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The Actor, Agent, and Author Across the Life Span: Interrelations Between Personality Traits,  
Life Goals, and Life Narratives in an Age-Heterogeneous Sample

Janina Larissa Bühler<sup>1,2</sup>

Rebekka Weidmann<sup>1</sup>

Alexander Grob<sup>1</sup>

Author Note

<sup>1</sup> University of Basel, Switzerland. <sup>2</sup> University of Bern, Switzerland.

Correspondence concerning this article should be addressed to Janina Larissa Bühler,  
Department of Psychology, University of Basel, Missionsstrasse 62, 4055 Basel, Switzerland.  
E-mail: Janina.buehler@unibas.ch.

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### **Abstract**

According to the integrative framework for studying people, personality manifests and develops along three separate, but related, levels: the actor (e.g., traits), agent (e.g., goals), and author (i.e., narratives). Although these levels are thought to be conceptually interrelated, few studies have empirically examined such interrelations. To address this gap, the present study tested how traits, goals, and narratives are longitudinally related to each other and whether master motives (getting along and getting ahead) serve as helpful tools to structure these interrelations. Applying a developmental approach, we further explored these interrelations against the background of age-related effects. A sample of 141 participants (14–68 years,  $M = 35.40$  years) completed self-reports on traits and goals at the beginning and end of a 2-year study. In between these measurements, participants took part in a life story interview that assessed narratives. We applied multilevel analyses and found that traits, goals, and narratives were meaningfully related to each other. Interactions with age occurred in less than 20% of the cases, emerged among the majority of variables (except for agreeableness and openness), were most pronounced for narratives, and were mainly found among young and middle-aged participants. The findings are discussed in view of master motives.

*Keywords:* Big Five personality traits; life goals; life narratives; integrative framework for studying people; life-span development

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Who am I? Philosophers have debated this existential question for more than 2,000 years (Taylor, 1989), and it has become a central question for the field of personality psychology. Yet, the search for answers has not ended, and interest in understanding the psychological self has continued to the present day: People are eager to know who they are (Van Hoof & Raaijmakers, 2002) and researchers are motivated to assess the person as comprehensively as possible (e.g., McAdams, 1995).

For a long time, personality elements within the psychological self (e.g., personality traits, life goals) were studied in isolation, which underscored their distinctiveness (e.g., Roberts, 2009). More recently, however, the interrelatedness of personality elements has received more research attention, demonstrating that, for instance, personality traits and life goals are not simply byproducts of each other and cannot be reduced to one construct but represent related elements within the psychological self (Bleidorn et al., 2010; Winter, John, Stewart, Klohnen, & Duncan, 1998). A theoretical framework that acknowledges both the distinctiveness and the interrelatedness of personality elements is the integrative framework for studying people, which builds a comprehensive approach for understanding the person as a whole (McAdams, 1995, 2015a, 2015b; McAdams & Olson, 2010; McAdams & Pals, 2006). According to this framework, personality is described as a developing pattern that manifests along three separate, but related and interacting, conceptual levels (McAdams, 2013): (1) the social actor (expressed as personality traits), (2) the motivated agent (expressed as life goals, values, and other characteristic adaptations), and (3) the autobiographical author (expressed as life narratives).

Although interrelations have been proposed between all three levels, few studies have empirically examined such interrelations and no study has examined these interrelations longitudinally. Assessing personality across these three layers in a longitudinal frame, however, would more comprehensively acknowledge the proposals of the integrative framework for studying people (e.g., McAdams & Pals, 2006) and would provide a better understanding of the patterns connecting the actor, agent, and author. To arrive at such an understanding, in our theoretical reasoning, we were led by targeting two prime dimensions of human striving (Hogan & Roberts, 2000, 2004): social acceptance (i.e., communal dimensions or *getting along*) and status (i.e., agentic dimensions or *getting ahead*). We expected these dimensions to be reflected in systematic interrelations between a person's personality traits, life goals, and life narratives.

In addition, and as outlined below in more detail, we argue that accounting for age-related effects is needed to target the developmental character of the trait–goal–narrative interrelations. Considering an age perspective further reflects the increasing awareness that is given to age-related effects in the field of personality psychology, as recently discussed in a special issue of the *European Journal of Personality* dedicated to this topic. To reveal how “age matters for personality psychology” (Wrzus, 2019, p. 217) it is considered crucial to go beyond young-adult samples and to systematically assess age-related effects in such age-heterogeneous samples. In the present study, we address both points (i.e., age-related effects and age-heterogeneous sample) to more effectively study the developmental character of the trait–goal–narrative interrelations as proposed in the integrative framework for studying people.

### **Integrative Framework for Studying People**

The self as a *social actor* encompasses semantic representations of dispositional traits, skills, social roles, and other repeated actions on the social stage of life (McAdams, 2013; McAdams & Pals, 2006). These dispositional traits mirror a “first cut, a recognizable signature”

(McAdams & Pals, 2006, p. 207) of a person's social and emotional life, reflecting broad, nonconditional, and decontextualized dimensions of individual differences. Dispositional traits are relatively stable foundational consistencies across situations and over time that distinguish people from one another in their behavior, thoughts, and feelings (Costa & McCrae, 1994; Roberts & DelVecchio, 2000). The most common taxonomy for these traits is the five-factor theory of personality, which identifies agreeableness, extraversion, conscientiousness, openness to experience, and neuroticism as the Big Five personality traits (John & Srivastava, 1999; McCrae & Costa, 1987).

The *motivated agent* holds characteristic adaptations projected into the future (McAdams, 2013; McAdams & Pals, 2006) that address motivational, social-cognitive, and developmental concerns. These characteristic adaptations include a range of motives, goals, values, and aspirations (e.g., Little, 1999) that are contextualized in time and place and with respect to a specific social role (McAdams, 1996). In the present study, we focus on goals as one type of characteristic adaptation, and specifically on major life goals, expressed as *communal life goals* and *agentic life goals*. Major life goals, compared to midlevel goals, have greater generalizability and reflect overall goals that people strive for in their lives, such as having a family or pursuing a career, compared to going on a date with a prospective partner or achieving a good grade in an exam (Austin & Vancouver, 1996; Bleidorn et al., 2010). Given that major life goals describe how individuals want to build their lives in general, they have an impact over years and decades rather than hours, days, or weeks (Roberts, O'Donnell, & Robins, 2004).

Consequently, major life goals represent one of those characteristic adaptations that correspond to dispositional-trait dimensions with regard to their breadth and stability and are therefore suitable for studying interrelations between personality traits and goals (e.g., Roberts & Robins, 2000) and, we argue, for studying interrelations between traits, goals, and narratives. As

will be described in more detail in the Method section, we applied an exploratory factor analysis to reduce the number of life goals and to extract higher order patterns that illustrate the relations among the life-goal variables assessed in our study. As a result of this analysis, we worked with two types of communal life goals (i.e., communal social-engagement goals and communal relationship and health goals) and one type of agentic life goal. In particular, communal life goals are those that refer to aspects of social belonging, social contribution, and interpersonal connection, while agentic life goals refer to aspects of power, control, and influence (Bakan, 1966).

The self as an *autobiographical author* reflects “the most distinctive and unique aspect of the person” (Dunlop, 2015, p. 312): It forms integrative life narratives and shapes the reconstructed past, present, and presumed future into a coherent storyline (McAdams, 2013; McAdams & Pals, 2006). Children begin at an early age to encode, tell, and remember scenes from their life (e.g., spending a day with grandpa at a soccer match), which they then form into short stories about themselves (McAdams, 2015b). Such development of memory and narration, however, is not what is meant by narrative identity. The concept of narrative identity instead refers to how people create narratives as a function of their identity: How they perceive they came to be the person they are now (McAdams, 2013, 2015b). Construing such narrative identity involves a selective reconstruction of the remembered past and an anticipation of the imagined future, a process that requires cognitive skills such as foreshadowing or retrospective reflections, interpretative operations, and autobiographical reasoning (e.g., Habermas & Bluck, 2000; Habermas & de Silveira, 2008; McAdams, 2015b; Pasupathi & Wainryb, 2010). It is therefore in late adolescence and the emerging adulthood years that narrative identity emerges and that people begin to build life narratives to establish unity, purpose, and meaning in their lives (Habermas & Bluck, 2000; McAdams & McLean, 2013).

In the present study, we focus on motivational narrative themes as one of the four prominent categories in the field of narrative identity research (for a detailed overview of the four categories, see Adler, Lodi-Smith, Philippe, & Houle, 2016). Operationalized in terms of *communal narratives* and *agentic narratives*, motivational narrative themes reflect what the narrator has longed for in the past or is currently seeking (Bakan, 1966; McAdams, 2010). Communal narratives reflect protagonists with stories of social belongingness and connectedness, of satisfying relationships in the romantic and friendship domain, and of caretaking and togetherness (McAdams, 1993, 2010; McLean et al., 2019). Agentic narratives reflect protagonists with stories of self-assertion and self-expansion who have some degree of control over their experiences and who can effortfully affect their lives and initiate changes (Adler, Skalina, & McAdams, 2008; Adler et al., 2016; Lysaker, Clements, Plascak-Hallberg, Knipscheer, & Wright, 2002; McAdams, 2010).

We note that there is a theoretical distinction between the actor, agent, and author, which implies that personality traits, life goals, and life narratives are conceptually different from each other: Whereas personality traits represent relatively stable and consistent patterns of a person's behaving, thinking, and feeling (Costa & McCrae, 1994), life goals are future-oriented representations of what people want to achieve in their lives (Bleidorn et al., 2010), and life narratives are representations of personal pasts, presents, and anticipated futures (McAdams, 2013). In addition, personality traits reflect what has been described as the "having" side of personality and life goals are seen as the "doing" side of personality (Allport, 1937; Cantor, 1990), while life narratives can, following this logic, be understood as the "being" side of personality (McAdams, 1996; McGregor, McAdams, & Little, 2006). Despite their conceptual difference, these elements have in common that they are all embedded within the person and, hence, are unique features through which a person can express him- or herself. In their lives,

people have to connect their having, doing, and being sides, which makes it reasonable to assume that there are systematic interrelations between these personality levels. Before we address these interrelations, we elaborate on the longitudinal frame that is needed to understand the actor, agent, and author over time.

### **Longitudinal Frame**

According to the integrative framework for studying people, the pattern of the actor, agent, and author is a developing one (McAdams, 2015a; McAdams & Pals, 2006). In the present study, we explicitly target this development by examining rank-order stabilities and mean-level differences within the same personality level (e.g., within personality traits) as well as predictive associations across personality levels (e.g., between personality traits and life goals) over time and across the life span. Conceptually, life-span development speaks to the continuity and change in behavior—and other personality characteristics—throughout the life course (see Baltes, 1987; Baltes, Reese, & Nesselroade, 1977). To gain knowledge about such continuity and change, a longitudinal frame is needed. A longitudinal frame, however, is only suitable for examining development in personality when the same concepts are investigated over time and when the chosen time interval is sufficient for capturing development (e.g., Watson, 2004).

These perspectives are further supported by more recent work, suggesting that development can be conceptualized on several time levels (e.g., hours, days, months, years, decades), which alters how the concept under investigation needs to be understood (Lemke, 2000; Lichtwarck-Aschoff, Van Geert, Bosma, & Kunnen; 2008; Van Geert, 2006; Van Geert & Fischer, 2007). In the present study, we were interested in the development of personality on a macro level (i.e., rather stable, generalized, and more reflective aspects of a person, see Lichtwarck-Aschoff et al., 2008) and examined personality development across 2 years. As will be described in more detail below, the concepts investigated here have been found to show



continuity and change over a time frame of 2 years and hence are suitable to be examined through a longitudinal lens.

### **Within-Level Associations**

As for personality traits, meta-analyzed test–retest correlations suggest substantial continuity over time (Anusic & Schimmack, 2016; Roberts & DelVecchio, 2000), while mean-level changes suggest changes toward greater maturity (Bleidorn, Kandler, Riemann, Angleitner, & Spinath, 2009; Caspi, Roberts, & Shiner, 2005; Lucas & Donnellan, 2011; Roberts, Walton, & Viechtbauer, 2006; Specht, Egloff, & Schmukle, 2011): People become more agreeable, conscientious, and emotionally stable over time. As for life goals, goals tend to show continuity reflected in rank-order stabilities similar in size to personality traits (Bühler, Weidmann, Nikitin, & Grob, 2019; Roberts et al., 2004), and mean-level changes with a tendency to decrease in importance over time (Lüdtke, Trautwein, & Husemann, 2009). As for life narratives, please note that we conducted the life story interview at one measurement occasion only. Hence, for this level of personality, empirical long-term associations can only be studied across levels and not within the narrative level. In general, it is also within the narrative level that empirical long-term associations are thought to show continuity and change. Specifically, a new event may “replace” an older event in a person’s narrative identity (i.e., change), but the integration and meaning-making of this new event might be similar to that of preceding events (i.e., continuity; McAdams, 2015b); shown in the stability of structural (i.e., complexity) and affective (i.e., emotional tone) aspects of narratives across 3 years (McAdams et al., 2006). There are, however, also studies indicating that not all individuals are consistent in their overall narrative style over time (Fivush, Habermas, & Reese, 2019), suggesting that stability of narration might be an interindividual difference (see McLean, Pasupathi, Greenhoot, & Fivush, 2017, for research on intraindividual

variability in narratives). Future studies that address continuity and change in the narrative level in conjunction with continuity and change in the trait and goal levels are encouraged.

### **Across-Level Associations**

In terms of predictive associations between personality levels, the theoretical assumptions diverge regarding the temporal relations between personality levels: According to the integrative framework for studying people (McAdams & Pals, 2006) and the (neo)socioanalytic model (Roberts & Wood, 2006), personality levels are understood as reciprocally interconnected. The theoretical postulates of these models would suggest reciprocal connections between personality traits, life goals, and life narratives that are comparable in size. In contrast, the five-factor theory of personality (e.g., McCrae & Costa, 2008) proposes that personality traits predict characteristic adaptations and that characteristic adaptations can be understood as an expression of more stable personality traits but do not shape traits. The theoretical reasoning of this model would suggest that the predictive associations from personality traits to subsequent life goals are more pronounced than vice versa (or may even not exist vice versa). This proposition would also be in line with research findings (Lüdtke et al., 2009) showing effects of personality traits on later life goals, but almost no effects of prior life goals on later personality traits. The narrative level is not included in the five-factor theory of personality, but given the prominent role of personality traits in its theoretical reasoning, one could expect the predictive links from personality traits to subsequent narratives to be more pronounced than vice versa (or even not to exist vice versa).

Hence, taking into account that the pattern between the actor, agent, and author is a developing one, it is the first aim of the present study to test within-level and across-level associations between personality traits, life goals, and life narratives over time. We will base the expected size of our estimates on Lüdtke et al. (2009), who have looked at continuity and change of personality traits and life goals over the same period as in the present study (i.e., 2 years). We

expect our effects to be similar in size to theirs: For personality traits, both rank-order stability and mean-level change should be substantial (i.e., correlation coefficients of  $r = .65 - .75$  and Cohen's  $d$  of  $.16 - .30$ ; except for extraversion, which showed a smaller  $d$  of  $.05$ ). For life goals, rank-order stability and mean-level change should also be substantial, but somewhat smaller in size (i.e., correlation coefficients of  $r = .44 - .64$  and Cohen's  $d$  of  $.12 - .33$ ; except for health and wealth goals, which showed smaller  $d$ s of  $.02$  and  $.09$ ). In a next step, targeting *how* the across-level associations are organized, we were interested in systematic interrelations between the three personality levels.

### **Interrelations Between Personality Levels**

McAdams (1996) proposed that “an adequate description of the person requires...the delineation of three relatively independent, non-overlapping levels on which the person can be described” (p. 301). While still highlighting the three levels’ “own geography” (McAdams, 1995, p. 365), McAdams adapted the clear distinction between personality levels in his later work and suggested interrelations between them (e.g., McAdams & Pals, 2006): People are born with a certain temperamental disposition that prompts particular goals and values; these goals and values, in turn, are likely to lead a person to environments that fit and strengthen that person’s innate dispositions (e.g., McAdams, 2015b; Roberts & Caspi, 2003). These proactive person–environment transactions are also thought to be embedded in the narratives that people tell (Bauer & McAdams, 2004; McAdams, 1982, 1988). That is, based on their personality traits and life goals, people are more or less inclined to construe a certain life story; this story, in turn, is thought to feed back into their personality traits and goals (e.g., Bauer & McAdams, 2004; McAdams, 2001).

### **Interrelations Between Two Personality Levels**

Most previous research on interrelations within the psychological self has focused on associations between two of the three personality levels. Sorted according to the Big Five personality traits, the following interrelations have been found: People high in *agreeableness* are described as gentle, good-natured, compliant, and cooperative, which are characteristics that facilitate bonding, harmonizing with others, and concern for close others (John & Srivastava, 1999). People high in agreeableness have also been found to strive for communal goals, expressed as social and relational goals (Bleidorn et al., 2010; Roccas, Sagiv, Schwartz, & Knafo, 2002), and to report communal narratives, expressed in episodes of friendship and caring for other people (McAdams et al., 2004). People who report communal narratives are likely to strive for intimacy and social goals (McAdams, 1982, 1988).

People high in *extraversion* are described as talkative, sociable, assertive, and active, attributes that facilitate achievement goals (John & Srivastava, 1999). Extraverted individuals have also been found to hold values of achievement, hedonism, and stimulation, as well as to strive for agentic goals (i.e., personal growth and power) and for novelty, excitement, community, health, and relationships (Lüdtke et al., 2009; Roccas et al., 2002). People who strive for achievement and power are also likely to narrate agentic life stories (e.g., McAdams, 1988, 1996; Woike & Polo, 2001).

People high in *conscientiousness* are characterized as having self-control and persistence and as being thorough, organized, and responsible (Hogan & Ones, 1997; John & Srivastava, 1999). People high in conscientiousness have been further found to strive for agentic goals (i.e., achievement and power) as well as for conformity and security goals, aspects that help them maintain the status quo and to build structure and stability (Bauer, McAdams, & Sakaeda, 2005). It has been predicted that people high in conscientiousness would report agentic narratives (McAdams et al., 2004), but so far, no support has been found for this hypothesis.

People high in *openness to experience* (hereafter, openness) are described as having a preference for novelty, variety, intense experiences, and complexity (McCrae, 1996). This tendency has been found to be expressed in striving for diverse experiences, change, and intellectual and emotional autonomy (Roberts et al., 2004), for hedonistic and aesthetic goals, as well as for universalism, self-direction, and stimulation values (Roccas et al., 2002). So far, it is not known whether people high in openness are likely to report communal or agentic narratives.

Finally, people high in *neuroticism* are likely to be worried, anxious, and susceptible to negative affect (Costa & McCrae, 1992). It has consistently been shown that neuroticism is unrelated to any life-goal domain (e.g., Roberts et al., 2004; Roberts & Robins, 2000), possibly because most goal domains reflect an inherent approach motivation, which is less likely to be present in people high in neuroticism (Gomez, Allemand, & Grob, 2012; Watson & Clark, 1992). People high in neuroticism tend to narrate intrinsic memories, which are concerns that deal with pursuits of personal growth, fostering meaningful relationships, and contributing to society (Bauer et al., 2005; Deci & Ryan, 2000). So far, however, it is not known whether people high in neuroticism are likely to report communal or agentic narratives.

Overall, these findings suggest meaningful conceptual associations between personality levels. To more thoroughly extract thematic interrelations, Roberts and Robins (2000) factor analyzed across personality traits and major life goals and revealed two overarching patterns: Getting along, in which agreeableness was positively linked to social goals, and getting ahead, in which extraversion and conscientiousness were positively related to economic goals. Getting along and getting ahead as master motives represent two pivotal sources of human striving, such as described in the (neo)socioanalytic model (Hogan & Roberts, 2000, 2004): Getting along, on the one hand, maps onto a desire for social acceptance and approval (Hogan & Roberts, 2000, 2004), refers to the ability to relinquish individuality through participating in larger social

networks, and manifests in striving for community, social relationships, intimacy, or altruism (Abele & Wojciszke, 2014; Digman, 1997; Rank, 1945; Sheldon & Cooper, 2008). Getting ahead, on the other hand, reflects a desire for status, power, and control of resources (Hogan & Roberts, 2000, 2004), refers to the capacity to deal with the environment as a separate individual unit, and manifests in goal pursuit as well as in striving for power, fame, or self-expansion (Rank, 1945; Sheldon & Cooper, 2008).<sup>1</sup> As such, everyday social living involves both getting along and getting ahead (Hogan, 1982), but people may differ with regard to their inclination to pursue one over the other. We argue that this inclination would be embedded across the levels of personality.

### **Interrelations Between Three Personality Levels**

So far, few studies have explored interrelations between all three personality levels, with the following exceptions: Studies have shown how personality levels are linked to each other within specific subgroups, such as in the case of gay and lesbian individuals' traits, goals, and narratives (McAdams, 2005), and in the area of career counseling with respect to traits, goals, and narratives related to the work domain (Savickas, 2011). We are aware of only one study that has provided evidence for a general overarching theme within McAdams's integrative framework for studying people (Manczak, Zapat-Gietl, & McAdams, 2014): Applying the regulatory focus theory (Higgins, 1997), the authors found that personality traits, personal goals, and life narratives cohered around the themes of prevention and promotion among 163 adults aged 55 to 57 years. However, as the authors themselves pointed out, one limitation of their study is that it assessed specific personal goals instead of far-reaching life goals. Personal goals motivate immediate tasks that neither reflect the same depth nor cover the same periods as personality traits or narratives (Manczak et al., 2014), which is why it is worthwhile to investigate life goals in the context of an integrative personality perspective. In addition, although their data were gathered in a longitudinal study design, Manczak et al. (2014) did not test how personality levels

predicted each other over time. Finally, how the interrelations are expressed in a more age-heterogeneous sample remains unknown.

Given the described interrelations, the distinction between an actor, agent, and author might be seen as artificial or arbitrary. Indeed, the distinction between the personality levels may not be perfectly clear in every case (McAdams & Pals, 2006), but such a taxonomy provides a guiding tool and a structuring element to better understand the person in its unique signatures in different forms of human functioning. It is hence the second aim of the present study to examine how delineating the self into different levels can lead to a better understanding of the complexity of personality, and how systematic interrelations between these levels may provide a refined knowledge of the whole person. As a final step, considering that people develop across the life span, we take into account that the actor, agent, and author, as well as their interrelations, might be shaped by age.

### **Age Perspective**

Although a longitudinal frame can give insights into life-span personality development, a longitudinal design of 2 years can only provide information about parts of a person's life span. As such, it is crucial to additionally apply an age perspective on personality. Targeting the actor, agent, and author against the background of age-related effects reveals how people of different ages act differently (personality traits), aspire to achieve different content (life goals), and construe their life story differently (life narratives) (i.e., age as predictor), and how interrelations between these levels are expressed differently across different ages (i.e., age as moderator). Hence, it was the third research aim of the present study to address the predictive and moderating role of age on the integrative framework for studying people.

### **Age as Predictor**

As for personality traits, age-related effects have been found to show a typical life-span

trend toward psychological maturity (e.g., Caspi et al., 2005), reflected in positive associations with agreeableness and conscientiousness, and in negative associations with neuroticism. As for life goals, characteristic adaptations have been described as more malleable to situations, social roles, and contexts, and as varying across the life span more extremely than personality traits, helping the individual to adjust to changing age-graded influences and life circumstances (McCrae & Costa, 1999; Roberts et al., 2004). It is thought that as a result of these adaptive processes (e.g., Freund & Baltes, 2000), life goals relate to age in accordance with changing age-graded expectations and developmental tasks (Elder, 1995; Erikson, 1968; Havighurst, 1972): In terms of communal and agentic life goals as assessed in this study, one would expect age to be positively linked to communal goals of family and social relationships, positively linked to communal goals of generativity and community, and negatively linked to agentic goals (Bühler et al., 2019; Hutteman, Hennecke, Orth, Reitz, & Specht, 2014; Nurmi, 1992). As for life narratives, the narratives of middle-aged and older adults, compared to their younger counterparts, tend to show more complexity, coherence, warmth, and emphasis on positive events (Baddeley & Singer, 2007; McAdams, 2015b). Less is known, however, about age-related effects on communal and agentic narratives. From research on communion and agency outside of narrative research, communion has been found to be positively linked and agency negatively linked to age (Gebauer, Wagner, Sedikides, & Neberich, 2013). These findings might be transferable to narrative research in that one would expect age to be positively related to communal narratives and negatively related to agentic narratives.

### **Age as Moderator**

So far, most previous research has looked at age-related effects on personality traits, life goals, or life narratives, but to the best of our knowledge, age-related effects have not been studied on all three personality levels simultaneously or on their interrelations. In addition, if



investigated, interrelations between personality levels have predominantly been investigated among young adults (Bauer et al., 2005; Lüdtke et al., 2009; McAdams, 1982; McAdams et al., 2004; Roberts & Robins, 2000; Roccas et al., 2002; Woike & Polo, 2001) and middle-aged adults (Bauer et al., 2005; Bleidorn et al., 2010; Manczak et al., 2014), and little is known about the age specificity of these interrelations. By testing the moderating role of age on the trait–goal–narrative interrelations, we seek to close this gap in research. Closing this gap is important for knowing whether across-level associations are similarly or differently expressed across the life span.

### **The Present Study**

The delineation of the self into an actor, agent, and author has suggested a valuable theoretical approach for understanding personality, but further study is needed to reveal how features of these levels systematically predict each other over time and how these interrelations are expressed across the life span. We articulate three research aims for the present study.

Our first aim was to test continuity and change for personality traits and life goals and to examine longitudinal associations between personality traits, life goals, and narrative themes over 2 years. This approach allowed us to test longitudinal within-level (Hypothesis 1a and b) and across-level (Exploratory Question 1) associations. Our second aim was to specifically target thematic across-level associations: We expected to find interrelations between personality levels that correspond with the overarching motive of getting along (Hypothesis 2a–c) and getting ahead (Hypothesis 3a–c). Given that openness and neuroticism have not been included in the getting-along and getting-ahead structure so far, we had no hypotheses regarding these two personality traits but explored their interrelations with life goals and narrative themes as exploratory questions (Exploratory Questions 2 and 3). Our third aim was to test the predictive effects of age on personality traits, life goals, and narrative themes (Hypothesis 4a–c) and to explore the

moderating role of age on the across-level associations addressed in our second research aim (Exploratory Question 4). Specifically, we had the following hypotheses and research questions, which were not preregistered.

### **Research Aim I: Longitudinal Frame**

#### **Within-level associations.**

***Hypothesis 1a:*** Personality traits show a substantial rank-order stability over 2 years and a substantial mean-level change toward maturity (i.e., increases in agreeableness and conscientiousness, and decreases in neuroticism).

***Hypothesis 1b:*** Life goals show a substantial rank-order stability over 2 years and a substantial mean-level change (i.e., decreases in communal and agentic life goals).

#### **Across-level associations.**

***Exploratory Question 1:*** Are personality traits, life goals, and narrative themes reciprocally linked to each other (which would speak for the postulates of the integrative framework for studying people and the [neo]socioanalytic model), or are links from personality traits to subsequent life goals and narrative themes more pronounced than the associations in the opposite direction (which would speak for the postulates of the five-factor theory of personality)?

### **Research Aim II: Master Motives**

#### **Getting along.**

***Hypothesis 2a:*** Subsequent agreeableness is predicted by prior communal life goals and prior communal narratives.

***Hypothesis 2b:*** Subsequent communal life goals are predicted by prior agreeableness and prior communal narratives.

***Hypothesis 2c:*** Subsequent communal narratives are predicted by prior agreeableness and

prior communal life goals.

**Getting ahead.**

***Hypothesis 3a:*** Subsequent extraversion and conscientiousness are predicted by prior agentic life goals and prior agentic narratives.

***Hypothesis 3b:*** Subsequent agentic life goals are predicted by prior extraversion and conscientiousness, as well as by prior agentic narratives.

***Hypothesis 3c:*** Subsequent agentic narratives are predicted by prior extraversion and conscientiousness, as well as by prior agentic life goals.

**Openness and neuroticism.**

***Exploratory Question 2:*** Is subsequent openness predicted by prior communal and agentic life goals as well as by prior communal and agentic narratives?

***Exploratory Question 3:*** Is subsequent neuroticism predicted by prior communal and agentic life goals as well as by prior communal and agentic narratives?

**Research Aim III: Age Perspective**

**Age as predictor.**

***Hypothesis 4a:*** Age is associated with personality traits in line with the maturity principle (i.e., positive associations with agreeableness and conscientiousness, and negative associations with neuroticism).

***Hypothesis 4b:*** Age is associated with life goals in line with developmental-task theory (i.e., positive associations with communal life goals and negative associations with agentic life goals).

***Hypothesis 4c:*** Age is positively linked to communal narratives and negatively linked to agentic narratives.

**Age as moderator.**

***Exploratory Question 4:*** Does age moderate the associations tested in the second research aim?

### **Interim Summary**

In the pursuit of better understanding the actor, agent, and author over time and across the life span, we investigate trait–goal–narrative interrelations over 2 years against the background of age-related effects. By pursuing this approach, we seek to extend research on personality in three ways. First, the present study is unique in that it provides empirical findings for interrelations proposed in a theoretical framework central to the field of personality psychology. New to our approach and in addition to previous research (Manczak et al., 2014), this study focuses on personality aspects that are comparable in their conceptual depth (e.g., variables that refer to years and months rather than weeks, days, or hours). Second, the present study includes both longitudinal and narrative data with the aim of integrating strands of personality research that have often been examined in parallel. Third, interrelations are studied through a life-span lens, providing further insights into how age matters for the study of personality.

## **Method**

### **Procedure and Sample**

Data came from the longitudinal Co-Development in Personality (CoDiP)<sup>2</sup> study that was conducted in the German-speaking regions of Switzerland. Approval for the CoDiP study was received from the ethics committee of Basel (approval number: 175/09). Supplemental materials (including an overview of the study variables and the data-analysis script) are publicly accessible (<https://osf.io/ajtyp/>).<sup>3</sup> Individuals of different ages (i.e., young, middle-aged, and older adults) were recruited for the study and asked to invite their parents and grandparents (in the case of young adults) and their children and grandchildren (in the case of middle-aged and older adults)

to participate. Thus, the final sample of the study included family members of different ages who participated at three measurement occasions across 4 years.

Data for the present investigation covered the first two measurement occasions of the study (referred to as Time 1 and Time 2), which were 2 years apart, and a narrative measurement occasion that was between Time 1 and Time 2 ( $T_{\text{Life Story Interview}}$ ;  $T_{\text{LSI}}$  hereafter). At Time 1 and Time 2, participants provided self-reports on their personality traits and major life goals. From a total sample of 1,050 participants, a randomly assigned sample of 184 participants from adolescence to late adulthood took part in the oral life story interview at  $T_{\text{LSI}}$ . At the time of the life story interview, all participants had reached an age at which the self as author has started to develop and life narratives are thought to have emerged (i.e., adolescence and older; McAdams, 2013).

In the analyses, given our interest in longitudinal associations between self-report measures (i.e., personality traits and life goals) and narrative measures, we focused on those participants from the narrative sample who completed self-report surveys at both Time 1 and Time 2.<sup>4</sup> A total sample of 141 participants met this criterion and were included in our final longitudinal narrative sample.<sup>5</sup> Participants from this sample were aged 14–68 years at Time 1 ( $M = 35.40$  years,  $SD = 15.81$ ) and came from a total of 65 families; 66% identified as female and 34% as male. Most participants were Swiss (93%), 3.5% were German, 2.8% were Italian, and 0.7% indicated another nationality. Almost half of the participants were working, either full time (19.9%) or part time (24.8%); 47.5% were students, and 7.8% were not actively involved in the labor market.

## Measures

**Personality traits.** Personality traits were assessed with the German version of the Big Five Inventory (John & Srivastava, 1999; Rammstedt & John, 2005). The 45-item self-report

scale measures the Big Five traits of extraversion (8 items), neuroticism (8 items), conscientiousness (9 items), agreeableness (10 items), and openness to experience (10 items). For each item, the participants rated the extent to which they agreed with statements ascribed to themselves (e.g., “I see myself as someone who is talkative”). Items were rated on a 5-point Likert scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Cronbach’s alphas indicated acceptable to good internal consistencies (from  $\alpha = .70$  for agreeableness to  $\alpha = .88$  for neuroticism).

**Life goals.** Life goals were assessed with an adaptation of the German version of the Aspirations Index (Kasser & Ryan, 1996; Klusmann, Trautwein, & Lüdtke, 2005). This index assesses individuals’ aspirations and measures the degree to which individuals value the importance of seven broad life-goal domains. The domains’ contents cover four intrinsic aspirations (i.e., personal growth, meaningful relationships, community contribution, health) and three extrinsic aspirations (i.e., wealth, fame, image). In addition to the original seven domain contents, we assessed life goals with regard to family, work, and generativity (e.g., “to have an intact family life” for family goals, “to be successful in a job” for work goals, “to engage in general welfare” for generativity goals). In total, our life-goal assessment included 10 domains with four items each (a full list of the 40 items is provided in Table S1). Participants were asked to rate the importance of each life goal according to its relevance on a scale of 1 (*not at all important*) to 4 (*very important*). Cronbach’s alpha suggested acceptable to good internal consistencies (from  $\alpha = .69$  for relationship goals to  $\alpha = .84$  for image goals) with one exception: Personal-growth goals indicated poor to unacceptable internal consistencies at both measurement occasions ( $\alpha = .43$  at Time 1 and  $\alpha = .49$  at Time 2). The personal-growth goal domain showing the lowest alpha reliabilities of all goal domains assessed is consistent with previous research

(e.g., Lüdtke et al., 2009). However, given that the reliabilities were considerably lower than those reported in previous research (e.g.,  $\alpha = .66$  at Time 1 and  $\alpha = .70$  at Time 2; Lüdtke et al., 2009), we decided to exclude this goal domain from the subsequent analyses.

**Factor analysis across life goals.** To reduce the number of life goals and to extract higher order patterns that illustrate the relations among the goal variables, we applied exploratory factor analyses at Time 1 and Time 2. Factors were treated as orthogonal (i.e., varimax rotation) and factor analyses were conducted with the lavaan package (Rosseel, 2012) in R (R Development Core Team, 2016). Given that the second-ordered factors might relate to each other, a factor analysis treating life goals as nonorthogonal may also be suitable. Hence, we additionally ran nonorthogonal factor analyses (i.e., promax rotation). The findings showed the same higher ordered factors as the orthogonal factor analyses did (see Table S2), which led us to continue with the results of the varimax rotated factor analyses.

For these results, at both measurement occasions, Kaiser's (1960) eigenvalue-greater-than-one rule suggested two factors, Cattell's (1966) scree plot suggested four factors, and parallel analysis suggested three factors. Goodness-of-fit indices were examined with the fit indices of the Tucker Lewis Index (TLI) and the root mean square error of approximation (RMSEA). The model is considered to fit the data well if TLI is above 0.95 and RMSEA is below .08 (Schermele-Engel, Moosbrugger, & Müller, 2003). First, we examined the goodness-of-fit indices for the two-factor solution. Because the RMSEA indicated a poor model fit of this structure (RMSEA = .10 at Time 1 and RMSEA = .11 at Time 2), this model was not chosen (e.g., Steiger, 2000). Next, we examined the goodness-of-fit indices for the four-factor solution. Although the RMSEA suggested a good model fit at both measurement occasions (RMSEA < .05), the Tucker Lewis Index (TLI) indicated an overfitting of the model (TLI > 1.00) at both

occasions. Thus, the four-factor solution was not chosen. Instead, we decided on the three-factor solution obtained from the parallel analysis, which had adequate fit indices for Time 1 (RMSEA = .07; TLI = 0.90) and Time 2 (RMSEA = .04; TLI = 0.96).

Table S3 presents the standardized loadings extracted from the factor analysis at Time 1 and Time 2. In both three-factor structures, we interpreted Factor 1 (i.e., fame, wealth, image, and work goals) as *agentic goals*, Factor 2 (i.e., community and generativity goals) as *communal social-engagement goals*, and Factor 3 (i.e., relationships, family, and health goals) as *communal relationship and health goals*. For all subsequent analyses, we used these three life-goal factors as our life-goal variables.

**Life narratives.** Face-to-face life story interviews were based on a German translation of McAdams's (2008) Life Story Interview (accessible through <https://osf.io/ajtyp/>). The interviews lasted on average 1 h 16 min (*Min* = 14 min; *Max* = 2 h 47 min). A total of 11 interviewers (graduate students, Master's students, and research assistants) were trained to conduct these interviews and visited participants in their homes or interviewed them in the laboratory (interviewee's choice). Prior to the interview, participants received a flyer that briefly explained the purpose of the Life Story Interview. Participants consented to the audio-recording of their interviews for coding purposes.

During the interview, participants were asked to divide their life into two to seven chapters, to name the headings of these chapters, and to give a summary for each chapter. Further, participants were asked to report key scenes of their life (i.e., high point, low point, and turning point) that reflected significant episodes in their life story that were situated in time, place, and context and contained particular characters and their actions (see McAdams, 2010). For each scene, participants were asked to describe in detail what happened, where and when it occurred, who was involved, and what this episode said about them as a person. Participants were



also asked to develop a future script, report life challenges, express their personal ideology, report on their codevelopment with a close person, reflect on a life theme, and report three important aspirations.

**Coding narrative themes.** We operationalized the motivational quality of participants' life stories in terms of communion and agency. Both were coded using the presence/absence (1/0) system introduced in McAdams's coding guidelines (1998, 1999). Additional to this dichotomous coding system, dimensional coding systems have been developed in recent years and are based on, for instance, a 5-point coding scale to code for motivational themes (e.g., Adler, 2012), a 4-point coding scale to code for structural elements (e.g., Reese et al., 2011), or a 5-point coding scale to code for affective quality (e.g., McLean et al., 2019). Such a dimensional coding system can be and has been used to code for communion and agency (e.g., Adler, 2012) and is well suited for capturing nuances within the motivational themes. In this study, we relied on the dichotomous coding system, which is a frequently used standard in narrative research (e.g., Dunlop, Guo, & McAdams, 2016; Frimer, Walker, Dunlop, Lee, & Riches, 2011; McAdams, 1982; McAdams, Hoffman, Mansfield, & Day, 1996).

In the dichotomous coding system, communion covers psychological ideas concerning love, friendship, intimacy, sharing, belonging, affiliation, union, and nurturance, while agency encompasses psychological ideas regarding the concepts of strength, power, expansion, mastery, control, dominance, autonomy, separation, and independence (McAdams, 2010). To obtain as precise as possible coding, coders were trained to rate the interviews with respect to four communal subthemes and four agentic subthemes (for a detailed description of the coding subcategories, see Tables S4 and S5, and for the coding manual see <https://osf.io/ajtyp/>). Ratings of communal subthemes and agentic subthemes were then averaged, resulting in a single score

for communal narratives and agentic narratives for each participant (see Table S6 for descriptive statistics and correlations of communal and agentic [sub]themes).

Interviews were coded by one of eight trained coders (graduate students, Master's students, and research assistants) who had not conducted the interviews and were blind to identifying information of the participants and to the hypotheses of the study. To establish the degree of interrater reliability, 15% of the interviews were rated by a second coder. The Cohen's kappa coefficients showed fair agreement for communion (87.76% agreement, Cohen's  $\kappa = .58$ ) and agency (86.94% agreement, Cohen's  $\kappa = .58$ ; Cicchetti, 1994). This moderate interrater reliability will be critically discussed (see Discussion section).

### **Data-Analysis Approach**

**Intraclass correlations and multilevel analyses.** Our sample comprised participants from the same families, which made it necessary to test for interrelations between family members on the key variables. Intraclass correlation coefficients (ICCs) supported the assumption of nonindependence of data: The highest ICCs were observed for communal narratives (ICC = .37), for agentic narratives (ICC = .30), for openness at Time 2 (ICC = .30), and for openness at Time 1 (ICC = .28). Consequently, for all three research aims, we conducted multilevel analyses with the lme4 package (Bates, Maechler, Bolker, & Walker, 2015) in R (R Development Core Team, 2016). All variables were grand-mean centered prior to the analyses and missing values were handled with the maximum likelihood estimation approach. We applied a two-level approach, with Level 2 representing the family and Level 1 the individual. Controlling for variation between families on Level 2, Level 1 represents individuals' variations on the key variables. Given that men and women significantly differed on some of the key variables, we controlled for gender in all analyses.<sup>6</sup>

**Targeting our research aims.** For Research Aim I, we tested within-level rank-order stabilities and mean-level changes for personality traits and life goals and explored longitudinal across-level associations. More specifically, and referring to Research Aim II, we examined these across-level associations by running separate models for each outcome variable (i.e., five personality traits, three life goals, and two narrative themes), in which the prior predictor variables of the other personality levels were regressed on the subsequent outcome variable. For instance, when predicting subsequent agreeableness, prior life goals and prior narrative themes were simultaneously entered as predictors. For Research Aim III, we targeted age as predictor and moderator: In terms of a predictor, we tested linear and squared age-related effects on personality traits, life goals, and narrative themes; figures depicting age-related effects were created with the effects package (Fox et al., 2018) and the ggplot package (Wickham, 2016) in R (R Development Core Team, 2016). In terms of a moderator, we included the predictors' interactions with age in the models described under Research Aim II.<sup>7</sup> To explore the regions of significance in the age moderations, we applied Johnson–Neyman analyses by using the jtools package (Long, 2018) in R (R Development Core Team, 2016). For all analyses with age, age was used as a continuous variable and scaled in decades.

**Power analyses.** We conducted a post hoc power analysis for linear multiple regression with G\*Power 3.1 (Faul, Erdfelder, Lang, & Buchner, 2007) and examined the power achieved for large, medium, and small effects (Cohen, 1988) with a sample of 141 participants and a maximum of eight predictors (i.e., in the prediction of communal/agentive narrative themes, five personality traits and three life goals would be included) at an error probability of .05. The power to detect these effects was .99, .91, and .16, respectively. The present study was therefore highly powered to detect large and medium effects and weakly powered to detect small effects in the linear multiple regression analyses. Given the complexity of the models, the power to detect

interaction effects with age (i.e., Exploratory Question 4) might have been lower. We comment on this in the Discussion section.

**Multiple testing.** We are aware of the problems associated with multiple testing (e.g., Benjamini & Hochberg, 1995) and note that the present study includes a considerable number of analyses. Because we would have otherwise suffered a loss of power, we addressed the issue of multiple testing by following a more traditional approach (Perneger, 1998): All analyses were conducted at the conventional  $p$  level of 5% and at a confidence interval (CI) of 95%, rather than lowering the  $p$  level and narrowing the CI. We discuss potential limitations of this approach in the Discussion section.

## Results

### Descriptive Statistics

Table 1 shows the descriptive statistics for personality traits and life goals at Time 1 and Time 2 as well as their stability indices; descriptive statistics for the single goal domains are provided in Table S7. The mean for communion was 2.80 ( $SD = 1.29$ ;  $Min = 0.25$ ;  $Max = 7.00$ ), and the mean for agency was 2.94 ( $SD = 1.15$ ;  $Min = 0.50$ ;  $Max = 6.50$ ). Results of Pearson correlations are provided in Table 2. As evident from this table, personality traits, life goals, and narrative themes shared significant associations with each other across personality levels. The only personality variable that had no significant associations with other personality-level variables (i.e., life goals and narrative themes) was, at both measurement occasions, neuroticism (all  $ps > .05$ ).

### Research Aim I: Longitudinal Frame

As evident from Table 1, in terms of within-level associations, all personality traits and life goals had a substantial rank-order stability between measurement occasions. In the case of

mean-level changes, no significant differences emerged for personality traits (all  $ps > .05$ ), but significant mean-level changes were observed for all three life goals and signified small effects.

Next, we tested across-level associations to address whether longitudinal interrelations can be organized along the master motives of getting along and getting ahead. To orient the reader, we structure our findings with regard to predicting subsequent (1) personality traits, (2) life goals, and (3) narrative themes.

### **Research Aim II: Master Motives**

Tables 3 and 4 shows the predictive effects of prior life goals and prior narrative themes on subsequent personality traits. We found significant predictions on three personality traits: agreeableness, conscientiousness, and openness. First, subsequent agreeableness was negatively predicted by prior agentic goals, positively predicted by prior communal social-engagement goals, and positively predicted by prior communal narratives. Second, subsequent conscientiousness was positively predicted by prior communal relationship and health goals. Third, subsequent openness was positively predicted by prior communal social-engagement goals and prior agentic narratives.

Table 5 shows the predictive effects of prior personality traits and prior narrative themes on subsequent life goals. We observed significant predictions for all three life goals. First, subsequent agentic goals were negatively predicted by prior agreeableness and prior communal narratives. Second, subsequent communal social-engagement goals were positively predicted by prior conscientiousness and prior openness. Third, subsequent communal relationship and health goals were positively predicted by prior conscientiousness.

Table 6 shows the predictive effects of prior personality traits and prior life goals on subsequent narrative themes. While no predictive effects emerged for subsequent agentic

narratives (all  $ps > .05$ ), subsequent communal narratives were positively predicted by prior agreeableness.

### **Research Aim III: Age Perspective**

**Age as predictor.** Table 7 shows the linear and squared effects of age on personality traits, life goals, and narrative themes. Overall, age had a significant (linear and/or squared) effect on personality traits (agreeableness, conscientiousness, and neuroticism), life goals (agentic goals as well as communal relationship and health goals), and narrative themes (agentic narratives). No other age-related effects were significant (all  $ps > .05$ ). Figure 1 depicts the age-related effects.

Specifically, as for personality traits, age had a positive linear effect on agreeableness and a negative linear effect on neuroticism. Age further exhibited a positive linear and a negative squared effect on conscientiousness, suggesting an inverted U-shape for the association between age and conscientiousness in our sample (see Figure 1 A3). As for life goals, age exhibited a negative linear effect on agentic goals, as well as a negative linear and a negative squared effect on communal relationship and health goals. As for life narratives, age had a negative squared effect on agentic narratives, suggesting an inverted U-shape for the association between age and agentic narratives in our sample (see Figure 1 C1).

**Age as moderator.** In presenting the age moderations, we again structure our findings with regard to predicting subsequent (1) personality traits, (2) life goals, and (3) narrative themes.

With regard to predicting subsequent personality traits, we observed two significant age moderations. First, age moderated the link between prior communal relationship and health goals and subsequent extraversion ( $\beta = -.25$ ,  $b = -.03$ , 95% CI  $[-0.06, -0.005]$ ,  $p = .02$ ). To determine the significance region, we applied the Johnson–Neyman analysis (Johnson & Fay, 1950) and found that it was among participants younger than 35.33 years that slopes were significant.<sup>8</sup>

Higher scores in prior communal relationship and health goals predicted higher scores in subsequent extraversion; this effect was more pronounced the younger participants were. Second, age moderated the link between prior communal social-engagement goals and subsequent conscientiousness ( $\beta = .24$ ,  $b = .02$ , 95% CI [0.01, 0.03],  $p = .003$ ). It was among participants younger than 26.14 years and older than 54.61 that slopes were significant: For participants younger than 26.14 years, higher scores in prior communal social-engagement goals were linked to lower scores in subsequent conscientiousness; for participants older than 54.61 years, higher scores in prior communal social-engagement goals were linked to higher scores in subsequent conscientiousness. No significant age moderations emerged for predicting subsequent personality traits from prior life narratives (all  $ps > .05$ ).

With regard to predicting subsequent life goals, we observed two significant age moderations. First, age moderated the link between prior neuroticism and subsequent agentic goals ( $\beta = -.20$ ,  $b = -.01$ , 95% CI [-0.01, -0.001],  $p = .01$ ). It was for participants younger than 30.95 years that higher scores in prior neuroticism predicted higher scores in subsequent agentic goals; the effect was more pronounced the younger participants were. Second, age moderated the association between prior communal narratives and subsequent agentic goals ( $\beta = .18$ ,  $b = .003$ , 95% CI [0.001, 0.006],  $p = .03$ ). It was for participants younger than 45.37 years that higher scores in prior communal narratives predicted lower scores in subsequent agentic goals; the effect was more pronounced the younger participants were.

With regard to predicting subsequent narrative themes, we observed three significant age moderations. First, age moderated the association between prior neuroticism and subsequent agentic narratives ( $\beta = .19$ ,  $b = .02$ , 95% CI [0.004, 0.04],  $p = .03$ ). It was among participants older than 41.02 years that higher scores in prior neuroticism predicted higher scores in

subsequent agentic narratives. Second, age moderated the link between prior extraversion and subsequent communal narratives ( $\beta = -.17$ ,  $b = -.02$ , 95% CI [-0.04, -0.004],  $p = .03$ ). It was among participants younger than 21.81 years that higher scores in prior extraversion were linked to higher scores in subsequent communal narratives; the effect was more pronounced the younger participants were. Third, age moderated the association between prior agentic goals and subsequent communal narratives ( $\beta = .16$ ,  $b = .04$ , 95% CI [0.002, 0.07],  $p = .04$ ). It was among the youngest participants (ages 14.22 and below) that higher scores in prior agentic goals predicted lower scores in subsequent communal narratives.

**Age moderation summary.** To orient the reader, we briefly summarize and organize the age moderations we found with regard to their frequency, the variables involved, and the age ranges: (1) In terms of frequency, age moderated the prediction of subsequent personality traits in 8% of the cases (2 of 25 possible moderations); the prediction of subsequent life goals in 9.5% of the cases (2 of 21 possible moderations); and the prediction of subsequent narrative themes in 18.8% of the cases (3 of 16 possible moderations). (2) In terms of variables involved, age moderations emerged for extraversion, conscientiousness, and neuroticism as well as for all life goals and both narrative themes. (3) In terms of age ranges, moderations were most present among young and middle-aged adults. To conclude, the prediction of subsequent narrative themes was the association that was most frequently shaped by age; interactions with age were observed for all variables except for agreeableness and openness; and, finally, young and middle adulthood constituted the periods during which age moderations mostly emerged.

## Discussion

Delineating the psychological self into an actor, agent, and author is a helpful tool for synthesizing and structuring findings on personality (McAdams, 2013). However, we contend



that progress in answering the question of “Who am I?” results from piecing the actor, agent, and author together in studying longitudinal interrelations between these three personality levels. On the basis of the present findings, we conclude that people with certain personality traits are more likely to pursue trait-corresponding life goals and to form trait-corresponding life narratives; similarly, people with certain life goals and life narratives are more likely to behave, feel, and think in goal-corresponding and narrative-corresponding ways. These across-level associations were largely independent of age. As we illustrate below in more detail, the master motives of getting along and getting ahead (Hogan & Roberts, 2000, 2004) served as a helpful frame to organize the interrelations we found.

### **Research Aim I: The Actor, Agent, and Author Over Time**

In terms of a longitudinal frame, we found substantial rank-order stabilities for personality traits and life goals that were comparable in size. We observed no significant mean-level changes for personality traits, which might be due to the relatively short study period of 2 years. Previous research found mean-level changes in personality traits across such time periods (Lüdtke et al., 2009), but that sample included young adults ( $M = 19.51$  years old at Time 1), who are thought to be predominantly inclined to experience trait changes in general and to follow trait changes toward psychological maturity in particular (Roberts & Mroczek, 2008). However, we found significant mean-level changes for life goals, suggesting a decrease in the importance of agentic goals, communal social-engagement goals, and communal relationship and health goals over the 2 years. This finding is in line with previous research showing a decrease in the importance of life-goal domains over a 2-year period (e.g., Lüdtke et al., 2009). From these and related findings (e.g., Bühler et al., 2019; Nurmi, 1992), however, this is not to say that people no longer find their goals important. People instead selectively invest their limited motivational, cognitive, and social resources and skills in a subset of goals. This selective investment represents an adaptive

life-span development and corresponds to the first component of the metatheoretical framework of selection, optimization, and compensation: the selection of goals (Baltes, 1997; Baltes & Baltes, 1990; Baltes, Lindenberger, & Staudinger, 2006; Baltes & Smith, 2004; Freund & Baltes, 2000; Staudinger & Lindenberger, 2003).

As for across-level associations, we observed that associations between personality levels were reciprocal in that prior life goals and prior narrative themes were predictive of subsequent personality traits, and in that prior personality traits and prior narrative themes were predictive of subsequent life goals. Subsequent narrative themes, however, were predicted only by prior personality traits, and not by prior life goals. Hence, our findings provide support for both theoretical views that we provided in the Introduction: As for the five-factor theory (McCrae & Costa, 2008), we found that prior personality traits had predictive power on subsequent life goals and subsequent narratives themes; the effect sizes were small in size. As for the integrative framework for studying people (McAdams & Pals, 2006) and the (neo)socioanalytic model (Roberts & Wood, 2006), we found that—except for the link between prior life goals and subsequent narrative themes—interrelations between personality levels were reciprocal in nature. The effect sizes ranged between small and medium. Next, we were interested in whether these across-level associations could be organized along master motives.

### **Research Aim II: Master Motives**

**The motive of getting along.** We hypothesized that agreeableness, communal life goals, and communal narratives would be meaningfully related to each other in the sense of an overarching getting-along motive. Indeed, the present findings spoke to thematic associations between these variables: People tended to be more agreeable if they had previously reported communal social-engagement goals and communal narratives and tended to be less agreeable if

they had previously reported agentic goals. In addition, people who were more agreeable were subsequently less likely to report agentic goals and more likely to report communal narratives; and people who reported communal narratives were subsequently less likely to mention agentic goals. To illustrate the narrative component of the getting-along motive, we provide an example of the *high point* reported by a participant who scored high in agreeableness and communal life goals:<sup>9</sup>

It was maybe the birth of my daughter. The beginning of motherhood meant companionship. ... In some sense, it is fulfillment. ... It left me feeling warm, secure, and satisfied. Of course, not in every moment, but a child has something celestial, still untouched, from another world, from a peaceful world. ... The scene says about me that I enjoy being a mother. Maybe it also says something about my gratitude. I don't think I'm a natural at motherhood. Maybe it also says that I am doing this [being a mother] as well as I can. ... It also says something about the relatedness that we had. It was a connection that we had.

Reasons why agreeableness, communal life goals, and communal narratives shared meaningful associations in terms of a getting-along motive can be drawn from the theoretical assumptions of the proactive person–environment transactions (Roberts & Caspi, 2003). Considering that life narratives layer over life goals, and life goals layer over personality traits (McAdams, 2015a, 2015b), the initial step of these transactions would lie in personality traits: People are born with a certain temperamental disposition that evokes particular goals, which, in turn, are likely to lead people to environments that fit and strengthen their innate dispositions. Applied to the present case, however, we found that prior agreeableness predicted subsequent

communal narratives rather than subsequent communal life goals; communal narratives, conversely, predicted subsequent agreeableness. As such, a person's agreeableness seems not to be expressed directly in subsequent life goals but rather in subsequent life narratives, which then might relate to subsequent life goals and agreeableness. Hence, while life goals describe the "building blocks of personality" (Freund & Riediger, 2006, p. 353) in that they link the person to the external environment, life narratives can, based on the present findings, be considered *connecting blocks of personality* in that they internally link the actor and agent through the author.

**The motive of getting ahead.** We hypothesized that extraversion and conscientiousness would be meaningfully related to agentic life goals and agentic narratives, summarized as a getting-ahead motive. While we found no support for this hypothesis on the narrative level, we found support on the goal level;<sup>10</sup> yet, significant associations were observed only for conscientiousness and not for extraversion: People high in conscientiousness were subsequently more likely to report communal social-engagement goals and communal relationship and health goals; people who reported communal relationship and health goals were subsequently more likely to report high scores in conscientiousness.

These findings partially support those of previous research, underscoring associations between conscientiousness and goals (Bauer et al., 2005; Bleidorn et al., 2010; Hogan & Ones, 1997; Roberts & Robins, 2000). However, participants of the present study who were high in conscientiousness were likely to strive for communal goals, that is, for goals of social engagement on the one hand and for goals of family, relationships, and health on the other hand. Although not predicted in the scope of the present investigation, these associations align with previous research: Conscientiousness has been found to relate to an overall goal-directness and a tendency to stay focused on long-term goals without being distracted (DeYoung, 2014). More

specifically, and in terms of the goal content that participants high in conscientiousness rated as important, conscientiousness has been found to relate to well-being in social relationships (Dyrenforth, Kashy, Donnellan, & Lucas, 2010; Hill, Turiano, Mroczek, & Roberts, 2012) and to health (Bogg & Roberts, 2004). With regard to an overarching master motive, the goals of family, relationships, and health might not map onto getting ahead at first glance, but they might capture this motive in a different way: Goals of family, relationships, and health may reflect the need for structure, security, and stability, which would fall under the getting-ahead aspect of controlling resources (Hogan & Roberts, 2000, 2004).

However, it needs to be mentioned that interrelations within the getting-ahead motive were less pronounced than expected (particularly for extraversion, agentic goals, and for interrelations with the narrative level). We see at least two reasons why this might have been the case. First, given that in the present study we excluded personal-growth goals from the analyses because of a low internal consistency, our agentic life goals were more extrinsic than intrinsic in nature. Second, motivations for pursuing work goals—which clustered together with fame, image, and wealth in the agentic life-goal factor—are likely manifold. For some people, pursuing work goals may entail intrinsic fulfillment and nourishment of innate needs, such as competence and autonomy (Deci & Ryan, 2000). For others, work goals are closely related to economic security and stability, whereas some people might pursue work goals to receive extrinsic rewards, status, and power. The same dual nature might apply to agentic narratives, with agency subsuming personal growth and self-mastery as well as victory and fame. Hence, future research is needed to more reliably assess personal-growth goals and to disentangle the twofold nature of agentic goals and agentic narratives in their association with extraversion and conscientiousness. We see it as plausible that a more nuanced assessment of agentic goals and agentic narratives

would yield distinct associations with extraversion and conscientiousness, likely supporting a more consistent, three-layered motive of getting ahead.

**A combined motive of getting along and getting ahead.** Given the sparsity of previous findings on interrelations of openness and neuroticism with communal and agentic goals as well as with communal and agentic narratives, we did not state hypotheses for these two personality traits, but we explored their across-level associations in the present analyses. While we did not find any significant relations between neuroticism, life goals, and life narratives, we found significant associations between openness, life goals, and life narratives.

As for neuroticism, it is in line with previous research (e.g., Roberts et al., 2004; Roberts & Robins, 2000) that participants high in neuroticism were less likely to rate life goals as important, which might be explained by their lowered overall approach motivation (Gomez et al., 2012; Watson & Clark, 1992). Participants high in neuroticism were also less likely to report communal or agentic themes in their life stories. It might be possible that the life stories of people high in neuroticism are characterized by narrative components other than motivational narrative themes, such as by less support seeking (Graci & Fivush, 2017) or by a more negative emotional tone (McAdams et al., 2004; Raggatt, 2006), and were hence not captured by the coding applied in the present study. Future research is needed to reveal the narrative aspects that are characteristic for the life stories of people high in neuroticism, and how these aspects are, in turn, linked to life goals.

As for openness, people high in openness were more likely to report subsequent communal social-engagement goals, and people who reported these goals were, in turn, subsequently more likely to have higher levels of openness. Subsequent levels of openness were also predicted by prior agentic narratives. Revealing communion in life goals and agency in life narratives, the findings for openness suggest a dual pattern of getting along and getting ahead.

These results are in line with research showing that people high in openness strive for social goals and for generativity (Cox, Wilt, Olson, & McAdams, 2010; Roberts & Robins, 2000) while simultaneously expressing self-direction and autonomy (Roccas et al., 2002). Explanations for why this pattern is evident in people high in openness might be found in the basic definition of this trait (e.g., McCrae & Costa, 1997): People high in openness are described as expressing an understanding and a tolerance of other people, which likely coincides with their striving toward community and generativity goals. At the same time, people high in openness are described as being intellectual, imaginative, and open-minded, which seems to be compatible with the motivational agenda of narrated self-direction and agency (John & Srivastava, 1999). To provide an example for the narrative component of this dual motive, we quote from the *high point* of a participant who scored high in openness and communal social-engagement goals:

I like languages a lot. Once we had an English exam in school that I had the feeling was going well; I did not even have to think about it. And then, we got the exam back and I had the best grade. ... The whole class was present and I just did a little dance, because my teacher gave me the exam back with very positive words. ... I believe that I did not think a lot in this moment, because it was a feeling of pure joy and a sense of lightness that I felt. The influence that this experience had on me? It simply encouraged me, showed me “Hey, you can really do this!” and that it is not only the goodwill of the teacher or something else.

Given their explicit preference for variety and complexity (McCrae, 1996), it is plausible that the twofold structure of getting-along goals and getting-ahead narratives is particularly present among people high in openness. The dual nature observed among people high in

openness might reflect a resource in that the agent (i.e., life goals) and author (i.e., life narratives) may serve different needs of a person. Future research is needed to target if those who are characterized by a combination of getting-along goals and getting-ahead narratives indeed experience greater degrees of freedom in navigating through their lives, or if they undergo more intraindividual conflict and contradictions (Cervone & Little, 2019; Kelly, 1955).

**Master motives across personality levels.** We wish to draw the reader's attention to three observations about the empirical insights of this study. First, the empirical findings were not so strong as to suggest that considering the three levels as separate entities is redundant (McAdams & Pals, 2006). As such, rather than tight interrelations, associations between personality levels need to be understood as a *federation* of constructs, which was shown in the size of the effects found. This federation leaves the possibility that people might experience variation in their psychological selves, leading to a complex actor–agent–author structure. For instance, people might be agreeable in their personality traits but also strive for economic and extrinsic success in their life goals, while narrating a life story colored by caring and love. As outlined above, the implications of this variety and whether this leads to degrees of freedom or inner contradictions is a promising pathway for future studies.

Second, even though the master motives of getting along and getting ahead served as a meaningful frame to organize the interrelations between personality levels, our findings have also shown that the master motives' dialectical principle might be too reductive to subsume the interrelations between personality traits, life goals, and life narratives. This particularly applies to the openness trait, in that interrelations with openness were best described as a compound of getting-along and getting-ahead motives.

Third, the results of the present investigation should not be taken to imply that individuals can be deemed getting-along or getting-ahead types, as this was not what this study examined and



as this would oversimplify the complexity that is inherent in each individual's personality structure. Our findings rather showed that both the distinction into personality levels and their interrelations meaningfully add to the understanding of personality. One might argue that people can hardly be divided into different levels in their everyday living and thus one might consider the distinction of personality levels as artificial and arbitrary. Based on the present findings, we maintain that personality levels "have a kind of life of their own" (McAdams & Pals, 2006, p. 209), suggesting that, for instance, a person's life goals and life narratives may fulfill different functions and are differently related to personality traits. At the same time, personality levels do relate to each other in systematic ways, which speaks to a certain "personality architecture" (Cervone & Little, 2019, p. 12) within the psychological self. As such, people may display personality traits, hold life goals, and narrate stories that are related to each other in ways that suggest some degree of concordance and imply some sort of "overall design" (Cervone & Little, 2019, p. 13). As addressed in this study, we found the motivational structure of getting along and getting ahead to help in organizing such an overall design.

### **Research Aim III: How to Understand the Person at Different Ages**

To holistically understand the person, we maintain that one needs to situate the unique patterning of personality traits, life goals, and life narratives in a person's life span (McAdams & Pals, 2006). As such, we targeted age as predictor and moderator on personality.

**Age as a predictor.** As for personality traits, age associations suggested correspondence with the maturity principle (e.g., Caspi et al., 2005) in that age was positively linked to agreeableness and conscientiousness and negatively linked to neuroticism. One proposed key mechanism for this maturation represents the confrontation with age-graded social roles, such as those related to paid work, parenthood, or long-term romantic relationships, and the acquisition of behavior that is tailored to fulfill these social roles (Bleidorn, 2015; Roberts & Wood, 2006;

Roberts, Wood, & Smith, 2005).

As for life goals, we expected to find age predictions in line with developmental task theory. It was in line with our prediction that age was negatively linked to agentic goals, but we found no age-related effects on communal social-engagement goals and a cubic association between age and communal relationship and health goals. The reason why we did not find communal goals to fully map onto developmental tasks could lie in the factor-analyzed goal structure: Our communal life goals might not have been well suited for detecting linkages with developmental tasks. For instance, we subsumed goals of relationships, family, and health into a single life-goal factor, but goals of relationships, family, and health might show different associations with age (e.g., Bühler et al., 2019; Carstensen, Isaacowitz, & Charles, 1999; Hutteman et al., 2014; Nurmi, 1992).

As for life narratives, we expected age to be positively linked to communal narratives and negatively linked to agentic narratives. While no support was found for the former prediction, support was given for the latter. In other words, while communal narratives may reflect a personality characteristic that is not linked to a person's age (but rather to a person's personality traits and life goals; see getting-along motive), agentic narratives may reflect a personality characteristic that is also shaped by a person's age. Two theories might explain the age-differential findings for communal and agentic narratives: self-determination theory and developmental task theory. In terms of self-determination theory (Deci & Ryan, 2000), the finding that people—irrespective of their age—had a tendency to narrate their life in terms of communion speaks for relatedness being central to people of all ages (Baumeister & Leary, 1995). In terms of developmental task theory (Havighurst, 1972), the inverted U-shaped association between age and agentic narratives may suggest that people narrate their life story in more agentic terms until midlife, which serves, for instance, the more agentic developmental

tasks of finding one's occupational niche (e.g., Hutteman et al., 2014). After a certain peak has been reached, people may be less likely to narrate their lives in an agentic manner, potentially because agentic domains of their lives (e.g., work) become less central to them.

**Age as a moderator.** Age moderations on across-level associations were observed in less than 20% of the cases. We wish to highlight two aspects that were central to these age moderations. First, the susceptibility to age moderations was mainly present among participants in their young and middle adulthood—a time in which personality change is most likely to occur (Roberts & Mroczek, 2008). Second, age moderations appeared to be most prominently expressed on the narrative level, providing reason to believe that the prediction of this personality level is the most susceptible to age-related effects. The narrative level was also argued to be the level that is most strongly affected by other external influences, such as culture (McAdams & Pals, 2006). Each culture offers a unique set of stories about how to live one's life, and the narrator chooses some stories while resisting others (McAdams, 2006; McAdams & Pals, 2006). It is likely that age works similarly to culture in that age-graded norms, roles, and expectations provide a set of stories from which the narrator chooses. As such, while people with certain personality traits and life goals may be more or less likely to narrate a certain life story, age may alter how strong these associations are.

In summary, to understand the person at different ages, we conclude that is essential to consider both the unique age-related signature on personality traits, life goals, and life narratives (i.e., age as a predictor), as well as the different interrelations that connect these levels depending on people's age (i.e., age as a moderator). However, as outlined above, the analyses were potentially underpowered. As such, the findings await further replication until firm conclusions can be drawn.

### **Strengths, Limitations, and Outlook**

It is a strength that the present study included a community sample with participants aged 14 to 68 years, covering considerable parts of the life span. Moreover, personality traits and life goals were assessed at two measurement occasions over 2 years, which allowed us to test for longitudinal associations. Further, instead of short-term aspirations, we focused on major life goals that depicted individuals' broad aspirations in life, which is a strength because the breadth and stability of life goals are comparable to those of dispositional traits (e.g., Roberts et al., 2004). Finally, to arrive at a more holistic view of personality, we collected oral life story interviews in addition to assessing personality traits and life goals.

The results of this research should also be interpreted with some caveats in mind. First, we assessed life story interviews at a single measurement occasion and were, thus, not able to test the stability or change of life narratives. Given that people continue to develop on each personality level over time (Roberts & DelVecchio, 2000; Roberts et al., 2006; Sengsavang, Pratt, Alisat, & Sadler, 2017), a fine-grained longitudinal perspective on personality in general and life narratives in particular would be promising to further understand the actor, agent, and author over time. More specifically, assessing features of the actor, agent, and author at multiple measurement occasions would allow for testing intraindividual change–change effects, that is, the extent to which changes in one personality level, such as personality traits, correspond to changes in another personality level, such as life goals or life narratives (Allemand & Martin, 2016). In that matter, it might also be worthwhile to test how the simple passage of time (implying age-related developmental tasks; e.g., Hutteman et al., 2014), the occurrence of specific life events (e.g., birth of a child, divorce, transitions in the occupational domain; Lüdtke et al., 2009), or participation in interventions (such as clinical interventions or psychotherapy; Adler, 2012; Roberts et al., 2017) might shape not only personality traits, life goals, and life narratives in isolation but also their interrelations over time. This long-term perspective on personality would

further provide a promising avenue for exploring how coherence might be established on a trait–goal–narrative level in addition to on the narrative level alone (Adler, Waters, Poh, & Seitz, 2018; Waters, Köber, Lee Raby, Habermas, & Fivush, 2018), and how important such coherence is for people’s subjective well-being.

Second, we highlighted the difficulty of obtaining interrelations between personality levels, particularly because the constructs at different levels (a) were measured in different ways (e.g., self-report of personality traits and life goals vs. narrative coding) and (b) referred to different periods (e.g., traits are about the present, goals are about the future, and narratives are about the past, present, and future; McAdams & Pals, 2006). Given these challenges, that the present study revealed meaningful associations between personality levels at all speaks to the concept of multilayered interrelations. To address the described difficulties, future research would benefit from using more fine-grained coding schemes to obtain communal and agentic narratives, such as through applying a dimensional coding system (e.g., Adler, 2012; McLean et al., 2019; Reese et al., 2011), and from obtaining larger samples that have the power to detect small effects. In addition, not all parts of adulthood were equally represented in our sample and the power to detect small effects might have been particularly low in the interaction analyses with age. Recent research has also shown that interactions are among those effects that are least likely to be replicated (i.e., in 22% of the cases) when estimating the reproducibility of psychological science (Open Science Collaboration, 2015). Hence, both larger samples and a more equally balanced age distribution might help researchers to more effectively target age moderations in all parts of the life span.

On a related note, in the present study, we conducted a considerable number of tests, which might have caused problems associated with multiple testing. Because we would have otherwise run into a loss of power, we addressed the issue of multiple testing by following a more

traditional approach and conducted all analyses at the conventional  $p$  level of 5% and at a CI of 95% (Perneger, 1998). This approach, however, needs to be critically discussed. Other, more novel and conservative approaches, such as the Bonferroni-type alpha correction, the Benjamini-Hochberg method, or the Holm technique, each of which aim to protect against false-positive results (Benjamini & Hochberg, 1995; Holm, 1979; Vickerstaff, Omar, & Ambler, 2019), would have led to a more conservative  $p$  level and a narrower CI, which might have altered the conclusions drawn. Specifically, for our first research aim (i.e., mean-level change and rank-order stability), we conducted 16 tests and found 11 significant associations (0.8 significant associations would have been expected by chance). For our second research aim (i.e., master motives), we conducted 10 tests and found 12 significant associations (0.5 significant associations would have been expected by chance). For our third research aim (i.e., age as predictor and moderator), we conducted 30 tests and found 15 significant associations (1.5 significant associations would have been expected by chance). As we argue above, larger samples with better power are needed that replicate the present findings and that allow applying more conservative adjustment techniques to counteract the problems associated with multiple testing.

Third, our sample was a predominantly Swiss sample of relatively educated and socioeconomically advantaged people. In addition to the limiting generalizability that comes from studying one country, we could not test the role that (sub)culture might have played in how people expressed their personality traits, in what people strived for, and in what menu of themes, images, and plots they used to construe their life story (McAdams & Pals, 2006). Future research is needed to test the effect that (sub)culture has on personality traits, life goals, and life narratives separately (Dressler, Balieiro, & dos Santos, 2017; Hammack, 2008; Hofstede & McCrae, 2004; McCrae & Terracciano, 2005), but also on their longitudinal interplay.

Fourth, the moderate interrater reliability with Cohen's kappa coefficients of around .60

need to be critically discussed. Inspecting the data of the interrater coding in more detail, we found that agreement was higher when raters agreed on whether a motivational narrative theme was not mentioned in a scene, compared to when a motivational narrative theme was mentioned in a scene. The tendency to have better agreement for coding a “0” compared to a “1” did not differ depending on whether raters coded for communal or agentic (sub)themes. Specifically, for agency, both raters agreed on the absence in 91.43% of the cases, whereas they agreed on the presence in 68.00% of the cases. For communion, both raters agreed on the absence in 92.90% of the cases, whereas they agreed on the presence in 64.29% of the cases. In addition, the number of cases, in which a narrative theme was not mentioned (1,388 cases for agency and 1,408 cases for communion) was much higher than the number of cases in which a narrative theme was mentioned (328 cases for agency and 308 cases for communion). This implies that the high agreement about the absence of a theme increased the overall percent agreement and raised the kappa coefficient, while the low agreement on the presence of a theme decreased the overall percent agreement and reduced the kappa coefficient. For the present findings, the lower interrater reliability for the presence of a narrative theme signifies that there was also more error in detecting a narrative theme, which, in turn, might have reduced the likelihood of finding interrelations with the narrative level. This shortcoming might have been particularly present for the getting-ahead pattern, for which no interrelations with the narrative level were found. Future research is needed to address whether having better agreement in coding the absence—compared to the presence—of a narrative theme also applies to the other three narrative categories (Adler et al., 2016). Such research might also target the reasons responsible for the differential coding tendency and address how the coding process can be optimized to achieve higher agreement.

Fifth, because we studied interrelations, we know little about the conflict or lack of conflict that people might experience between their personality levels (e.g., Baumert et al., 2017;

Bleidorn & Ködding, 2013). For instance, we know little about whether people are aware of related or unrelated personality features and whether this leads individuals to experience more or fewer discrepancies in their psychological self (Waterman, 2015). Assessing such (lack of) inner conflict would provide insights into identity development (van Doeselaar, Becht, Klimstra, & Meeus, 2018), that is, whether people perceive themselves as unique and distinct from others (i.e., distinctiveness), as similar across life domains (i.e., coherence), and as the same person over time (i.e., continuity; Pasupathi, 2014). New to such an approach would be the assessment of the three key components of identity (i.e., distinctiveness, coherence, and continuity; van Doeselaar et al., 2018; Pasupathi, 2014) with regard to each personality level and their interrelations. This approach would allow a more in-depth understanding of the processes underlying identity development (Galliher, Rivas-Drake, & Dubow, 2017) and may offer insights into the strategies that people use to circumvent conflict and compartmentalization within their psychological self (Galliher, McLean, & Syed, 2017). To arrive at such an understanding, future researchers would benefit from asking their participants questions that elicit information about potential contradictions and inner conflicts. One such approach might be to use rating-scale instruments or open-ended questions to assess how much conflict participants experience between how they act, what they strive for, and how they narrate their life story (for a similar method, see Benet-Martínez & Hartatos, 2005).

Finally, future research is needed to investigate the implications of multilayered personality interrelations for psychological functioning through, for instance, applying person-centered approaches (e.g., Lanza, Flaherty, & Collins, 2003) that, in contrast to variable-centered approaches that focus on the differences *between* individuals within a single dimension, focus on the configuration of different variables *within* the person (Herzberg & Roth, 2006). It is possible that individuals with a coherent arrangement of personality elements across levels experience less



tension (Syed & McLean, 2016) and, thus, report higher levels of psychological well-being. Conversely, it could be that people with a joint pattern of getting-along and getting-ahead motives would indicate higher well-being, as these people are flexible and adaptive in a wider range of situations (for similar findings in sex-role research, see Bem, 1975). Given that these approaches need a considerable sample size (Tein, Coxe, & Cham, 2013), the present study did not have sufficient power to apply such a person-centered approach. Yet, findings from the present study might provide a promising springboard for future studies testing the implications of an integrative actor–agent–author perspective by making use of a within-person approach.

### **Conclusion**

In the present study, we targeted interrelations between three levels of personality across the life span. Specifically, we were interested in the actor's personality traits, the agent's life goals, and the author's life narratives. The findings from multilevel analyses showed that personality traits, life goals, and life narratives were connected in ways that could be organized along the concept of master motives. Specifically, we found that the master motives of getting along, getting ahead, and a compound of both served as a valuable frame to organize and interpret the observed across-level interrelations. In addition, to address their life-span character, we tested the three levels (i.e., personality traits, life goals, and life narratives) and their interrelations against the background of age-related effects: While we found age-related effects on each personality level, the across-level interrelations were less age-dependent. If age moderations appeared, the prediction of subsequent narratives and the period of young and middle adulthood were most susceptible to the age-related effects. For understanding development across the life span, these findings imply that although people of different ages might act differently, rate a different subset of goals as important, or narrate their life story differently, the associations between these aspects are only modestly shaped by age. Future

researchers are encouraged to test the specific age-related processes that underpin how people connect their social actor, motivated agent, and autobiographical author across the life span.

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### Footnotes

- 1 We note that other researchers have suggested similar motives and needs with different labels (e.g., Bakan, 1966; Saucier & Goldberg, 1996), all referring to an overarching motivational structure of social involvement on the one hand and power on the other.
- 2 Fifteen published papers are based on data from this research project. The current analyses do not overlap with previous research on this data set, and none of the previous studies used the narrative data. One study (Bühler et al., 2019) tested age-related effects on life goals but used a different subsample, worked with a different goal-factor structure, and applied a different theoretical reasoning. Thus, portions of the data have been published elsewhere but have not been used in an integrative actor–agent–author analysis as reported in the present study.
- 3 Please note that because participants took part in families, and because age might be an identifying variable, there is an elevated risk that participants might be able to identify themselves or their family members in the data set, a problem that has been discussed elsewhere (Finkel, Eastwick, & Reis, 2015). To provide our participants with the anonymity that we guaranteed them, we have opted not to publicly share the present data.
- 4 We compared individuals who took part in the interview (narrative sample) to those who did not participate in the interview (non-narrative sample). Participants from the narrative sample were significantly younger ( $M = 35.10$  years vs.  $M = 42.48$  years),  $t(1042) = -4.08, p < .001$ , had lower conscientiousness at Time 1 ( $M = 2.76$  vs.  $M = 3.86$ ),  $t(1043) = -2.10, p = .04$ , lower conscientiousness at Time 2 ( $M = 2.79$  vs.  $M = 2.19$ ),  $t(710) = -2.39, p = .02$ , and higher agreeableness at Time 2 ( $M = 3.79$  vs.  $M = 3.93$ ),  $t(710) = 2.46, p = .02$ . They also rated health goals as less important at Time 1 ( $M = 3.58$  vs.  $M = 3.64$ ),



$t(1042) = -2.12, p = .04$ , and prosocial-engagement goals as less important at Time 2 ( $M = 3.01$  vs.  $M = 3.11$ ),  $t(714) = -2.25, p = .03$ . No other differences were statistically significant (all  $ps \geq .05$ ).

- 5 We compared participants from the longitudinal narrative sample to participants from the entire narrative sample (i.e., participants who did not complete both self-report surveys at Time 1 and Time 2). Participants from the longitudinal narrative sample were more likely to report communion in their life story interview ( $M = 2.79$  vs.  $M = 2.19$ ),  $t(181) = 2.69, p = .01$ , and had lower openness at Time 1 ( $M = 3.71$  vs.  $M = 3.91$ ),  $t(180) = -2.13, p = .03$ . No other differences were statistically significant (all  $ps \geq .05$ ).
- 6 Women, compared to men, had significantly higher extraversion at Time 1 ( $M = 3.67$  vs.  $M = 3.33$ ),  $t(97) = 2.55, p = .01$ , higher neuroticism at Time 1 ( $M = 2.85$  vs.  $M = 2.41$ ),  $t(112) = 3.48, p < .001$ , higher extraversion at Time 2 ( $M = 3.66$  vs.  $M = 3.35$ ),  $t(88) = 2.33, p = .02$ , and higher neuroticism at Time 2 ( $M = 2.78$  vs.  $M = 2.40$ ),  $t(100) = 2.75, p < .001$ . Women, compared to men, also had higher communal relationship and health goals at Time 1 ( $M = 3.75$  vs.  $M = 3.63$ ),  $t(94) = 2.49, p = .01$ , higher communal social-engagement goals at Time 2 ( $M = 3.09$  vs.  $M = 2.88$ ),  $t(90) = 2.43, p = .02$ , and higher communal relationship and health goals at Time 2 ( $M = 3.73$  vs.  $M = 3.53$ ),  $t(78) = 3.93, p < .001$ . Women and men did not differ in their narrative themes (all  $ps > .05$ ).
- 7 We note that some of the models revealed problems of singularity; that is, some of the parameters were on the boundary (equal to zero or very close to zero). We were not able to resolve these issues through simplifying the models.
- 8 We wish to underscore that the cut-offs in the slope analyses were sample dependent and applied to the participants in our sample.

- 9 Narrative quotations were translated from German into English by the first author. Please note that, as with a multi-item questionnaire, one prompt from the Life Story Interview and the participant's answer to this single prompt are given for illustrative purposes and should not imply that one single prompt represents the participant's entire life story (as one would not assume that a single item of the Big Five Inventory stands for the item-corresponding trait entirely or for all five traits).
- 10 Please note that we intentionally do not quote a narrative example here because no relations were found with the narrative level for the getting-ahead motive.

Table 1

*Descriptive Statistics and Stability Indices for Measures of Big Five Personality Traits and Life Goals at Time 1 and Time 2*

Variable	Descriptive statistics								Stability	
	Time 1				Time 2				Mean-level change	Rank-order stability
	Min	Max	<i>M</i>	<i>SD</i>	Min	Max	<i>M</i>	<i>SD</i>	Cohen's <i>d</i>	<i>r</i>
Personality traits										
Agreeableness	2.10	5.00	3.87	0.49	1.90	5.00	3.91	0.50	.15	<b>.79</b>
Extraversion	1.25	5.00	3.56	0.76	1.75	5.00	3.55	0.74	-.01	<b>.86</b>
Conscientiousness	1.56	5.00	3.77	0.64	1.78	5.00	3.79	0.63	.05	<b>.83</b>
Openness	1.70	4.80	3.71	0.57	2.20	4.80	3.66	0.54	-.13	<b>.81</b>
Neuroticism	1.25	4.75	2.71	0.80	1.00	4.50	2.65	0.80	-.11	<b>.74</b>
Life goals										
Agentic goals	1.44	3.38	2.37	0.40	1.44	3.44	2.31	0.40	<b>-.24</b>	<b>.77</b>
Communal goals 1	1.62	4.00	3.11	0.46	1.62	4.00	3.02	0.49	<b>-.26</b>	<b>.72</b>
Communal goals 2	2.67	4.00	3.71	0.27	2.58	4.00	3.67	0.29	<b>-.17</b>	<b>.61</b>

*Note.* Communal goals 1 refer to communal social-engagement goals; communal goals 2 refer to communal relationship and health goals. Personality traits were assessed on a 5-point Likert scale (from 1 to 5) and life goals were assessed on a 4-point Likert scale (from 1 to 4). Values presented in bold are significant ( $p < .05$ ).

Table 2

*Pearson Correlations Between Big Five Personality Traits (Variables 1–5), Life Goals (Variables 6–8), Life Narratives (Variables 9–10), and Age*

Variable	1	2	3	4	5	6	7	8	9	10	11
1 Agreeableness	–	-.02	.15	<b>.21</b>	<b>-.30</b>	<b>-.26</b>	<b>.22</b>	.16	.08	<b>.24</b>	<b>.20</b>
2 Extraversion	.06	–	.16	.04	<b>-.17</b>	<b>.17</b>	.05	<b>.23</b>	-.02	.11	.01
3 Conscientiousness	.13	<b>.26</b>	–	.09	<b>-.29</b>	.04	.10	<b>.27</b>	.12	.10	.16
4 Openness	<b>.33</b>	<b>.20</b>	.14	–	.07	.02	<b>.21</b>	.02	<b>.19</b>	.07	.01
5 Neuroticism	<b>-.34</b>	<b>-.30</b>	<b>-.30</b>	-.05	–	.12	.10	.11	.01	-.01	<b>-.17</b>
6 Agentic goals	<b>-.28</b>	.12	-.02	-.07	.17	–	.16	<b>.33</b>	.09	<b>-.22</b>	<b>-.36</b>
7 Communal goals 1	<b>.26</b>	.12	.09	<b>.33</b>	.07	.08	–	<b>.20</b>	-.07	.08	.10
8 Communal goals 2	-.01	.15	.14	-.01	.02	<b>.37</b>	<b>.24</b>	–	.05	.09	-.12
9 Agency	-.06	.06	.13	.13	.06	.16	-.05	.14	–	<b>.37</b>	-.11
10 Communion	<b>.21</b>	.15	.11	.11	.00	-.14	.06	.01	<b>.37</b>	–	.11
11 Age	<b>.21</b>	.08	<b>.29</b>	.10	<b>-.21</b>	<b>-.32</b>	.07	<b>-.21</b>	-.11	.11	–

*Note.*  $N = 141$ . Pearson correlations below the diagonal represent correlations using trait and goal measures from Time 1; Pearson correlations above the diagonal represent correlations using trait and goal measures from Time 2. Agency and communion stem from  $T_{\text{Life Story Interview}}$  (narrative measurement occasion between Time 1 and Time 2). Correlation coefficients in bold are significant ( $p < .05$ ).

Table 3

*Multiple Regression Analyses Predicting Subsequent Personality Traits (Agreeableness, Extraversion, and Conscientiousness)  
From Prior Life Goals and Life Narratives*

Variable	Agreeableness				Extraversion				Conscientiousness			
	$\beta$	<i>b</i>	95% CI	<i>p</i>	$\beta$	<i>b</i>	95% CI	<i>p</i>	$\beta$	<i>b</i>	95% CI	<i>p</i>
Control variable												
Gender	-.02	-.02	[-.17, .15]	.82	-.15	-.24	[-.48, .01]	.06	-.06	-.08	[-.28, .12]	.46
Life goals												
Agentic goals	<b>-.22</b>	<b>-.27</b>	[-.47, -.06]	.01	.11	.19	[-.15, .55]	.24	-.14	-.22	[-.48, .06]	.12
Communal goals 1	<b>.26</b>	<b>.28</b>	[.12, .44]	<.01	.001	.002	[-.25, .26]	.99	-.02	-.03	[-.23, .20]	.79
Communal goals 2	.10	.17	[-.11, .46]	.28	.14	.39	[-.11, .90]	.12	<b>.22</b>	<b>.51</b>	[.07, .90]	.02
Life narratives												
Agency	.05	.02	[-.06, .10]	.58	-.11	-.07	[-.18, .05]	.21	.08	.04	[-.05, .13]	.39
Communion	<b>.17</b>	<b>.07</b>	[.002, .13]	.04	.15	.09	[-.02, .19]	.09	.04	.02	[-.08, .10]	.69

*Note.*  $N = 141$ . CI = Confidence interval. Gender was included as control variable. Communal goals 1 refer to communal social-engagement goals; communal goals 2 refer to communal relationship and health goals. Significant results ( $p < .05$ ) are shown in bold. In each model, the control variable, life goals, and life narratives were entered simultaneously. Explained variance associated with fixed effects was  $R^2 = .17$  for agreeableness,  $R^2 = .09$  for extraversion, and  $R^2 = .07$  for conscientiousness.

Table 4

*Multiple Regression Analyses Predicting Subsequent Personality Traits (Openness and Neuroticism) From Prior Life Goals and Life Narratives*

Variable	Openness				Neuroticism			
	$\beta$	<i>b</i>	95% CI	<i>p</i>	$\beta$	<i>b</i>	95% CI	<i>p</i>
Control variable								
Gender	.02	.02	[-.15, .18]	.79	<b>-.22</b>	<b>-.37</b>	[-.64, -.10]	<.01
Life goals								
Agentic goals	-.06	-.08	[-.28, .17]	.50	.16	.31	[-.06, .64]	.08
Communal goals 1	<b>.31</b>	<b>.37</b>	[-.19, .56]	<.001	.07	.12	[-.18, .41]	.38
Communal goals 2	-.05	-.09	[-.44, .24]	.59	-.07	-.21	[-.70, .29]	.44
Life narratives								
Agency	<b>.19</b>	<b>.09</b>	[-.01, .17]	.03	.02	.01	[-.10, .14]	.84
Communion	-.04	-.01	[-.08, .06]	.68	-.03	-.02	[-.12, .09]	.76

*Note.*  $N = 141$ . CI = Confidence interval. Gender was included as control variable. Communal goals 1 refer to communal social-engagement goals; communal goals 2 refer to communal relationship and health goals. Significant results ( $p < .05$ ) are shown in bold. In each model, the control variable, life goals, and life narratives were entered simultaneously. Explained variance associated with fixed effects was  $R^2 = .12$  for openness and  $R^2 = .08$  for neuroticism.

Table 5

*Multiple Regression Analyses Predicting Subsequent Life Goals (Agentic Goals and Communal Goals) From Prior Personality Traits and Life Narratives*

Variable	Agentic goals				Communal goals 1				Communal goals 2			
	$\beta$	<i>b</i>	95% CI	<i>p</i>	$\beta$	<i>b</i>	95% CI	<i>p</i>	$\beta$	<i>b</i>	95% CI	<i>p</i>
Control variable												
Gender	-.01	-.01	[-.14, .12]	.90	-.15	-.16	[-.34, .02]	.08	<b>-.27</b>	<b>-.16</b>	[-.26, -.06]	<.01
Personality traits												
Agreeableness	<b>-.19</b>	<b>-.15</b>	[-.31, -.01]	.04	.10	.10	[-.08, .29]	.28	.13	.08	[-.03, .18]	.16
Extraversion	.16	.08	[-.01, .17]	.07	-.02	-.01	[-.12, .10]	.83	.11	.04	[-.02, .11]	.20
Conscientiousness	.07	.04	[-.05, .14]	.40	<b>.17</b>	<b>.13</b>	[.01, .25]	.04	<b>.20</b>	<b>.09</b>	[.02, .17]	.01
Openness	-.03	-.02	[-.13, .10]	.74	<b>.21</b>	<b>.18</b>	[.03, .34]	.02	-.01	-.01	[-.10, .08]	.88
Neuroticism	.12	.06	[-.03, .16]	.20	.12	.07	[-.04, .19]	.24	.11	.04	[-.03, .11]	.23
Life narratives												
Agency	.16	.06	[-.01, .11]	.06	-.13	-.06	[-.13, .01]	.12	-.001	-.001	[-.04, .04]	.99
Communion	<b>-.27</b>	<b>-.08</b>	[-.13, -.03]	<.01	.06	.02	[-.04, .09]	.55	.01	.003	[-.03, .04]	.87

*Note.*  $N = 141$ . CI = Confidence interval. Gender was included as control variable. Communal goals 1 refer to communal social-engagement goals; communal goals 2 refer to communal relationship and health goals. Significant results ( $p < .05$ ) are shown in bold. In each model, the control variable, personality traits, and narrative themes were entered simultaneously. Explained variance associated with fixed effects was  $R^2 = .17$  for agentic goals,  $R^2 = .15$  for communal social-engagement goals, and  $R^2 = .18$  for communal relationship and health goals.

Table 6

*Multiple Regression Analyses Predicting Subsequent Narrative Themes (Agentic and Communal Narratives) From Prior Personality Traits and Life Goals*

Variable	Agentic narratives				Communal narratives			
	$\beta$	<i>b</i>	95% CI	<i>p</i>	$\beta$	<i>b</i>	95% CI	<i>p</i>
Control variable								
Gender	.05	.11	[-.28, .51]	.59	-.02	-.07	[-.49, .37]	.76
Personality traits								
Agreeableness	.01	.02	[-.46, .47]	.94	<b>.23</b>	<b>.61</b>	[.15, 1.10]	.01
Extraversion	.01	.02	[-.27, .31]	.87	.08	.14	[-.15, .43]	.34
Conscientiousness	.11	.20	[-.09, .52]	.19	.04	.08	[-.23, .39]	.64
Openness	.17	.34	[-.04, .70]	.08	.06	.13	[-.27, .50]	.53
Neuroticism	.11	.17	[-.11, .42]	.25	.03	.05	[-.23, .33]	.72
Life goals								
Agentic goals	.16	.46	[-.05, .99]	.08	-.11	-.34	[-.91, .31]	.23
Communal goals 1	-.12	-.29	[-.72, .20]	.19	-.04	-.11	[-.53, .34]	.62
Communal goals 2	.07	.31	[-.46, 1.04]	.42	-.05	-.23	[-1.07, .59]	.58

*Note.*  $N = 141$ . CI = Confidence interval. Gender was included as control variable. Significant results ( $p < .05$ ) are shown in bold.

Communal goals 1 refer to communal social-engagement goals; communal goals 2 refer to communal relationship and health goals.

In each model, the control variable, personality traits and life goals were entered simultaneously. Explained variance associated with fixed effects was  $R^2 = .08$  for agency and  $R^2 = .10$  for communion.

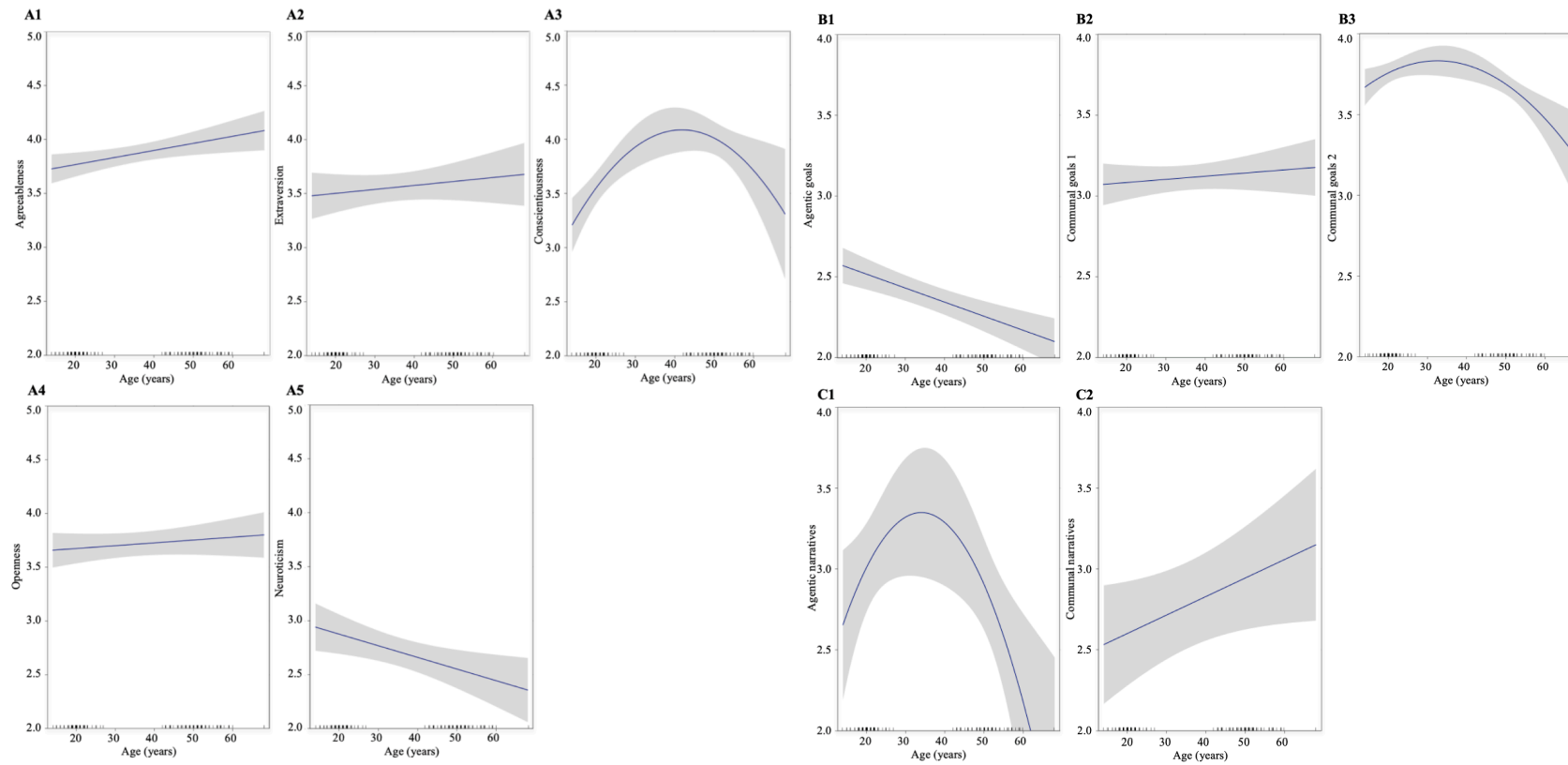


Table 7

*Linear and Squared Effects of Age on Big Five Personality Traits, Life Goals, and Life Narratives*

Variable	Linear effects				Squared effects			
	$\beta$	<i>b</i>	95% CI	<i>p</i>	$\beta$	<i>b</i>	95% CI	<i>p</i>
Personality traits								
Agreeableness	<b>.21</b>	<b>.07</b>	[.02, .12]	.01	-.02	-.01	[-.07, .06]	.78
Extraversion	.08	.04	[-.04, .12]	.36	.01	.01	[-.09, .12]	.91
Conscientiousness	<b>.31</b>	<b>.13</b>	[.07, .19]	<.01	<b>-.23</b>	<b>-.11</b>	[-.20, -.04]	<.01
Openness	.08	.03	[-.03, .08]	.35	-.07	-.03	[-.10, .04]	.41
Neuroticism	<b>-.21</b>	<b>-.11</b>	[-.19, -.03]	<.01	.07	.04	[-.06, .15]	.44
Life goals								
Agentic goals	<b>-.34</b>	<b>-.09</b>	[-.13, -.05]	<.01	-.003	-.001	[-.05, .05]	.97
Communal goals 1	.07	.02	[-.03, .07]	.43	-.06	-.02	[-.08, .03]	.49
Communal goals 2	<b>-.21</b>	<b>-.04</b>	[-.06, -.01]	.01	<b>-.23</b>	<b>-.05</b>	[-.08, -.01]	<.01
Life narratives								
Agency	-.11	-.08	[-.19, .03]	.15	<b>-.20</b>	<b>-.17</b>	[-.32, -.03]	.01
Communion	.14	.11	[-.01, .25]	.06	-.08	-.07	[-.22, .08]	.32

*Note.*  $N = 141$ . CI = Confidence interval. Age is scaled in decades. Communal goals 1 refer to communal social-engagement goals; communal goals 2 refer to communal relationship and health goals. Significant results ( $p < .05$ ) are shown in bold. Testing the simple model (only linear effects) against the combined model (linear and squared effects), the combined model fit the data significantly better in the case of conscientiousness,  $\chi^2(1, 141) = 8.98, p = .003$ , communal relationship and health goals,  $\chi^2(1, 141) = 7.41, p = .006$ , and agency,  $\chi^2(1, 141) = 6.16, p = .01$ .



*Figure 1.* Effects of age on personality traits (A), life goals (B), and life narratives (C). Areas in gray display the 95% confidence intervals. Communal goals 1 refers to communal social-engagement goals; communal goals 2 refers to communal relationship and health goals. For Models A3, B3, and C1, a combined model of linear and squared effects fit the data better, while for all other models, linear effects fit the data better.

Table S1

*Items and Domains for Assessing Life Goals*

Life-goal domain	Item
Community	<ol style="list-style-type: none"> <li>1. To assist people who need it, asking nothing in return.</li> <li>3. To work to make the world a better place.</li> <li>3. To help others improve their lives.</li> <li>4. To help people in need.</li> </ol>
Fame	<ol style="list-style-type: none"> <li>1. To be admired by many people.</li> <li>2. To be famous.</li> <li>3. To have my name appear frequently in the media.</li> <li>4. To be admired by lots of different people.</li> </ol>
Family	<ol style="list-style-type: none"> <li>1. To be a good mother/father.</li> <li>2. To have an intact family life.</li> <li>3. To care for my family.</li> <li>4. To have a happy family.</li> </ol>
Generativity	<ol style="list-style-type: none"> <li>1. To campaign for the protection of nature.</li> <li>2. To serve as a role model for younger people.</li> <li>3. To campaign for the general welfare.</li> <li>4. To transfer knowledge to younger generations.</li> </ol>
Health	<ol style="list-style-type: none"> <li>1. To be physically healthy.</li> <li>2. To keep myself healthy and well.</li> <li>3. To be relatively free from sickness.</li> <li>4. To have a physically healthy lifestyle.</li> </ol>
Image	<ol style="list-style-type: none"> <li>1. To have people comment often about how attractive I look.</li> <li>2. To keep up with fashions in hair and clothing.</li> <li>3. To achieve the "look" I've been after.</li> <li>4. To have an image that others find appealing.</li> </ol>

Life-goal domain	Item
Personal growth	<ol style="list-style-type: none"> <li>1. To grow and learn new things.</li> <li>2. At the end of my life, to be able to look back on my life as meaningful and complete.</li> <li>3. To choose what I do, instead of being pushed along by life.</li> <li>4. To gain increasing insight into why I do the things I do.</li> </ol>
Relationships	<ol style="list-style-type: none"> <li>1. To have good friends that I can count on.</li> <li>2. To share my life with someone I love.</li> <li>3. To have committed, intimate relationships.</li> <li>4. To have deep enduring relationships.</li> </ol>
Wealth	<ol style="list-style-type: none"> <li>1. To have many expensive possessions.</li> <li>2. To be financially successful.</li> <li>3. To be rich.</li> <li>4. To have enough money to buy everything I want.</li> </ol>
Work	<ol style="list-style-type: none"> <li>1. To have a satisfying occupation.</li> <li>2. To have job security.</li> <li>3. To be successful in my job.</li> <li>4. To pursue my own occupational career.</li> </ol>

*Note.* Life goals were measured with the question “How important is this to you?” Life-goal domains of community, health, fame, image, personal growth, relationships, and wealth are based on an adapted version of the Aspirations Index (Deci & Ryan, 1997; Kasser & Ryan, 1993) in its German translation (Klusmann, Trautwein, & Lüdtke, 2005). The life-goal domains of family, generativity, and work were added.

Table S2

*Standardized Loadings Extracted From Exploratory Factor Analyses With Promax Rotation Across Life Goals at Time 1 and Time 2*

Life goal	Factor loading					
	Time 1			Time 2		
	1	2	3	1	2	3
Fame	<b>.93</b>		-.42	<b>.65</b>		
Wealth	<b>.55</b>	-.35		<b>.81</b>	-.32	
Image	<b>.58</b>			<b>.49</b>		
Work	.44			<b>.50</b>		
Community		<b>.83</b>			<b>.83</b>	
Generativity		<b>.70</b>			<b>.87</b>	
Relationships			<b>.62</b>			<b>.74</b>
Family			<b>.63</b>			<b>.60</b>
Health			<b>.52</b>			<b>.56</b>

*Note.*  $N = 141$ . Loadings greater than .30 are presented and primary loadings (loadings greater than .45) are shown in bold. Factors are extracted through the maximum likelihood method with varimax rotation. For the factorial goal structure at Time 1, Factor 1 explained 17%, Factor 2 explained 15%, and Factor 3 explained 14% of the variance. Together, these three factors explained 46% of the total variance. For the factorial goal structure at Time 2, Factor 1 explained 17%, Factor 2 explained 16%, and Factor 3 explained 16% of the variance. Together, the three factors explained 49% of the total variance.

Table S3

*Standardized Loadings Extracted From Exploratory Factor Analyses With Varimax Rotation Across Life Goals at Time 1 and Time 2*

Life goal	Factor loading					
	Time 1			Time 2		
	1	2	3	1	2	3
Fame	<b>.78</b>			<b>.59</b>		
Wealth	<b>.58</b>		.34	<b>.73</b>		
Image	<b>.58</b>			<b>.53</b>		.39
Work	<b>.48</b>		.32	<b>.55</b>		.41
Community		<b>.83</b>			<b>.81</b>	
Generativity		<b>.70</b>			<b>.84</b>	
Relationships			<b>.61</b>			<b>.68</b>
Family			<b>.55</b>			<b>.55</b>
Health			<b>.51</b>			<b>.54</b>

*Note.*  $N = 141$ . Loadings greater than .30 are presented and primary loadings (loadings greater than .45) are shown in bold. Factors are extracted through the maximum likelihood method with varimax rotation. For the factorial goal structure at Time 1, Factor 1 explained 17%, Factor 2 explained 15%, and Factor 3 explained 14% of the variance. Together, these three factors explained 46% of the total variance. For the factorial goal structure at Time 2, Factor 1 explained 17%, Factor 2 explained 16%, and Factor 3 explained 16% of the variance. Together, the three factors explained 49% of the total variance.

Table S4

*Schema for Coding Subcategories of Agency*

Subcategory	Description
Self-mastery	Self-mastery applies to scenes in which the narrating person strives to successfully expand, perfect, or master the self. A characteristic of a self-mastery scene is the ability to strengthen the self or one's insights into one's identity or meaning in life. These insights often entail the realization of new plans, reflect a mission in life, or include an increased sense of control over a significant life event (e.g., bereavement, reaching a milestone, etc.).
Status/victory	The narrating person reports heightened status or prestige, which was obtained in a social context, such as receiving an honor or winning a competition. Status/victory does not imply goal achievement per se but rather underscores the interpersonal and implicitly competitive nature of success.
Achievement/responsibility	The narrator reports success in achieving a task, a job, or an instrumental goal. Feelings of pride, confidence, or success are accompanied after having overcome significant challenges. In contrast to the winning aspect of status/victory, this category highlights that a person has met implicit or explicit achievement standards and is responsible for achieving them.
Empowerment	The narrating person feels enlarged or empowered through a connection to something larger and more powerful than the self. The driving forces are either (a) God, nature, the cosmos, or something larger in the universe, or (b) a highly influential teacher, mentor, or authority providing guidance or assistance.

*Note.* The coding of the subcategories is based on McAdams (2010).

Table S5

*Schema for Coding Subcategories of Communion*

Subcategory	Description
Love/friendship	The narrating person experiences an enhanced feeling of love or friendship toward another person, for instance, toward peers, friends, or a romantic partner. This category specifically focuses on the development of social and romantic relationships while excluding feelings of caring and nurturance, such as in the parent–child bond, and does not describe enjoying oneself in the presence of another.
Dialogue	The narrator describes a reciprocal, noninstrumental, and positive form of conversation with someone or with a group. The dialogue is perceived positively for its own sake and does not serve as a means to another end.
Caring/help	The narrating person offers care, assistance, nurturance, support, or therapy to another person, providing physical, material, social, or emotional welfare or enhanced well-being to this person. This category does not apply when the narrator receives care or support.
Unity/togetherness	The narrating person feels part of a larger community. In contrast to the previous categories, this category does not focus on a particular relationship: The individual instead reports a sense of oneness, harmony, belongingness, or solidarity with a group of people, with a community, or even with all of humankind. Such scenes often include narratives of being surrounded by friends or family at an important positively connoted event.

*Note.* The coding of the subcategories is based on McAdams (2010).



Table S6

*Descriptive Statistics and Pearson Correlations of Communal and Agentic Narratives and Their Subcategories*

Variable	2	3	4	5	<i>M</i>	<i>SD</i>
Communion						
1 Love/friendship	<b>.18</b>	.15	<b>.23</b>	<b>.61</b>	3.13	2.01
2 Dialogue	-	.07	<b>.42</b>	<b>.57</b>	.82	1.24
3 Caring/help		-	<b>.17</b>	<b>.51</b>	1.80	1.76
4 Unity/togetherness			-	<b>.81</b>	5.45	2.89
5 Overall communion				-	2.80	1.29
Agency						
1 Self-mastery	<b>.18</b>	<b>.28</b>	<b>.18</b>	<b>.81</b>	5.29	2.80
2 Status/victory	-	.13	.05	<b>.27</b>	.09	.36
3 Achievement/responsibility		-	.15	<b>.72</b>	5.24	2.26
4 Empowerment			-	<b>.46</b>	1.12	1.28
5 Overall agency				-	2.94	1.15

*Note.* Correlation coefficients in bold are significant ( $p < .05$ ).

Table S7

*Descriptive Statistics and Stability Indices for Measures of Life Goals at Time 1 and Time 2*

Variable	Descriptive statistics								Stability	
	Time 1				Time 2				Mean-level change	Rank-order stability
	Min	Max	<i>M</i>	<i>SD</i>	Min	Max	<i>M</i>	<i>SD</i>	Cohen's <i>d</i>	<i>r</i>
Life goals										
Fame	1.00	3.50	1.60	0.51	1.00	3.00	1.55	0.50	-.12	<b>.71</b>
Wealth	1.00	4.00	2.26	0.56	1.00	3.75	2.15	0.56	<b>-.25</b>	<b>.70</b>
Image	1.00	3.75	2.26	0.68	1.00	3.75	2.22	0.64	-.09	<b>.77</b>
Work	1.75	4.00	3.38	0.44	1.75	4.00	3.31	0.46	-.15	<b>.60</b>
Community	1.25	4.00	3.12	0.55	1.50	4.00	3.05	0.54	<b>-.17</b>	<b>.69</b>
Generativity	1.50	4.00	3.11	0.47	1.75	4.00	2.99	0.52	<b>-.28</b>	<b>.65</b>
Relationships	2.00	4.00	3.76	0.35	2.50	4.00	3.68	0.38	<b>-.24</b>	<b>.61</b>
Family	1.75	4.00	3.77	0.35	1.50	4.00	3.73	0.41	-.13	<b>.58</b>
Health	2.25	4.00	3.59	0.41	2.25	4.00	3.59	0.37	-.01	<b>.68</b>
Personal growth	2.50	4.00	3.51	0.37	2.50	4.00	3.48	0.38	-.10	<b>.59</b>

*Note.* Values presented in bold are significant ( $p < .05$ ).