


# The Incremental Validity of Narrative Identity in Predicting Well-Being: A Review of the Field and Recommendations for the Future

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## Abstract

Grounded in four theoretical positions—structural, cognitive, phenomenological, and ethical—the present review demonstrates the empirical evidence for the incremental validity of narrative identity as a cross-sectional indicator and prospective predictor of well-being, compared with other individual difference and situational variables. In doing so, we develop an organizational framework of four categories of narrative variables: (a) motivational themes, (b) affective themes, (c) themes of integrative meaning, and (d) structural elements. Using this framework, we detail empirical evidence supporting the incremental association between narrative identity and well-being, a case that is strongest for motivational, affective, and integrative meaning themes. These categories of themes serve as vital complimentary correlates and predictors of well-being, alongside commonly assessed variables such as dispositional personality traits. We then use the theoretically grounded review of the empirical literature to develop concrete areas of future research for the field.

## Keywords

narrative identity, well-being, personality structure, incremental validity

The field of research on narrative identity has always profited from a wealth of theory supporting its central claims. A rich array of perspectives supports the notion that individuals' stories about their lives ought to be understood as core elements of personality and should be associated with and predict important outcomes such as well-being. This review seeks to further build the case by making an empirical argument for studying narrative identity. Without a doubt, the association between narrative identity and well-being is firmly established. Dozens of studies have examined the relationships between the thematic and structural content of personal stories and identified central characteristics that distinguish between the narratives of people who experience higher levels of well-being from those with lower levels. Yet the key empirical argument for the value of narrative identity is one of *incremental validity*. The inclusion of narrative variables in research on the association between individual differences and well-being explains variance that is both statistically significant and psychologically meaningful that would be missed without them.

In this review, we have collected all of the research that directly examined the associations between narrative identity and well-being alongside other variables to demonstrate the ways in which narratives do—and do not—add incremental validity as cross-sectional indicators and prospective predictors of well-being, compared with the effects of other individual difference and situational variables. Our argument is

inductive; it grew, bottom-up, from evidence that exists in the literature today. It is grounded in the solid foundation of theory that has already made a strong case for the value of studying narrative variables and builds on it to demonstrate the contemporary empirical status of narrative identity's association with well-being.

Incremental validity is a vital component of establishing the value of an approach, and a commonly overlooked one. Hunsley and Mash (2007) suggest that demonstrating the incremental validity of an approach, compared with other existing approaches, is essential in substantiating its worth from both basic and applied research perspectives. However, Haynes and Lensch's (2003) systematic investigation determined that remarkably few studies specifically consider incremental validity in their design. This is certainly the case when it comes to the association between narrative identity and well-being. Although many studies have investigated that association, the majority do not focus on incremental validity.

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Brackett and Mayer (2003) wrote, “Most personality psychologists would agree that for a new construct to be welcomed into the field, it must explain variance that is not accounted for by well-established constructs” (p. 9). Narrative identity is hardly a new construct, and it has certainly been welcomed into the field of personality psychology (as well as many related disciplines). Although recent reviews of the field of narrative psychology highlight the importance of the incremental validity of narratives (e.g., McAdams & Manczak, 2015), the question of incremental validity has often been implicit, existing within specific studies that were typically designed to answer other questions. We do not want to suggest that incremental validity is the *raison d’être* of narrative identity, or that narratives ought to be studied primarily as a vehicle for explaining well-being. Yet ascertaining the incremental validity of narrative identity is vital to the future of the field.

We have selected well-being as the focus of this review because it is the most commonly assessed correlate and outcome of narrative identity by a wide margin and is a vitally important life outcome in its own right, having itself a host of other important correlates and outcomes (e.g., Keyes, 2005; Lyubomirsky, King, & Diener, 2005). As a result, establishing narrative identity as an incrementally valid correlate and predictor of well-being provides one important form of empirical evidence for the value of the approach. Furthermore, doing so provides empirical support for the array of theoretical arguments for the centrality of narratives to individual identity.

At its core, this review aims to answer the following question: What does the inclusion of narrative variables in research on the association between individual differences and well-being add that might be missed without them? Our answer to this question is grounded in the solid foundation of theory that has already made a strong case for the value of studying narrative variables. It also builds on this foundation to demonstrate the contemporary empirical status of narrative identity’s association with well-being alongside other individual difference and situational variables.

We approach our answer to this question in five steps. First, we review the different theoretical perspectives that converge on an argument for the incremental validity of narrative identity in its association with well-being. Second, we briefly discuss the common methodological approaches and features of narrative research that provide an additional perspective on the incremental nature of narrative variables. Third, we develop an organizational framework for the field of research on narrative identity that inductively classifies the great diversity of empirical work into a system that makes sense of the individual differences in narrative identity that researchers have empirically examined. Fourth, we assemble the literature of empirical evidence that can speak to incremental associations between narrative variables and well-being. Fifth, we use this review to make recommendations for the future of the field, based on gaps in the existing empirical foundation.

## Theoretical Arguments for the Incremental Validity of Narrative Identity

Many theoretical positions advocate for the importance of narrative identity as a unique aspect of personality and as a central modality for understanding the individual, as well as the incremental validity of narrative identity as a meaningful indicator of well-being. An exhaustive review of these theories is beyond the scope of the present review, but it is important to ground our investigation in its theoretical basis. We classify these theoretical arguments into four broad (and overlapping) categories: structural, cognitive, phenomenological, and ethical approaches.

### Structural Arguments

Even before the theory of narrative identity was fully articulated, early theorists saw narrative approaches as structurally distinct from other approaches to understanding the person. Bruner (1986) referred to the “narrative mode of thought” as separate from an alternative approach, the “paradigmatic mode” (p. 11). He suggested that paradigmatic arguments, those grounded in scientific inquiry, were concerned with systematically identifying generalizable truths and “transcending the particular” (p. 13). In contrast, Bruner wrote that the narrative mode is concerned with identifying the contours of individual intention and action over the course of time. Narratives are about characters—and especially a main character or protagonist—striving for something, and the ebb and flow of that journey. Narratives are about the specific, the personal, and the contextualized. In establishing these two fundamentally distinct and irreducible modes of thought, Bruner offered an early structural argument for the unique contributions of narrative approaches to understanding people.

Building on Bruner’s work, as well as that of several other early theorists, McAdams’ theory of narrative identity has always had a structural argument at its core, distinguishing narrative identity from other domains of personality (e.g., McAdams, 1995; McAdams et al., 2004). The theory suggests that narrative identity is one of three primary domains of personality, along with dispositional traits and characteristic adaptations (e.g., McAdams, 1995). Contextualized within the forces of human evolution and the influence of culture, human variation can be described with three distinct aspects (e.g., McAdams & Pals, 2006). First, dispositional traits represent the broad, de-contextual, non-conditional aspects of individual variation. Typically operationalized with the Big Five personality traits of agreeableness, conscientiousness, extroversion, openness to experience, and neuroticism (a.k.a. emotional stability), they provide a robust, systematic way of quantifying and characterizing individual differences. Dispositional traits have been shown to predict important life outcomes such as well-being, social and occupational success, and physical health (e.g., Roberts, Kuncel, Shiner, Caspi, & Goldberg,

2007; Steel, Schmidt, & Schultz, 2008). Second, characteristic adaptations represent the overarching motivational, social-cognitive, and developmental processes, as well as other aspects of personality that are important to an individual at a given moment. They represent the parts of personality that are contextualized within a given time, place, or social role (e.g., McAdams, 1995; McAdams & Pals, 2006).

The third domain of personality is concerned with narrative identity, the individual differences in personality manifest through the stories people tell about their significant life experiences (e.g., Habermas & Bluck, 2000; Hammack, 2008; McAdams, 1995, 2001; McAdams & McLean, 2013; McLean, Pasupathi, & Pals, 2007; Pasupathi, 2001; Singer, 2004). Whether describing a difficult experience or a turning point, narratives communicate not just the events that are central to the life of an individual but the meaning these events hold for the narrator. A hypothetical example makes this point clearly. Knowing that both a highly conscientious 35-year-old woman and man get a boost in well-being when they achieve a promotion at work provides important information about individual differences; it suggests that both trait conscientiousness and achievement of higher status in the workplace may be associated with well-being. However, examining individual differences in narrative identity adds explanatory power: Perhaps the woman narrates this achievement as signifying that a decade of professional struggle after graduate school has finally paid off, whereas the man narrates the same accomplishment to convey that this status will finally allow him to spend more time with his young children. For these two hypothetical people, the themes in their narratives reveal additional information about the connections between their individual differences and their well-being that would not be captured if trait, developmental, and situational factors alone were examined.

Such individualized creation of meaning for personally contextualized life experiences highlights one of the central psychological functions of narrative identity, providing a sense of *purpose* for the individual (e.g., McAdams, 1995, 2001). Through the representation of specific events in a narrative framework, individuals create an

internalized, evolving, and integrative story of the self . . . about our struggle to reconcile who we imagine we were, are, and might be in our heads and bodies with who we were, are, and might be in the social contexts of family, community, the workplace, ethnicity, religion, gender, social class, and culture writ large. (McAdams, 2008b, pp. 242-243)

Meaning is at the heart of these self-stories and is especially concerned with articulating one's sense of purpose.

A second central psychological function of narrative identity is to provide individuals with a sense of *unity* over time; they connect the self of the past to the self of the present, and they anticipate the future self. Narratives therefore provide coherence to identity, organizing it for the individual (e.g., Freeman, 2010; Habermas & Bluck, 2000). Development

itself poses a challenge to the continuity of the self. In adolescence, the physical transformation of the body conspires with increasing cognitive maturation and rising social expectations to define the self, to cue the emergence of narrative identity (e.g., Habermas & Bluck, 2000). Throughout adulthood, role transitions and shifting concerns continue to disrupt the stability of identity. In addition to developmental pressures, variations in expectations for the self across different situations and social roles also complicate the notion of an integrated identity. Cultural and historical forces also problematize identity management. Hammack (2008) explained, "If the historical context of late modernity is one of contested collective meaning, it makes sense that individuals may be motivated to adopt an identity that preserves a sense of ontological security and minimizes existential anxiety" (p. 225). In the face of these challenges, the narrative of one's life serves a unifying function (e.g., McAdams, 2001, 2006a). A given individual's narrative serves to bind the self, bringing these diverse threads together into a cohesive account (e.g., Freeman, 2010), one that supports well-being (Hammack, 2008).

This general structure of personality has been put forward by multiple different theoretical models (e.g., McAdams, 2009; McAdams & Pals, 2006; McCrae & Costa, 2008; Roberts, Harms, Smith, Wood, & Webb, 2006).<sup>1</sup> Implicit in such structural theories is the assertion that each domain of personality ought to have differential relationships with important life outcomes. When it comes to well-being, structural arguments suggest that dispositional traits uniquely represent affective signatures, contributing powerful tendencies to experience different emotional states. In contrast, characteristic adaptations ought to be incrementally associated with well-being when situational factors are taken into account. Need satisfaction (e.g., Deci & Ryan, 2000), goal achievement (e.g., Sheldon & Houser-Marko, 2001), and the resolution of developmental projects (e.g., Ryff, 1989) are associated with well-being, a relationship best explained by the characteristic adaptation domain of personality. Structural arguments add that narrative identity also ought to have distinct associations with well-being, based on narratives' ability to capture the purpose and unity ascribed to the self. The subjective meaning attached to one's life experiences and the ways in which these experiences are woven into a unified self are best understood as a distinct domain of personality, one with its own unique associations with well-being. Thus, structural arguments are fundamentally concerned with the matter of incremental validity, suggesting that each domain of personality ought to have statistically independent associations with important life outcomes, such as well-being.

### Cognitive Arguments

One of the basic tenants of cognitive psychology is that people heavily rely on schemas to understand the world. These schemas capture abstract social knowledge (e.g., how to order in a restaurant; Schank & Abelson, 1977) or abstract

self-knowledge (one's personal traits, self-schemas, and attitudes) derived from the generalization of frequent similar experiences (Markus, 1977). For example, responding to an extraversion item on a measure of the Big Five personality traits that asks whether one is a talkative person does not require one to screen all relevant memories of social situations. This information is readily available in an abstract semantic format, which is a generalization of several common situations where one has been talkative and outgoing or quiet and shy. Although this abstract self-knowledge may have built over time from repeated episodic memories of similar experiences, self-knowledge and episodic memories appear to be independent and to be instantiated in distinct brain systems (e.g., Klein & Loftus, 1993). One good reason for this separation is that abstract self-knowledge is derived from the experience of frequent and therefore typically common, similar situations (Conway, 2005), yet not all experiences are repeated over time. Some are highly distinctive and experienced once in a lifetime (examples might include a religious conversion, the transition to parenthood, or the death of a significant other). These significant and unique experiences are not abstract-able or summarize-able. Nevertheless, they clearly inform who a person is, giving rise to an important and distinct level of self-knowledge. Indeed, the elements of each narrated identity are significant life scenes, momentous memories (Pillemer, 1998), or self-defining memories (Singer & Salovey, 1993), many of which are highly emotional, one-time experiences, anchored in a specific episodic autobiographical memory.

Because this level of specific self-knowledge is not derived from the more typical, generalized set of abstract self-knowledge, this distinct episodic-based knowledge is likely to predict important outcomes in people's lives in a complimentary way to other individual differences that have been formed based on repeated experiences. Indeed, specific, significant episodic memories can influence well-being in different ways. First, certain key properties of these memories tend to be re-experienced frequently, whenever life themes or concerns reactivate those significant and specific memories (Biondolillo & Pillemer, 2015; Demorest & Alexander, 1992; Singer, Blagov, Berry, & Oost, 2013; Singer & Salovey, 1993). This reactivation typically affects immediate situational well-being and, over time, such transitory effects accumulate to build stable and enduring impacts on well-being (Philippe, Koestner, Beaulieu-Pelletier, Lecours, & Leves, 2012). Second, the richness with which these memories are cognitively framed, integrated, and narrated provides the person with the purpose and unity central to a productively functioning narrative identity (McAdams, 2001), which also promotes greater well-being (e.g., Conway, Singer, & Tagini, 2004; King & Noelle, 2005; McAdams, Reynolds, Lewis, Patten, & Bowman, 2001; McLean & Breen, 2009; McLean & Lilgendahl, 2008).

Another cognitive perspective that can explain why individual differences found in narratives relate to important outcomes such as well-being distinctly from other individual

differences is that narratives may reveal unconscious cognitive processes of personality (McClelland, Koestner, & Weinberger, 1989; B. A. Woike, 2008). There are several dual-process theories that converge on the following postulates: Attitudes and behaviors depend on (a) an implicit and unconscious associative system, which heavily draws from encoded past affective experiences and (b) a more rational system that favors coherence, cognitive consistency, and social expectancies (e.g., Beaulieu-Pelletier, Bouchard, & Philippe, 2013; Epstein, 1994; Gawronski & Bodenhausen, 2006; Metcalfe & Mischel, 1999; Strack & Deutsch, 2004).

McClelland's implicit motives theory (McClelland et al., 1989), derived from a dual-process perspective, was particularly concerned with narrative and influenced later narrative theories. According to this theory, humans have two types of motives, explicit and implicit. Whereas explicit motives correspond to people's well-elaborated self-attributed goals and motives (abstract self-knowledge of their motives) and are readily collected by simply asking people to report on their conscious preferences, implicit motives reflect people's less-conscious preferences for experiencing certain affective states (B. A. Woike, 2008), and can only be assessed indirectly. Given their distinct roles and functions, explicit and implicit motives do not tend to correlate with each other (or are only weakly associated). Narratives have been found to be a successful outlet to measure implicit motives, as they allow the individual to spontaneously express his or her motivational and emotional preferences (McClelland et al., 1989) and typically pertain to strong affective experiences, which tend to arouse implicit motives (B. A. Woike, 2008). For example, people with strong achievement motives are more likely to describe achievement-related memories, whereas people with strong intimacy motives are more likely to retrieve relationship-related memories (McAdams, Hoffman, Mansfield, & Day, 1996; B. Woike, Gershkovich, Piorkowski, & Polo, 1999). As such, people's implicit motives may influence how they encode and recall past events, which is reflected in their narratives of these events (B. A. Woike, 2008). These motives are likely to orient people toward activities that are likely to satisfy these motives, which in turn, should fulfill their well-being (Prentice, Halusic, & Sheldon, 2014).

Cognitive arguments therefore offer a perspective on the incremental association between narrative identity and well-being grounded in research on autobiographical memory processes and the study of implicit cognitive processes. In both cases, the content of narrative identity is regarded as unique and separate from other factors that influence well-being.

### *Phenomenological Arguments*

Since its earliest days as an emergent discipline, personality psychology has been marked by a tension between its dual missions of studying key individual differences and studying individuals as unique, integrated wholes (Berenbaum & Winter, 2008). Although much of contemporary scientific personality psychology has focused on the mission of



studying individual differences, work on narrative identity has straddled both sides of this tension (e.g., Adler, 2012b). Although these two approaches to research on narrative identity have some important divergences (e.g., McAdams, 2005), both share certain underlying values pertaining to their fundamentally shared phenomenological perspective.

The study of narrative identity regards individuals as deeply contextualized (e.g., Freeman, 1997; Hammack, 2008). Constructing and reconstructing the story of one's life is the vehicle by which the individual's engagement with cultural and historical discourses forms an internalized identity (Hammack, 2008). Hammack's (2008) application of cultural psychology (e.g., Gjerde, 2004) to the study of narrative identity emphasizes the dynamic dialectic between the individual person and the broader social context of development. He writes, "In personality and social psychology and beyond, narrative is increasingly recognized as the gateway to meaning in understanding socially situated individual lives" (p. 232). This phenomenological emphasis on the importance of subjective meaning prioritizes the study of individuals' own perspectives on their experiences.

Growing out of this theoretical perspective, a methodological approach naturally follows. This approach strives to transcend "the unduly strict methodological demands of much of contemporary academic psychology, its tendency to focus on what is observable, objectifiable, quantifiable, and so forth" (Freeman, 1997, p. 171). Individuals are to be invited to share their first-person experiences, even if they are "unobservable" and fundamentally un-objectifiable, as the optimal route to understanding what their lives mean. Although the limits of self-knowledge have been well-documented (e.g., Vazire & Carlson, 2010), phenomenological approaches assert that the meaning ascribed to one's experience offers a unique and valuable perspective in understanding personality.

Although the heart of the phenomenological perspective is a philosophical claim about the route to truth in understanding a phenomenon as complex as identity, the unavoidable corollary to this perspective is an argument for incremental validity. Especially within the thread of research on narrative identity that strives to adopt a phenomenological outlook while seeking to produce generalizable knowledge about the self (and therefore typically using quantitative methods), the implication is that narrative identity adds unique explanatory power. Phenomenological perspectives therefore offer an argument for the incremental validity of narrative identity in predicting well-being, one intimately tied to the other approaches we have described, but philosophically distinct.

### *Ethical Arguments*

In addition to the positions described above, theorists have made an ethical argument for the importance of studying narrative identity, asserting that the inclusion of research participants' first-person accounts of their experiences, especially those from traditionally under-represented groups, as an equally privileged perspective is vital to a principled science

(e.g., Josselson & Lieblich, 1993). This position is well-established in neighboring disciplines, such as sociology (e.g., Punch, 1994), anthropology (e.g., Linger, 2005), and education (e.g., Casey, 1996), but it has also received attention within the study of narrative identity (e.g., Josselson, 1996). For example, using a theatrical metaphor of narrative, Duncan and Miller (2000) assert that traditional psychotherapy research has largely ignored the client's perspective at its own peril and argue "for not only recasting the client as the star of the drama of therapy, but also giving the heroic client directorial control of the action as it unfolds" (p. 169). They suggest that clients have been disenfranchised in contributing to the understanding of psychotherapy and, as a result, the field has mistreated them, while missing key data. Brendel (2000) echoes this point, arguing that pluralistic approaches that include an emphasis on the personal meaning people derive from their experiences are the only viable way forward in truly understanding personality and pathology, for focusing only on reductionist causal explanations violates the ethical duty of science. These and other ethical approaches offer a complimentary meta-perspective to structural, cognitive, and phenomenological approaches that focus more on the content of the research than the social ramifications of conducting it.

The implication of ethical arguments for the study of narrative identity is that including first-person storied accounts not only reduces power differentials in the conduct of research, but also provides a vital explanatory perspective that is not tapped by other approaches. Although ethical arguments are primarily concerned with the appropriate conduct of research, embedded in their central tenets is an assertion that the likelihood of maximizing the explanatory potential of any given study is enhanced by the inclusion of narrative data. Thus, these approaches make an implicit argument for the incremental validity of narrative identity, integrated with their social and political assertions.

### *Convergence Across Theoretical Arguments as a Foundation for an Empirical Argument*

What structural, cognitive, phenomenological, and ethical arguments for the incremental validity of narrative identity share is the fundamental assertion that narrative identity is a unique aspect of personality, one that makes a special contribution to explaining well-being and other important outcomes. Each perspective suggests that studying narrative identity ought to be just as important to researchers interested in understanding individual differences as the narratives themselves are for individuals in their daily lives.

### **Conducting Research on Narrative Identity: Methodological Contributions to an Empirical Argument**

In addition to the theoretical arguments described above, there are important methodological reasons for examining narrative identity as an incremental correlate and predictor of

well-being. Scholars who appreciate, but do not conduct, research on narrative identity often wonder why it is worth it, as the process is often lengthy and labor-intensive. In this section, we will briefly review common narrative methods and then discuss several methodological arguments for their vital incremental contribution to understanding personality and its association with well-being.

### Common Narrative Methods

In the prototypical narrative study, researchers collect either oral or written narratives from participants using a semi-structured task, typically through telling the story of a particular episode or their entire life story in response to standardized prompts. The widely used Life Story Interview (McAdams, 2008a) serves as the gold standard for eliciting personal narratives. Indeed, even when studies are not concerned with the entire life story and instead focus on a specific episode, narrative prompts are commonly framed in a way that parallels the Life Story Interview prompts. Specifically, the prompts customarily instruct participants to include some description of when and where the event took place, who was there, what the participant was thinking and feeling during the experience, and what the experience means to the person. Responses to these prompts typically produce a very large quantity of code-able language, making even relatively small-sample-size-studies major undertakings. The Life Story Interview was designed to last two to three hours, generating many thousands of words of text. For example, in one recent study that used an abbreviated version of the Life Story Interview, coding was done for 84 participants' narrative transcripts, averaging just fewer than 7,000 words each (Lilgendahl & McAdams, 2011), roughly half the length of this article. Even studies that use written narratives typically tackle very large amounts of narrative data. For example, McAdams and colleagues (2006) collected written accounts of 10 key moments in the life stories of college undergraduates. The narratives averaged 2,000 words in length, and 344 of them were coded. (It is important to note that the word count of narratives has rarely been found to be significantly associated with any of the narrative variables of interest.)

Once data collection is complete, narrative researchers carefully blind all data (electronically transcribing any handwriting samples, assigning random identification numbers, etc.). Great attention must be paid to the transcription of oral narratives, given the propensity for very slight variations in word choice to lead to very different thematic meanings. Professional transcribers are traditionally used, rather than paid undergraduates, given the importance of the task and the specific skill set that leads to quality transcripts.

Blinded narrative data are then transferred to a group of coders. Narrative coding that seeks to create scientifically generalizable findings is undertaken by more than one coder, typically blind to the hypotheses of the study and trained to a

high standard of inter-rater reliability using a coding system that has been adopted or developed for operationalizing the narrative variables of interest. Typically, multiple coders begin by working together with a subset of the data or a separate training data set to learn how the coding system works and how it will apply to the unique data being examined. Once they have established a common understanding, they separately code additional narratives until high inter-rater reliability is established.<sup>2</sup> The process of applying these coding systems is similar in many ways to coding approaches developed for rating behavioral frequencies in lab-based research (e.g., Durbin, 2010).

Although researchers have developed approaches for streamlining the work, conducting narrative research fundamentally involves a deep immersion in participants' stories, working to tease out their meaning in a valid and reliable way. It is a process that is unlikely to be automated in the near future, as the contextual and connotative nature of meaning is enormously complex. Alternative approaches, such as Pennebaker, Booth, and Francis's (2007) Linguistic Inquiry and Word Count system, have made vital contributions to the understanding of first-person accounts, but approaches such as these are necessarily linguistic, not narrative. They rely on counting the frequency of different classes of words, such as personal pronouns and causal words; they cannot index the personal meaning of stories in the way that narrative coding systems do.

### Methodological Features

As the preceding review of theoretical arguments makes clear, including narrative identity in the study of individual differences should allow researchers to predict unique variance in important outcomes not explained using other variables. In addition, narrative approaches are typically free of problems related to method variance that are common in other approaches to studying the connections between individual differences and well-being, such as those reliant on self-report questionnaire measures of both personality traits and well-being. Narrative analyses can also be conducted on a wide variety of sources, from historical texts, to archival data sets, to contemporary self-disclosure formats such as blogs and other social media platforms. Not all textual data are properly considered *narrative* in nature, but given the ubiquity of storytelling in human interaction, there are many untapped sources of potentially valuable data available to researchers.

It is also important to note that narrative data are uniquely generative. Whereas most other types of data, such as questionnaire or physiological measures, provide researchers with a single point of inquiry, narratives contain multitudes. There is only so much a researcher can do with scores on a measure of the Big Five personality traits or readings of daily cortisol levels, beyond answering their initial set of questions, without collecting more data. In contrast, narrative

data sets can be re-examined in posing an incredible variety of questions as research programs develop and new frontiers are identified. As a result, even beyond the theoretical arguments for studying narrative identity, the generative potential of such data makes a strong methodological case for the time- and labor-intensive process of doing narrative research.

In making the argument for investigating narrative identity, it is important to note that personal narratives should not be regarded as a vehicle for assessing the veracity of the events described. Although narratives should be both believable and based in reality (e.g., McAdams, 2006a), the objective facts of a narrative are of less interest to narrative researchers than the subjective interpretation of one's life experience. Theory and data converge to suggest that this subjective meaning matters for participants' well-being—and in some cases matters more than other individual difference variables. In other words, it is the characteristics of how a story is told, as opposed to the truth of the tale, which are crucial for the connection between narrative identity and well-being.

## An Organizational Framework of Commonly Examined Narrative Variables

The framework we developed to organize the commonly studied narrative variables was derived inductively. First, we compiled the articles that met our criteria for inclusion in the present review. Second, we made a list of the complete set of narrative variables examined in this body of research. Third, we asked leading narrative researchers to examine the list and develop their own framework. Each of these steps is described below.

### Inclusion Criteria

Articles were included in the review if they had at least one variable from each of following three categories:

1. *Coded narrative variable.* The article had to include the systematic and reliable coding of an individual difference drawn from narratives provided by individuals about episodes that occurred in their lives or from their overarching life stories.
2. *Non-narrative individual difference and situational variables.* Non-narrative variables included demographic and contextual variables, personality measures of dispositional traits or characteristic adaptations, and, in certain instances, well-being measures used as predictors.
3. *Index of well-being.* Research on the association between narrative identity and well-being has adopted an expansive approach to operationalizing well-being, encompassing variables typically ascribed to both hedonic and eudaimonic categories of well-being

(e.g., Ryan & Deci, 2001; Ryff & Keyes, 1995), as well as psychopathology and variables that speak to flourishing (e.g., Keyes, 2005). Although theoretically and empirically distinct from many well-being measures, narrative researchers have also often investigated the differential relationships between narrative variables and psychological maturity or ego development (e.g., Hy & Loevinger, 1996) alongside well-being. We will adopt this broad approach in the present review. This decision was made purely on pragmatic grounds: To review as many studies as possible that assessed narrative variables alongside other individual difference variables in their associations with well-being, it was necessary to adopt a broad operationalization of well-being. We will be precise in our discussion of the findings in individual studies and be mindful of the important distinctions in well-being measures in drawing overall conclusions from the review.

We conducted a literature search by doing keyword searches using PsychInfo, PubMed, and Google Scholar, by examining the curriculum vitae of major researchers in the field, by directly contacting major researchers in the field, by following the reference lists from identified articles, and by conducting cited reference searches. In the interest of greatest transparency, we chose to only include previously published or in press articles in this review; unpublished manuscripts, theses, and dissertations were not included prior to their acceptance for peer-reviewed publication.<sup>3</sup>

As noted above, the specific matter of incremental validity was quite often not the researchers' primary aim in the studies we include in this review. As a consequence, we scrutinized the results sections of all candidate articles to identify any relevant findings. Inconsistencies in reporting the differential associations between narrative variables, other individual difference variables, and well-being, both within individual studies and across studies, are likely due to the researchers' prioritization of other research questions. Indeed, we reiterate that narrative identity is a valuable construct for reasons having nothing to do with its incremental association with well-being.

In spite of this, we identified 30 studies that could speak to the important issue of incremental validity, meeting our inclusion criteria for the present review. These studies are described in Table 1. Because most studies included were correlational, partial correlations or standardized beta coefficients were collected from each study and included in Table 1, when available. Partial correlations represent the shared variance between a narrative measure and a well-being measure once the shared variance between the non-narrative variable(s) and both the narrative measure and the well-being measure have been removed. Standardized beta coefficients are from a different metric than partial correlations and are not directly comparable. However, simulation studies

**Table 1.** Description of Each Study Included in Review.

Authors, year	Type of narrative	Category	Theme coded	Control variables	Dependent variable	$r/\beta$	Fisher's Z	n	Brief results description
1 Adler, 2012a	Narratives about psychotherapy and its impact on sense of self, collected at 12 points over the course of treatment	M	Agency	Neuroticism, sex, race, education, income, and characteristics of psychotherapy	Mental health	NA	—	47	Agency, but not coherence, was associated with increases in mental health over the course of treatment, accounting for individual differences in neuroticism and other variables; narrative change preceded change in mental health
2 Adler & Hershfield, 2012	Narratives about psychotherapy and its impact on sense of self, collected at 12 points over the course of treatment	A	Specific emotions	Neuroticism	Mental health	NA	—	47	Co-occurrence of both positive and negative emotions was associated with increases in mental health even after controlling for neuroticism and direct impacts of happiness and sadness
3 Adler & Poulin, 2009	Narratives of exposure to the 9/11 attacks and sense made of those attacks	A	Redemption	Ethnicity, income, lifetime psychological diagnoses, lifetime stressful events, emotional tone Moderator: level of exposure	Psychological well-being	$\beta = .16$	.16	395	Themes of national redemption, but not contamination, were positively associated with well-being, controlling for age, gender, ethnicity, education, income level, and pre-9/11 psychological distress. This effect was significant only for those with a high level of exposure to the attacks
		A	Contamination	Ethnicity, income, lifetime psychological diagnoses, lifetime stressful events, emotional tone Moderator: level of exposure	Psychological distress	$\beta = .21$	.21	395	Contamination, but not redemption, was associated with higher levels of psychological distress, controlling for demographics and distress level before the attacks. This effect was significant only for those with a high level of exposure to the attacks

(continued)



Table 1. (continued)

Authors, year	Type of narrative	Category	Theme coded	Control variables	Dependent variable	$r/\beta$	Fisher's Z	n	Brief results description
		I	Closure	Ethnicity, income, lifetime psychological diagnoses, lifetime stressful events, emotional tone	Psychological well-being and distress	$\beta = .12$ and $.17$	.12 and .17	395	Closure was positively and negatively associated with well-being and psychological distress, respectively, controlling for demographics and distress level before the attacks and regardless of the level of exposure to the attacks
4 Adler, Kessel, & McAdams, 2006	Life story interview (8 life scenes)	A	Contamination	Neuroticism, depressogenic attributional style	Depression	$\beta = .46$	.50	70	Contamination sequences were positively associated with depression after controlling for neuroticism and depressogenic attributional style
		A	Contamination	Neuroticism, depressogenic attributional style	Life satisfaction	$\beta = -.33$	-.34	70	Contamination sequences were negatively associated with life satisfaction after controlling for neuroticism and depressogenic attributional style
5 Adler, Wagner, & McAdams, 2007	Six scenes of psychotherapy story (e.g., a specific significant session or one in which the impact of the treatment was clear)	S	Coherence	Openness, age, sex, race, education, income	Ego development	Partial $r = .54$	.60	76	Narrative coherence showed incremental validity in its association with ego development, above openness and demographics
6 Adler, Skalina, & McAdams, 2008	Six scenes of psychotherapy story (e.g., a specific significant session or one in which the impact of the treatment was clear)	M	Agency	Sex, age, income, education, race, duration of the treatment, mood at the time of writing the narratives, satisfaction with treatment, ratings of therapist's competence, and willingness to seek treatment again	Subjective well-being	$\beta = .20$	.20	104	Agency was positively associated with subjective well-being, holding constant all control variables

(continued)

**Table 1. (continued)**

Authors, year	Type of narrative	Category	Theme coded	Control variables	Dependent variable	r/ $\beta$	Fisher's Z	n	Brief results description
7 Amir, Stafford, Freshman, & Foa, 1998	Female victims of a recent sexual assault recounted it in detail within 2 weeks of the assault	S	Coherence	Sex, age, income, education, race, duration of the treatment, mood at the time of writing the narratives, satisfaction with treatment, ratings of therapist's competence, and willingness to seek treatment again should the need arise	Ego development	$\beta = .44$	.47	104	Narrative coherence was positively associated with ego development, holding constant all control variables
8 Baerger & McAdams, 1999	Life story interview (8 life scenes)	S	Reading level of writing	Education level	Posttraumatic symptoms	$r = -.63$ and $-.59$	-.74 and -.67	12	Narrative reading level was associated with significant decreases in post-traumatic stress disorder symptoms ten weeks later, controlling for education level
9 Bauer & McAdams, 2004a	Two major goals in life and the plan to achieve them	I	Coherence	Age	Depression	NA	—	50	Coherence in midlife adults' life stories was associated with depression, accounting for age
		I	Exploratory life span growth goals	Age	Ego development	$\beta = .28$ and $R^2 = .03$	.29	51	Exploratory life span growth goals predicted ego development above and beyond the effects of age, but not psychological and subjective well-being
		I	Intrinsic growth goals	Age	Psychological and subjective well-being	$\beta = .27$ and $.33$ ; $R^2 = .05$ and $.08$	.28 and .34	51	Intrinsic growth goals predicted psychological and subjective well-being while controlling for age, but not ego development
10 Bauer & McAdams, 2004b	A major life transition in six episodes or segments	I	Integrative and intrinsic memories	Big Five personality traits, education, ethnicity, gender, marital status, income	Ego development	$r = .46$	.50	67	Integrative memories—but not intrinsic memories—were positively associated with ego development

(continued)

Table 1. (continued)

Authors, year	Type of narrative	Category	Theme coded	Control variables	Dependent variable	$r/\beta$	Fisher's Z	n	Brief results description
		I	Integrative and intrinsic memories	Big Five personality traits, education, ethnicity, gender, marital status, income	Psychological well-being, life satisfaction	$r = .46$ and $.38$	.50 and .29	67	Intrinsic memories—but not integrative memories—were positively associated with psychological well-being and life satisfaction
		M	Agency and communion	Big Five personality traits, education, ethnicity, gender, marital status, income	Psychological well-being, life satisfaction	$\beta = .37$	.39	67	Agency and communion were positively associated with psychological well-being, but only communion was associated with life satisfaction
I1 Bauer & McAdams, 2010	Two major life goals	M	Agentic growth goals	Gender, Big Five personality traits, ego development at Time 1	Ego development at Time 2	$\beta = .32$ and $R^2 = .083$	.33	87	Agentic growth goals predicted changes in ego development 3.5 years later
		M	Communal growth goals	Gender, Big Five personality traits, and subjective well-being at Time 1	Subjective well-being at Time 2	$\beta = .32$ and $R^2 = .09$	.33	87	Communal growth goals predicted changes in subjective well-being 3.5 years later
I2 Bauer, McAdams, & Sakaeda, 2005a, Study 1	A particular event in which one made an important decision, what the decision was, and why it was an important one	M	Crystallization of desire vs. discontent	Neuroticism, extraversion, and avoidance strivings	Satisfaction with life	$\beta = .24$	.24	51	Crystallization of desire (vs. discontent) was positively associated with life satisfaction, independent of neuroticism, extraversion, and general avoidance strivings
I3 Bauer et al., 2005a, Study 2	Narrative about a decision to make a major life change in either career or religion	M	Crystallization of desire vs. discontent	Neuroticism, extraversion, avoidance strivings, life impact from transition	Satisfaction with life	$\beta = .34$	.35	67	Crystallization of desire (vs. discontent) was positively associated with life satisfaction, independent of neuroticism, extraversion, general avoidance strivings, and life impact of the transition
I4 Bauer, McAdams, & Sakaeda, 2005b	Narratives of high points, low points, and turning points in life	I	Integrative memories	Big Five personality traits	Ego development	$\beta = .63$	.74	176	Integrative themes in college students' and midlife adults' life stories were positively associated with ego development, but not with life satisfaction, controlling for the Big Five personality traits

(continued)

**Table 1. (continued)**

Authors, year	Type of narrative	Category	Theme coded	Control variables	Dependent variable	$r/\beta$	Fisher's Z	n	Brief results description
15 Cox & McAdams, 2014	High and low points in life	I	Intrinsic memories	Big Five personality traits	Satisfaction with life	$\beta = .49$	.54	176	Intrinsic themes in college students' and midlife adults' life stories were positively associated with life satisfaction, but not with ego development, controlling for the Big Five personality traits
16 King & Noelle, 2005	Narratives of coming out as lesbian or gay	M	Intimacy	Gender and education	Ego development and life satisfaction	$\beta = .19$ , $R^2 = .07$	.27 and .20	164	Positive meaning-making predicted positive emotion regulation strategies, whereas negative meaning-making predicted negative emotion regulation strategies
17 King & Raspin, 2004	Future self imagined before divorce (i.e., hope and dream for marriage) and future possible self as currently imagined	I	Elaboration of self	Age	Ego development	$\beta = .48$ and total $R^2 = .23$	.52	73	Elaboration of self in found possible self, but not in lost possible self, positively predicted ego development
18 King & Smith, 2004	Lesbian and gay participants wrote about their best straight and best gay possible future selves	I	Elaboration of self	Age, ego development Time 1 Moderator: time since divorce Income, education, age	Ego development Time 2	NA	NA	73	Elaboration of lost self positively predicted increases in ego development the more time had elapsed since divorce
19 King, Scollon, Ramsey, & Williams, 2000	Participants wrote about the moment when they were first told that their child would be born with/ had Down syndrome	I	Accommodative processing	Stress-related growth, number of children in the family, the age of the child with Down syndrome	Ego development	$\beta = .24$	.24	87	Accommodation was positively associated with ego development, but not with subjective well-being

(continued)



Table 1. (continued)

Authors, year	Type of narrative	Category	Theme coded	Control variables	Dependent variable	$r/\beta$	Fisher's $Z$	$n$	Brief results description
20 Lilgendahl, Helson, & John, 2013	Most unstable, confusing, troubled, or discouraging time in life since college	A	Happy ending	Number of children in the family, the age of the child with Down syndrome	Subjective well-being	$\beta = .34$	.35	87	Happy endings were positively associated with subjective well-being, but not with ego development
21 Lilgendahl & McAdams, 2011	Abbreviated life story interview (life chapters, high point, low point, important people)	S	Foreshadowing	Number of children in the family, the age of the child with Down syndrome	Subjective well-being	$\beta = .23$	.23	87	Foreshadowing was positively associated with subjective well-being, but not with ego development
		I	Closure	Number of children in the family, the age of the child with Down syndrome	Subjective well-being	$\beta = .22$	.22	87	Closure was positively associated with subjective well-being, but not with ego development
		I	Accommodative processing	Education, verbal ability, openness at age 21, 43, 52, and 61	Ego development	$\beta = .49$	.51	62	Accommodative processing at age 52 predicted increases in ego development between age 43 and 61
		M	Differentiated processing	SES, openness	Subjective and psychological well-being	$\beta = .29$ to .39	.30 and .41	88	Differentiated processing of negative events were positively associated with subjective and psychological well-being
		A	Positive processing	SES, neuroticism	Subjective and psychological well-being	$\beta = .19$ to .21	.19 and .21	88	Positive processing was positively associated with psychological and (marginally with) subjective well-being
22 Lodi-Smith, Geise, Roberts, & Robins, 2009	Narratives of how one's personality has changed since the beginning of college	I	Exploratory processing	Changes in the Big Five personality traits	Emotional health	Partial $r = .14$ , <i>ns</i>	.14	170	Exploratory processing did not predict changes in emotional health after controlling for self-reported changes in personality traits
		A	Affective processing	Changes in the Big Five personality traits	Emotional health	Partial $r = .23$	.23	170	Affective processing positively predicted changes in emotional health, after controlling for self-reported changes in personality traits

(continued)

**Table 1. (continued)**

Authors, year	Type of narrative	Category	Theme coded	Control variables	Dependent variable	r/β	Fisher's Z	n	Brief results description
		I	Exploratory processing	Perceived personality changes	Trait maturity (Increases in emotional stability and conscientiousness)	Partial $r = .11$ , $ns$ and $.16$	.11 and .16	170	Exploratory processing was positively associated with changes in conscientiousness, but not with changes in emotional stability, after controlling for perceived personality changes
		A	Affective processing	Perceived personality changes	Trait maturity (Increases in emotional stability and conscientiousness)	Partial $r = .21$ and $.23$	.21 and .23	170	Affective processing was positively associated with changes in conscientiousness and in emotional stability, after controlling for perceived personality changes
23 McAdams, Reynolds, Lewis, Patten, & Bowman, 2001	Life story interview (8 life scenes)	A	Redemption	Gender and race	Satisfaction with life	$r = .37$	.39	74	Redemption was positively associated with hedonic well-being, controlling for gender and race
		A	Contamination	Gender and race	Satisfaction with life	$r = -.40$	-.42	74	Contamination was negatively associated with hedonic well-being, controlling for gender and race
24 McLean & Breen, 2009	Turning point memory (i.e., a significant life change)	A	Redemption	Age, Moderator: gender	Self-esteem	$\beta = .30$ and $R^2 = .03$	.31	171	Redemption sequences in adolescents' narratives of turning points were positively associated with self-esteem for boys but not for girls
25 McLean & Ligidahl, 2008	High and low point memories	A	Redemption	Moderator: age	Well-being	$ns$	—	113	Redemption sequences in low-point (but not in high point) narratives were associated with eudaimonic well-being, but only for emerging adults, not for older adults
26 McLean, Breen, & Fournier, 2010	A high point, a low point, a turning point, and a continuity experience	S	Sophistication	Moderator: age	Well-being	$\beta = .28$	.29	146	A higher level of sophistication in the narratives of early adolescents was negatively associated with well-being, but this negative relationship disappeared by late adolescence

(continued)

Table 1. (continued)

Authors, year	Type of narrative	Category	Theme coded	Control variables	Dependent variable	$r/\beta$	Fisher's Z	$n$	Brief results description
27 Pals, 2006	Most unstable, confusing, troubled, or discouraging time in life since college	I	Exploratory processing	Coping and openness at age 21	Maturity at age 61	$\beta = .29$	.30	83	Exploratory processing in narratives told at age 52 mediated the relationship between coping and openness measured at age 21 and an expert-rated measure of maturity obtained at age 61
28 Philippe, Koestner, Beaulieu-Pelletier, & Lecours, 2011	Self-defining memory	M	Need satisfaction (autonomy, competence, and relatedness)	Age, gender, Big Five personality traits, perceived need satisfaction	Hedonic and eudaimonic well-being and psychological adjustment	All $\beta$ s = .16 and all $R^2 = .021$	.16	244	Need satisfaction was positively associated with hedonic and eudaimonic well-being as well as with psychological adjustment after controlling for age, gender, Big Five personality traits, and perceived need satisfaction
29 Thorne & Michaelieu, 1996	Memories about experiences with other people that readily come to mind	M	Agency	Moderator: gender	Self-esteem	For men only: $r = .35$	.37	84	Agency in friends-related memories, but not in parents-related memories, was positively associated with longitudinal increases in self-esteem, but for males only
30 Wilt, Keith, & McAdams, 2010	Life story interview (5 scenes)	M	Communion	Moderator: gender	Self-esteem	For women only: $r = .36$	.38	84	Communion in friends-related memories, but not in parents-related memories, was positively associated with longitudinal increases in self-esteem, but for females only
		M	Eriksonian themes: interpersonal and generative	Age, family income, gender, Big Five personality traits	Psychosocial adaptation	$\beta = .21$	.21	128	Eriksonian themes positively predicted social adaptation after controlling for demographics and Big Five personality traits

Note. M = motivational; A = affective; I = integrative meaning; S = structural; SES = socioeconomic status.

suggest that standardized betas are a proper estimation of zero-order correlations when values range between  $-.50$  and  $.50$ , regardless of the sample size and number of covariates in the model (e.g., Peterson & Brown, 2005). Because beta coefficients are highly similar to semi-partial correlations, which are typically lower than partial correlations, the interpretation of beta coefficients as roughly equivalent to a partial correlation constitutes a conservative estimate (coefficients of all studies were below  $.50$  or just slightly above). Each partial  $r$  or standardized beta was thus transformed to Fisher's  $Z$ s for direct comparison. However, Table 1 also provides the original data, either partial  $r$  or standardized beta, and the  $R^2$  is provided when available.

#### Four Categories of Commonly Examined Narrative Variables

In compiling the studies for this review, we identified great diversity in the number of narrative variables that were examined alongside other individual difference variables for their association with well-being. Indeed, there were nearly as many narrative individual difference measures identified as the number of studies included. As a result, developing an organizational framework for the focus of studies that could speak to the incremental validity of narrative identity in its association with well-being became an imperative step in conducting this review. Our approach to developing this organizational framework began by asking seven leading narrative researchers to examine the list of themes derived from the articles included in the review. The task we posed to these researchers was similar in many ways to the work they do with narrative data: We asked them to examine the list of narrative characteristics coded in the studies and to identify broad, overarching categories. They were allowed to identify as many categories of narrative themes as they wished and were asked to label these categories as they saw fit. They were also invited to create an "other" or a "do not know" category if needed. The first three authors of this article also undertook the task, independently from each other and from the seven experts. Once we obtained these 10 sets of classifications, we adapted similar wording of the labels across judges to achieve unified labeling. For example, categories labeled "motivational themes," "motivational processes," or "motives" were considered akin to each other. Although we did not ask the judges to use a limited number of dimensions, all of them used between four and seven.

Much to our surprise, the categorization that resulted was remarkably consistent across the 10 judges. Four primary categories of narrative characteristics emerged quite clearly across all judges, with an additional categories (or categories) nominated by one or two judges that included only one or two narrative characteristics or labeled "other." The resulting categories represent the classifications that were the most frequently named by the 10 judges. Each narrative measure was assigned to a specific category if the majority of the

judges had classified it in this way, although there were very few disagreements. This process resulted in the four overarching narrative categories, detailed in Table 2 and described below.<sup>4</sup>

*Motivational themes* refer to individual differences in narratives that highlight what the protagonist currently seeks, has sought in the past, or has achieved. These themes have often been classified into agentic (e.g., agency, power, autonomy) and communal motives (e.g., communion, intimacy, relatedness), representing two major domains of life concerns (e.g., Bakan, 1966; McAdams et al., 1996). These two themes are dominant in personal meaning-making (e.g., McAdams et al., 1996), tapping "two fundamental modalities in the existence of living forms" (Bakan, 1966, p. 14-15). Broadly, the theme of agency is concerned with autonomy and whether individuals feel they have the ability to influence their circumstances. In contrast, communion is concerned with striving for interpersonal connection. It is important to note that some motivational themes reflect a combination of both agency and communion, such as generativity (e.g., Frimer, Walker, Dunlop, Lee, & Riches, 2011; McAdams, 2010). In addition, although most narrative researchers only examine experiences related to successful fulfillment of these themes, some studies have taken into account the difference between the satisfaction and unfulfilled nature of some of these motives (e.g., Adler, Chin, Kolisetty, & Oltmanns, 2012; Philippe, Koestner, Beaulieu-Pelletier, & Lecours, 2011; Thorne & Klohn, 1993).

*Affective themes* refer to the emotional quality of a part or whole of a narrative. The majority of these themes focus on the positive or negative valence of the narrative's emotional tone, and especially on significant shifts in emotional tone. For example, judges sometimes code valence and tone on a Likert-type scale, where low scores indicate a very negative narrative and high scores represent a very positive one (e.g., McAdams et al., 2001), or on two Likert-type scales representing absence to presence of a given tone (e.g., King & Noelle, 2005). Other themes address the presence or absence of specific positive and negative emotions expressed in people's narratives (e.g., Adler & Hershfield, 2012; King, Scollon, Ramsey, & Williams, 2000). Finally, just as research on motivational themes primarily focuses on the signature themes of agency and communion, research demonstrating the incremental validity of affective themes often clusters around the cardinal themes of redemption and contamination. These affective themes capture shifts in the emotional tone of narratives. Redemption narratives are those that describe a scene that begins negatively but is narrated as ending positively (McAdams, 2006b; McAdams et al., 2001). In contrast, contamination sequences portray a shift from a positive beginning to a negative conclusion (McAdams et al., 2001). It is important to note that both themes represent a particular narrative approach to the temporal and causal dimensions of the narrator's experience: Life inevitably includes both positive and negative experiences, so these



**Table 2.** Narrative Categories, Measures, Definitions, and Reviewed Papers.

Narrative category	Narrative measure	Definition	Reviewed papers
Motivational themes	Agency	The protagonist can initiate changes on his or her own, achieve some degree of control over the course of his or her experiences, and affect his or her own life. This is often exemplified by aspects of self-mastery and control, status striving, achievement, and power.	Adler, 2012a* Adler et al., 2008 Adler, Chin, Kolisetsy, & Oltmanns, 2012 Bauer & McAdams, 2004b McAdams, Hoffman, Mansfield, & Day, 1996* Thorne & Michaelieu, 1996 McLean et al., 2010* Philippe et al., 2011*
	Autonomy	The protagonist views the self as unique or different from others, often reflected by self-assertion, independence, mastery, or being better or worse than others. Another definition, related to self-determination theory, is the need to feel volitional and authentic in one's actions, and to feel as though one is a causal agent with respect to one's own actions. This latter measure also takes into account non-satisfying aspects related to autonomy (e.g. feeling controlled, limited self-expression, introjections).	
	Communion	The protagonist aims to have a sense of togetherness and harmony with other people or their environment, to dialogue, share, help, connect to, and care for others.	Adler et al., 2012 Bauer & McAdams, 2004b* McAdams et al., 1996* Thorne & Michaelieu, 1996 Bauer et al., 2005a*
	Crystallization of desire	The protagonist decides to make a life change for the purpose of wanting to move toward something desirable in the future.	Ligendahl & McAdams, 2011*
	Crystallization of discontent	The protagonist decides to make a life change for the purpose of escaping a bad situation in the past.	
	Differentiated processing	The story reflects a variety and a richness of positive growth interpretations, which include distinct forms of self-growth (identity clarity, intimacy, and insight/wisdom).	
	Generativity	The protagonist has a strong concern for and commitment to promoting the well-being of youth and the next generation, expressed by caring for children and other family members or conserving or promoting societal traditions.	Mackinnon, Nosko, Pratt, & Norris, 2011 McAdams et al., 2001*
	Growth goals	The protagonist makes intentional efforts to guide his or her self-development in a personally meaningful direction oriented toward personal growth.	Bauer & McAdams, 2004a Bauer & McAdams, 2010*
	Intimacy	The narrative contains discussion of a relationship that produced positive affect or reciprocal dialogue in addition to a feeling of closeness, commitment, and concern for another.	King & Noelle, 2005* Mackinnon et al., 2011
	Power	The protagonist aims to have an impact on his or her social environment through influencing and persuading others and exerting social influence. Narratives may also report negative emotions associated with lack of power or concerns about status and prestige.	King & Noelle, 2005*
	Relatedness	The protagonist feels connected to and cared for by others and seeks to care for others. This measure also takes into account non-satisfying relational situations (e.g., conflict, relationship dissolution, rejection, loneliness).	Philippe et al., 2011*

(continued)

**Table 2. (continued)**

Narrative category	Narrative measure	Definition	Reviewed papers	
Affective themes	Contamination	The protagonist describes an event that moves from a good, affectively positive life scene to a bad, affectively negative life scene, in which good things turn into bad outcomes.	Adler et al., 2006 Adler & Poulin, 2009 Lodi-Smith et al., 2009 McAdams et al., 2001*	
	Emotional tone	The overall positivity or negativity of the story told or of the writing style.	Adler & Poulin, 2009 King & Noelle, 2005 McAdams et al., 2001* McLean & Breen, 2009*	
	Positive resolution/happy endings	The protagonist is able to come to peace with, or let go of, a challenging event.	King et al., 2000 Mansfield, McLean, & Lilgendahl, 2010*	
	Positive processing	The valence of the impact of the past event on self-growth.	Lilgendahl & McAdams, 2011*	
	Redemption	The protagonist describes an event that moves from a bad, affectively negative life scene to a subsequent good, affectively positive life scene. The bad is redeemed, salvaged, mitigated, or made better in light of the ensuing good.	Adler & Poulin, 2009 McAdams et al., 2001* McLean & Breen, 2009 McLean & Lilgendahl, 2008	
	Specific emotions	Specific discrete emotions such as happiness, surprise, sadness, fear or anxiety, anger, shame, or guilt.	Adler & Hershfield, 2012* King et al., 2000 McAdams et al., 1997	
	Valence	Valence, as a function of a culturally shared understanding of what constitutes a positive and negative life event, the supporting details of the story, and the description of the emotional intensity of the event at the time. The valence of the event told can be differentiated from the valence of the impact of this event on the narrator.	McAdams et al., 2011* Lilgendahl & McAdams, 2011* Lodi-Smith et al., 2009	
	Structural elements	Coherence	The narrator situates the characters of his story and their actions in a specific context, the story follows a temporal sequence of goal-oriented actions that are culturally recognized, emotions are clearly expressed in support of the point of the narrative, and narrative is integrated into larger life themes and meanings.	Adler, 2012a Adler et al., 2008 Adler et al., 2007 Baerger & McAdams, 1999* Habermaas & Bluck, 2000 Reese et al., 2011*
		Complexity	The degree of engagement in the narrative processing, as shown by depth of thought and nuance, such as seeing a variety of perspectives or emotions.	Mansfield et al., 2010*
		Foreshadowing	The protagonist sees signs warning of forthcoming tragedy, symbols representing coming events.	King et al., 2000*
	Reading level of writing	The degree of articulation of the narrative.	Amir et al., 1998*	

(continued)

Table 2. (continued)

Narrative category	Narrative measure	Definition	Reviewed papers
Integrative meaning	Accommodative processing	The protagonist has been forced to change, centrally and qualitatively, his or her views of the self and world, by actively experiencing a paradigmatic shift that requires a revision of structures and/or important changes in response to the environment.	King et al., 2000*
	Closure	The protagonist has a lack of unresolved issues and emotions. He or she describes himself or herself as having achieved closure with respect to a particular experience, such that his or her story is no longer stuck in the consequences of the experience.	Adler & Poulin, 2009* King et al., 2000 Pals, 2006
	Elaboration of self	Elaboration of self is evidenced through the detail, vividness, and emotional depth of the story, usually about a possible self.	King & Raspin, 2004* King & Smith, 2004
	Exploratory processing	The protagonist makes an active and engaged effort to explore, reflect on, or analyze a difficult experience with openness to learning from it and incorporating a sense of change into the life story.	Lodi-Smith et al., 2009 Pals, 2006*
	Integrative memories	The story reflects concerns for the differentiation and integration of new perspectives on the self and others, which emphasize the importance of learning, integrating, or coming to a new or deeper understanding of self or others.	Bauer et al., 2005b* Bauer & McAdams, 2004a, 2004b
	Intrinsic memories	The story includes themes of personal growth and happiness, meaningful relationships, or contributing to society.	Bauer & McAdams, 2004a Bauer et al., 2005b*
	Sophistication	The protagonist is capable of explaining how he or she has learned about his or her self through reflecting on the past, by connecting the meaning of a past event with his or her self.	McLean & Breen, 2009 McLean et al., 2010*

\*References marked with an asterisk represent articles from which definitions were directly drawn.

themes reveal the narrator's decisions about where to parse the flow of time and draw connections. They capture the affective thrust of the narrative style, revealing something essential about the way the narrator makes meaning from his or her experiences. As such, these themes also tap something about narrative structure and its meaning, but they are, at their core, affective in nature. Redemption and contamination are not the only affective themes researchers have examined, but in research examining the incremental validity of narrative themes in their relationships with well-being, they predominate.

*Themes of integrative meaning* represent the extent to which the narrator makes an interpretative evaluation of the event or life he or she has narrated and seeks to connect some of its content to the narrator's self (e.g., King et al., 2000; McLean et al., 2010; Pals, 2006). A wide variety of narrative themes capture individuals' attempts to make integrative meaning from their lives. These themes represent connections between specific experiences and the self, reveal effects of constructing high-level meaning, and point toward the extent to which the episodes being narrated are psychologically resolved. Such an evaluation usually involves cognitive differentiation of new perspectives on self and others or the integration of these perspectives into a new understanding of the self and of the world (Bauer & McAdams, 2004b; King et al., 2000). The integrative meaning dimension may also include narratives that show attempts at describing and resolving contradictions or include markers of personal growth.

The *structural elements* of a narrative refer to how the story is written or told in terms of the order of the content narrated, its coherence, and the complexity and details of the story, as well as the expressive sophistication of the narrator. Structural elements of narratives are more focused on the configuration of stories than their thematic content. Coherence, one of the signature structural elements, encompasses more than just the smooth flow of the story, also capturing its success in orienting the audience, making a clear evaluative point supported by affective language, and orienting the specific episode within the context of broader life themes or meanings (Baerger & McAdams, 1999; Habermas & Bluck, 2000; Köber, Schmiedek, & Habermas, 2015; Reese et al., 2011).

Although the complete set of narrative themes pulled from the studies included in this review was classified into four categories, this framework should not be interpreted to imply that the narrative themes within one category are necessarily redundant with each other or that the categories are orthogonal. Our aim in creating this framework is not to homogenize the richness of the narrative field. Rather, the framework we developed in the service of examining narratives' incremental validity offers a common language for organizing future coding, results, and theorizing. Many themes are, indeed, theoretically distinguishable, and some have received empirical support for their distinctiveness. For

example, the theme of redemption specifically implies that a narrative begins in a negative way, but ends in a positive light. This is conceptually and empirically distinct from the overall emotional tone of the narrative (McAdams et al., 2001) and also different from the narrative characteristic of happy endings (King et al., 2000), which does not require a shift from negative to positive, both of which were also classified in the affective themes category. An empirical approach to classifying narrative themes, both within and across categories, would provide a more definitive and generalizable framework.

## The Empirical Status of Narrative Identity's Incremental Associations With Well-Being

Having provided an overview of the four categories in the organizational framework, we now turn our attention to reviewing the literature in each category to examine its incremental validity in correlating with and predicting well-being.

### *The Incremental Validity of Motivational Themes' Association With Well-Being*

Motivational themes capture one of the primary reasons people develop internalized, evolved stories of the self—they create purpose for specific, important life events in the context of the larger lived life. As such, it comes as little surprise that, of the four categories of narrative variables, the strongest evidence for the incremental validity of narrative identity in its association with well-being was for motivational themes.

Themes of agency and communion are plainly differentially associated with well-being compared with demographic characteristics (see Table 1). Although this result may not be surprising, given the relatively weak associations between demographic variables and well-being (though, see Haring, Stock, & Okun, 1984), the diversity of approaches to operationalizing both motivational themes and well-being in this group of studies suggests clear incremental validity.

There is also solid evidence that motivational themes have been associated with well-being above and beyond the explanatory power of dispositional traits. Adler (2012a) followed psychotherapy clients from just before their first session of treatment through the course of several months of therapy. Participants wrote weekly narratives about their experiences during this period of time, as well as completing the Systemic Therapy Inventory of Change (STIC; e.g., Pinsof et al., 2009), a self-report measure that taps well-being including psychopathological, hedonic, and eudaimonic qualities. Multi-level modeling revealed that participants' narratives increased in the theme of agency over time and that these changes in agency preceded associated increases in well-being. Speaking to the issue of incremental



validity, the models further indicated that the association between increases in agency and subsequent increases in well-being remained significant even when controlling for participants' initial levels of trait neuroticism (which was strongly associated with well-being) and when accounting for their change in neuroticism over the course of treatment. Similar incremental validity was identified for the motivational theme's association with well-being, compared with situational variables that are often assessed in psychotherapy research, such as client demographics and treatment history and therapist demographics, training, and therapeutic orientation. This longitudinal design allowed for a particularly strong test of motivational themes' incremental validity in predicting well-being.

A different cross-sectional study provides a nice additional perspective, examining the incremental validity of motivational themes in their association with well-being compared with all five dispositional traits. In a set of three studies, Philippe and colleagues (2011) asked undergraduate and graduate students to describe key self-defining memories (e.g., Singer & Salovey, 1993) and coded the narratives for themes of autonomy, competence, and relatedness. Each of these themes was found to correlate with measures of hedonic and eudaimonic well-being, as well as psychological adjustment. They were also found to predict these well-being markers even after controlling for the Big Five traits, and over and above a measure of satisfaction of these three needs in life more generally. That is, even after controlling for people's general perceptions of their level of satisfaction of autonomy, competence, and relatedness in their life, the way these same needs were revealed to be satisfied or thwarted in a key self-defining memory explained unique variance in people's well-being above and beyond the impact of their dispositional traits. These findings highlight how significant and unique experiences found in narratives reflect a distinct level of self-knowledge.

In a similar vein, Bauer and colleagues (2005b) showed that "crystallization of desire" (approaching a desired future) was incrementally associated with life satisfaction beyond the effects of the Big Five traits in a pair of studies of adults' stories about life-changing decisions. One of the participants in this study described a decision to leave a career of 13 years and pursue becoming a doctor. The narrative unfolds this way:

My realization was that it is possible to have a career that I was passionate about . . . I had always fantasized about one day becoming a physician. Watching [them] in action catapulted me to the decision to go for it—I knew my passion lay in doing healing work.

The motivational theme captured in this story illustrates how this participant's narrative identity provided additional information about their motivation in this situation that allowed for complementarity in the prediction of well-being alongside dispositional trait measures.

A study by Bauer and McAdams (2010) similarly explored the incremental validity of motivational themes' association with well-being above and beyond the impact of dispositional personality traits, using two approaches to operationalizing well-being. The study asked college students (first years and fourth years) to write narratives describing their goals for personal growth. The students' well-being was assessed at the time they wrote these narratives and again three years later, by measuring life satisfaction and positive and negative affect as well as psychological maturity (using Hy & Loevinger's [1996] Sentence Completion Test of Ego Development). Different motivational themes in their narratives predicted the trajectories of these different measures of well-being. Specifically, agentic growth goals (those concerned with intellectual growth) predicted increases in psychological maturity, whereas communal growth goals (those concerned with socioemotional growth) predicted increases in life satisfaction and positive affect and decreases in negative affect. These associations remained statistically significant when controlling for the impact of the Big Five dispositional traits. Thus, this study demonstrated the unique explanatory power of motivational themes in personal narratives for predicting changes in two types of well-being, distinct from and complementary to dispositional traits.

Finally, research on the life stories of a national sample of midlife adults demonstrated a significant association between a composite of motivational and growth themes and well-being, beyond a host of different individual difference variables (Lilgendahl & McAdams, 2011). Specifically, these life narratives were coded for three themes relating to multiple forms of motivated self-growth: intimacy, identity clarity ("when a person describes a past event's impact as bringing about increased clarity regarding self-definition and purpose or meaning in life"; Lilgendahl & McAdams, 2011, p. 406), and wisdom/insight ("when a person describes a past event's impact as causing an internal, cognitive shift or transformation in how the person thinks in a generalized sense"; Lilgendahl & McAdams, 2011, p. 406).<sup>5</sup> This theoretically derived composite of growth-oriented motivational themes was a significant incremental indicator of optimal well-being (a combination of the Satisfaction With Life Scale and the Ryff [1989] Psychological Well-Being Scales) above and beyond the effects of event valence, demographic factors, and the Big Five dispositional traits.

In sum, there is good evidence that motivational themes in personal narratives demonstrate incremental validity in their association with well-being, broadly operationalized, compared with other individual difference variables such as demographic characteristics and dispositional traits. Motivational themes reveal the sense of purpose an individual has created in his or her life, and this purposefulness has distinctive relationships with well-being that does not appear to be captured by other individual differences.

### *The Incremental Validity of Affective Themes' Association With Well-Being*

It may seem especially straightforward that affective themes in narrative identity ought to be associated with well-being. Indeed, it is the case that positive emotional tone in narratives is associated with positive well-being (e.g., McAdams et al., 2001). However, the relationship between affective themes and well-being—and the incremental relationship, compared with other individual difference variables in particular—is much more nuanced than this simple association.

It is true that people who tell happy stories about their experiences also report higher levels of well-being. For example, McAdams and colleagues (2001) found that the overall emotional tone of midlife adults' life stories was associated with their life satisfaction and with several dimensions of the Ryff (1989) Psychological Well-Being scales. Likewise, in a longitudinal study of psychotherapy clients' narratives, Adler and Hershfield (2012) found that increases in the specific emotion of happiness and decreases in the specific emotion of sadness, coded in repeated narratives collected over the course of several months of treatment, were each uniquely associated with participants' improvement in well-being (assessed via the STIC, described above).

Despite these straightforward findings, in each of these studies, other affective themes were associated with well-being when statistically controlling for the more basic emotional quality of the narratives. In the study by McAdams and colleagues (2001), the themes of redemption and contamination were significantly associated with participants' well-being even after controlling for the emotional tone of the narratives. The shifts in these narratives from negative to positive (redemption) or positive to negative (contamination) were more strongly associated with well-being than the overall positivity or negativity of the stories. Similarly, in the study by Adler and Hershfield (2012), the presence of mixed emotions—the simultaneous occurrence of both positive and negative emotions—in the narratives was significantly associated with participants' improvements in well-being over time, even after controlling for the specific, independent effects of happiness and sadness. Although shifts in happiness and sadness were, unsurprisingly, associated with therapy clients' well-being, their narrative description of mixed emotional experiences, ones that conveyed the emotional complexity of their work in therapy and its impact on their life, had incremental explanatory power above and beyond the straightforward affective associations. In this study, the association of mixed emotions and well-being held when controlling for the impact of trait neuroticism. Results such as these suggest that the relationship between affective themes and well-being cannot just be reduced to overall positivity or negativity.

As the most commonly-assessed affective themes, redemption and contamination provide an excellent vehicle for understanding the incremental impact of this category.

These affective themes make narrative identity's reconstructive nature especially clear. All lives are marked by positive and negative experiences. The theory of narrative identity suggests that personal narratives act as a filter for one's objective history, reconstructing it into a story. When it comes to redemption and contamination sequences, the narrative question is largely concerned with how an individual makes temporal and causal connections between the positive and negative experiences in his or her life. For example, in recounting the most challenging experience of her life, a middle-aged participant described the dissolution of her marriage, saying,

I knew I reached an emotional bottom that year . . . but I began making a stable life again, as a more stable, independent person . . . It was a period full of pain, experimentation, and growth, but in retrospect it was necessary for me to become anything like the woman I am today. (Pals, 2006, p. 1080)

In this redemption sequence, the participant draws a connection between the "emotional bottom" she experienced and the formative role it played in her current identity. This was not the only narrative option available to this woman. She could have resolved the negative chapter without finding any redeeming value in it, a scene in which negative beginnings have negative endings. She could have described the stability and independence she found, and which characterize her present self, as the start of a new chapter, one that began with this positivity that has endured to today. Instead, she makes temporal and causal connections between the depth of her pain and her growth into a new, valued self, narratively redeeming the experience in a way that data suggest was more likely to support her well-being. There is nothing historically objective about this sequence; it represents a narrative reconstruction, one vital to this woman's well-being. This example illustrates how affective themes in narrative identity capture something essential about the meaning-making process that is not captured by other individual difference variables in predicting well-being.

Indeed, results across a variety of studies indicate that redemption and contamination sequences demonstrate incremental validity in their association with well-being, compared with other individual difference variables. For example, Adler and colleagues (Adler, Kissel, & McAdams, 2006) examined the impact of different predictors of depression and other aspects of low well-being, such as low life satisfaction and low self-esteem. The authors used a sample of life stories collected from a diverse group of 70 midlife adults, drawn from the community. They examined the relationships between these outcomes and contamination sequences, high levels of trait neuroticism, and depressogenic attributional style, a cognitive variable consisting of stable, global attributions for negative experiences that is frequently evaluated in the context of cognitive-behavioral therapy. Zero-order correlations established the expected associations between

contamination sequences, trait neuroticism, attributional style, and low well-being. Regression analyses revealed that contamination sequences were significantly associated with depression, low life satisfaction, and low self-esteem above and beyond the effects of trait neuroticism and attributional style. This study is emblematic of the trend demonstrating that affective themes in personal narratives have incremental validity in explaining well-being not captured by dispositional traits associated with affect or with non-narrative cognitive style also associated with affect. The subjectivity and meaning captured by affective themes in narratives were more strongly associated with well-being than dispositional proclivities for certain affective profiles and than general cognitive style variables.

Similar results were evident in two longitudinal studies. In one (Dunlop & Tracy, 2013b), participants enrolled in Alcoholics Anonymous wrote narratives about the last time they took a drink. The presence of redemption sequences in these stories predicted whether or not the participants reported having maintained their sobriety several months later, even after statistically controlling for trait-level positive and negative affect, trait-level anxiety, and controllability attributions. The authors suggest that these results may indicate that the affective theme of redemption in participants' narratives played a causal role in their maintenance of sobriety, with explanatory power above and beyond the contributions of other individual differences.

In a second longitudinal study, college students narrated the ways in which their personality had changed over their time as an undergraduate (Lodi-Smith, Geise, Roberts, & Robins, 2009). Measures of dispositional traits and a broad conceptualization of well-being (including life satisfaction, self-esteem, perceived stress, psychological adjustment to college, and depression) were collected during their first and fourth years of college. Themes of affective processing were associated with increases in well-being, controlling for changes in Big Five traits during the four years of college. A quote from one participant illustrates this key finding. She wrote,

I feel that I have changed a lot since entering college. The four years at [my college] have really enriched my intellectual, social, and individual life. I view myself as a more optimistic person in terms of school, work, and life in general. My personality has not changed much, but my perception of life has changed. (Lodi-Smith et al., 2009, p. 686)

Although this participant did experience shifts in her dispositional traits, she ascribes her growth and increased optimism to her "perception of life," which is captured in her narrative identity.

While there seems to be good evidence for the incremental validity of affective themes' association with well-being across several studies, each of these has adopted a largely hedonic conceptualization of well-being. The evidence is somewhat more equivocal when other approaches to

measuring well-being are considered. For example, McLean and Lilgendahl (2008) examined the role of redemption sequences in the high and low point stories told by emerging adults (*M* age: 19 years) and older adults (*M* age: 71.9 years). They found that age moderated the association between redemption and well-being, as assessed using the Ryff (1989) Psychological Well-Being scales, which tap multiple dimensions of well-being and is typically considered an assessment of eudaimonic well-being. In this study, participants in the younger age group who told redemptive low points scored especially high on psychological well-being. The authors argue that narrating one's life serves different psychological functions across the life span and demonstrate that the association between affective sequences and well-being may depend on the developmental concerns faced at different stages of maturation.

Affective themes seem to be relatively independent from measures of psychological maturity in the literature examined in this review (King & Raspin, 2004; King et al., 2000; Mansfield, McLean, & Lilgendahl, 2010). However, where significant zero-order patterns were present, the research rarely offered any statistical controls for potential third variables (King & Smith, 2004), so an examination of incremental validity was not possible.

In sum, there is solid evidence for the incremental association of affective themes in personal narratives and well-being, above the impact of individual difference variables such as dispositional traits, but this association appears to be limited to hedonic conceptions of well-being. As the research demonstrates, despite the seemingly straightforward interpretation of this finding, the relationship between affective themes and hedonic well-being is not simply reducible to a shared emphasis on positive and negative affect. This relationship is especially notable given the lack of method variance shared in studies that have assessed both affective themes and hedonic well-being. Indeed, affective themes such as redemption and contamination contain both positive and negative affective components and contribute to the explanation of hedonic well-being above and beyond the contributions of the positive and negative elements taken separately; it is the narrative sequencing of affective patterns that matters in this association.

Affective themes have also demonstrated incremental validity in their association with well-being when statistically controlling for other individual differences associated with affect, such as dispositional traits and cognitive style. The parsing of one's experiences into demarcated episodes in time and into causally connected elements adds vital explanatory power to understanding hedonic well-being. That being said, the association between affective themes and other conceptualizations of well-being is somewhat less clear. There is mixed evidence that affective themes may be differentially associated with eudaimonic well-being across the life span, and there is little research that speaks to the association between affective themes and psychological maturity.

### *The Incremental Validity of Themes of Integrative Meaning in Association With Well-Being*

Themes of integrative meaning support both central psychological functions of narrative identity, they build a sense of purpose and facilitate a sense of unity. In this category of themes, individuals' narration encompasses more than just a recounting of an episode or series of episodes, and also contains some discussion of the meaning the narrator has found in the events being described. Often, but not always, this involves stepping out of the flow of narration to comment on it, revealing the underlying significance of the episode being recounted, or making connections between the specific episode and the broader self. This process is psychologically integrative, weaving the event into a broader web of meaning, and in doing so, it supports a sense of purpose and fosters a sense of unity. If, as theory suggests, purpose and unity are associated with greater well-being, then individuals whose stories include themes of integrative meaning should show a high degree of well-being. Indeed, a number of studies suggest that integrative meaning is indicative of greater well-being. However, our review of studies that have specifically examined the incremental association between themes of integrative meaning and well-being suggests that the relationship of integrative meaning to well-being seems to vary somewhat, depending on the type of integrative meaning and the way in which well-being is operationalized in the study.

One of the earliest narrative studies to point to this variation is a study by King and colleagues (2000) in which parents of children with Down syndrome wrote of the experience of finding out their child's diagnosis. When writing their narrative, parents also completed measures of subjective well-being, stress-related growth, and ego development. They then completed these measures of well-being again two years later. In this study, integrative meaning was examined in two forms, derived with factor analysis. One form, labeled "closure," was a composite of narrative characteristics including a high degree of denial, resolution, and positive affect, alongside low levels of trauma, negative affect, and suddenness. This theme conveyed a sense that their child's diagnosis was no longer psychologically distressing to them. For example, one parent wrote, "I knew everything would be all right. He was first and foremost our baby boy and DS was one characteristic of Jamie. He is as much or more of a blessing to our family as any child could be" (King et al., 2000, p. 523). This resolved narrative style was associated with greater subjective well-being, both concurrently and longitudinally, even when controlling for family-level factors such as the number of children in the family and the age of the child with Down syndrome (and, hence, the time since learning of the diagnosis). However, such closure did not relate to stress-related growth or to ego development at either time point in the parents.

What did relate to these factors of growth and maturation for these parents was a different form of integrative meaning, termed "accommodative processing" in this study.

Accommodative processing was computed as a composite of the narrative characteristics of exploring the meaning of the event, having a sense of change (termed "paradigmatic shift"), and a description of the protagonist taking an active role in the story. Thus, as the name "accommodation" suggests, these individuals describe having actively pursued a change in their worldview as a result of learning their child had Down syndrome. For example, one parent wrote,

I was surprised how much I totally suppressed the information. Total denial for 3 weeks. . . . I was shocked at my own inability to deal with such an unexpected event. I cried a lot. The pain was so deep. I felt cheated—I could hardly function. I was so absorbed with my own fears. But I did regroup. I did grow. And I did learn to accept the situation. That opened the door for me to bond and love my child. But it took time. (King et al., 2000, p. 521)

Such exploration, growth, and meaning-making in these stories of finding out one's child had Down syndrome were concurrently related to ego development and both concurrently and longitudinally related to stress-related growth, controlling for the number of children in the family and the age of the child with Down syndrome, but was unrelated to subjective well-being (King et al., 2000). The findings from this relatively early study suggest that integrative meaning may differentially relate to different operationalizations of well-being, depending on the way in which meaning is presented by the narrator. A sense that the experience is important but somewhat resolved for the narrator was associated with more hedonic well-being, whereas a continued active engagement with the experience was associated with greater maturity and growth, regardless of the time that had passed for the narrator.

Subsequent studies converge on a similar pattern. For example, in a study by Bauer and colleagues (2005b), distinct types of integrative themes in stories of high points, low points, and turning points differentially predicted well-being. In two samples, these three types of stories, told by undergraduate students (average age 19.8) and adults (average age 51.7), were coded for two different integrative meaning themes: (a) intrinsic themes, wherein the author described "personal growth, meaningful relationships, and contributions to society" and (b) integrative themes, which "emphasized the importance of learning, integrating, or otherwise coming to a new or deeper understanding about the self and others" (Bauer et al., 2005b, p. 207). Each of these themes represents types of integrative meaning, and each was differentially related to well-being outcomes. Specifically, intrinsic themes were correlated with life satisfaction above the effects of trait neuroticism. Integrative themes, on the other hand, correlated with ego development, controlling for openness to experience. These patterns were consistent in both samples and across the types of memories, and they echoed similar findings in stories of goals when controlling



for personal strivings (Bauer & McAdams, 2004a) and life transitions, controlling for individual demographic factors (Bauer & McAdams, 2004b).

Studies such as these suggest there may be two different types of connections between themes of integrative meaning and beneficial psychological outcomes. First, there is an assimilative type (which is often positively valenced), depicting integration and connection to individual identity that may facilitate purpose and unity of the existing self-schema and thus hedonic well-being, such as subjective well-being. Second, there is an accommodative type of processing integrative meaning, where the individual has not just created purpose and unity from the event but actively explored the meaning of the event to create a more mature and deep purpose and unity for the self, which is associated with eudaimonic outcomes such as stress-related growth and ego development. This pairing is consistent with Block's (1982) distinction between assimilation and accommodation (also see King, 2001), with meaning-making coding protocols that differentiate between learning lessons and gaining insight (e.g., McLean & Thorne, 2001), with Pals' (2006) concept of positive self-transformation, and with work on autobiographical reasoning wherein integrative meaning happens in many different ways at many different levels to create a sense of unity and purpose for the individual (Habermas & Köber, 2014).

This supposition appears to be further supported by other research on integrative meaning that examined only one type of integrative meaning and/or used only one operationalization of well-being. The conclusion that emerges from this set of studies is that themes of integrative meaning that are assimilative in nature are more strongly associated with hedonic conceptions of well-being, whereas themes of integrative meaning that are accommodative in nature are more strongly associated with eudaimonic outcomes such as psychological maturity.

Two brief examples illustrate the incremental association between assimilative integrative meaning and hedonic conceptions of well-being. First, in stories of the 9/11 terrorist attacks written by a nationally representative sample of adults, having a sense of personal closure regarding the attacks significantly predicted greater subsequent well-being (affective and life satisfaction measures) and lower psychological distress (frequency of anxiety, depression, and somatization symptoms), even while controlling for demographic variables and variables such as psychological distress before the attacks, exposure to the attacks, and lifetime stressful events (Adler & Poulin, 2009). This study therefore supports the incremental association between an assimilative form of integrative meaning and hedonic well-being. Another recent study comes to a similar conclusion, using different operationalizations of assimilative integrative meaning themes and hedonic well-being. Cox and McAdams (2014) found that adults who narrate the high point and low point of their lives with positive meaning report greater positive emotion

regulation, whereas those who narrate their low points with negative meaning-making report greater negative emotion regulation two years after they told their life stories, even after controlling for the traits of extraversion and neuroticism. These two forms of meaning-making are assimilative in nature, simply emphasizing the valence of the meaning captured in the narratives, and were associated with emotion regulation strategies indicative of hedonic well-being.

A number of studies also suggest that accommodative integrative meaning is associated with greater psychological maturity across a number of conceptions of developmental maturity. For example, in a pair of studies that asked participants to narrate future possible selves as if conditions of their life been different, elaborating on that possible self, was related to ego development beyond demographic factors. Specifically, in the coming out narratives of gay and lesbian adults, elaboration of straight possible selves was significantly related to ego development both concurrently, controlling for income, education, and age, and prospectively, controlling for income, education, age, and age of coming out (King & Smith, 2004). Such elaboration in divorce narratives (King & Raspin, 2004) also prospectively predicted ego development even controlling for concurrent ego development (although in divorce narratives this effect was only present when accounting for time since divorce).

This prediction of maturation while controlling for other likely indicators is also consistent with findings from a study of college student personality change, looking at how narratives written in the fourth year of college correspond to individual differences in trait change during the college period. In that study, exploratory processing corresponded to normative increases in trait conscientiousness, above the effects of perceived changes in trait conscientiousness, although the same patterns were not found for trait emotional stability (Lodi-Smith et al., 2009). Such increases in trait conscientiousness are part of a normative pattern of trait maturation for this age group (Roberts, Walton, & Viechtbauer, 2006). Thus, this finding lends further support to the association of accommodative integrative meaning with developmental maturity.

Longitudinal research from the Mills Longitudinal Study also demonstrates that accommodative integrative meaning in narratives of difficult life experiences told in midlife predicts greater psychological maturity across several maturity indices. First, exploratory processing predicted expert-rated maturity in early older adulthood, even when controlling for openness in young adulthood (Pals, 2006). Similarly, recent work on this same sample demonstrates that accommodative processing, a combination of exploratory processing and coherent positive resolution, predicts normative increases in ego development through midlife, controlling for trait openness at 4 time points in the study, as well as verbal SAT scores and educational attainment (Lilgendahl, Helson, & John, 2013). Thus, accommodative integrative meaning seems to be an important aspect of maturation, across a

number of different operationalizations of maturity. The link between this accommodative processing and maturity outcomes is quite consistent with identity development theory, given that exploration is a central component of healthy identity development from an Eriksonian perspective (Erikson, 1968).

There is one finding concerning themes of integrative meaning that stands as unique, compared with all of the other results in this review. There is emerging evidence that themes of integrative meaning may, in fact, be incrementally associated with worse well-being in certain instances. This body of research is still quite new, but there is an indication that an active search for meaning may not always yield positive consequences, or may only show its contribution to well-being many years later. For instance, McLean and colleagues (2010) showed that meaning-making in early- and middle-adolescent boys was negatively associated with well-being (measured as depressive symptomatology and self-esteem) and that it was only by late adolescence that this relationship turned into a positive one. Thus, age significantly affected the association between meaning-making and well-being. The authors concluded that meaning-making might not be appropriate before certain cognitive capacities develop (also see McLean & Mansfield, 2011). This conclusion is echoed in a recent study by Waters and Fivush (2015). They found that young adults (18 to 28 years old) with narratives characterized by both low coherence and high identity content were those scoring the lowest on purpose and meaning components of the Ryff (1989) Well-Being Scales. However, young adults with narratives containing both high coherence and high identity content were those scoring the highest on those components. Taken together, these findings seem to imply that autobiographical reasoning that elaborates on the connections between past events and a current self-view may create distress when the person does not have the cognitive resources to coherently organize and integrate the emerging self-knowledge.

However, other studies show that such meaning-making may only be beneficial over time. For instance, King and Raspin (2004) revealed that the level of elaboration of a lost self after a divorce was positively associated with ego development and predicted increases in ego development over time, but this positive relationship only emerged many years after the divorce had occurred. Similarly, the salutary effects described earlier of accommodative processing for ego development in the Mills Longitudinal Study were only present when the narrator was narrating a difficult life experience that occurred during midlife (Lilgendahl et al., 2013). It is still unknown whether meaning-making per se can be ill-advised in certain circumstances or whether its negative relationship with well-being only highlights the beginning of an adaptive process that will pay off many years later. Another explanation is that people with low well-being may feel the urge to reorganize their life and identity by engaging in autobiographical reasoning, and that when this process is

observed at its early stages, a negative relationship between meaning-making and well-being appears. Future research is needed to better understand when meaning-making is beneficial and when it is not and why.

In sum, the category of themes concerned with integrative meaning seems to include two approaches, one more concerned with psychological assimilation and the other more concerned with accommodative processing. It seems that assimilative meaning-making is associated with hedonic conceptions of well-being, such as affective outcomes, above and beyond the impact of dispositional personality traits and objective aspects of the narrator's life history and personal characteristics. Accommodative meaning-making, on the other hand, is associated with outcomes such as psychological maturity, above and beyond the impact of dispositional personality traits, demographic variables, and other salient aspects of the narrator's circumstances. Our distinction in this section between assimilation and accommodation is inductive, derived from the research we have reviewed in the service of most straightforwardly conveying the patterns we identified. Without a doubt, the distinction we have made is rough and ought to be subjected to empirical evaluation. Nevertheless, the variation in the incremental associations between themes of integrative meaning and different outcomes is notably different from the overarching patterns identified for other categories of narrative variables. Despite the variability in integrative meaning and well-being outcomes described in this section, there does appear to be good evidence generally supporting the incremental validity of this category of narrative variables in its association with well-being.

### *The Incremental Validity of Structural Elements' Association With Well-Being*

As described above, the theory of narrative identity posits two primary reasons for the development of internalized, evolving stories of the self. Motivational themes in these stories—and, to a certain extent, affective themes and themes of integrative meaning—capture one of these reasons; they convey an individual's sense of purpose in life. The structural elements of narrative identity stand alongside the thematic integrative meaning content to fulfill the other major reason for narrating the life: providing the self with a sense of unity. Without a doubt, complexities and contradictions abound in narrative identity, but those stories that support well-being share an underlying structural coherence. Indeed, although a variety of structural elements of narratives have been investigated in relation to well-being, coherence emerges as the principal structural element.

A collection of empirical studies reinforce this theoretical claim. Surveying a very broad swath of the literature on narrative coherence and its development, Reese and colleagues (2011) concluded that core aspects of coherence are associated with a wide variety of well-being outcomes, including

physical and psychological health and closer family relationships. For example, in clinical samples, narrative coherence has been identified as one of the key deficits in schizophrenia (e.g., Lysaker, Wickett, Campbell, & Buck, 2003) and Borderline Personality Disorder (e.g., Adler et al., 2012), and that coherence increases with successful treatment (e.g., Lysaker, Davis, Hunter, Nees, & Wickett, 2005).

Narrative scholars widely assert that the success with which an individual is able to integrate the aspects of his or her life into a coherent story should offer a unique perspective on well-being, not captured by dispositional personality traits or other individual differences (e.g., Freeman, 2010; Habermas & Bluck, 2000; Lysaker et al., 2003; McAdams, 2006a). Despite the general agreement that structural elements of narratives ought to add explanatory power to the study of well-being, in addition to other individual difference variables, there is surprisingly little empirical evidence that speaks directly to this point. It is not that the existing literature provides conflicting evidence on this claim; instead, the literature is relatively silent on this topic. A study by Baerger and McAdams (1999) is the most straightforward test of the incremental validity of narrative coherence in explaining well-being. Their sample consisted of adults ranging from age 35 to 65. The authors identified a significant positive correlation between age and well-being, such that older participants reported higher levels of happiness and life satisfaction and lower levels of depressive symptoms. As a result, they ran regressions to examine the incremental association between life story coherence and well-being, accounting for age. They found that the association between coherence and depressive symptoms remained significant when controlling for age, whereas the associations with happiness and life satisfaction were no longer significant when accounting for age. Thus, narrative coherence seemed to have a unique relationship with depression that was evident regardless of the age of participants, whereas the association between coherence and happiness and life satisfaction was explained differently across midlife. This study provided an initial indication that there may be some incremental explanatory power of coherence in its association with well-being.

Another study directly examined the topic, but this one assessed the relationship between narrative coherence and psychological maturity, accounting for the impact of dispositional personality traits (Adler, Wagner, & McAdams, 2007). In this study, former psychotherapy clients recounted the story of their experiences in treatment. Both trait openness to experience and psychological maturity were found to be associated with narrative coherence (trait openness to experience and psychological maturity were also significantly positively correlated with each other). Regressions revealed that the association between psychological maturity and narrative coherence remained significant when controlling for the impact of trait openness to experience. The authors concluded that the basic dispositional tendency to seek a variety of experiences and entertain diverse cognitive perspectives

did not fully capture the relationship between narratives high in coherence and psychological maturity. Examining the integrative stories former psychotherapy clients told about their treatment added incremental validity in explaining their psychological maturity.

These are the only two studies to directly examine the incremental validity of narrative coherence in predicting well-being. A small number of additional studies have investigated the incremental validity of other structural aspects of narrative identity. For example, in the study of parents of children with Down syndrome described in detail earlier, King and colleagues (2000) examined the structural aspect of foreshadowing in the telling of the moment in which they learned their child had Down syndrome. Foreshadowing in these narratives had incremental validity in predicting subjective well-being, even after accounting for the impact of family size and time since the child's diagnosis. This sense that narrators were somehow prepared for the revelation of their child's condition may have provided an implicit sense of coherence, connecting the imagined future self before the discovery to the lived experience after the child was born, which significantly affected the narrator's well-being, regardless of how many other healthy children they had and time since learning of their child's diagnosis.

Clearly, the empirical status of structural elements' incremental validity as correlates and predictors of well-being is not as firmly established as the theory of narrative identity posits. Although there is a sense that the unifying aspects of narrative structure ought to be distinctly associated with well-being from dispositional traits or other individual difference variables, there is little empirical evidence that directly speaks to this assertion. Thus, at the present moment, the incremental association between structural elements of narrative identity and well-being remains relatively unexplored.

## General Conclusion

As this review makes clear, there is immense diversity in the ways in which research on narrative identity has examined incremental validity in correlating with and predicting well-being. There is strong evidence that motivational aspects of narrative identity as well as themes related to integrative meaning are incrementally associated with a variety of conceptualizations of well-being when compared with dispositional traits and other individual difference and situational variables. There is also strong evidence for the incremental validity of affective themes, mostly with respect to hedonic conceptions of well-being. The empirical evidence for the incremental validity of structural aspects of narrative identity is largely absent; despite substantial theory in support of this assertion, very few studies have directly examined it.

The incremental validity of motivational and integrative meaning themes may be due to their role in facilitating a sense of purpose for the narrator. Purpose in life, as assessed

via questionnaire, is associated with a range of positive outcomes, including well-being, across cultures (e.g., Sone et al., 2008) and has recently been identified as a predictor of mortality across adulthood (Hill & Turiano, 2014). The study of motivational themes and themes of integrative meaning in narrative identity adds to this body of research, demonstrating the connections between personal narratives and well-being in a way that authentically captures people's first-person description of their sense of purpose and does not suffer from method variance issues. Given the incremental validity shown for these two narrative themes in predicting well-being, narratives seem to provide a unique way to access this sense of purpose in the individual.

Furthermore, a number of studies reviewed provide evidence to suggest that there may be some temporal precedence in the benefits of crafting purpose in such a way. For example, increases in the motivational theme of agency in psychotherapy narratives preceded increases in well-being in a clinical sample (Adler, 2012a). In addition, in the Mills Longitudinal Study, accommodative processing at age 52 was associated with ego development only at age 61, not at age 43 (Lilgendahl et al., 2013). Thus, the development of purpose through motivational themes and integrative meaning appears to provide a fulcrum for the subsequent development of well-being across a variety of conceptualizations. Although the sense of unity that comes with integrative meaning does appear to be beneficial for multiple conceptualizations of well-being, the unity that is theoretically thought to come with structural processing needs more research to determine whether this is the case.

## Recommendations for the Future

Having outlined several theoretical and methodological positions that regard narrative identity as a distinct and incrementally important domain of personality and its association with well-being, as well as having developed an organizational framework for research on this topic and reviewed the relevant empirical findings on the topic, this article would be incomplete without laying out some specific recommendations for future work in this area. Our hope is that the current review will catalyze future research weighing in on the ways in which narrative identity adds to the study of individual differences. Toward this end, we outline a number of concrete directions for such research that explicitly map on to key points from our review of the extant literature.

First, our hope is that the organizational framework we developed will be useful to researchers studying the relationships between narrative identity and well-being. In the service of enhancing the comparability of findings related to these relationships, we encourage scholars to explicitly identify the category of narrative variables they are examining and to adopt a common language for framing their work. That being said, although we derived this set of categories based on the conceptual rationale of narrative experts, it

remains unknown whether these dimensions are empirically distinct from each other. It is also unknown whether narrative measures within the same category can be empirically distinguished from one another. There is therefore a need for extensive factor analyses of several narrative measures (e.g., King et al., 2000; Lodi-Smith et al., 2009; Pals, 2006) and for studies examining the incremental validity of narrative measures compared with others (e.g., Philippe et al., 2011). The framework proposed in this article is not meant to be definitive, but it will hopefully provide a productive starting point for organizing future work on narrative identity.

Second, the particular results from this review point to the need for more work on specific topics in the study of narrative and well-being. Perhaps most striking is the wealth of theory and the relative paucity of empirical research speaking to the incremental associations between structural elements of narratives, such as coherence, and well-being. Determining whether the theoretical contribution of structurally unifying aspects of narratives, compared to their thematic content, adds to the explanation of well-being above the contributions of other individual difference variables—and other narrative variables—remains a vital unanswered empirical question. In addition, the association between affective themes in personal narratives and conceptions of well-being that extend beyond hedonic measures remains relatively unexplored. From a theoretical perspective, there are solid arguments to suggest that themes such as redemption and contamination ought to primarily predict hedonic well-being outcomes such as life satisfaction and low levels of psychopathology, but it is also possible that these themes might reasonably be associated with broader conceptions of psychological well-being. Furthermore, our initial theorizing about the existence of two pathways connecting themes of integrative meaning to well-being would benefit from direct empirical scrutiny. Whether, in fact, assimilative integrative meaning has a unique association with hedonic well-being whereas accommodative integrative meaning has a unique association with eudaimonic well-being remains to be directly examined.

Third, it is vital to remember that, although incremental validity is not the only pressing issue facing the field of research on narrative identity, it is an essential one in the service of establishing the empirical status of narrative variables in the suite of individual differences examined by personality psychologists. Many of the studies we culled in conducting this review had the data available to address the incremental validity of their claims but did not do so. Thus, we encourage future researchers to systematically incorporate tests of the incremental validity of narratives as cross-sectional indicators and longitudinal predictors of well-being. In doing so, we recommend that researchers clearly and accurately report these analyses so that future reviews can move beyond a qualitative summary of these relationships to quantitative approaches such as meta-analysis. In addition, we encourage researchers to expand on



the relatively small number of studies that explicitly examined narratives alongside measures of dispositional traits and other personality constructs, and to develop other areas of examination, such as more research on characteristic adaptations, behavioral and cognitive variables, aspects of the experiences being narrated themselves, individual differences in the linguistic patterns in narration as they relate to narrative themes, and the situated and dynamic context of narration.

Fourth, we want to note that this review is circumscribed in its scope by focusing solely on the incremental validity of narrative identity in relation to well-being. Well-being is certainly an important outcome in its own right and leads to a variety of other important outcomes (e.g., Keyes, 2005; Lyubomirsky et al., 2005; Ryff & Keyes, 1995). However, it is not the only important life outcome for which narrative identity has incremental predictive validity. A handful of studies examining other outcomes already exist. For example, in a study of the life stories of highly religious Christians at midlife, themes of self-exploration, in contrast to themes of self-regulation (both motivational themes), in life stories predicted their political orientation (liberalism vs. conservatism), even after controlling for demographics such as age, race, socioeconomic status, and all of the Big Five traits (McAdams, Dadabo, & Hanek, 2013). Although some previous research had focused on the narratives of politically engaged people (e.g., Hanek, Olson, & McAdams, 2011; McAdams et al., 2008), this was the first study to show that narrative measures predict political attitudes over and above traits and relevant demographics. There is a need for more research examining how narrative identity and life stories affect other significant life outcomes as well, such as interpersonal relationship outcomes (Alea & Bluck, 2007; Alea & Vick, 2010), performance and motivational variables (Beike, Adams, & Naufel, 2010; Kuwabara & Pillemer, 2010), and physical health (Dunlop & Tracy, 2013b; Pals, 2006) as well as cognitive health, which remains, to date, largely unstudied from the perspective of narrative identity.

Finally, increasing methodological sophistication and variety in the study of narrative identity with an eye toward drawing causal inferences is vital. Most studies included in this review relied on cross-sectional correlational designs, which make it difficult to determine the direction of the effects. Few studies have used longitudinal designs and, of those, few have risen to the challenge of concomitantly controlling for other predictors or including more than two assessment points (though see Adler, 2012a; Adler et al., 2015; Bauer & McAdams, 2010; McAdams et al., 2006). Specifically, longitudinal studies that assess the stability and change of narratives themselves are needed, as well as those that evaluate the dynamic unfolding associations between narratives and important life outcomes alongside other predictor variables. Furthermore, quasi-experimental or experimental designs within narrative approaches (i.e., Alea &

Bluck, 2007) are also central to determining the empirical status of narrative identity's incremental validity.

### Summary

This review is grounded in the wealth of theory proposing that narrative identity ought to have incremental validity in explaining well-being, compared with other individual difference variables. Building on this foundation, we have now added an empirical argument for the centrality of narrative identity in explaining individual differences in well-being. Broadly, this review makes clear that individual differences in narrative identity demonstrate incremental validity as cross-sectional indicators and prospective predictors of well-being when compared with other individual difference variables. The relationship of these individual differences to well-being varies by the type of narrative variables and the type of well-being. Specifically, our review indicates that motivational themes and themes of integrative meaning demonstrate incremental validity in their association with broad conceptualizations of well-being, above and beyond and complimentary to the impact of other individual difference variables, such as dispositional personality traits. Affective themes also demonstrate incremental validity, but mainly with regard to hedonic conceptualizations of well-being. However, despite the wealth of theory indicating that structural elements of narratives ought to be uniquely associated with well-being, there is a lack of research that can speak to this matter from an empirical perspective.

The field of research on narrative identity is somewhat newer than fields examining other personality variables. Despite this, it is a theory-rich and methodologically generative approach to the study of individual differences, and one that has accumulated a body of findings establishing the incremental validity of narrative identity in relation to important life outcomes, such as well-being. Our hope is that this review will catalyze future research that will further weigh in on the utility of narrative identity within the study of individual differences.

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## Notes

1. It is important to note that there is some disagreement about certain aspects of the structure of personality, such as the nature of characteristic adaptations (e.g., McCrae & Costa, 2008).
2. Different approaches to measuring inter-rater reliability have been developed for different types of coding systems. For example, the intra-class correlation (ICC; Type 2) is most often used with dimensional coding systems (e.g., Adler, 2012a), whereas Cohen's kappa (e.g., Dunlop & Tracy, 2013b), Category Agreement (e.g., Winter, 1973), or delta (Syed & Azmita, 2008) are most often used with categorical coding systems. Whatever the statistic of inter-rater reliability used, a very high standard is expected, such as an ICC of 0.80 or above (see Cicchetti, 1994, for a discussion).
3. We excluded research conducted with stories collected using the Thematic Apperception Test (TAT), because it is unclear whether these types of narrative can be considered stories about the self or not. Although the field of narrative research can trace some of its roots to the study of the TAT (e.g., McAdams & Powers, 1981) and some evidence suggests that memory narratives and projective TAT stories are correlated when implicit motives are examined (e.g., McAdams, Hoffman, Mansfield, & Day, 1996; B. Woike, Gershkovich, Piorkowski, & Polo, 1999), there is no evidence that this would be the case for more explicit or conscious meaning-making narrative measures of the type primarily reviewed here. We also excluded studies whose sole narratives were short reports of strivings (e.g., Emmons, 1991), because several typical narrative measures cannot be coded from these short descriptions. We instead considered strivings as individual differences tapping the characteristic adaptations domain of personality. Finally, we excluded the expansive body of research that has adopted a linguistic, as opposed to a narrative, approach to coding. Research in this domain, especially work grounded in the expressive writing paradigm (Pennebaker, 1997), has produced an impressive array of results using open-ended data, but linguistic coding is fundamentally different from narrative coding and, therefore, does not fall into the scope of this review.
4. It is important to note that the framework grew out of the body of research reviewed in this article. Although we believe it may be a useful classification system for narrative research more generally, its structure is inseparable from the set of studies from which it was drawn. Like any framework, it may gloss over some complexities that would be relevant for approaching other questions and should not be interpreted as a definitive structure for the field.
5. Although wisdom/insight is somewhat more similar to coding systems categorized in the integrative meaning category discussed later, the authors state that identity clarity and intimacy are "similar to the agency/communion distinction" (Lilgendahl & McAdams, 2011, p. 399). As a result, we have classified the composite that included these two variables as primarily motivational in nature, as the individual coding systems were not analyzed separately.

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