. Moreover, it is possible that younger employees have not yet developed efficient action strategies to deal with such extensive resource demands in various life domains (Hirschi et al., 2019), making them more prone to experience conflict.

Interestingly, our results indicate that people with a whole-life focus are not more (as we expected), but less, prone to experience conflict. This might be because these individuals actively consider how their careers affect nonwork roles, and thus derive better action strategies to balance work and nonwork (Hirschi et al., 2019), leading to reduced conflict. In addition, we found support for our assumption that a whole-life approach is positively related to work–nonwork enrichment. This supports the view that being actively engaged in multiple life roles can have various benefits and lead to mutual enrichment between roles (Barnett, 2008; Greenhaus & Powell, 2006). Our results are also in line the basic assumption of an action-regulation approach to work–nonwork balance (Hirschi et al., 2019), which asserts that the coordinated selection and pursuit of goals across work and nonwork domains promotes effectiveness and satisfaction across life roles.

For the theoretical understanding of sustainable careers, these results suggest that the specific combinations of NWO and work role commitment can have a meaningful impact on constructs that are central to the development of a sustainable career. Specifically, our results support the assumption that paying attention to resource use and allocation across work and nonwork life roles can contribute to a sustainable career by allowing for a better work–
nonwork integration. These results should encourage future research on sustainable careers that focus on factors that promote a whole-life approach to career management.

**Limitations and Future Research**

Our studies are not without limitations. First, we relied exclusively on self-report data. This means that we were not able to examine how NWO are related to objective outcomes, for example, resource management behaviors, personal health, or the quantity and quality of social relationships. Moreover, for future research, it would be interesting to know how other people, such as family members or supervisors, perceive people high in NWO, and what the effects of NWO are on outcomes rated by these important others (e.g., marital satisfaction, job performance).

Second, our studies are based on cross-sectional data. As such, we are not able to draw conclusions about the causality underlying the observed relations. It might be, for example, that experiencing work–nonwork enrichment leads people to adopt a more whole-life perspective, rather than the other way around. Longitudinal studies or experimental study designs (e.g., intervention studies) would be needed to shed further light on these issues. Moreover, our studies were not able to adequately capture the dimension of time and the dynamics that are important to understanding sustainable careers (De Vos et al., 2018). Future studies should use longitudinal designs where key variables are assessed repeatedly, for example, to evaluate if and how people change in their NWO and work role commitment profiles over time.

Third, although we expanded knowledge about the nomological net of NWO, our studies are naturally limited by the selection of examined constructs. More specifically, we focused on individual-level variables, and not on contextual influences. More research is needed to further expand the nomological net of NWO, for example, in relation to labor market conditions, cultural values, or organizational policies that could affect NWO. Relatedly, we herein focused on the work-to-nonwork direction when examining role conflict and enrichment. Future studies could also examine how NWO relate to nonwork-to-work spillover or experienced role balance. In addition, the construct and measurement of NWO itself might need some further theoretical and empirical refinement because it is not always clear if NWO represent a form of nonwork role salience, a type of work preference, or a specific approach to career decision making. Although all of these points are clearly conceptually highly related and might be difficult to empirically disentangle, future work could try to tease out more clearly the substantive theoretical and empirical meaning of NWO in relation to role salience, work preferences, and career decision making.
Finally, all our samples are from Germany, which could impose a cultural bias on how work and nonwork roles are perceived. Indeed, meta-analytic research has suggested that cultural contexts can play a role in the work–nonwork interface, for example, in experienced family-to-work conflict (Allen, French, Dumani, & Shockley, 2015). More research on NWO in different cultural contexts is needed to further our understanding of who is more or less likely to consider nonwork roles relative to career, and what effects NWO produce.

Implications for Practice

Our findings offer several relevant insights for career development practice. Because we found that people with a whole-life focus reported more work–nonwork enrichment, but not more conflict, career counseling could encourage clients to actively consider nonwork roles when setting career goals and making career plans. This could entail helping clients to actively consider work and nonwork goals in their career planning, including how pursuing their career goals might impact their nonwork roles. Counselors could then help clients to devise action strategies that optimally use available resources and address existing barriers to jointly attain work and nonwork goals (Hirschi et al., 2019).

Our findings moreover suggest that some people might be especially receptive to such an approach, specifically clients who are more agreeable, extroverted, and open to experience, as well as those who value enhancing the welfare of others through their work. Moreover, younger employees seem to have a stronger tendency to adapt a whole-life perspective toward their career, and might hence especially welcome a counseling approach that focuses on whole-life career planning. However, it is also notable that we did not find significant negative correlations of NWO with traits or work values, and that older workers also seem to benefit from a whole-life approach in relation to the work–nonwork interface. This suggests that all clients could benefit from such a counseling approach.

Conclusion

To conclude, our studies provided an in-depth exploration of who is more or less likely to actively consider nonwork roles when managing their career, including the typical personality traits and work values associated with NWO. Moreover, we clarified how NWO are related to work role commitment, and how different combinations of NWO and work commitment are related to experienced work–nonwork conflict and enrichment. As such, we hope that our studies make an important contribution to the understanding of how people can develop a sustainable career that actively incorporates nonwork roles, and thereby results in long-term health, happiness, and productivity.
References


Footnotes

1 At the request of the editorial team, we also performed LPA with only the three NWO scales. We identified four common profiles across the three samples: average (average values on all NWO); personal life (above average on NWO personal life, but below average on NWO family and community service); irrelevant (below average for all three NWO); and balanced (above average on all three NWO). We also used work role commitment as a predictor of profile membership and found that higher work role commitment increased the probability of being in the personal life rather than the average (Samples 2 and 3), irrelevant (Sample 3), or balanced (Samples 2 and 3) group. Full results are available from the corresponding author upon request.
### Table 1

**Means, Standard Deviations, Intercorrelations, and Cronbach Alpha Coefficients for Student and Worker Samples in Study 1**

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<td>0.76/0.71</td>
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<td>.13</td>
<td>.05</td>
<td>.13</td>
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<td>.02</td>
<td>.07</td>
<td>-.10</td>
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<td>.24</td>
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<td>.34</td>
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<td>0.66/0.76</td>
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<td>.15</td>
<td>.56</td>
<td>.02</td>
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<td>0.63/0.69</td>
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<td>-.01</td>
<td>-.14</td>
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Note. Students $N = 797$; workers $N = 301$. Values for workers are above the diagonal. Values for students are below the diagonal. Cronbach alpha coefficients are on the diagonal. Means, standard deviations, and Cronbach alphas: first values are for students; second values are for workers.

Student sample: Correlations $|.09 | p < .01$. Correlations $|.08 | p < .05$; worker sample: Correlations $|.16 | p < .01$. Correlations $|.14 | p < .05$

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<td>3.96/3.99</td>
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<tr>
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<tr>
<td></td>
<td>(.83)</td>
<td>(-.08)</td>
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<tr>
<td></td>
<td>(0.82/ .26</td>
<td>(0.79/ .86)</td>
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Table 2
Means, Standard Deviations, Intercorrelations, and Cronbach Alpha Coefficients for Study 2

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sample 1: Young employees</th>
<th>Sample 2: Old employees</th>
<th>Sample 3: Age-heterogeneous employees</th>
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<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
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<td>NWO – Family</td>
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<td>NWO – Personal life</td>
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<td>.33**</td>
</tr>
<tr>
<td>NWO – Community</td>
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<td>Work role commitment</td>
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<td>Work-nonwork conflict</td>
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<td>Work-nonwork enrichment</td>
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<td>0.86</td>
<td>.10*</td>
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</table>

Note. Sample 1 N = 424, Sample 2 N = 583, Sample 3 N = 574. NWO = nonwork orientations. Cronbach’s alpha in diagonal. **p < .01, *p < .05.
Table 3

*Results of Latent Profile Analysis with NWO and Work Role Commitment as Profile Indicators (Study 2)*

<table>
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<th>No. of profiles</th>
<th>LL</th>
<th>FP</th>
<th>Scaling</th>
<th>AIC</th>
<th>BIC</th>
<th>SABIC</th>
<th>H0 LL</th>
<th>LRT p</th>
<th>BLRT p</th>
<th>E</th>
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<td>.00</td>
<td>.73</td>
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<td>.00</td>
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### Sample 3: Age-heterogeneous employees

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<th>M2</th>
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<th>BIC</th>
<th>SABIC</th>
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</table>

*Note.* Sample 1 $N = 417$, Sample 2 $N = 578$, Sample 3 $N = 573$. LL = model log-likelihood; FP = number of free parameters; Scaling = scaling correction factor of the robust maximum likelihood estimator; AIC = Akaike’s Information Criterion; BIC = Bayesian Information Criterion; SABIC = sample-size adjusted BIC; H0 LL = H0 log-likelihood value for comparing k against k-1 class solution; LRT $p$ = significance of Lo, Mendell, & Rubin adjusted likelihood ratio test; BLRT $p$ = significance of bootstrap likelihood ratio test; $E$ = Entropy.
Table 4

Results of Regression Analyses Predicting Work–Nonwork Conflict and Enrichment Based on the Six Latent Profiles (Study 2)

<table>
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<th>Latent Profiles</th>
<th>Work-nonwork conflict</th>
<th>Work-nonwork enrichment</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>M</td>
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<td>Sample 1: Young employees</td>
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<td></td>
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<td>1. Average</td>
<td>179 (43%)</td>
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<td>2. Work-focused</td>
<td>15 (4%)</td>
<td>3.56</td>
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<tr>
<td>3. Personal life</td>
<td>30 (7%)</td>
<td>2.69</td>
</tr>
<tr>
<td>4. Personal life and work</td>
<td>21 (5%)</td>
<td>3.07</td>
</tr>
<tr>
<td>5. Personal life and family</td>
<td>49 (12%)</td>
<td>2.43</td>
</tr>
<tr>
<td>6. Whole life</td>
<td>123 (29%)</td>
<td>2.81</td>
</tr>
<tr>
<td>Chi-square</td>
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<td>14.32*</td>
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<tr>
<td>Sample 2: Old employees</td>
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<td></td>
</tr>
<tr>
<td>1. Average</td>
<td>262 (45%)</td>
<td>2.31</td>
</tr>
<tr>
<td>2. Work focused</td>
<td>109 (19%)</td>
<td>2.71</td>
</tr>
<tr>
<td>3. Personal life</td>
<td>87 (15%)</td>
<td>2.20</td>
</tr>
<tr>
<td>4. Disengaged</td>
<td>18 (3%)</td>
<td>2.85</td>
</tr>
<tr>
<td>5. Personal life and family</td>
<td>68 (12%)</td>
<td>2.58</td>
</tr>
<tr>
<td>6. Whole life</td>
<td>34 (6%)</td>
<td>2.40</td>
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<td>Chi-square</td>
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<td>Sample 3: Age-heterogeneous employees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Average</td>
<td>250 (44%)</td>
<td>2.80</td>
</tr>
<tr>
<td>2. Work focused</td>
<td>82 (14%)</td>
<td>2.94</td>
</tr>
<tr>
<td>3. Personal life</td>
<td>38 (7%)</td>
<td>3.12</td>
</tr>
<tr>
<td>4. Disengaged</td>
<td>14 (2%)</td>
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</tr>
<tr>
<td>5. Personal life and family</td>
<td>52 (9%)</td>
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<tr>
<td>6. Whole life</td>
<td>137 (24%)</td>
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<tr>
<td>Chi-square</td>
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</tbody>
</table>

Note. Sample 1 N = 417, Sample 2 N = 578, Sample 3 N = 573. All analyses were run using the 3-step ML (DU3STEP) procedure in MPlus. The values for the outcomes are mean values for each profile. Subscripts indicate profiles that are significantly different at \( p < .05 \). The chi-square indicates the significance of the overall difference test. *\( p < .05 \). **\( p < .01 \).
Figure 1. Latent profiles across the three samples (Study 2)