



# Extending the Five Psychological Features of Emerging Adulthood into Established Adulthood

Alan Reifman<sup>1</sup> · Sylvia Niehuis<sup>1</sup>

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## Abstract

Mehta et al. (Am Psychol 75:431–444, 2020) coined the term *established adulthood* to cover the age-range 30–45. Established adulthood comes after emerging adulthood (18–29), but before middle adulthood (45–65). There has been considerable theoretical and empirical work on emerging adulthood since Arnett (Am Psychol 55:469–480, 2000) proposed it, one important element being the five features model of psychological/phenomenological states accompanying emerging adulthood (Arnett Emerging adulthood: the winding road from the late teens through the twenties, Oxford University Press, 2004; Reifman et al. J Youth Dev 2:37, 2007a). Per the model, emerging adulthood is a time of (1) identity seeking, (2) open possibilities, (3) self-focus/responsibility for oneself, (4) stress/instability, and (5) feeling in-between adolescence and adulthood. Despite the richness of the five features approach, Mehta et al. did not extend it to established adulthood, focusing instead on practical challenges associated with careers, marriage/relationships, and parenting. The present theoretical review paper, therefore, extends and expands the five features model to established adulthood. Specifically, established adulthood should entail (1) solidifying identity, (2) somewhat diminishing sense of possibility in work/career and other domains, (3) focusing on others, (4) continuing stress, albeit in different domains from emerging adulthood, and (5) considering oneself an adult, although not necessarily fully wise. Although established adulthood emphasizes solidification, there remain aspirations and opportunities for new endeavors (e.g., becoming a grandparent or company head). Evidence from the literature supporting or not supporting these propositions is reviewed and future research directions are discussed.

**Keywords** Ages 30–45 · Emerging adulthood · Established adulthood · Five features model · Identity

Mehta et al. (2020) coined the term *established adulthood* to cover the age-range 30–45. This authorship team (Clare Mehta, Jeffrey Arnett, Carlie Palmer, and Larry Nelson), which collectively has done extensive foundational work on *emerging* adulthood (Arnett, 2000), proposed that established adulthood occurs in the lifespan following emerging (18–29) but before middle (45–65) adulthood. According to Mehta and her colleagues, the central challenges of established adulthood pertain to careers, marriage and relationships, and parenting. In these authors' view, "the years from 30 to 45 are often the most intense and demanding years of adult life in developed countries, when obligations are high in both work and family domains" (p. 432). Although

the time between ages 30–45 is typically characterized by a great deal of stress, many positive developments also often occur. These include engaging in more healthy behaviors (e.g., better diet and sleep patterns, and less risky behavior, than during emerging adulthood), experiencing increased intelligence except for fluid/perceptual-speed tasks, and achieving greater expertise in one's career field (Mehta et al., 2020).<sup>1</sup>

Although Mehta et al.'s (2020) focus on *behavioral* dimensions of careers, marriage and relationships, and parenting during established adulthood has added much to its formulation, in the present paper, we propose that a complementary perspective might involve examining

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✉ Alan Reifman  
alan.reifman@ttu.edu

<sup>1</sup> Department of Human Development and Family Sciences, College of Human Sciences, Texas Tech University, Lubbock, TX 79409-1230, USA

<sup>1</sup> Mehta et al. (2020) cite the "10-year rule" or "10,000-h rule" of deliberate practice in support of expertise being high from ages 30–45. They argue that many people begin practicing a craft in their 20 s and would, thus, have achieved the necessary practice by their 30 s. However, the 10-year rule has been called into question based on modest meta-analytic associations between deliberate practice and performance in various fields (Macnamara et al., 2014).

**Table 1** Comparative aspects of emerging adulthood (18–29) and established adulthood (30–45) within five features framework

Five features common to emerging and established adulthood	Emerging adulthood	Established adulthood
Identity seeking	Highly active	Solidification
Sense of possibilities, optimism	Very much open	Closing in some domains, still open in others
Self-other focus	Self-focus, responsibility for oneself	Other-focus
Sources of life stress	Instability	Work and family
Location in lifespan	Feeling in-between adolescence and adulthood	Feeling adult, but not necessarily having achieved wisdom
Features unique to one stage or the other	Emerging adulthood	Established adulthood
Unique to emerging adulthood	Risky substance use, moving away from one’s parental home, and obtaining higher education or career training	–
Unique to established adulthood	–	Career intensification, childrearing responsibilities

individuals’ relatively abstract “*broader views*” of this life stage (see Nelson et al., 2015, for elaboration on the distinction between behaviors and broader views). Arnett’s (2004) five features model characterizes emerging adulthood through abstract, broader views, namely the extent to which 18–29 year-olds see their lives as a time of (1) identity seeking, (2) open possibilities, (3) self-focus/responsibility for oneself, (4) stress/instability, and (5) feeling in-between adolescence and adulthood. Further illustrating the abstractness of the five features, none of the items on a measure used to assess them, the Inventory of the Dimensions of Emerging Adulthood (IDEA; Reifman et al., 2007a), directly mentions common behaviors during this time period (e.g., completing one’s education, finding a career, or forming a romantic relationship). Despite the richness of the five features approach, Mehta et al. (2020) did not use it to organize, analyze, or frame their vision of established adulthood.

In the present theoretical review paper, therefore, we offer a vision of established adulthood through the lens of the five features model of emerging adulthood (Arnett, 2004; Reifman et al., 2007a). We argue that there are three reasons an extension of the five features model to established adulthood would be valuable. First, for established adulthood to be a separate life stage from emerging adulthood, the two must, of course, differ in their central developmental processes. The five features offer a systematic basis for comparing and contrasting the two stages. Second, by complementing Mehta et al.’s (2020) behavioral approach to established adulthood with our focus on individuals’ broader views of the process, we expand the picture of established adulthood to include richer descriptions of the psychological and phenomenological experiences of those going through the stage. Whereas Mehta et al. focused primarily on the psychological variables of stress and affect (e.g., life satisfaction), there was little elaboration on other psychological processes

such as identity formation, goals and goal-directed behavior, self-concepts, and views of one’s place in the lifespan. Third, by expanding the psychological landscape of established adulthood, we raise several new research questions. For example, how do established adults (re-)evaluate their major life goals to decide whether they remain viable possibilities? How do they develop and modify joint identities in the domains of work and family, which are considered central to established adulthood? Do established adults tend to consider themselves to have achieved wisdom (yes, no, or in some ways yes and in some ways no, paralleling Arnett’s (2015) research on whether 18–30 year-olds feel they have reached adulthood)?

Thus, for each of the five features (identity, possibilities-optimism, self-other focus, location in the lifespan, and stress) originally introduced to characterize emerging adulthood (Arnett, 2004), we (a) describe the feature; (b) propose how it would apply to established adulthood; and (c) review existing literature to gauge empirical support (or lack thereof) for our initial characterizations. As noted, one central issue is the degree to which key developmental processes differ between emerging and established adulthood. Table 1 presents the five features, how they apply to emerging adulthood, and how we propose they would apply to established adulthood. Despite our emphasis on the five features model, we acknowledge that these features do not comprehensively describe emerging adulthood, established adulthood, or the differences between the two stages. Certain conditions or behaviors are unique to emerging adulthood or to established adulthood, which we also note in Table 1. For example, risky substance use (Nelson et al., 2015), moving away from one’s parental home, and obtaining higher education or career training (Mehta et al., 2020) are central to emerging adulthood, but not to established adulthood. Conversely, the career intensification and childrearing responsibilities at the

heart of the Career-and-Care Crunch (Mehta et al., 2020) are more relevant during established than emerging adulthood. We also acknowledge that our comparisons between emerging and established adulthood are *relative* rather than absolute. We posit, for example, that self-focus, on average, is more common during emerging adulthood than during established adulthood, but do not deny that there is variability within each of these lifespan stages and that some established adults are highly self-focused. After a brief description of our literature-searching methods, the following sections examine each of the five features individually.

## Literature-Searching Methods

Although we would not consider this paper to be a comprehensive literature review, we nevertheless have partially followed the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA; Page et al., 2021) guidelines for transparency. These include reporting the databases searched (Google Scholar and Microsoft Academic,<sup>2</sup> both freely available on the Internet), search terms, numbers of articles viewed, and number retained. Both search engines usually return thousands of hits, but they typically decline in relevance at some point. We viewed the pages of search results (each page containing 10 article summaries) until studies neither met our inclusion criteria nor pertained to our conceptual arguments (e.g., at one point, our search of the terms *adult identity* began bringing up predominantly animal studies such as “Bone marrow-derived cells that populate the adult mouse brain preserve their hematopoietic identity”). Our search terms and numbers of articles viewed and retained are listed within each section below. For all sections, studies needed to have obtained at least one wave of data with participants in the age-range of 30–45.

<sup>2</sup> Google Scholar has been found to host more records of publications (i.e., have better coverage) than any other academic search engine (Gusenbauer, 2019). It also fares well on “recall” or the ability to find relevant publications (Gusenbauer & Haddaway, 2020). However, Google Scholar fares poorly on “precision” or the ability to screen out less relevant publications and such technical criteria as maximum search string length and the functioning of Boolean operators such as “and,” “or,” and “not” (Gusenbauer & Haddaway, 2020). These authors’ evaluation of Microsoft Academic was similar to that for Google Scholar. As a result, Gusenbauer and Haddaway recommend Google Scholar and Microsoft Academic be used only as supplementary, but not principal, searching tools. Consistent with Gusenbauer and Haddaway’s conclusion regarding Google Scholar’s low precision, we found that only small percentages of articles flagged in our searches were usable in our review (see later sections of this paper). Our use of two computer databases (Google Scholar and Microsoft Academic), our manual review of summaries found on these databases, and our comprehensive 10-year canvassing of two leading journals raise our confidence in the validity of our searching.

In general, reasons for exclusion consisted of participants being too young (often adolescents or emerging adults), the study population being narrow (e.g., police officers, dental students, athletes), analyses not addressing questions in which we were interested, or the studies being outside of the social sciences (e.g., philosophical, biomedical). In addition to these computerized article searches, we also canvassed all articles published over the past 10 years in *Identity: An International Journal of Theory and Research*, and in the *Journal of Adult Development* to uncover information pertinent to all five proposed features of established adulthood. Reference lists of obtained articles were also examined for additional relevant articles.

## Five Features Model of Emerging Adulthood Applied to Established Adulthood

### Identity Seeking: Highly Active → Solidification

**Proposal** Most major developmental theories posit identity seeking and formation to take place during adolescence (Erikson, 1968) and emerging adulthood (Arnett, 2004). Thus, most individuals should have largely solidified their identities by the time of established adulthood. According to Marcia’s (1966, 1980) four-category identity status model, there are two ways to adopt an identity. These two are *achievement* (commitment to an identity after exploration) and *foreclosure* (commitment without exploration, such as adopting a parent’s identity).<sup>3</sup> Marcia’s other two statuses describe scenarios in which identity has not been reached: *moratorium* (exploration without commitment) and *diffusion* (neither exploration nor commitment). Côté (2006) contended that “35 years of research suggests that far fewer exploration-based commitments can be found among those who could be said to have resolved the identity stage in purely Eriksonian terms (i.e., among those who are functioning adults with apparently low levels of identity confusion)” (pp. 95–96). Still, though, combining the estimated percentages given by Côté (2006) for adults’ rate of achievement (20–30%) and foreclosure (30–40%) suggests that a majority of adults do arrive at an identity one way or another. Given the comprehensiveness of Côté’s (2006) review and its publication in a prominent emerging adulthood sourcebook, we use it as a temporal marker and propose that most post-2006 research will show extensive identity solidification in established adults, both through

<sup>3</sup> A term that partially overlaps with foreclosure is *default individualization*, defined as “following paths of least resistance and effort, where people ‘allow’ decisions to be made for them as a result of their inaction” (Côté, 2015, p. 535). We use the more familiar term foreclosure for simplicity but acknowledge that other terms could also be appropriate.

achievement after exploration (given emerging adulthood's focus on exploration; Arnett, 2004) and foreclosure (given high rates of foreclosure reported in Côté's review).

**Evidence** We searched using the terms *adult identity*, *adulthood [and] identity*, *identity development [and] adulthood*, *identity [and] longitudinal*, and *identity [and] Marcia* (given the prominence of Marcia's model in the field; Côté, 2006). For a study to be included within the current section on identity, it needed to have been published after 2006 and offer some type of comparison of identity attainment at different ages within established adulthood and either before or after this stage. Collectively over these search terms, we viewed 2770 article summaries (277 pages of hits). We found six applicable studies (two of which had results reported in multiple publications, yielding eight articles total). Six studies clearly represent a small percentage of all the article summaries we reviewed. As alluded to (Note 2), the search engines we used appear to prioritize sensitivity (finding possibly relevant articles) to specificity (excluding irrelevant ones). Also, of course, studies of identity have been conducted predominantly with adolescents and emerging adults, not in the somewhat older age groups in which we were interested.

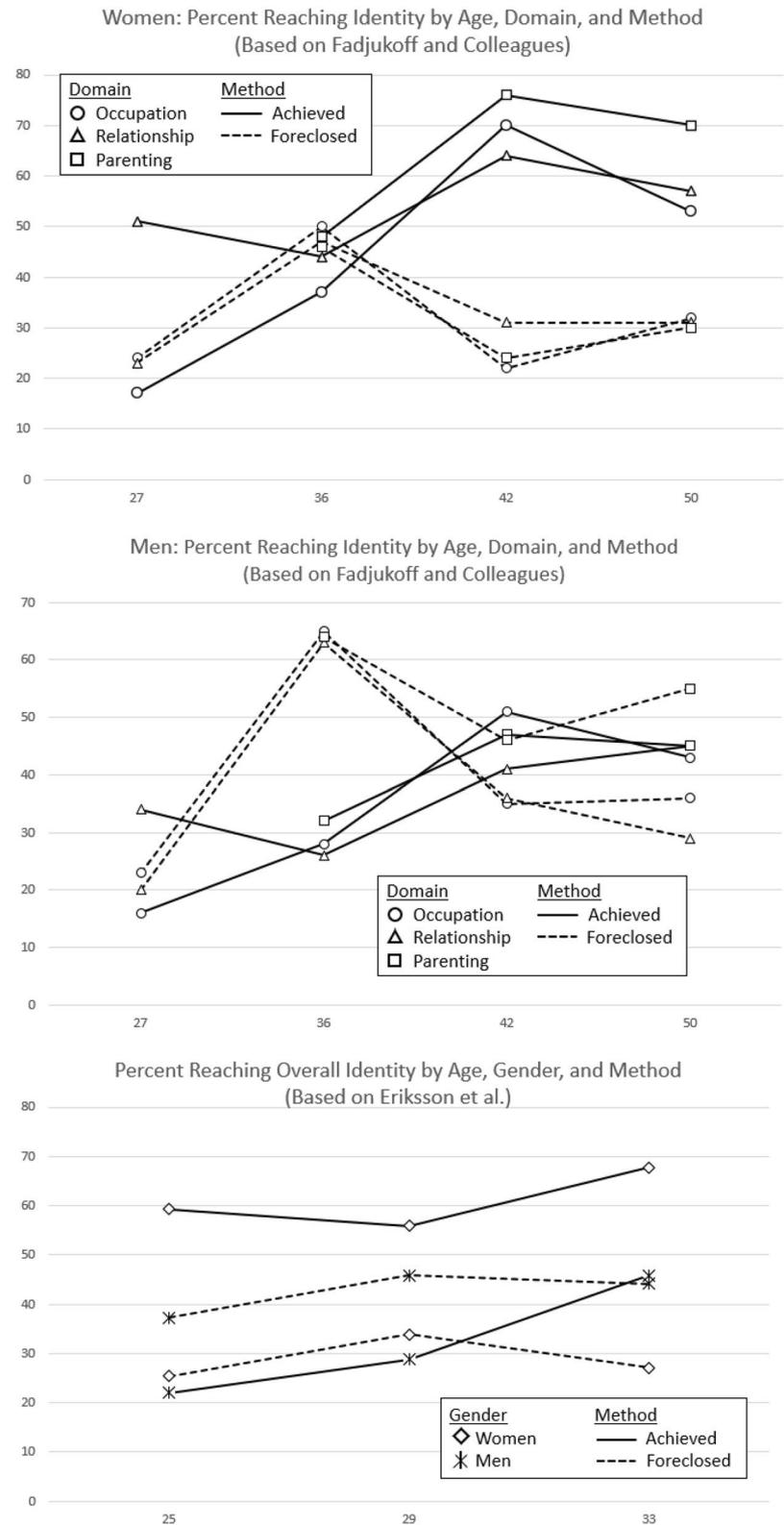
Because identity seeking and formation are complex and multifaceted concepts, researchers cannot make simple binary statements that someone has or has not achieved identity. This complexity is illustrated in several ways. First, identities apply to many different domains such as religion, occupation, and politics. Hence, the extent and predominance of established adults' identity formation must be considered (i.e., achieved in two domains, but not in another; Fadjukoff et al., 2016a, 2016b). Second, there are multiple frameworks for understanding identity. In addition to Marcia's (1966, 1980) four-status framework, other perspectives include Luyckx et al.' (2006) dual-cycle model, which encompasses exploration in breadth (consideration of alternatives before commitment) and in depth (re-evaluation after commitment), and Topolewska-Siedzik and Ciecuch's (2019) eight-factor model that makes distinctions within some of Marcia's categories. Third, as the notion of exploration in depth might suggest, identities are neither permanent nor static (a common criticism of Marcia's identity status model; Schwartz et al., 2014). Longitudinal studies conducted by Meeus et al. (summarized in Meeus, 2011) during adolescence showed, for example, that one-third of those who had been in the "achieved" category could be classified as back in moratorium or foreclosure 4 years later. Despite many researchers' views of Marcia's model as being limited, identity statuses are still commonly investigated and constitute a large share of the research reviewed herein.

Longitudinal (panel) studies following the same people well into adulthood are rare (Kroger, 2015; Meeus, 2011).

Three that investigated identity are discussed here. Because two of these studies—those from Fadjukoff et al., (2016a, 2016b) and Eriksson et al. (2020)—contain large amounts of data on percentages of adults reaching an identity, we have compiled key results in a single display to aid comprehension (Fig. 1). The Finnish study by Fadjukoff et al., (2016a, 2016b) meets several important criteria: it is recent; its assessment waves precede (age 27), fall within (ages 36 and 42), and go beyond (age 50) established adulthood; and the sample, initially selected randomly, was still reasonably large at age 50 ( $N = 172$  with full data on identity). Participants were classified into the Marcia (1966, 1980) identity statuses in five domains (religion, politics, occupation, intimate relationships, and lifestyle). Given the emphasis on work and family issues within established adulthood (Mehta et al., 2020), one might expect the greatest amount of identity solidification in established adulthood to occur regarding occupation, intimate relationships, and parenting (the latter assessed beginning at age 36, but reported in a separate article; Fadjukoff et al., 2016b). Nearly all women had arrived at an occupational identity at ages 36 (roughly 37% through achievement and 50% through foreclosure) and 42 (70% achievement, 22% foreclosure). Men showed a similar pattern for occupational identity (age 36: 29% achievement, 65% foreclosure; age 42: 52% achievement, 35% foreclosure). These results represent large gains in occupational identity achievement compared to age 27 in women and men. These levels of occupational identity achievement at age 42 exceed what might have been expected based on Côté (2006).

Also in the Finnish study, identity achievement in the intimate relationships domain was high in women at all four ages (ranging from 44% at age 36 to 64% at age 42). Nearly all the remaining women had arrived at an identity through foreclosure at those ages. In men, achievement of an intimate relationships identity ranged from 26% at age 36 to 46% at age 50. Except at age 36, where there was a large amount of foreclosure, diffusion was quite common among men (slightly exceeding 20% at ages 42 and 50). Fadjukoff et al., (2016b) assessed parenting identity (not merely identification with being a parent, but also with one's childrearing opinions) in participants who had children. Diffusion and moratorium were virtually nonexistent in women. Foreclosure and achievement were split nearly 50/50 at age 36 in women, with achievement nearly reaching 80% at age 42 (and foreclosure dropping to slightly over 20%). Men likewise exhibited virtually no diffusion or moratorium toward being a parent but did not reach the same high levels of identity achievement as did women (in men, roughly 32% achieved identity at age 36 and 48% did at age 42). In the family domain (marriage, relationships, and parenting), then, women exhibited very high levels of identity achievement by age 42, with this status less common in men.

**Fig. 1** Percentages of adults reaching an identity in longitudinal studies from two laboratories, by age, gender, domain, and method (achievement or foreclosure). In the top two graphs, data on occupational and intimate relationship identities are from Fadjukoff et al. (2016a), whereas data on parent identity are from Fadjukoff et al. (2016b). Data in bottom graph are from Eriksson et al. (2020)



Supporting Mehta et al.'s (2020) emphasis on career and caregiving, Fadjukoff et al., (2016a) found identity achievement to be less common and diffusion to be more common for religious and political identities than for occupational and intimate relationship domains, with lifestyle identities intermediate in achievement and diffusion. These trends held in both sexes but were more accentuated in women.

Eriksson et al. (2020) studied Swedish residents at ages 25, 29, and 33 longitudinally, using a measure of Marcia's identity statuses in the domains of occupation, romantic relationships, parenthood, and work/family priorities. Analyses focused on overall identity statuses (combining the different domains), however. The most common trajectories reflected stability over the three waves (i.e., participants being classified as achieved at all three waves or foreclosed at all three waves) with respect to the statuses that represent solidified identities. In addition, achievement was more common at age 33 than at the earlier ages and moratorium was less common at 33 (the difference was significant only compared to age 25). There were tendencies at the earlier ages for women to be disproportionately in achievement and men in diffusion, but these sex differences disappeared by age 33. In addition, Eriksson et al. conducted extensive qualitative (thematic) analyses from participants' identity status interviews to uncover beliefs and motivations that were associated with the deepening of individuals' identities. Three emergent themes and how they relate to deepening identities are as follows: *approach to change* (re-evaluating one's identity in response to not only external events but also internal motivations), *story integration* (incorporating new experiences and reflections into successive versions of their "life story;" McAdams, 2013), and *participation in a broader life context* (a possible precursor state to midlife generativity). Overall, Eriksson et al.'s findings of increasing identity achievement with age and a large segment of participants stable in foreclosure support our contention (at least through age 33) that established adulthood should be characterized by solidified identity. Larsson et al. (2020) reported results from this same project for identity development pertaining to romantic relationships between ages 29 and 33. Narrative responses in the relationships domain from Marcia's (1966, 1980) Identity Status Inventory were used. Results showed high levels of foreclosure (53% and 62% at ages 29 and 33, respectively), with achievement being somewhat less common (30% and 31%). Relatively few participants were in moratorium and diffusion. Although there was some shifting between identity-statuses from 29 to 33, most participants remained in the same status at both ages.

Whitbourne et al. (2009) examined longitudinal trajectories of identity formation (and fulfillment of other Eriksonian life tasks) in two alumni cohorts from a U.S. university. One cohort (average birth year 1946) completed measures around ages 20, 31, 43, and 54, whereas the other (average

birth year 1957) completed them around ages 20, 32, and 43. The researchers used the Inventory of Psychosocial Development (Constantinople, 1969), which yields an overall identity formation score, as opposed to percentages of participants reaching an identity (items assessed endorsement of, e.g., "Know who I am and what I want"). In both cohorts, identity scores rose over the lifespan, although with a dampening of the rate from around age 30 to the forties and fifties. These results support established adulthood as being a time of well-developed identity.

Though unable to assess intra-individual change, cross-sectional comparisons of different age groups may suggest possible developmental trends.<sup>4</sup> Three cross-sectional studies of identity statuses are reviewed here. Gyberg and Frisén (2017) assessed a Swedish sample of established adults (average age = 33; same dataset as used by Eriksson et al., 2020) within Marcia's (1966, 1980) framework. In the occupational arena, women had overwhelmingly achieved an identity after active searching (71%) as opposed to reaching one via foreclosure (18%), whereas in men, achievement only slightly exceeded foreclosure (44% vs. 37%). Regarding romantic relationships, roughly 60% each of women and men were in foreclosure, with smaller percentages in achievement (37% of women, 24% of men). Finally, for parenthood, achievement predominated over foreclosure in women (52% vs. 44%), whereas the reverse was true in men (27% vs. 56%).

Topolewska-Siedzik and Ciecuch (2019) investigated age differences in identity among 3000 Polish participants ranging from 18 to 65. The researchers created 13 different age groups. To detect rapidly changing identity formation processes at younger ages (also with the effect of keeping cell sizes relatively equal), the researchers created fine-grained age groups for younger respondents (18–19, 20, 21, 22, 23, 24, 25–26, 27–28, 29–31) and broader age groups for older respondents (32–35, 36–41, 42–48, 49–65). The authors used their own Circumplex of Identity Modes Questionnaire, which purports to modify Marcia's (1966, 1980) model for lifespan development and contains eight dimensions representing the high and low ends of four axes (socialization-defiance, exploration-petrification, consolidation-diffusion, and normativity-moratorivity). Socialization (a sense of coherence, stability, and being in the right place) and consolidation (exploration-based stable identity with openness to

<sup>4</sup> Studies attempting to demonstrate the same developmental patterns and processes (i.e., changes within the same person over time) across historical eras would need to survey participants from multiple birth-cohorts longitudinally. Mehta et al. (2020), however, acknowledge that established adulthood applies only to particular historical and cultural contexts, not everywhere and for all time (Arnett, 2007, has said the same for emerging adulthood). Hence, longitudinal studies with a single cohort or cross-sectional studies should suffice for our purposes.

reconsideration) rose steadily from 18–19 years old to 32–35 and remained relatively high into the 40 s. Conversely, moratorivity (exploring suitable and potentially permanent commitments) and defiance (a sense of not having found one's place, containing elements of diffusion and moratorivity) declined from 18–19 to 32–35 and remained low thereafter.

Finally, Roberts and Côté (2014) also conducted cross-sectional comparisons between the age groups 18–25, 26–29, and 30-plus (with the oldest participants being in their forties) in two samples, using a new measure of identity processes. The first sample participated via convenience and snowball sampling in a Canadian city, whereas the second participated via Mechanical Turk, potentially reaching multiple countries. These authors introduced the Identity Issues Inventory as a measure designed specifically for societal contexts characterized by prolonged transitions to adulthood, secularization, and the absence of clear societal norms. In both samples and on all four subscales (*integration*, a sense of wholeness or unity about the self; *differentiation*, a sense of distinctiveness and uniqueness from others; *work roles*, a sense of productiveness, not only in work but also, e.g., as a parent; and *worldview*, a sense of meaning and purpose larger than oneself, such as through religion or politics), the 30-plus group exceeded one or both younger groups. As with the longitudinal studies reviewed above, these cross-sectional findings are consistent with identity solidification being characteristic of established adulthood.<sup>5</sup>

### Sense of Possibilities, Optimism: Open Possibilities → Closed Possibilities in Some Domains

#### Proposal

Arnett (2015) described emerging adulthood as a time of open possibilities and optimism. All kinds of aspirations for careers (e.g., becoming a musical performer or restaurant owner) or family (getting married and having three children) seem viable because “few of [emerging adults’] dreams have been tested in the fires of real life” (pp. 15–16).

<sup>5</sup> A supplemental source of data for comparing emerging and established adults on the five-features model is research using the IDEA instrument (Reifman et al., 2007a, 2007b). The IDEA assesses self-perceptions (e.g., “Is this period of your life a... time of finding out who you are?”), as opposed to measures created specifically to classify individuals’ identity statuses or other characteristics. In validating the IDEA, Reifman et al. compared the age groups 18–23, 24–29, 30–39, 40–49, and 50-plus on the purported emerging-adult characteristics. Linear contrasts were significant in the expected direction (i.e., the purported emerging-adulthood features were highest in 18–23 year-olds and progressively lower as age increased). However, magnitudes of difference between adjacent age groups were small (e.g., 24–29 year-olds’ identity-exploration mean was 3.00 on a four-point scale, whereas 30–39 year-olds’ mean was 2.85). We will allude to IDEA results where we believe they amplify results from other sources.

As individuals reach established adulthood at around age 30, they have likely experienced setbacks in one or more life domains, such as at least one failed romance, rejection from a training program in one’s desired career field, being fired from a job, etc. These setbacks may not necessarily preclude ultimate goal attainment, but they likely dampen individuals’ sense of possibilities. We propose, therefore, that established adults’ overall sense of open possibilities will be lower than emerging adults’, but still moderately high in an absolute sense. Sense of possibilities will also vary by life domains and specific tasks, based on how much new training would be required for a career change, the expense of that training, etc.

The motivational theory of lifespan development (Heckhausen et al., 2010) examines in great depth how people of different ages might perceive their life possibilities in different domains, hence we use it to guide our discussion. The theory posits that, for any given goal, individuals go through one or more of the following steps: selection, pursuit, adaptation, disengagement, and replacement. In deciding whether to adopt, reject, or switch between these steps, individuals consider the availability of opportunities over the lifespan. Heckhausen et al. define opportunities in a very specific way, focusing in large part on the structures and resources societies make available for achieving certain goals. For example, as shown in Heckhausen et al.’s Fig. 2, which depicts the theoretical waxing and waning over the lifespan of opportunities to accomplish various major life tasks, opportunities to graduate from high school peak around age 18 and then decline to near zero by the early twenties. Individuals can still graduate high school (or receive an equivalent credential) at older ages, but the societal structures for doing so (i.e., primary and secondary school systems) are most available during childhood and adolescence, whereas someone in their twenties must contact an adult high school, attend evening courses or study online, etc. (Pannoni, 2016). Opportunities for gaining one’s first job rise in the mid-late teens, peak in the early twenties, and approach zero by the mid-late twenties.<sup>6</sup> Most pertinent to established adulthood are the tasks of getting married (rising in late teens and early twenties, peaking from the mid-twenties to early thirties, and then dwindling by age 40)<sup>7</sup> and having a first child (rising from the mid-teens through the twenties, peaking from the late twenties through late thirties, and then approaching

<sup>6</sup> Fields requiring extensive postgraduate education would be exceptions. For example, an entire structure exists in the U.S. and some other countries for hiring entry-level college professors in their mid-late twenties and beyond (e.g., completing one’s dissertation, applying to job ads, going on interviews).

<sup>7</sup> Mehta et al. (2020) note that age of first marriage continues to increase and that there are large numbers of unmarried persons ages 40 and older, increasing the pool of potential spouses. Further the growing use of mobile-online dating apps (Finkel et al., 2012) provides a structure for meeting prospective mates at all ages.

zero by age 50). The graph does not include an opportunity trajectory for rising in one's career (e.g., reaching upper management), which is important for established adulthood. Opportunities for doing so would likely be highest in one's forties and fifties (among individuals with the necessary credentials and work experience), but younger people may also be optimistic for their career prospects.

## Evidence

We searched using the terms *goals, aspirations, ambitions, possibilities, aimlessness, open doors, and closed doors*, in conjunction with *lifespan, aging, thirties, and forties*. Collectively over these search terms, we viewed 530 article summaries. For the present section and the remaining three (self- vs. other-focus, sources of stress, and feeling in-between), we sought to find relatively recent articles (2010-onward). However, to have multiple studies in some domains, we accepted several from 2000 to 2009 and two much-older articles (1989 and 1991) that were necessary to address specific points. For the present section on sense of possibility, four studies were found that met the inclusion criteria of using a concrete measure of life goals or possibilities in respondents aged 30–45. In addition, age distributions for various careers were examined to infer how aspirations might change with increasing age.

The most direct source of evidence presumably would be surveys asking people of different ages what possibilities they saw as being open to them. Interestingly, Arnett (2018) found that 77% of 40–60 year-old U.S. parents of emerging adults strongly or somewhat agreed with the statement that “At this time of my life, it still seems like anything is possible.” Though some respondents may not have believed literally “anything” is possible, their answers convey a broad sense of optimism. Presumably, this optimism is likely to characterize 30–45 year-olds, as well.

Established adults, while likely believing many possibilities are open to them, do appear attuned to situational aspects in judging the viability of a major mid-career switch. Two prestigious, though demanding, occupations that some individuals enter via mid-career switch are lawyer and medical doctor. We acknowledge that these occupations represent a narrow range of the full workforce. For purposes of illustration, however, we believe that these two professions compellingly demonstrate how the required amount of background preparation can impose greater or lesser barriers to mid-career switching into a given field. For an established adult with a bachelor's degree outside the natural sciences, medicine (requiring a return to undergraduate college to take the necessary science courses, four years of medical school, and several more of residency) would make for a more difficult career switch than would law (three years of law school). In fact, whereas 12% of U.S. law students are

over 40 (Barnes, not dated), only 0.3% of medical students are of a similar age (Boyle, 2020). Thus, many individuals in the later part of established adulthood continue to see even very challenging occupations as still open to them, but they also appear to consider fields' difficulty of entry in assessing these possibilities.

Another window into people's sense of possibilities across the lifespan is the study of possible selves (Cross & Markus, 1991). Possible selves are versions of oneself that an individual can imagine (e.g., “to be a successful and respected engineer,” “to be a good guitar player,” “marrying the right person”). Cross and Markus (1991) had their 18–86 year-old participants generate both “hoped-for” possible selves (such as the ones listed above) and “feared” possible selves (e.g., “being unable to have kids,” “having a dead-end, boring job”). The investigators then asked participants to select their two most important hoped-for and two most important feared selves and rate both their capability of attaining hoped-for selves (and preventing feared ones) and the likelihood of the possible selves being realized. Perceived capability of achieving hoped-for selves was clearly highest in the 18–24 group, whereas likeliness of doing so was highest in 18–24 and 25–39 year-olds and progressively lower in the 40–59 and 60-plus groups (although the likeliness differences were not significant). Further, the content of hoped-for possible selves suggests more specifically what individuals consider within their grasp. Cross and Markus (1991) noted that 25–39 year-olds' hoped-for selves were scaled back, relative to those of 18–24-year-olds. Members of the older group did not have to be the “best” at some endeavor and instead offered more qualified, concrete future selves. Note that, to the extent individuals trim their ambitions as they get older (e.g., from being an elite tennis player to simply enjoying a weekly doubles match with friends), it becomes harder to detect age-group differences in perceived capability and likeliness of achieving the hoped-for self. Regarding domains, hoped-for occupational selves were most common in the 18–24 and 25–39 groups, with progressively fewer being cited in the older age groups. The findings on possible selves suggest that, in some ways established adults maintain a strong sense of open possibilities. However, in other ways, such as perceived capability of realizing hoped-for possible selves and the ambitiousness of hoped-for selves, those entering emerging adulthood (18–24) had a more robust sense of open possibilities than did the established adults.

Whereas Cross and Markus (1991) had participants list their own possible selves, Morgan and Robinson (2013) instead specified possible aspirations (e.g., having good friends; having an attractive physical appearance) for their participants (over 2500 respondents to an online survey, mostly from the U.K.). Participants, who were grouped into 18–39, 40–59, and 60-plus age categories, rated the

aspirations for perceived importance to the self and extent of striving toward them. The researchers combined aspiration ratings into two larger composites, one for intrinsic aspirations (pertaining to self-acceptance, affiliation with others, community-orientation, and physical fitness) and one for extrinsic ones (pertaining to financial well-being, physical attractiveness, and recognition for one's achievements). Whereas men and women tended to ascribe lesser importance to their intrinsic and extrinsic aspirations with greater age, women's striving towards their intrinsic aspirations was high in the 18–39 group and progressively higher in the two older groups. Men's striving towards their intrinsic aspirations showed a “V” shape (i.e., lowest in the 40–59 group). To the extent striving reflects one's sense of possibility, the latter finding suggests midlife men were less optimistic than their younger counterparts, a finding that partially overlaps with Cross and Markus. We acknowledge, however, that Morgan and Robinson's wide age-groupings are a limitation in discerning what happened specifically around the established adulthood boundaries of 30–45. Qualitative cross-sectional findings by Pulkkinen et al. (2002) in 36-year-old Finnish adults revealed these participants' goals to be centered around family and profession (supporting Mehta et al., 2020) and that they recognized constraints on goal attainment (supporting some of Cross and Markus's findings).

### **Focusing on Self vs. Others: Self-focus, Responsibility for Oneself → Other Focus, Responsibility for Others**

#### **Proposal**

Arnett (2015) argued that emerging adulthood is the peak period during which individuals focus on themselves, not necessarily in a selfish way, but to build skills, learn about oneself, and work toward self-sufficiency. In contrast, according to Arnett (2015), 30-year-olds tend to have developed a set of commitments and obligations requiring attention to and caring for other people. These include marriage, childrearing, and employment. Twenge and Campbell (2018) found in both cross-time analyses in the U.S. and cross-national comparisons that greater cultural individualism was associated with a greater delay in onset of work and family responsibilities. Hence, one would expect established adulthood to mark the tipping point of the transition from focusing on the self to focusing on significant others, especially in individualistic societies such as the U.S., where

adult responsibilities would likely be delayed into the thirties or beyond.

#### **Evidence**

We searched using the terms *self-focus*, *other-focus*, *concern for others*, and *individualism* in conjunction with *fatherhood*, *motherhood*, *aging*, and *lifespan*. Collectively, we viewed approximately 300 article summaries. Two articles that assessed self- and other focus within the ages 30–45 were used. In addition, the IDEA scale-development project (Note 5) provides useful information in this area. Not only does the IDEA have a subscale for self-focus (part of Arnett's (2004) five features model the IDEA was designed to test), but it also has a supplementary subscale to assess other-focus. Results from the scale-development project showed that whereas the two highest means for self-focus belonged to the 18–23 and 24–29 age groups, by far the highest mean for other-focus belonged to the 30–39 age-group (3.43 on a four-point scale, with the second-highest mean being 2.97). Also, when examining only those 18–23 and 24–29 year-olds who were engaged or married (to control for marital status), these younger participants were comparably high on other-focus and comparably low on self-focus as 30–39 year-olds (Reifman et al., 2007b). Palkovitz et al.'s (2001) qualitative research on the transition to fatherhood provides evidence linking this life event to increased other-focus. Interviews with 40 fathers ages 20–45 (nearly three-quarters of whom were from 31 to 45, i.e., established adulthood) yielded five themes, two of which were labeled “Becoming Less Self-Centered and More Giving” and “Fathering Entails Major Responsibilities.” Darvill et al. (2010) conducted a similar qualitative study of 13 new mothers (all but one age 29 or older). Of the three themes that emerged, the one entitled “Formation of a Family” reflected the transformation from self- to other-focus. Sample quotes included: “Yes I definitely felt, right from the start, much more responsible, you know, it wasn't just me any more [sic]...” (p. 363); and “I'm not saying that there was anything wrong before, but I think we're now a family rather than just a couple” (p. 364). These findings are consistent with the onset of adult responsibilities in one's thirties (primarily parenting) coinciding with a building sense of other-focus, consistent with the established adulthood formulation. This change, of course, is not purely a matter of age, but strongly linked to role-acquisition (i.e., a person-in-context phenomenon).

## Sources of Life Stress: Instability → Work and Family

### Proposal

Challenges and stressors are present all through the lifespan. Within the five features model, Arnett (2004) characterized emerging adulthood as a time of stress and instability, owing to the many possible transitions associated with college education (moving away, changing majors, dropping out), employment (starting a new job and perhaps switching to other ones), and romantic relationships (new relationships, cohabitation, breaking up). One statistic Arnett (2004) presented to encapsulate emerging adults' sheer volume of transitions pertained to residential moves. Roughly 35% of individuals in their early twenties moved within the past year, a figure that dropped to 20% by the early thirties and continued downward at older ages. As Mehta et al. (2020) note, however, established adulthood is filled with its own, different set of stressors, which they dubbed the "Career-and-Care-Crunch." Work and family life, both within each domain itself and in the impingements of one domain on the other, present major challenges.<sup>8</sup> In short, emerging and established adulthood are each likely to include significant stressors, but the nature of the stressors should differ.

### Evidence

We searched using the terms *stress*, *sources of stress*, *types of stress*, *perceived stress*, *daily stress*, *hassles*, and *challenge*, in conjunction with *lifespan*, *thirties*, and *forties*. Collectively, we viewed 790 article summaries. One cross-sectional empirical study and one literature review included comparative information on types of stress experienced by different age groups throughout the adult lifespan.

Stefaniak et al. (2021) surveyed nearly 900 individuals from ages 18–91 in northern Indiana (near the university at which the study was based) on smaller-scale daily stressors or hassles in a short-term diary format. The stress items were divided into different domains, such as spouse-partner, family, and work, tapping more specifically into interpersonal conflict, time pressure, etc. Participants' daily reports of these stressors were averaged into overall domain-specific scores. The authors grouped participants into the age groups 18–35, 36–50, 51–65, and 66 and over. Though these age categories do not map exactly onto emerging adulthood (18–29) and established adulthood (30–45), they

<sup>8</sup> Mehta et al. (2020) provide a thoughtful discussion of how the Crunch likely has more adverse effects on women, racial minorities, and lower socioeconomic classes, relative to men, members of the racial majority, and middle-class and higher income groups. We consider this topic very important, but beyond the scope of our article.

are still informative. The Career-and-Care-Crunch proposed by Mehta et al. (2020) arguably would best characterize the 36–50 age group studied by Stefaniak et al., although some at the older end of the 18–35 group may have been experiencing it, as well. Findings showed the 18–35 group, in fact, to exhibit mean levels of spouse-partner, family, and work stress that were significantly higher than those of any of the other age groups. The 36–50 group exhibited significantly higher means on spouse-partner and work stress than did the 51–65 and 66-plus groups, providing partial support for the established adulthood notion (Stefaniak et al., 2021).<sup>9</sup>

Hatch and Dohrenwend (2007) reviewed earlier studies of age differences in stress. However, this review focused on major traumatic events. The limited information available on non-traumatic life events suggested that they were more common in younger rather than in older adults. The authors attribute young adults' greater stress to the rapid onset of role-acquisition in early adulthood, such as work, marriage, and parenthood.

## Location in Lifespan: Self-concept as an Adult/Feeling In-between Adolescence and Adulthood → Feeling Adult, but Not Necessarily Having Achieved Wisdom

### Proposal

The fifth feature of Arnett's (2004) emerging adulthood conception is a feeling of being "in between" adolescence and adulthood and of feeling adult in some ways, but not in others. Arnett (2001) found that, whereas respondents in their twenties split relatively evenly between the joint "yes and no" response to whether they were adults (50%) and a definite "yes" answer (roughly 45%), those aged 30–55 overwhelmingly said "yes" (roughly 85%). Clearly, those in the established adulthood age-range (30–45) consider themselves to have reached adulthood. However, adulthood is not a uniform state of mind at all ages and most adults likely consider themselves in-between one state or another throughout their lives (Hendry & Kloep, 2007).<sup>10</sup>

<sup>9</sup> One can examine Stefaniak et al.'s (2021) data in additional ways. Looking at each age group's average number of stressful events experienced within each domain, the domains followed the same rank order from most to least frequent in 18–35 and 36–50 year-olds (spouse-partner, health, work, friends, finances, family). However, these rank orderings obscure some clear differences. Even though spouse-partner stressful events were most common in each age group, the absolute levels were very different: .94 of an occurrence per day in the 18–35 group and .49 in the 36–50 group. Further, even though work-related stressful events were the third most common in both age groups, their absolute frequency was higher in the 18–35 group (.44) than in the 36–50 group (.25).

<sup>10</sup> Hendry and Kloep's (2007) statement appears to be based on their general observation that many societies have fewer age-related constraints than before and so decisions such as getting married, having children, or going back to school can occur further into adulthood

An important concept in adult development is that of wisdom. Informally, Erikson's (1950/1963) stage of midlife generativity is a time to "share one's wisdom" with younger generations (see Schoklitsch & Baumann (2012) for more formal links between generativity and wisdom). Hagerty (2016), though noting that generative-type activities (e.g., volunteering) can be performed at any age, argued that the skills, interests, and values built up over 40 years or more make midlife generativity more effective than at other life stages. Similarly, Parisi et al. (2009) characterized wisdom as accumulating from life experiences, "culminating in the highest form of human development" (p. 867). Regarding the early development of wisdom, Webster et al. (2018) note that what some would consider "building blocks" or "first foundation[s]" of wisdom such as abstract thinking, self-reflection, and perspective-taking appear during adolescence and emerging adulthood (p. 120). We propose, therefore, that established adulthood is a time of feeling in-between "nominal" adulthood (i.e., having taken on the tangible responsibilities of work and family life) and wisdom (i.e., having accumulated the knowledge, skills, and perspective for navigating adult challenges effectively, as alluded to in the research cited above). To support this claim, the literature would have to show that high levels of wisdom were relatively uncommon during established adulthood but became increasingly common thereafter.

## Evidence

We searched using the terms *wisdom*, *wisdom [and] adulthood*, *age differences in wisdom*, *self-rated wisdom*, *self-concept [and] wisdom*, and *wisdom [and] narrative*. Collectively, we viewed 360 article summaries, which yielded three empirical studies pertaining to aging and wisdom (Ardelt et al., 2018; Glück et al., 2005, Study 1; Heckhausen et al., 1989) and five review articles on wisdom (Ardelt, 2008; Brugman, 2006; Glück, 2019; Jordan, 2005; Staudinger & Glück, 2011). To our knowledge, no study has directly asked adults of different ages whether they considered themselves wise or to have attained wisdom, with answer choices of "yes," "no," and "yes in some ways, and no in others." Hence our prediction in this area had to be evaluated more indirectly.

Theories of wisdom are quite varied, focusing on different components such as cognition, logic, experience, reasoning, reflection, consideration of multiple perspectives, and empathy. Accordingly, there are many measures of the construct, falling into at least three different classes: performance in

solving vignettes of hypothetical dilemmas, self-rating on wisdom, and judgments of the age at which wisdom emerges or rises in specific or generalized others (Ardelt, 2008; Brugman, 2006; Glück, 2019; Jordan, 2005; Staudinger & Glück, 2011). The strongest linkage between wisdom and midlife/older adulthood comes from judgments of others. Staudinger and Glück concluded from several studies that, when asked to nominate people they considered wise, most respondents selected someone who was at least 60. Heckhausen et al. (1989) had 112 German adults aged 20–36, 40–55, and 60–85 rate a large number of adjectives on multiple dimensions, including when in the lifespan they thought each trait emerged or began increasing in people generally. For the full sample, the mean age of emergence for being "wise" was 54.8 years old and for the related term of being "mature" was 40.4. Average rated desirability for "wise" (7.86) and "mature" (8.13) were very high (maximum = 9) suggesting that most individuals would strive to possess these traits. On measures of solving dilemmas, however, other than a performance rise from ages 14–25, there are no lifespan differences in wisdom between adults of different ages (Staudinger & Glück, 2011). Finally, on self-report measures of wisdom (or related traits such as ego-integrity or ego-development), studies rarely support a linear rise with age or sometimes yield curvilinear patterns that are inconsistent from study to study (e.g., sometimes dipping and sometimes rising at early midlife) (Staudinger & Glück, 2011).

Two studies with German samples, one that content-analyzed narrative responses (Glück et al., 2005, Study 1) and another that used a self-report instrument (Ardelt et al., 2018) found interesting lifespan age differences in different facets of wisdom. Glück et al., (2005, Study 1) had respondents in the age groups 15–20, 30–40, and 60–70 provided detailed narratives in response to the question "Can you remember a situation in your life in which you did, said, or thought something wise?" The researchers then grouped responses into one of three a priori forms of wisdom: empathy and support, self-determination and assertion (i.e., taking control of a situation), and knowledge and flexibility (which includes "tolerance for both compromise and uncertainty," p. 201). Empathy and support was the dominant form of wisdom exhibited by 15–20 year-olds, self-determination and assertion was the dominant form among 30–40 year-olds, and knowledge and flexibility was dominant among 60–70 year-olds. Ardelt et al. (2018) administered a multi-dimensional self-report wisdom scale to over 14,000 readers of *GEO* magazine (similar to *National Geographic* in the U.S.). Reflective wisdom rose from age 20 to the mid-forties, remained level, then rose again around age 70. Neither cognitive (i.e., knowledge-based) wisdom nor compassionate wisdom showed any peak around midlife, although the latter started to rise around 70. Ardelt et al. tested education as a moderator of the age-wisdom relationship, which made the

Footnote 10 (continued)

than in the past. In this sense, even well into adulthood, many individuals likely can still envision changes that may occur in their lives.

trends clearer. On reflective wisdom, for example, all but the lowest education group (elementary school) showed linear or cubic increases with age (cubic trends mainly consisted of alternating segments of rise and flatness).

Overall, then, the evidence is, at best, mixed that wisdom is relatively low during established adulthood and rises steadily thereafter, creating a feeling of being in-between nominal adulthood and wise adulthood. Results clearly varied over different methodologies and subtypes of wisdom. Perhaps more than any other of the proposed features, the proposal that established adults feel in-between different levels of wisdom will require refinement and consolidation of theories and measures in the relevant domain to converge on a relatively small number of components of wisdom. That wisdom and maturity are considered highly desirable (Heckhausen et al., 1989) suggests that most people will strive toward these traits. Further, in people's judgments of others, and in people's own use of knowledge, flexibility, and reflection in acting wise, wisdom appears most common at older ages, giving established adults something to aspire to.

## Discussion

We have offered our vision of how Arnett's (2004) five features model of emerging adulthood might transfer to established adulthood, in terms of parallel psychological processes (i.e., identity, possibilities-optimism, self-other focus, location of oneself in the lifespan, and stress; Table 1). In addition, we have evaluated evidence in the literature bearing on the proposed established adulthood features. In the following paragraphs, we briefly summarize the evidence for each of the five proposed established adulthood features, offer interpretations, and suggest areas for future research.

Regarding *identity formation*, studies supported our proposal that most people in established adulthood would have reached an identity. Although we expected this identity attainment to derive both from foreclosure and achievement, the shift within the occupational domain from predominantly foreclosure at age 36 to predominantly exploration-based achievement at 42 (Fadjukoff et al., 2016a) was somewhat surprising. It is possible that many participants were introduced to their career fields by their parents (foreclosure) but used their late 30s and early 40s to revisit (exploration in depth) and re-solidify their occupational identity (achievement). The reviewed studies all examined identity formation separately within each domain (i.e., identity in occupations separately from identity in family relationships). Gyberg et al. (2019) qualitatively studied Swedish established adults' (mean age = 33) prioritization of work and family within their identities. This research yielded six groups, including "family first," "work first," "everything is important," and "struggling to prioritize." Theoretical and

empirical advancement in the study of joint-domain identities would be a rich area for future research.

Our proposal that established adults would hold a somewhat diminished sense of *open possibilities and optimism*, relative to emerging adults, was supported in some ways. Self-perceived capabilities to achieve one's hoped-for selves were highest in 18–24 year-olds, although 18–24 and 25–39 year-olds did not differ significantly in perceived likelihood of attainment (Cross & Markus, 1991). Trimming the scope of one's hoped-for selves as one gets older is one way that such selves can continue to be seen as attainable over time. Although established adulthood emphasizes solidification relative to the exploration within emerging adulthood, living in established adulthood is not without anticipated future changes and transitions (e.g., becoming a grandparent or company head). Future research could include in depth qualitative interviews with adults of varying age, asking them about aspirations they previously considered attainable or open to them, whether they still think they are open at their current age, and what factors they base these kinds of decisions on.

Although the available studies assessing *self- and other-focus* prior to and during established adulthood are few, they support our proposal (and Arnett's, 2004, implication) that other-focus grows in established adulthood. It has been shown that friendship intimacy at age 26 predicts generative concern at 32 (Mackinnon et al., 2016), supporting the idea of later Eriksonian stages building upon earlier ones. Conceivably, the growing sense of other-focus in established adulthood could also be a precursor to generativity, as individuals branch out from caring for their families to seeking to benefit society at large (cf., Eriksson et al.'s 2020, notion of broadened participation). We encourage new research into this possibility.

Research on the *most salient stressors* during emerging and established adulthood is not as conclusive as it could be, due to age-group divisions in studies that do not coincide exactly with Mehta et al.'s (2020) delineations and most studies' concern with major traumatic life events rather than more mundane social stressors. The extant findings do not refute Mehta et al.'s (2020) characterization of stress during established adulthood. However, they do suggest the need for further research, with more fine-grained age-group differentiation (25–29, 30–34, etc.) and detailed assessment of life stress, to discern when in the lifespan certain types of stress accelerate and when they fade away. In addition, Robinson et al.'s (2013) young adult crisis theory—focusing on commitments one no longer desires—combines stress/mental health with identity formation, yielding another source of new research ideas.

Finally, our proposal that established adults feel in-between a sense of adulthood based largely on work and family roles and a sense of being a wise adult is probably

our most speculative one. We do not consider it unreasonable, based on suggestions that people feel in-between one state and another throughout the lifespan (Hendry & Kloep, 2007) and that optimally generative contributions to society require many decades of accumulated experiences and skills (Hagerty, 2016). Future studies asking established adults (and adults of other ages) whether they consider themselves wise or to have wisdom, in the manner of Arnett's early studies asking people of various ages whether they considered themselves to be an adult, would elucidate this area.

How might Mehta et al.'s (2020) Crunch-and-Care conception be studied in conjunction with our proposed five features version? Given Mehta et al.'s emphasis on role-related demands and stress in established adulthood, one general line of inquiry could seek to link individuals' levels of demand and stress to their self-perceptions on the five features we have proposed. For example, stressful events that threaten one's skill in a domain could lead individuals to reconsider their identities as a professional/worker, spouse, or parent (i.e., exploration in depth; Luyckx et al., 2006). Similarly, stress and demands could lead people to question just how possible some of their goals really are and how wise they are. Heavy stress could also upset people's current balance of self- and other-focus (e.g., a major work stressor may induce more self-focus, whereas an illness to a family member would likely create greater other-focus). This suggestion dovetails most closely with Mehta et al.'s Research Question 2, which asks "What developmental processes take place alongside central life tasks in established adulthood?".

As noted earlier, we acknowledge that there are aspects of emerging adulthood and of established adulthood that do not fall within the five features or dimensions of identity, possibilities-optimism, self-other focus, location in the lifespan, and stress. Even if they do not account for all aspects of adult development, however, these five features do appear relevant to many aspects of it. The five features conceivably could also be applied to middle and older age, but those endeavors are beyond the scope of the present article.

We would also like to reiterate a previous point (Arnett, 2004; Mehta et al., 2020) that, unless shown otherwise by longitudinal studies of multiple birth-cohorts, the psychological and behavioral processes of proposed life stages must be considered specific to their historical and cultural contexts. Among the studies we reviewed, multiple authors suggested that strong macroeconomic conditions in their respective nations, coinciding with assessments of occupational identity status may have influenced the results. As a strong economy (relative to a weak one) gives workers a greater chance to entertain multiple job options, this sociohistorical circumstance can thus raise levels of identity achievement, which requires exploration before reaching one's identity (Eriksson et al., 2020; Fadjukoff et al., 2016a). Also, as life-expectancy at birth continues to rise in the U.S. (from the

current 75 years in men and 80 in women to projections of 84 and 87, respectively, by 2060) (Arias et al., 2021; Medina et al., 2020) and in other nations, definitions of life stages based on beginning and ending ages will have to be adjusted accordingly (e.g., emerging adulthood could extend to 35 or older). Though many Americans work into their seventies and even eighties, there remains great variability in retirement ages (as of 2015), with 51% retiring between the ages 61–65, 18% retiring younger than that (mostly in their fifties), and 33% retiring at age 66 or older (Kadlec, 2016). We read Mehta et al. (2020) as saying that the occupational aspect of the established adulthood Crunch may stem either from monetary needs (e.g., their discussion of the Crunch likely being more severe in lower socioeconomic classes) or non-monetary issues (e.g., people who may have sufficient income to cover their basic needs but work long hours to pursue "upward career trajectory," p. 439). Future research can therefore address the possibility that greater severity of the established adulthood Crunch in non-monetary terms may hasten individuals' retirement, whereas a more intense monetary Crunch would delay retirement.

In conclusion, as with other scientific theories and frameworks, further research will be needed to assess whether application of the emerging-adulthood five features model to established adulthood stands the test of time. Our rich heuristic tool offers many opportunities for exciting research on the newly delineated life stage of established adulthood, so we see the possibilities for scientific advancement as being very much open.

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## References

- Ardelt, M. (2008). Being wise at any age. In S. J. Lopez (Ed.), *Positive psychology: Exploring the best in people. Volume 1: Discovering human strengths* (pp. 81–108). Berlin: Praeger.

- Ardelt, M., Pridgen, S., & Nutter-Pridgen, K. L. (2018). The relation between age and three-dimensional wisdom: Variations by wisdom dimensions and education. *Journals of Gerontology: Psychological Sciences*, *73*, 1339–1349. <https://doi.org/10.1093/geronb/gbx182>
- Arias, E., Tejada-Vera, B., & Ahmad, F. (2021). Provisional life expectancy estimates for January through June, 2020. Vital Statistics Rapid Release; No 10. National Center for Health Statistics. <https://doi.org/10.15620/cdc:100392>
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, *55*, 469–480. <https://doi.org/10.1037/0003-066X.55.5.469>
- Arnett, J. J. (2001). Conceptions of the transition to adulthood: Perspectives from adolescence through midlife. *Journal of Adult Development*, *8*, 133–143. <https://doi.org/10.1023/A:1026450103225>
- Arnett, J. J. (2004). *Emerging adulthood: The winding road from the late teens through the twenties*. Oxford University Press.
- Arnett, J. J. (2007). Emerging adulthood, a 21st century theory: A rejoinder to Hendry and Kloep. *Child Development Perspectives*, *1*, 80–82. <https://doi.org/10.1111/j.1750-8606.2007.00018.x>
- Arnett, J. J. (2015). *Emerging adulthood: The winding road from the late teens through the twenties* (2nd ed.). Oxford University Press.
- Arnett, J. J. (2018). Happily stressed: The complexity of well-being in midlife. *Journal of Adult Development*, *25*, 270–278. <https://doi.org/10.1007/s10804-018-9291-3>
- Barnes, H. (not dated). Late bloomers: Going to law school later in life. *Law Crossing*. Retrieved June 18, 2021 from <https://www.lawcrossing.com/article/1180/Late-Bloomers-Going-to-Law-School-Later-in-Life/>
- Boyle, P. (2020). *Med school after 40*. Association of American Medical Colleges. Retrieved June 18, 2021 from <https://www.aamc.org/news-insights/med-school-after-40>
- Brugman, G. M. (2006). Wisdom and aging. In J. E. Birren & K. W. Schaie (Eds.), *Handbook of the psychology of aging* (pp. 445–475). Elsevier. <https://doi.org/10.1016/B978-012101264-9/50023-9>
- Constantinople, A. (1969). An Eriksonian measure of personality development in college students. *Developmental Psychology*, *1*, 357–372. <https://doi.org/10.1037/h0027706>
- Côté, J. (2015). Identity-formation research from a critical perspective: Is a social science developing? In K. C. McLean & M. Syed (Eds.), *The Oxford handbook of identity development* (pp. 527–538). Oxford University Press.
- Côté, J. E. (2006). Emerging adulthood as an institutionalized moratorium: Risks and benefits to identity formation. In J. J. Arnett & J. L. Tanner (Eds.), *Emerging adults in America: Coming of age in the 21st century* (pp. 85–116). American Psychological Association.
- Cross, S., & Markus, H. (1991). Possible selves across the life span. *Human Development*, *34*, 230–255. <https://doi.org/10.1159/000277058>
- Darvill, R., Skirton, H., & Farrand, P. (2010). Psychological factors that impact on women's experiences of first-time motherhood: A qualitative study of the transition. *Midwifery*, *26*, 357–366. <https://doi.org/10.1016/j.midw.2008.07.006>
- Erikson, E. H. (1963). *Childhood and society* (Original work published 1950). Norton.
- Erikson, E. H. (1968). *Identity: Youth and crisis*. Norton & Co.
- Eriksson, P. L., Wängqvist, M., Carlsson, J., & Frisén, A. (2020). Identity development in early adulthood. *Developmental Psychology*, *56*, 1968–1983. <https://doi.org/10.1037/dev0001093>
- Fadjukoff, P., Pulkkinen, L., & Kokko, K. (2016a). Identity formation in adulthood: A longitudinal study from age 27 to 50. *Identity*, *16*, 8–23. <https://doi.org/10.1080/15283488.2015.1121820>
- Fadjukoff, P., Pulkkinen, L., Lyyra, A.-L., & Kokko, K. (2016b). Parental identity and its relation to parenting and psychological functioning in middle age. *Parenting: Science & Practice*, *16*, 87–107. <https://doi.org/10.1080/15295192.2016.1134989>
- Finkel, E. J., Eastwick, P. W., Karney, B. R., Reis, H. T., & Sprecher, S. (2012). Online dating: A critical analysis from the perspective of psychological science. *Psychological Science in the Public Interest*, *13*, 3–66. <https://doi.org/10.1177/1529100612436522>
- Glück, J. (2019). The development of wisdom during adulthood. In R. J. Sternberg & J. Glück (Eds.), *The Cambridge handbook of wisdom* (pp. 323–346). Cambridge University Press. <https://doi.org/10.1017/9781108568272.016>
- Glück, J., Bluck, S., Baron, J., & McAdams, D. T. (2005). The wisdom of experience: Autobiographical narratives across adulthood. *International Journal of Behavioral Development*, *29*, 197–208. <https://doi.org/10.1177/01650250444000504>
- Gusenbauer, M. (2019). Google Scholar to overshadow them all? Comparing the sizes of 12 academic search engines and bibliographic databases. *Scientometrics*, *118*, 177–214. <https://doi.org/10.1007/s11192-018-2958-5>
- Gusenbauer, M., & Haddaway, N. R. (2020). Which academic search systems are suitable for systematic reviews or meta-analyses? Evaluating retrieval qualities of Google Scholar, PubMed, and 26 other resources. *Research Synthesis Methods*, *11*, 181–217. <https://doi.org/10.1002/jrsm.1378>
- Gyberg, F., & Frisén, A. (2017). Identity status, gender, and social comparison among young adults. *Identity*, *17*, 239–252. <https://doi.org/10.1080/15283488.2017.1379905>
- Gyberg, F., Frisén, A., & Syed, M. (2019). Being stuck between two worlds—Identity configurations of occupational and family identities. *Identity: an International Journal of Theory and Research*, *19*, 330–346. <https://doi.org/10.1080/15283488.2019.1681997>
- Hagerty, B. B. (2016). *Life reimagined: The science, art, and opportunity of midlife*. Riverhead Books.
- Hatch, S. L., & Dohrenwend, B. P. (2007). Distribution of traumatic and other stressful life events by race/ethnicity, gender, SES and age: A review of the research. *American Journal of Community Psychology*, *40*, 313–332. <https://doi.org/10.1007/s10464-007-9134-z>
- Heckhausen, J., Dixon, R. A., & Baltes, P. B. (1989). Gains and losses in development throughout adulthood as perceived by different adult age groups. *Developmental Psychology*, *25*, 109–121. <https://doi.org/10.1037/0012-1649.25.1.109>
- Heckhausen, J., Wrosch, C., & Schulz, R. (2010). A motivational theory of life-span development. *Psychological Review*, *117*, 32–60. <https://doi.org/10.1037/a0017668>
- Hendry, L. B., & Kloep, M. (2007). Conceptualizing emerging adulthood: Inspecting the emperor's new clothes? *Child Development Perspectives*, *1*, 74–79. <https://doi.org/10.1111/j.1750-8606.2007.00017.x>
- Jordan, J. (2005). The quest for wisdom in adulthood: A psychological perspective. In R. J. Sternberg & J. Jordan (Eds.), *A handbook of wisdom: Psychological perspectives* (pp. 160–188). Cambridge University Press. <https://doi.org/10.1017/CBO9780511610486.008>
- Kadlec, D. (2016). *The ages when most people retire (hint: probably too young)*. Money Magazine. Retrieved May 5, 2022 from <https://money.com/ages-people-retire-probably-too-young-early-retirement/>
- Kroger, J. (2015). Identity development through adulthood: The move toward “wholeness.” In K. C. McLean & M. Syed (Eds.), *The Oxford handbook of identity development* (pp. 65–80). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780199936564.013.004>
- Larsson, H., Eriksson, P. L., & Frisén, A. (2020). “It’s a new chapter now”: Establishing commitments in the romantic domain during

- young adulthood. *Identity*, 20, 37–57. <https://doi.org/10.1080/15283488.2019.1704759>
- Luyckx, K., Goossens, L., & Soenens, B. (2006). A developmental contextual perspective on identity construction in emerging adulthood: Change dynamics in commitment formation and commitment evaluation. *Developmental Psychology*, 42, 366–380. <https://doi.org/10.1037/0012-1649.42.2.366>
- Mackinnon, S. P., De Pasquale, D., & Pratt, M. W. (2016). Predicting generative concern in young adulthood from narrative intimacy: A 5-year follow-up. *Journal of Adult Development*, 23, 27–35. <https://doi.org/10.1007/s10804-015-9218-1>
- Macnamara, B. N., Hambrick, D. Z., & Oswald, F. L. (2014). Deliberate practice and performance in music, games, sports, education, and professions: A meta-analysis. *Psychological Science*, 25, 1608–1618. <https://doi.org/10.1177/0956797614535810>
- Marcia, J. E. (1966). Development and validation of ego-identity status. *Journal of Personality and Social Psychology*, 3, 551–558. <https://doi.org/10.1037/h0023281>
- Marcia, J. E. (1980). Identity in adolescence. In J. Adelson (Ed.), *Handbook of adolescent psychology* (pp. 159–187). Wiley.
- McAdams, D. P. (2013). The psychological self as actor, agent, and author. *Perspectives on Psychological Science*, 8, 272–295. <https://doi.org/10.1177/1745691612464657>
- Medina, L. D., Sabo, S., & Vespa, J. (2020). *Living longer: Historical and projected life expectancy in the United States, 1960 to 2060*. Current Population Reports (P25–1145). U. S. Census Bureau. Retrieved July 1, 2021 from <https://www.census.gov/content/dam/Census/library/publications/2020/demo/p25-1145.pdf>
- Meewis, W. (2011). The study of adolescent identity formation 2000–2010: A review of longitudinal research. *Journal of Research on Adolescence*, 21, 75–94. <https://doi.org/10.1111/j.1532-7795.2010.00716.x>
- Mehta, C. M., Arnett, J. J., Palmer, C. G., & Nelson, L. (2020). Established adulthood: A new conception of ages 30 to 45. *American Psychologist*, 75, 431–444. <https://doi.org/10.1037/amp0000600>
- Morgan, J., & Robinson, O. (2013). Intrinsic aspirations and personal meaning across adulthood: Conceptual interrelations and age/sex differences. *Developmental Psychology*, 49, 999–1010. <https://doi.org/10.1037/a0029237>
- Nelson, L. J., Willoughby, B. J., Rogers, A. A., & Padilla-Walker, L. M. (2015). “What a view!”: Associations between young people’s views of the late teens and twenties and indices of adjustment and maladjustment. *Journal of Adult Development*, 22, 125–137. <https://doi.org/10.1007/s10804-015-9206-5>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., et al. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372, n71. <https://doi.org/10.1136/bmj.n71>
- Palkovitz, R., Copes, M. A., & Woolfolk, T. N. (2001). “It’s like ... you discover a new sense of being”: Involved fathering as an evoker of adult development. *Men and Masculinities*, 4, 49–69. <https://doi.org/10.1177/1097184X01004001003>
- Pannoni, A. (2016). *5 steps adults can take to complete high school*. U.S. News & World Report. Retrieved April 5, 2022 from <https://www.usnews.com/high-schools/best-high-schools/articles/2016-11-30/5-steps-adults-can-take-to-complete-high-school>
- Parisi, J. M., Rebok, G. W., Carlson, M. C., Fried, L. P., Seeman, T. E., Tan, E. J., et al. (2009). Can the wisdom of aging be activated and make a difference societally? *Educational Gerontology*, 35, 867–879. <https://doi.org/10.1080/03601270902782453>
- Pulkkinen, L., Nurmi, J.-E., & Kokko, K. (2002). Individual differences in personal goals in mid-thirties. In L. Pulkkinen & A. Caspi (Eds.), *Paths to successful development: Personality in the life course* (pp. 331–352). Cambridge University Press. <https://doi.org/10.1017/CBO9780511489761.014>
- Reifman, A., Arnett, J. J., & Colwell, M. J. (2007a). Emerging adulthood: Theory, assessment, and application. *Journal of Youth Development*, 2(1), 37.
- Reifman, A., Arnett, J. J., & Colwell, M. J. (2007b). The IDEA: Inventory of the Dimensions of Emerging Adulthood. Manuscript containing supplemental analyses, posted to Research Gate, April 2016. <https://doi.org/10.13140/RG.2.1.3547.6886>
- Roberts, S. E., & Côté, J. E. (2014). The Identity Issues Inventory: Identity stage resolution in the prolonged transition to adulthood. *Journal of Adult Development*, 21, 225–238. <https://doi.org/10.1007/s10804-014-9194-x>
- Robinson, O. C., Wright, G. R. T., & Smith, J. A. (2013). The holistic phase model of early adult crisis. *Journal of Adult Development*, 20, 27–37. <https://doi.org/10.1007/s10804-013-9153-y>
- Schoklitsch, A., & Baumann, U. (2012). Generativity and aging: A promising future research topic? *Journal of Aging Studies*, 26, 262–272. <https://doi.org/10.1016/j.jaging.2012.01.002>
- Schwartz, S. J., Luyckx, K., & Crocetti, E. (2014). What have we learned since Schwartz (2001)? A reappraisal of the field of identity development. In K. McLean & M. Syed (Eds.), *Oxford handbook of identity development* (pp. 539–561). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780199936564.013.028>
- Staudinger, U. M., & Glück, J. (2011). Psychological wisdom research: Commonalities and differences in a growing field. *Annual Review of Psychology*, 62, 215–241. <https://doi.org/10.1146/annurev.psych.121208.131659>
- Stefaniak, A. R., Blaxton, J. M., & Bergeman, C. S. (2021). Age differences in types and perceptions of daily stress. *International Journal of Aging and Human Development*. <https://doi.org/10.1177/00914150211001588>
- Topolewska-Siedzik, E., & Ciecuch, J. (2019). Modes of personal identity formation: A preliminary picture from the lifespan perspective. *Personality and Individual Differences*, 138, 237–242. <https://doi.org/10.1016/j.paid.2018.09.041>
- Twenge, J. M., & Campbell, W. K. (2018). Cultural individualism is linked to later onset of adult-role responsibilities across time and regions. *Journal of Cross-Cultural Psychology*, 49, 673–682. <https://doi.org/10.1177/0022022118764838>
- Webster, J. D., Weststrate, N. M., Ferrari, M., Munroe, M., & Pierce, T. W. (2018). Wisdom and meaning in emerging adulthood. *Emerging Adulthood*, 6, 118–136. <https://doi.org/10.1177/2167696817707662>
- Whitbourne, S. K., Sneed, J. R., & Sayer, A. (2009). Psychosocial development from college through midlife: A 34-year sequential study. *Developmental Psychology*, 45, 1328–1340. <https://doi.org/10.1037/a0016550>

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