

Seeing your life story as a Hero's Journey increases meaning in life

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HERO'S JOURNEY NARRATIVES AND MEANING IN LIFE

Abstract

Meaning in life is tied to the stories people tell about their lives. We explore whether one timeless story—the Hero's Journey—might make people's lives feel more meaningful. This enduring story appears across history and cultures, and provides a template for ancient myths (e.g., Beowulf) and blockbuster books and movies (e.g., Harry Potter). Eight studies reveal that the Hero's Journey predicts and can causally increase people's experience of meaning in life. We first distill the Hero's Journey into seven key elements—Protagonist, Shift, Quest, Allies, Challenge, Transformation, Legacy—and then develop a new measure that assesses the perceived presence of the Hero's Journey narrative in people's life stories: the Hero's Journey Scale. Using this scale, we find a positive relationship between the Hero's Journey and meaning in life with both online participants (Studies 1-2) and older adults in a community sample (Study 3). We then develop a re-storying intervention that leads people to see the events of their life as a Hero's Journey (Study 4). This intervention causally increases meaning in life (Study 5) by prompting people to reflect on important elements of their lives and connecting them into a coherent and compelling narrative (Study 6). This Hero's Journey re-storying intervention also increases the extent to which people perceive meaning in an ambiguous grammar task (Study 7) and increases their resilience to life's challenges (Study 8). These results provide initial evidence that enduring cultural narratives like the Hero's Journey both reflect meaningful lives and can help to create them.

Keywords: narrative, meaning in life, Hero's Journey, master narratives, narrative intervention

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People have always wanted a meaningful life—a life that matters, has purpose, and makes sense (Steger, 2012). Despite humanity's eternal quest for meaning (e.g., Plato, 375 BC; Frankl, 1959), some have argued that questions of meaning are especially urgent today (Routledge, 2018), with rising “deaths of despair” from suicide or substance abuse (Brignone et al., 2020; Case & Deaton, 2015, 2020) and heightened existential fears brought on by global catastrophes (Van Tongeren & Van Tongeren, 2021). Although the magnitude of this crisis of meaninglessness can be debated, the dynamism and uncertainty of modernity makes it challenging for people to find deeper meaning in their lives (e.g., Giddens, 1991), especially given social trends that undercut traditional sources of meaning including religion (Pew Research Center, 2019), societal trust (Brenan, 2021; Pew Research Center, 2021), and community bonds (Putnam, 1995).

In the face of these broader social challenges to meaning in life, scientists are exploring person-focused interventions, such as therapy and mindfulness techniques, to help people to find meaning in their own lives (Manco & Hamby, 2021). Narratives may provide one route to positive meaning, as people often turn to stories—particularly those about heroes—for guidance, inspiration, and models of how to act in their own lives (Franco et al., 2018; McCabe et al., 2015, 2016; Allison & Goethals, 2014). Here we use the tools of modern social psychology to explore the potential meaning-providing power of one timeless narrative—the Hero's Journey. First identified by mythologist Joseph Campbell (1949), the Hero's Journey is a common narrative arc appearing in heroic stories across time and cultures in which a protagonist transforms into a noble hero through facing and overcoming adversity. We propose that if people view their own

story as following a Hero's Journey, they can more readily find meaning in their lives, stemming from a key fact: people's minds are made for narrative.

Narrative: Minds and Meaning

Narratives are central to our humanity (Boyd, 2018); they combine humans' fundamental capacities for language, social thought, and conscious reflection (Friederici, 2017; Lieberman et al., 2002; Saxe, 2006). Narratives are the stories people tell about the experiences of themselves and others, encoding rich information about their physical and social world (Fivush, 2011; Polkinghorne, 1991), including cultural notions of morality, religious beliefs and social expectations (Swidler, 1986). By connecting disparate elements into coherent packages, narratives transform random facts into compelling social tools (Carroll, 2018; Kromka & Goodboy, 2019). Lawyers weave evidence into stories of guilt or innocence (Pennington & Hastie, 1992), marketers make ads that transform products into expressions of identity (Adaval & Wyer, 1998; Escalas, 2004), and everyday people use stories of their own personal experiences to increase respect for their position on moral issues (Kubin et al., 2021).

Just as narratives imbue meaning to an assortment of facts, narratives give meaning to people's cognitive representations of themselves (Adler et al., 2018). While there are several perspectives on the underlying structure of self-knowledge (e.g., Kihlstrom & Klein, 1994; Linville & Carlston, 1994; Mischel & Shoda, 1995), work on narrative identity illustrates that people see their own lives as narratives, ascribing meaning to events and integrating them into a coherent story with plot, characters, and themes (McAdams, 1996). As they weave together their life experiences into a single narrative, people develop the awareness of how meaningful their lives are—having purpose, coherence, and significance to the world (Steger, 2012). As a fundamental representation of self-knowledge, personal narratives provide insight into social

cognition, describing how people understand themselves as social agents who both influence and are influenced by the world at large (McConnell et al. 2013)

Culture powerfully shapes people's narratives (Benet-Martinez & Oishi, 2006; Markus & Kitayama, 1991), and when people make sense of their lives, they intuitively draw material from existing cultural narratives (Meltzoff, 1988; Swidler, 1986), such as cultural life scripts, to define what is important from their past or what will be important in their future (Berntsen & Rubin, 2004; Bohn & Berntsen, 2011). These "master narratives" are culturally shared stories that are especially ubiquitous, enduring, and reflect the values and history of a given society (e.g., McLean & Syed, 2016). By drawing from master narratives—if only implicitly—people render their personal experiences as more sensible to others and themselves (Cohler & Cole, 2004) and align them with cultural understandings like moral values or religious frameworks that can provide a sense of positive meaning (McAdams, 1996). Soldiers often endure negative experiences of violence and trauma, for example, but can find meaning in their trauma by linking it to ideals of patriotism and fraternity. Similarly, scientists deal with criticism and rejection, but can make their adversity meaningful by linking it to the search for truth.

People's life stories are grounded in their personal experiences (Josselson, 2009) and the cultural themes from their communities (Hammack, 2008), but they are also subjective psychosocial constructions that stem from the need to maintain both a positive self-image and a plausible sense of coherence and temporal continuity within their lives (Barclay, 1996; Van den Bos & de Graaf, 2020). You might expect people to tell the most coherent and flattering life stories possible, yet they often do not. Some mature and generative adults—those with a strong commitment to aid future generations (Erikson, 1969)—tend to tell coherent and uplifting narratives centered on growth and redemption (Bauer & McAdams, 2004; King, 2001;

McAdams et al., 1997, 2001), but those who are depressed or traumatized often construct narratives that feature stagnant, downward, or disrupted trajectories that emphasize their lack of meaningfulness and connection (Adler et al., 2006; Heine et al., 2006; Lilgendahl et al., 2013).

There is clearly some connection between people's feeling of meaning and the narratives they construct about their lives. People with generative, flourishing lives tell similar life stories (e.g., McAdams, 2001), but open questions remain—especially about causality—given the personality-focused approach of the self-narrative literature. Given that personal narratives are selective reconstructions of the past (Conway & Pleydell-Pearce, 2000; McAdams & McLean, 2013), do people with meaningful lives simply tell similar life stories, or can telling a specific type of life story actually increase meaningfulness? Inspired by recent work revealing that some narrative structures are more impactful in books and movies (Reagan et al., 2016; Toubia et al., 2021), we adopt a narrative-focused approach to examine the causal influence of narrative structure on individual psychological outcomes, particularly meaning in life and well-being. To do so, we look to the Hero's Journey, one of the world's most pervasive cultural narratives and predict that it may be effective at helping people find positive meaning in their lives.

The Hero's Journey and a Meaningful Life

Cultures are filled with stories, but these stories vary in their cultural impact and longevity (Reagan et al., 2016). The mythologist Joseph Campbell noticed that some of the most enduring stories were similarly structured as “the Hero's Journey” (Campbell, 1949), a narrative arc that includes a protagonist (often a male¹) who is called to adventure, faces challenges, and—

¹ We note that although the “hero” of the Hero's Journey often denoted male protagonists throughout history, many modern iterations of the Hero's Journey center on female heroes (e.g., Katniss Everdeen in the Hunger Games). We use the term hero for male and female heroes alike, just as modern usage of the word “actor” captures both male “actors” and female “actresses.” Importantly, we provide supplementary evidence in Study 1 that men and women are equally likely to consider themselves as heroes on a journey.

with the help of others—overcomes adversity before ultimately returning home triumphant and transformed to make a positive and lasting impact on their community (see Figure 2 for a depiction). The Hero's Journey is fundamentally a redemptive narrative (e.g., McAdams, 2013), yet it transcends redemption, including not just elements of challenge and transformation, but also other aspects such as perspective shifts, quests, allies, and legacies (Campbell, 1949). This structure recurs so often across time and cultures—from the epic of Gilgamesh in ~2000 BC to 21st century superhero movies, as well as stories in many religious texts—that it has been called an “archetypal narrative” and “the monomyth” (Allison & Goethals, 2014; Campbell, 1949).

As stories shape our understanding of the world and our lives (McAdams & McLean, 2013), telling a meaningful life story should spill over into perceptions that life itself is meaningful (e.g., significant, coherent and purposeful; Steger, 2012). Why might the Hero's Journey narrative be tied to meaning in life? First, as a type of cultural master narrative, the Hero's Journey provides information about important goals and values (Hammack, 2008), and serves as a template for how to live a societally desirable existence (Hatiboğlu & Habermas, 2016). More specifically, given their focus on heroism, Hero's Journey narratives illustrate the ideals and characteristics that are prized by society when people face challenges and obstacles in their lives (Franco et al., 2016, 2018; Jayawickreme & Di Stefano, 2012).

A comparison of the Hero's Journey and the psychological literature on meaning in life reveals much overlap. Heroes are strong protagonists in charge of their own destiny; satisfying needs for autonomy are central to feelings of meaningfulness (Deci & Ryan, 2000). Heroes must have a shift of experience to spark their journey; people who are high on openness to experience rate their lives as more meaningful (Lavigne et al., 2013). Heroes endeavor towards epic quests; a sense of purpose is a central component of meaning in life (George & Park, 2013). Heroes have

allies; social support predicts meaning in life (Hicks & King, 2009). Heroes conquer challenges and are transformed through their efforts; people find meaning when they persist and grow from challenges (Oishi & Westgate, 2021; Park, 2010; Vohs et al., 2019). At the end of their journeys, heroes focus on using their gifts to benefit society; helping and donating to others leads to higher meaning (Klein, 2017). This suggests that the elements that make up the Hero's Journey narrative are also found in the most meaningful lives.

Of course, narratives are not only defined by their elements, but also by the way the elements are connected into a coherent story (e.g., Onega & Landa, 1996). The point of a "life story" is to connect disparate life events into an overarching framework. People are implicitly drawn to existing narratives when constructing their own stories (Callero, 2003; Linde, 1993) and use them as frameworks through which they interpret and draw meaning from their own experiences (Swidler, 1986; Van den Bos, 2009). Recognizable narratives with familiar themes and plots are more convincing, understandable (King, 2001), and thus meaningful to people (Bruner, 1990; Heintzelman & King, 2014; Nickerson, 1998 Allison & Goethals, 2014). The Hero's Journey is a narrative that is especially familiar and culturally-resonant (Allison & Goethals, 2014), and life stories that follow this arc are likely to be especially meaningful.

Viewing the Hero's Journey not just as a story but as a master narrative framework with a certain set of elements suggests it may provide a template for more meaning in their life. We predict that the more similar that a person's life story is to a Hero's Journey, the more meaningful the corresponding life will seem to them because it consists of more meaningful experiences that are tied together in a coherent and culturally resonant narrative framework. While people could draw from other narrative structures when constructing their personal narratives, or could choose to generally forego thematic elements and instead focus on the basic

autobiographical details (e.g., Rubin & Berntsen, 2003), life stories that exemplify the Hero's Journey narrative (or narratives, because of the many iterations of this monomyth) should allow people to intuitively connect their experiences and important cultural values into a coherent and compelling story, helping to create and confirm a sense of meaningfulness.

Can Anyone Be a Hero on a Journey?

The life stories of ordinary people may lack the excitement of storybook Hero's Journeys, but they may still possess the same narrative elements (e.g., changes in perspective, social support, challenges, personal legacies). As with any perfect model or exemplar, people's lives and stories may not fully encapsulate the heroism and ideals described in an archetypal Hero's Journey, but may approximate it to varying degrees, even in their everyday experiences (Franco & Zimbardo, 2006). However, even when their lives share elements of a Hero's Journey, people may vary in their comfort accepting the mantle of a heroic narrative related to their lives (Cameron et al., 2022). Discomfort with seeing life as a Hero's Journey can pose a challenge to accessing the range of psychological and physical benefits that can come from embracing a role as potential hero of one's own story (see Franco et al., 2016).

While the way in which people tell their life stories is a relatively stable aspect of their personality (McAdams & Pals, 2006), the subjective and evolving nature of personal narratives (updating as people have new experiences) suggests that life stories are malleable and open to being changed (Hammack, 2008; McAdams, 1993). Researchers and clinicians have designed re-storying interventions to capitalize on this malleability, encouraging people to reconsider the existing narratives they have about their lives and helping them to write new narratives better suited to their goals and values (e.g., Flora et al., 2016). These interventions have shown the causal effect of emphasizing certain individual themes in personal narratives, such as

competence-building (Jones et al., 2018), defying external expectations (Nurmohamed et al., 2021), and social acceptance (Goyer et al., 2019). Some of the most compelling applications of re-storying interventions have been in helping victims of trauma (Flora et al., 2016; Harvey et al., 2000; Nourkova et al., 2004), as well as the general population (Hofmann et al., 2012), to dislodge painful narratives about the past and rewrite them focused on positive themes.

We seek to build on this work by aiding people in rewriting the holistic arc of their life stories according to the archetypal Hero's Journey narrative. If people are able to use the Hero's Journey form to tell their own stories – identifying the narrative elements in their life and connecting them into a similar story – they can leverage this powerful cultural narrative to understand how their experience follows the meaningful stories they have heard and seen shared their whole lives. In this way, the Hero's Journey can transform personal experiences into quintessential narratives that hold positive meaning and reframe how people view their lives.

Current Research

Overview of Research Aims

Eight studies (and six supplementary studies) test the link between the Hero's Journey narrative and meaning in life via correlational studies, analysis of recorded life stories, and causal experiments. All data, syntax, and materials are available through the Open Science Framework: <https://osf.io/yvwjk>. These studies had 3 overall research aims.

Aim #1: Develop a Psychological Measure of the Hero's Journey

Prior to testing the relationship between the Hero's Journey and meaning in life, we detail a simplified version of the Hero's Journey and the development and validation of a new psychological instrument – the Hero's Journey Scale – that allows us to assess the similarity between the Hero's Journey and people's ongoing personal narratives.

Aim #2: Test whether the Hero's Journey Narrative is Associated with Meaning in Life

Studies 1-3 assess our first prediction that people whose life story more strongly evokes the Hero's Journey will perceive their lives to be more meaningful. Study 1 surveys a nationally representative sample of Americans and shows that seeing one's life story as following the Hero's Journey narrative is associated with higher perceived meaning in life (a relationship we replicate using alternate meaning of life measures in Supplementary Study 4). Studies 2 and 3 then use online and community samples, respectively, to generalize our findings beyond the stories people tell themselves to show that the presence of the Hero's Journey in the stories that people tell to others, as rated by independent coders, also predicts increased life meaning.

Aim #3: Test whether Re-storying Your Life as a Hero's Journey Increases Meaning in Life

Studies 4-8 test our second prediction that that Hero's Journey can causally increase meaning in life by having participants complete a "re-storying" intervention in which they rewrite their personal narratives as a Hero's Journey. By rewriting their narratives, we predict that people will be more easily able to see their lives as a Hero's Journey and increase meaningfulness (see Figure 1). Studies 4-5 and Supplementary Studies 5-6 show that the re-storying intervention leads people to tell their personal narratives – whether general life stories (Studies 4-5 and Supplementary Study 5) or domain-specific career stories (Supplementary Study 6) – as a Hero's Journey, leading to increased feelings of life meaning and other well-being benefits. Study 6 shows that the re-storying intervention works by prompting people to reflect on important elements of their lives (contained in the archetypal narrative) and connecting them into the coherent and compelling Hero's Journey narrative framework. Finally, we find that the re-storying intervention does not just increase perceptions of meaning in people's lives, but also impacts how much meaning they see in ambiguous stimuli such as letter strings (Study 7) as

well as more personally-relevant domains such as life's challenges (Study 8), enabling them to find more meaningful solutions to important problems.

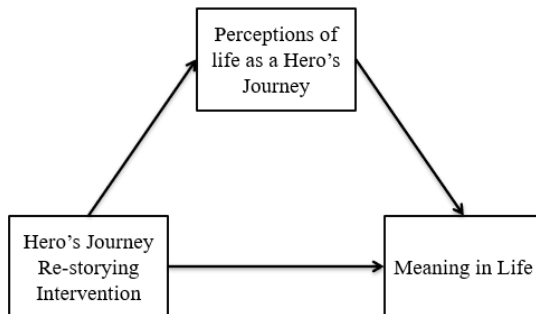


Fig. 1. We hypothesize that the Hero's Journey Re-storying Intervention will increase meaning in life by increasing perceptions that one's life follows the Hero's Journey.

Exploring Aim #1: Developing a Psychological Measure of the Hero's Journey

Our first goal was to simplify the Hero's Journey and translate it into a psychological scale. Campbell's original formulation has 17 steps, which may vary in their applicability and generalizability to everyday life (e.g., “master of two worlds”; see Table S4 in the Supplementary Materials). We began by inductively synthesizing the core narrative elements of the Hero's Journey as they might apply to stories of both mythical heroes and ordinary people, while still capturing the insight of Campbell's formulation derived from legendary narratives. Our refinement consisted of seven narrative elements which are described in Table 1 and depicted in Figure 2: Protagonist, Shift, Quest, Allies, Challenge, Transformation, and Legacy.² Importantly, the distilled version captures the overall Hero's Journey narrative arc: the hero (Protagonist) experiences a change in setting or life circumstances (Shift) that sets them off towards a goal (Quest) during which they encounter friends and mentors (Allies), as well as obstacles (Challenges), but eventually triumph and grow from the experience (Transformation),

² An early formulation originally featured 8 elements. One element, Story (i.e., a clear narrative), was eventually removed for theoretical reasons (i.e., the Hero's Journey is itself a narrative rather than the narrative being an element of the Hero's Journey). As such, it is really more of a meta-element, rather than an element. Supporting this difference—and the rationale for removal—exploratory factor analysis of the Hero's Journey Scale used in later studies suggests that it does not split cleanly into a separate factor – see Supplementary Study 2 for more details.

enabling them to return home and benefit their community (Legacy). Of course, compressing 17 steps to seven elements inevitably reduces nuance. We compared Campbell's steps against our seven elements to validate our distillation. As shown in Supplementary Study 1³, our distillation appeared reasonable as the seven elements appears to be both comprehensive (i.e., all of Campbell's steps were reflected in the elements) and theoretically accurate (i.e., the reflection between steps and elements made sense theoretically, such as the Shift element reflecting steps marking the journey's initiation)

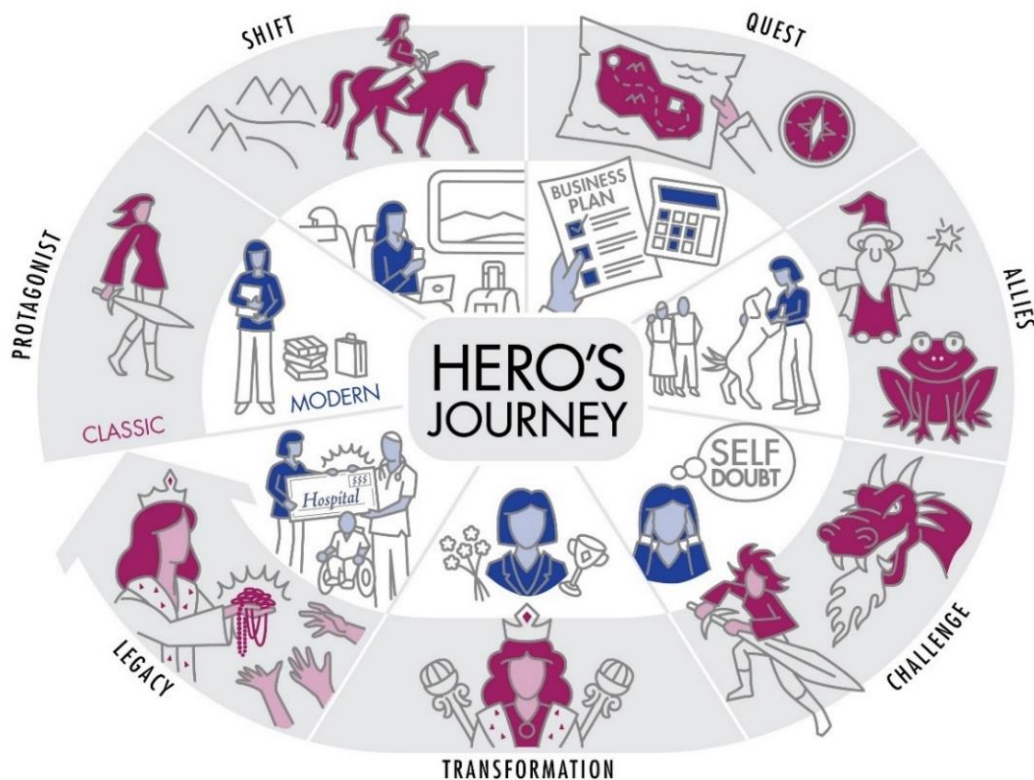


Fig. 2. A visual depiction of our seven-element distilled formulation of Joseph Campbell's (1949) Hero's Journey as both a classical myth and a modern life story. An ordinary hero (Protagonist) experiences a change in setting (Shift) that sets them towards a goal (Quest) during which they encounter friends (Allies) and obstacles (Challenges), but eventually triumphs and personally grows (Transformation), before returning home to benefit their community (Legacy). Figure credit: Kevin House.

³ Participants ($N = 100$) rated whether they agreed that each of Campbell's 17 steps (e.g., "Call to Action") were reflected by the seven elements (e.g., "Shift"). Results confirmed that the elements comprehensively summarized Campbell's steps as all steps were reflected by one or more of the elements and, more importantly, that the elements most strongly reflected steps that were aligned in content (e.g., the "Cross the 1st Threshold" step marking the beginning of the adventure was most strongly captured by the "Shift" element: $d = 1.82, p < .001$). See the Supplemental Materials for study details and results.

Table 1
Hero's Journey Elements

Hero's Journey Element	Element Description	HJS Sample Item
Protagonist	A clear and defined character or identity. In the case of the Hero's Journey, protagonists must ultimately recognize themselves as the central hero of their story.	<i>I am a hero on a journey</i>
Shift	Every Hero's Journey begins with a spark, a change in setting or circumstances that makes the hero's prior life untenable and requires a literal or psychological journey to resolve.	<i>I often have new experiences</i>
Quest	In all Hero's Journeys, the protagonist endeavors to complete a goal or <i>quest</i> , whether it is destroying an all-powerful ring or providing for one's family	<i>My life has a clear objective</i>
Allies	Protagonists rarely travel the Hero's Journey alone; rather, they typically depend on others for a broad range of assistance in order to survive and succeed.	<i>I am supported by others</i>
Challenge	Hero's Journeys often feature seemingly insurmountable obstacles or rivals. These challenges help drive the protagonist's actions, providing him or her with purpose.	<i>I have had to overcome obstacles</i>
Transformation	In facing challenges on the Hero's Journey, the protagonist undergoes personal and moral growth and are transformed into someone wiser, more selfless, and self-actualized.	<i>I have become a better version of myself</i>
Legacy	At the end of the Hero's Journey, the hero's actions leave a positive impact on their communities and they become revered for their consequential deeds.	<i>I will have a lasting impact on others</i>

Note. HJS = Hero's Journey Scale.

We then used the distilled elements to develop a psychological instrument that assesses the extent to which people feel their lives are similar to a Hero's Journey. We present the items and factor loadings for the newly-developed Hero's Journey Scale (HJS) in Table 2. As the Hero's Journey is a collection of seven distinct elements connected together into a narrative, we conceptualize it for measurement purposes as a formative construct in which the dimensions (i.e., elements) combine together to form the Hero's Journey construct (e.g., Law et al., 1998), rather than each element representing manifestations of the Hero's Journey construct. For concision, we present studies validating the HJS in the Supplemental Materials. Supplementary Study 2, a preregistered exploratory factor analysis, establishes the initial validity of the seven-factor structure of the HJS. Then in Supplementary Study 3, we offer evidence of the face validity of the HJS, specifically that high ratings on the HJS reflect narratives that are similar to the Hero's

Journey and not simply broadly heroic stories.⁴ Finally, in supplementary analyses related to Study 1, we conduct a preregistered confirmatory factor analysis which confirmed the factor structure while also establishing both convergent and divergent validity of the instrument.

In developing the items for the HJS, we focused on how a narrative element would manifest in a person's life story. Unlike completed fictional narratives that people read or watch, life stories are by nature incomplete and ongoing. Throughout their lives, people continue to develop their narratives as they have new experiences and reevaluate past events (Hammack, 2008; McAdams, 1993). The items in the HJS reflect the ongoing nature of people's life stories. For example, rather than measure the Shift element by asking if the participant ever had a single important change of setting in their past, we asked their agreement with items such as, "I often have new experiences," and "My life never changes (reverse-coded)." These items capture the extent to which people's lives contain elements of shift (i.e., experiences that relate to changes of setting), since a person may have multiple changes of setting in their lives. While this approach foregoes the ability capture the specific order of elements in the Hero's Journey (an issue we explore in the set of studies related to Research Aim #3, specifically Study 6), the HJS offers a way to measure the presence of the narrative's elements in people's ongoing life stories.

Table 2

Oblique Promax Rotated Factor Loadings of a Principal Axis Factoring Analysis of the 21-item Hero's Journey Scale

Please indicate how strongly you agree or disagree with each of the following statements.	Legacy	Protagonist	Quest	Transformation	Shift	Challenge	Ally
<i>% Var. Explained by factor</i>	<i>.16</i>	<i>.16</i>	<i>.15</i>	<i>.14</i>	<i>.14</i>	<i>.13</i>	<i>.12</i>

⁴ In order to ensure that our scale assessed what we conceptualize as the Hero's Journey narrative vs. a general sense of heroism, participants used the HJS to rate heroic characters from four fictional franchises (Lord of the Rings, Hunger Games, Star Wars, and Harry Potter) whose narratives either followed the Hero's Journey narrative or did not. Results showed that participants rated heroes whose narrative arcs followed the Hero's Journey more highly on the HJS than supporting heroes from the same franchises whose narrative arcs did not follow the Hero's Journey (both overall and for each individual element), and higher than an "average person" used as a control.

I often think of my life as a story	-0.08	0.88	-0.08	-0.02	0.03	0.07	0.02
My life has a clear narrative arc	0.00	0.88	0.08	-0.03	-0.10	0.04	0.06
I am a hero on a journey	0.24	0.70	0.04	-0.02	0.05	-0.05	-0.14
I often have new experiences	-0.08	-0.01	-0.04	0.02	1.02	-0.03	0.04
My life never changes*	0.13	-0.20	0.09	-0.05	0.75	0.12	-0.05
My life is full of adventure	0.02	0.25	-0.02	-0.02	0.71	-0.06	0.01
My life has a clear objective	-0.09	0.27	0.71	0.02	-0.02	-0.02	0.07
My life has no mission*	-0.03	-0.01	1.00	-0.02	-0.01	-0.02	-0.01
I don't know what I'm striving for in life*	0.11	0.00	0.84	0.01	0.00	0.01	-0.04
I am supported by others	-0.08	0.01	-0.06	0.05	0.02	-0.03	0.92
I have mentors to guide me	0.04	0.24	-0.06	-0.04	0.07	0.03	0.64
I lack people to turn to in times of need*	0.16	-0.20	0.13	-0.04	-0.02	0.00	0.65
I have worked to overcome difficulties	-0.08	0.12	0.04	0.12	0.01	0.75	-0.05
I have had to overcome obstacles	0.01	0.03	-0.08	0.01	0.00	0.87	-0.01
I have not faced major challenges*	0.07	-0.06	0.03	-0.11	-0.04	0.78	0.03
I have become a better version of myself	-0.07	0.08	0.06	0.66	0.16	0.02	0.03
I have learned from my experiences	0.05	-0.05	0.03	0.86	-0.06	0.05	0.01
I have grown as a person over time	0.05	-0.05	-0.06	0.97	-0.02	0.00	0.01
Others won't remember me*	0.98	-0.02	-0.01	0.01	-0.02	0.00	-0.02
I will have a lasting impact on others	0.78	0.17	-0.05	0.07	-0.01	-0.05	0.02
I have little effect on people*	0.84	-0.01	0.03	0.01	-0.01	0.03	0.05

* denotes reverse-coded items

Note. Bolding of factor loadings for each scale item indicates onto which sub-factor the scale item loaded.

Exploring Aim #2: Testing whether the Hero's Journey is Associated with Meaning in Life

We move next to testing our prediction that the similarity between a life story and Hero's Journey will predict meaning in life. Studies 1-3 test this relationship using life stories as people conceive of them in their minds (Study 1) and as they tell to others (Studies 2 and 3). We tried to

maximize power in all studies. For Study 1, we followed best practices for factor analyses and collected samples large enough for a 20:1 ratio of participants to scale items (e.g., Carpenter, 2018; Kline, 2013). This sample size ensured reliable results for our newly-developed Hero's Journey Scale, which further helps minimize measurement error that reduces power (Asendorpf et al., 2014). Studies 2 and 3 had sufficiently large samples to have an 80% chance to detect a small to medium effect size of $\beta = .25$ for the relationship between the Hero's Journey and meaning in life.

Additionally, we sought to maintain the power of our collected sample by taking steps to ensure the quality of our data. With the exception of Study 3 (an in-person interview), we used data quality checks with preregistered exclusion rules to reduce noise from low-quality participants that can decrease power (Oppenheimer et al., 2009). We detail the specific data quality checks used for each study in Table S1 in the Supplemental Materials, but they took one of three forms: (1) a question in which participants were told which response to select (e.g., "select 'disagree'"), (2) a basic reading comprehension question, and (3) a review of any open-ended responses for quality (e.g., did participant follow instructions, was their response intelligible/relevant, and was their response in their own words).

Study 1: Seeing Life as a Hero's Journey Predicts Meaning in Life

Study 1 presents the first test of our hypothesis that the Hero's Journey predicts more meaningful lives - both in terms of general meaning and its three constitutive components (purpose, significance, and coherence) – using a nationally representative sample of Americans. We also used this study to conduct preregistered confirmatory factor analysis to further validate

the HJS and to explore its generalizability across gender (results for both are presented in the Supplemental Materials)⁵. We preregistered our study at https://aspredicted.org/ZIY_HEK.

Method

Participants

We recruited a large, nationally representative sample of 640 Americans (stratified by age, sex and ethnicity) through Prolific.⁶ After pre-registered exclusions, 592 participants (283 male, 300 female, 7 non-binary / third gender, 2 other or did not say; $M_{\text{age}} = 46.09$ years, $SD_{\text{age}} = 16.06$; 71.62% Caucasian / White, 13.34% African-American/Black, 7.43% Asian-American/Pacific Islander, 4.22% Latino/Hispanic, 2.36% identified as biracial, < 1% Middle-Eastern, Native American, or other) completed the study measures. Participants took on average 31.30 minutes ($SD = 18.13$) to complete the study and received \$5.75 for participating.

Measures

Hero's Journey Scale. We used the 21-item, seven factor HJS detailed previously. Participants rated their agreement (1 = *strongly disagree*, 7 = *strongly agree*) with statements related to each Hero's Journey element: protagonist ($\alpha = .86$), shift ($\alpha = .80$), quest ($\alpha = .90$), ally ($\alpha = .75$), challenge ($\alpha = .82$), transformation ($\alpha = .86$), and legacy ($\alpha = .89$). The overall HJS representing the entire Hero's Journey narrative had an alpha reliability of .92.

Meaning in life. Participants completed Costin and Vignoles (2020) measure of meaning in life. We chose this measure as it has a four-item validated scale of general meaning in life (e.g., "My life as a whole has meaning."; $\alpha = .94$) and subscales for each component: purpose

⁵ While discussion of the Hero's Journey narrative has been historically biased towards male protagonists (Campbell, 1949), modern Hero's Journey narratives feature both male and female protagonists (e.g., Harry Potter, Katniss Everdeen) and our conceptualization focused on elements that should be applicable across gender. Thus, we expected, and found in the results for this study, that men and women should be equally likely to perceive their life stories as similar to a Hero's Journey. See Supplemental Materials.

⁶ Recruitment details (e.g., study title and description used to recruit) are presented in Table S2 of the Supplemental Materials for this and all other studies.

(e.g., “I have certain life goals that compel me to keep going”; $\alpha = .93$), significance (e.g., “Even considering how big the universe is, I can say that my life matters”; $\alpha = .93$), and coherence (e.g., “I can make sense of the things that happen in my life.”; $\alpha = .85$).

Convergent and divergent validity measures. As part of the CFA presented in the Supplemental Materials, we tested the convergent validity of the HJS subscales by assessing their relation to theoretically similar constructs that have been shown previously to predict meaning in life: autonomy (Protagonist), openness to experience (Shift), self-concept clarity (Quest), relatedness (Ally), grit (Challenge), self-actualization (Transformation), and generativity (Legacy). We also sought evidence of divergent validity of the overall HJS versus theoretically unrelated constructs: cognitive style, general intelligence, and belief in the paranormal.

Results

Confirmatory Factor Analysis (CFA)

Prior to testing the relationship between viewing life as a Hero's Journey and meaning in life, we used this study to conduct a CFA on the Hero's Journey Scale to confirm its factor structure, and to test its convergent and divergent validity. We present the CFA in full in the Supplemental Materials. Analyses affirmed that our seven-factor model provided a good fit to participants' data compared to other alternative factor structures. Correlational evidence showed support for the convergent validity of the HJS subscales that significantly and positively associated with our preregistered, *a priori* selected variables, and for the divergent validity of the HJS, showing nonsignificant or weak associations with measures of cognitive style and general intelligence, although it did positively relate to belief in the paranormal (see Table S12 of the Supplemental Materials). While not initially predicted, this likely reflects that people who see

themselves as embodying a Hero's Journey possess strong imaginations that also enable belief in the paranormal.

Relationship between the Hero's Journey Scale and Meaning in Life.

As we expected, the Hero's Journey Scale predicted meaning in life (MIL). Higher ratings on the HJS predicted higher MIL ratings ($\beta = .74$, $SE = .03$, $t(590) = 27.08$, $p < .001$), as shown in Figure 3. Seeing life as a Hero's Journey also positively predicted the individual components of MIL: significance ($\beta = .65$, $SE = .03$, $t(590) = 20.65$, $p < .001$), purpose ($\beta = .74$, $SE = .03$, $t(590) = 27.01$, $p < .001$) and coherence ($\beta = .61$, $SE = .03$, $t(590) = 18.47$, $p < .001$).⁷

Secondary analyses detailed in the Supplemental Materials also provide important evidence of the incremental validity of the HJS over and above the nine measures collected to assess convergent validity, which were selected based on their close relation to Hero's Journey elements (e.g., shift and openness to experience, legacy and generativity) and their known positive association with meaning in life. If the HJS predicted meaning in life even when accounting for these other variables, this would suggest the HJS captures aspects of life meaning unaccounted for by these constructs. Importantly, the HJS remained a significant predictor of MIL even when including all convergent validity variables as covariates ($\beta = .42$, $SE = .05$, $t(581) = 8.55$, $p < .001$).⁸ Adding the HJS as a predictor increased the adjusted R^2 from .59 to .63, which is equal to a 7.63% increase in explained variance. Additionally, the HJS remained a significant predictor for all three MIL components above and beyond the effect of the set of convergent validity covariates. Overall, these results affirm the relation of the HJS and meaning

⁷ We provide evidence in the Supplemental Materials that the HJS and MIL are empirically separable constructs. Specifically, following Mathieu & Farr (1991), we found that a model in which the items representing the HJS and MIL constructs were loaded onto two separate 1st order latent factors (HJS and MIL) demonstrated significantly better fit than a model in which all items were loaded onto a single 1st order latent factor ($\chi^2_{diff} = 357.45$, $p < .001$). See the Supplemental Materials for full details of this test and related analyses.

⁸ As a precaution, we tested for multicollinearity in our regression model and found no evidence of multicollinearity (VIFs < 3.89) at standard cutoffs. See Table S39 in the Supplemental Materials.

in life, as well as its predictive power above and beyond a host of related psychological variables that are commonly-identified predictors of meaning in life.

Discussion

In this study, we tested our central prediction, that seeing one's life as a Hero's Journey predicts meaning in life. The HJS and meaning in life measures were robustly related, even when including nine commonly-identified predictors of meaning as covariates. Given the strong support for the relationship between the Hero's Journey and meaning in life, we were also interested in whether the perceived presence of the Hero's Journey in would have other well-being benefits, such as flourishing, life satisfaction, and reduced depression, which tend to correlate with increased life meaning. We tested this prediction in Supplementary Study 4 (presented in the Supplemental Materials). As expected, results revealed that the HJS was associated with many psychological benefits, including higher well-being, higher life satisfaction, and lower rates of depression. Additionally, as shown in Figure 3, results replicated the relationship between the HJS and meaning in life with two other popular measures of life meaning - the Meaning in Life Questionnaire-Presence subscale by Steger et al., (2006) and the Meaningful Life Measure by Morgan & Farsides (2009). The consistent positive correlations across measures of life meaning illustrates the robustness of the HJS-meaning in life relationship.

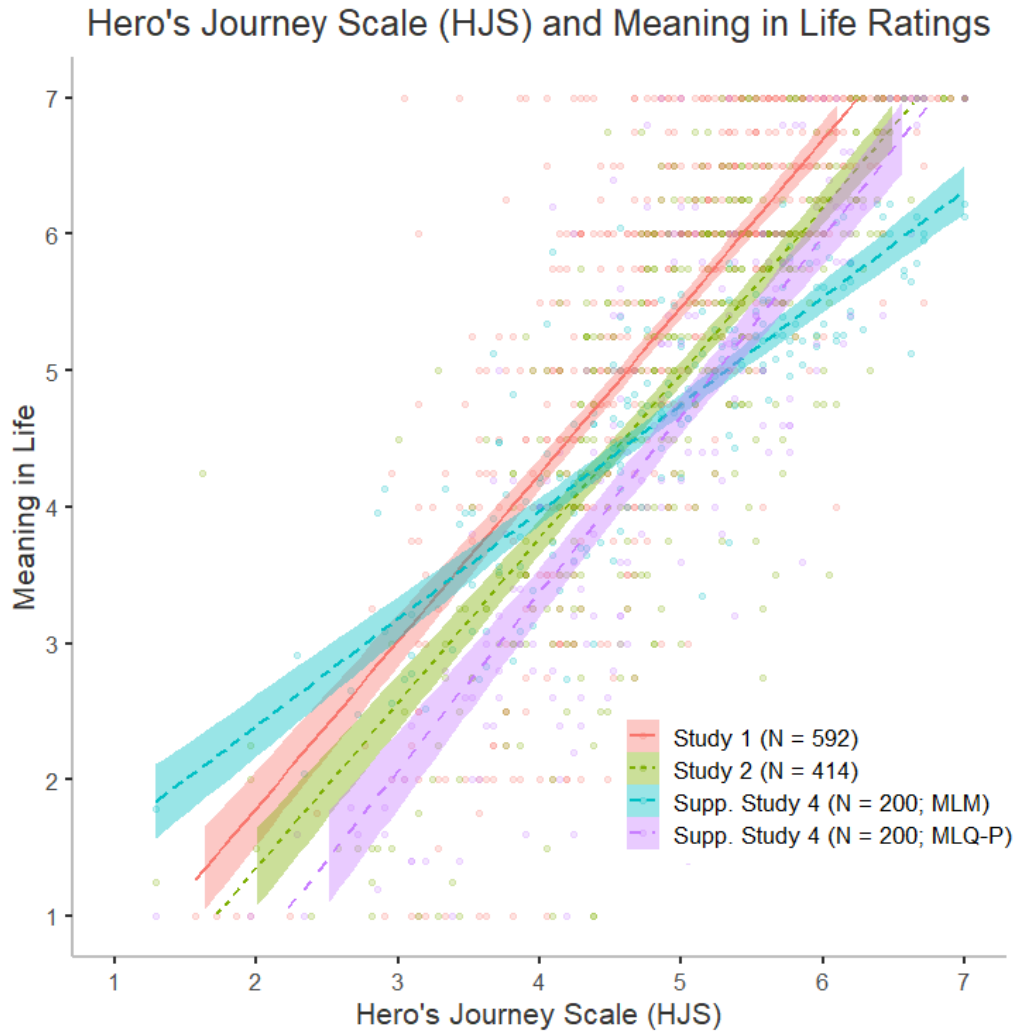


Fig. 3. Associations between Hero's Journey Scale (HJS) and Meaning in Life ratings in Study 1, Study 2 and Supplementary Study 4. Lines and shaded regions represent regression lines with standard errors. *Note:* Meaning in life ratings came from four different measures (Study 1: Costin & Vignoles, 2020; Study 2: McGregor & Little, 1998; Supplementary Study 4 (MLM) Morgan & Farsides, 2009; Supplementary Study 4 (MLQ-P): Steger et al., 2006)

Study 2: Telling a Life Story as a Hero's Journey Predicts More Perceived Meaning in Life

Study 1 showed that self-narratives resembling a Hero's Journey are associated with meaningful lives. But what about the stories people tell to others? Although sharing life stories with others likely involves some self-censoring out of social desirability concerns (Pasupathi et al., 2009), the way people tell their life story is colored by their own values and identity, even

when told informally (McAdams, 2001). In this study we had coders rate participants' life stories for their similarity to the Hero's Journey, allowing us to test (1) whether people who perceive their lives as similar to a Hero's Journey tell their stories as one, and (2) if telling one's story as a Hero's Journey also predicts perceptions of meaning in life. We predicted that the relationship between the Hero's Journey narrative and meaning in life would similarly appear in life stories that people share, with those who naturally tell stories featuring more Hero's Journey elements (versus stories that lack those elements) perceiving their lives to be more meaningful.

With a large sample of life stories, we also sought to use structural topic modeling, a natural language processing technique to automatically detect prevalent topics in text based purely on how words co-occur (e.g., Kennedy et al., 2021), to test our prediction with a more data-driven exploratory approach. Although we have shown that people's life stories can share elements of the Hero's Journey, other work suggests that many are likely to focus on general aspects of life (e.g., family, work) when relating their biographies (Rubin & Berntsen, 2003). Structural topic modeling allowed us to see which topics –both Hero's Journey-related and not–naturally occur within ordinary people's life stories and, in line with our prediction above, if people who see their life story as similar to a Hero's Journey (as measured by the self-reported HJS) would more frequently tell stories using topics related to the Hero's Journey (as identified by structural topic modeling). We preregistered our study design and analysis plan at

https://aspredicted.org/ELO_JAL and https://aspredicted.org/CWP_HRX.⁹

Method

⁹ As mentioned previously, our initial target sample size of 150 was based on a priori power analysis to detect a small to medium effect size. However, while results were largely supportive of our predictions, we were concerned the initial preregistered study was underpowered for a number of reasons (high participant attrition, more variability in data quality and coding than expected). To ensure our effects were reliable, we expanded our sample size to increase power following recommendations in the literature on open science (see Sakaluk, 2016) and detailed our approach in the subsequent preregistration for transparency.

Participants

We advertised our study on Amazon Mechanical Turk (Mturk) and received 481 completed responses.¹⁰ We excluded 62 participants who did not upload the required recording, four participants who submitted an uninterpretable recording, and one participant who incorrectly answered both attention checks, leaving a sample of 414 (192 men, 218 women, 4 preferred to self-identify or did not say; $M_{\text{age}} = 36.54$ years, $SD_{\text{age}} = 11.03$). Participants took on average 15.11 minutes ($SD = 6.87$) to complete the study and received \$2.10 for participating.

Procedure

Life Story Recording. Participants were first asked to “please take a minute to reflect on the key events of your life so far” and were provided an optional space to take notes. Then, participants were prompted to audio record their life story in “whatever way [they felt was] appropriate.” Participant recordings ranged in duration from .44 to 5.29 minutes ($M = 2.92$, $SD = 1.08$). All recordings were transcribed and ranged in length from 53 to 912 words ($M = 373.41$, $SD = 171.35$). Once finished recording, participants completed psychological measures.

Coding. Six research assistants were trained on the content of the Hero's Journey by a member of the author team, including pilot coding a shared subset of transcripts to ensure general alignment across coders. Once trained, pairs of research assistants were assigned to independently code the life story transcripts for the presence of each element from the Hero's Journey Scale in the participants' life stories on a 5-point scale ($-2 = \textit{clearly absent}$; $2 = \textit{clearly present}$). Every transcript in the sample was coded by two research assistants to ensure reliability, although a given research assistant only coded a subset of the sample due to the large

¹⁰ We note that this sample exceeds our preregistered target size of 450. Due to the complexity with recording online participants' life stories at a large scale, we used a prescreen survey to ensure potential participants were able and willing to audio record themselves. Participant attrition from the prescreen survey to the actual study made it difficult to precisely achieve our targeted sample size, resulting in a slightly larger than anticipated sample.

number of transcripts. Intra-class correlation coefficients of ratings between paired coders indicated a good absolute agreement ($\kappa = 0.81$).

Measures

HJS. Participants completed the 21-item¹¹ Hero's Journey Scale ($\alpha = .85$).

Coder HJS. Coders rated the presence of each of the 7 HJS elements in the participant's life story. These ratings were averaged to create the Coder HJS. We used this measure to capture the extent to which the participant's life story actually resembled a Hero's Journey ($\alpha = .81$).

Meaning in life. To measure perceptions of meaning in life, we used the 4-item meaning in life subscale ($\alpha = .94$) from the Purpose in Life questionnaire (Crumbaugh & Maholick, 1964; McGregor & Little, 1998). For example, "I have clear goals and a satisfying purpose in life."

Flourishing. We evaluated participants' self-rated flourishing using Diener et al.'s (2010) 8-item scale ($\alpha = .94$). For example, participants rated their agreement with statements such as "I am a good person and live a good life."

Life Satisfaction. To measure participants' life satisfaction, we used the 5-item life satisfaction scale by Diener et al. (1985) ($\alpha = .93$). Examples of the items are "In most ways my life is close to ideal" and "I am satisfied with my life" (1 = strongly disagree, 7 = strongly agree).

¹¹ As mentioned in Footnote 2, we originally distilled the Hero's Journey into eight elements and created a version of the HJS with 32 items that was used in data collections for Studies 2-3, 7-8, and the Supplementary Studies (with the exception of Supplementary Study 2), which were collected first chronologically. However, as we detail in the Supplemental Materials, subsequent factor analysis of the original 32-item HJS using data from existing data collections did not support our initially proposed factor structure. We thus followed methodological best practices (e.g., Carpenter, 2018, Flake & Fried, 2020) to reexamine the HJS both theoretically and empirically (e.g., deleting items with low factor loadings and removing one element, Story), resulting in a seven-factor HJS measure consisting of 21 items. We thus report results for the theoretically-consistent and empirically-substantiated 21-item HJS in all studies (deviating from the associated preregistrations for those studies) but note that no substantial changes to the pattern or significance of focal results in any study occurred as a result of this change.

Depression. To assess current depressive symptoms, we used the 4-item depression subscale from the Mental Health Inventory (Veit & Ware, 1983)($\alpha = .97$). For example, participants rated their agreement with, “I feel downhearted and blue”.

Analysis

OLS Regression

We used OLS regression to test whether Coder HJS predicted self-reported HJS, as well as meaning in life and our various psychological well-being measures—flourishing, life satisfaction, and depression.

Topic Modeling

We applied structural topic modeling to the transcribed life stories via the *stm* package in R (Roberts et al., 2019). Topic modeling is an unsupervised method in machine learning that assumes each document in a corpus is generated by sampling from a mixture of topics (Blei & Lafferty, 2009). An advantage of topic modeling is that topics are discovered automatically based upon clusters of coherent, frequently co-occurring words, rather than imposed by researchers. Human ratings are often only used to verify the coherence of topics that have been identified by this data-driven process (Chuang et al., 2013). Structural topic models are one variant of topic modeling designed to examine relationships between document metadata and the prevalence of topics within each document (document metadata entered into a structural topic model in this fashion are sometimes called *topical covariates*).

For this study, we included meaning in life and HJS as topical prevalence covariates. In other words, we tested whether meaning in life and HJS predicted the prevalence of each topic within each life story. We ran multiple models specifying different numbers of topics (i.e., 5, 7, 10, 12, 15, 20, 25, 30, 40, & 50) and chose 7 topics to extract based on four criteria 1)

minimizing residual score 2) maximizing semantic coherence and 3) maximizing topic exclusivity and 4) maximizing the held-out likelihood. Following previous research (Sterling et al., 2019), three independent coders (blind to our hypotheses) inspected the keywords for each topic to ensure they represented meaningful, coherent concepts and provided a label for each topic. Each coder inspected six sets of keywords for each topic, some of which were based upon their frequency within topics, while other keywords were based upon their uniqueness to each topic. After providing a label for each independently, coders met to resolve discrepancies and to choose a final label for each topic. Following previous research (Hall et al., 2008; Talley et al., 2011), we discarded one topic, which coders determined to be incoherent. Coders agreed upon a single label for the six remaining topics.

To examine how meaning in life and HJS each relate to topic prevalence, we conducted regression analyses via the "estimateEffect" function in the *stm* package. This analysis estimates a regression model for each extracted topic. Each model treats each document as an observation, the proportion of each document that belongs to a topic as the outcome, and the document meta-data (i.e., topical covariates—meaning in life and HJS) as predictors.

Results

Self-reported and Coder HJS

Reflecting the predicted correspondence between how people conceive of their life story and the way they tell them, participants' self-reported HJS significantly predicted coder HJS, $b = .14$, $SE = .03$, $t(412) = 4.91$, $p < .001$, indicating that participants who view their lives as a Hero's Journey do in fact tell their life story as one.

Structural Topic Modeling

Our structural topic model analysis also supported the association between viewing life as a Hero's Journey and telling life stories that are similar to a Hero's Journey. The structural topic model initially identified six topics that appeared across all participants' life stories – life obstacles, career/income, family, education, creative work, and hobbies. Of these naturally-occurring topics, the life obstacles topic (keywords including challenge and struggle) was the most theoretically aligned with the Hero's Journey given the connection to several Hero's Journey elements (e.g., quest, challenge, transformation). Following the positive relationship between the self- and coder-rated HJS ratings reported above, we expected that participants who self-rated their life as similar to a Hero's Journey would more frequently discuss the Hero's Journey-relevant life obstacles topic in their personal narratives. Confirming our expectation, the self-reported HJS was positively associated with discussion of life obstacles ($\beta = .05$, $SE = .02$, $p = .015$). In contrast, self-reported HJS was not related to the family, education, creative work, and hobbies topics and was even negatively related to the topic of careers and income ($\beta = -.04$, $SE = .02$, $p = .020$). These results suggest that people who see their life as similar to a Hero's Journey emphasize topics related to the archetypal narrative in their life stories and may even deemphasize other unrelated topics, such as discussion of careers and income.

Coder HJS, Meaning in Life, and Well-Being

The relationship between the Hero's Journey, meaning in life, and well-being seen in previous studies using the self-reported HJS (Study 1 and Supplementary Study 4) also occurred using the coder-rated HJS of participants' life stories. Coder HJS predicted greater meaning in life, $b = 0.43$, $SE = .12$, $t(412) = 3.48$, $p < .001$, greater flourishing, $b = 0.30$, $SE = .10$, $t(412) = 2.99$, $p = .003$, greater life satisfaction, $b = 0.41$, $SE = .13$, $t(412) = 3.08$, $p = .002$, and lower levels of depression, $b = -0.31$, $SE = .16$, $t(412) = -2.00$, $p = .047$. Thus, we see that those who

tell their story as a Hero's Journey perceive their lives to be more meaningful and experience corresponding benefits to their psychological well-being.

Discussion

These results provide evidence that perceiving your life as a Hero's Journey translates into personal narratives that emphasize the key elements of the archetypal Hero's Journey narrative – particularly confronting and overcoming challenges. Further, telling a life story that is similar to a Hero's Journey predicts meaning in life and other beneficial outcomes, just as perceiving one's life as a Hero's Journey is associated with life meaning and well-being.

Study 3: Redemption Sequences and the Hero's Journey

The Hero's Journey in personal narratives predicts meaningful lives. In this next study we seek to generalize the Study 2 findings with a non-online sample of late-midlife community adults who participated in the Life Story Interview, an in-depth interview protocol in which a researcher leads a multi-hour structured session to help participants generate a story of their life including characters, chapters, and themes. Thus, the stories we analyze in this study are detailed, rich accounts (ranging in length from 5,050 to over 26,000 words) of everyday community members recounting their life experiences. We explore if the Hero's Journey narrative appears in these comprehensive life stories and whether telling a life story that is similar to a Hero's Journey predicts flourishing, a well-being outcome that is frequently associated with meaning in life (e.g., Colbert et al., 2016; Keyes, 2007), furthering our efforts to generalize our effects beyond meaning to other areas of well-being.

Additionally, this study offers a chance to test how this work connects with prior research on the theme of redemption – personal change that comes from triumph over adversity – in personal narratives (e.g., McAdams & de St. Aubin, 1992). Our topic modeling results showed

that people who see their lives as a Hero's Journey emphasize challenges in their life stories. This motivated us to explore whether the Hero's Journey might help explain the power of "redemption sequences" to predict well-being (McAdams et al., 2001; Walker & Frimer, 2007). The Hero's Journey, focused on challenge and transformation, is a redemptive narrative but it also includes elements such as shift, quest, allies, and legacy. In this study, we test whether the Hero's Journey narrative predicts well-being above and beyond its redemption sequence.

Method

Participants

We were provided a random convenience sample of 60 intensive case studies of Life Story Interview from late-midlife participants by a researcher involved in the original data collection (McAdams & Guo, 2015)¹². The original sample of participants ranged in age from 55 to 57 years and lived in the greater Chicago, Illinois, area. Participants in our randomly drawn sample were majority white (80%) and female (60%).

Procedure

Life Story Interviews. Full details on the Life Story Interview procedure and data collection are found in McAdams and Guo (2015). A trained researcher interviewed each participant, asking them to think of their lives as a book with characters, chapters, and themes. Interviews lasted 2-3 hours, resulting in detailed transcripts ranging in length from 5,050 to over 26,000 words. After their interview, participants completed an online survey including self-report measures and demographic questions. Interviewees were paid \$75 for their participation.

¹² While we were unable to specify the number of case studies we received to ensure sufficient power, post-hoc power analysis in G*Power suggested that our sample size nevertheless provided strong power (> 95%) to detect an effect equivalent in size to the effect of Coder-rated HJS on meaning in life from Study 2 ($b = 0.43$).

Transcripts were limited to the 12 segments of the interviews (approximately 70% of interview content) that were directly related narrative identity.¹³ The combined segments presented an overall life story, covering formative past experiences (9 segments; e.g., high and low points from childhood and adulthood, turning-points) and anticipated future directions (3 segments; e.g., dreams and hopes for the future, anticipated projects), as a person's narrative identity encompasses both their reconstructed past and the future they envision for themselves (McAdams, 2013). Coders were trained by researchers overseeing the data collection and analyzed each segment for the presence or absence of the five main themes composing the redemptive-self prototype (McAdams & Guo, 2015): early advantage, sensitivity to suffering, moral steadfastness, prosocial goals, and redemption sequences (our focus here).

Hero's Journey Coding. As with the previous study, four independent coders (distinct from the redemptive-self coders) were trained on the components of the Hero's Journey Scale by a member of the author team before coding a selection of life stories to ensure proper agreement. Once aligned, pairs of coders were assigned to one half of the sample and coded the interviews for the presence or absence of the seven Hero's Journey elements.

Measures

Redemption Sequences. Coders rated all 12 interview segments for whether the redemptive theme was present (a score of 1) or absent (a score of 0) (coding reliability of the original sample of 157 interviews: $\kappa = .71$, ICC = .78). Scores across the 12 segments were averaged between the two coders and summed to create an overall estimate of the strength and salience of the redemption sequence theme in the interviews.

Coder HJS. As with the previous study, coders rated the interviews for the presence or

¹³ The sections that were not included as part of coding generally covered commentary related to the interviewee's personal or political values, as well as reflection on the interview process itself.

absence of each of the seven Hero's Journey elements (e.g., challenge, transformation) on a 5-point scale (-2 = clearly absent, +2 = clearly present), which were averaged together ($\alpha = .68$). The average correlation between coders indicated the presence of noise in their ratings ($r = .35$), which was unsurprising given the length and complexity of the interviews. However, as the Coder HJS variable for each pair demonstrated significant correlations with other focal study variables (see Results), we believe this presents a more conservative test of our hypotheses given the attenuation of correlations from measurement error.

Flourishing. Following McAdams and Guo (2015), participants completed a 42-item measure which assesses overall psychological well-being with six subscales: self-acceptance, environmental mastery, purpose in life, positive relations with others, personal growth, and autonomy (Ryff & Keyes, 1995; 1 = *completely disagree*, 6 = *completely agree*). Higher scores represent great well-being with a possible range of 42-252. Participants also reported generativity, their commitment to promoting the well-being of future generations, using the Loyola Generativity Scale (McAdams & de St. Aubin, 1992; 20 items; 0 = *never applies to me*, 3 = *always applies to me*). A sample item states, "I try to pass along knowledge I have gained through my experiences." Responses to the psychological well-being and generativity measures were standardized into z-scores and summed together to create an overall index of flourishing.

Results

Do life stories that emphasize redemption reflect the archetypal Hero's Journey? Zero-order correlations indicated that life stories with more redemption sequences also reflected more of a Hero's Journey, $r = .38, p = .003$ (correlations with coder pair-specific HJS ratings were also positive: $r_s = .29-.40, p_s < .024$). While the climax of Hero's Journey narratives often centers on the challenge and redemption of the protagonist, our distillation of the Hero's Journey highlights

that the narrative is also composed of other elements that are unlikely to be associated with redemption sequences (e.g., shift, allies). The correlations between the redemption sequences ratings and the individual Hero's Journey element ratings (see Supplemental Materials – Table S43) supported the predicted areas of convergence and divergence between the Hero's Journey and redemption sequences. As expected, both the Challenge and Transformation elements were significantly and positively correlated with the redemption sequences rating (Challenge: $r = .42$, $p < .001$; Transformation: $r = .42$, $p < .001$), while none of the other Hero's Journey elements were significantly correlated with the redemption sequences rating.

To our central question: does the Hero's Journey predict flourishing above and beyond the influence of redemption sequences seen in prior work (McAdams & Guo, 2015)? Both redemption sequences ($b = .43$, $SE = .16$, $t(55) = 2.75$, $p = .008$) and the Hero's Journey ratings ($b = 1.61$, $SE = .48$, $t(55) = 3.34$, $p = .002$) predicted participant flourishing. When both the Hero's Journey and redemption sequence ratings were included in the same regression, the Hero's Journey remained a significant predictor of flourishing ($b = 1.28$, $SE = .51$, $t(54) = 2.50$, $p = .016$) while the effect of redemption sequences became nonsignificant ($b = .28$, $SE = .16$, $t(54) = 1.72$, $p = .092$). This suggests that, while the Hero's Journey effect captures the same variance in flourishing as redemption sequences (shown by the nonsignificant redemption sequence effect), it also predicts significant variance beyond redemption as predicted.

Discussion

Using a sample of community adults, this study helped to validate, generalize, and extend the findings from Study 2 by showing how people who tell life stories similar to a Hero's Journey feel they are flourishing. These results also connect our work to prior research on the importance of redemption sequences in life stories by showing that, while the Hero's Journey is a

redemptive narrative, its influence on well-being extends beyond the redemption sequences captured by the challenge and transformation elements.

Exploring Aim #3: Testing whether Re-storying Life as a Hero's Journey Increases Meaning

The first three studies found that the Hero's Journey and meaning in life are related, such that the Hero's Journey narrative is found in the personal stories of those who perceive life as meaningful. The final set of studies tests whether the Hero's Journey narrative can be *causally* used to make lives more meaningful. Studies 4-5 (and Supplementary Studies 5-6) assess the effect of a new re-storying intervention that aids people in crafting their personal stories as a Hero's Journey on life meaning and well-being. Study 6 examines the underlying mechanisms by which the re-storying intervention increases meaning in life. Studies 7 and 8 then test whether the re-storying intervention impacts meaning-related behavior in the form of seeing more meaning in random letter strings and seeing one's personal problems as more meaningful and amenable to resolution.

As with our initial set of studies, we attempted to maximize power in the remaining studies by using validated measures, employing data quality checks with preestablished exclusion rules (see Table S1 in the Supplemental Materials), and collecting sufficiently large samples. On this final point, we chose our study sample sizes in advance to ensure we had adequate power to observe our predicted effects. For Study 4, the first study using the re-storying intervention, we targeted a sample of 100 participants per condition (and oversampled to account for potential exclusions and attrition across two time points) to allow us sufficient power (i.e., $\geq .80$) to detect a small to medium effect size of at least $d = .4$. This study yielded an effect of re-storying intervention on self-reported Hero's Journey Scale ratings (which our prior studies have shown were strongly related to ratings of meaning in life) of $d = .57$. Thus, we continued to

target a sample size of 100-125 participants per cell in the remaining studies to account for exclusions due to poor data quality or attrition across time points. Power analyses conducted in G*Power on our achieved sample sizes revealed that for our target alpha level ($\alpha = .05$) we had sufficient power (i.e., $\geq .80$) in all studies to detect a main effect size of at least .44.

Study 4: Hero's Journey Re-storying Intervention Shapes How People Tell Their Life Story

Life stories reflect people's understanding of how the events of their lives come together into a cohesive narrative (McAdams, 1993), but they are also subjective, allowing people to reconsider the importance and meaning of events (McAdams et al., 2006). This subjectivity enables personal narratives to be "re-storied" by looking back at past experiences to emphasize or deemphasize certain events or reframe them within different narrative structures (e.g., Flora et al., 2016). We designed a re-storying intervention to aid people in rewriting their personal narratives as a prototypical Hero's Journey. Specifically, we developed a series of writing prompts (see Table 3) that resulted in a life story comprised of the major elements of a Hero's Journey unified into the same narrative arc. As life stories help people interpret their ongoing experiences (Habermas & Bluck, 2000; McAdams, 2008), we predict that, by rewriting their stories as a Hero's Journey, participants should be better able to see elements of the archetypal narrative in their own lives. In this first test of the Hero's Journey re-storying intervention, participants told their life story twice—once several days prior to completing the intervention and once immediately after- allowing us to assess whether the intervention changed how people told their life stories. We preregistered our study at https://aspredicted.org/9W6_XY2.

Method

Participants

We advertised our study on Amazon Mturk. 275 participants completed the Time 1 opt-in survey and provided responses that met our preregistered quality criteria¹⁴. Of those, 247 completed the follow-up survey (Time 2). Seven participants failed two out of three attention checks and were removed from our final sample, leaving 240 participants (108 men, 130 women, 2 preferred to self-identify or did not say; $M_{age} = 40.67$ years, $SD_{age} = 12.63$).

Procedure

At Time 1, participants were asked to write their life story (“In approximately 2-3 paragraphs, please share your story”). In a follow-up survey two days later (Time 2), participants were randomly assigned to either the Hero’s Journey re-storying intervention or a control condition (detailed below). Immediately following the intervention or control, participants completed the Hero’s Journey Scale (HJS) and were asked to again share their life-story. Participants’ life stories were an average length of 220.51 words ($SD = 115.51$) at Time 1 and 190.2 words ($SD = 99.64$) at Time 2. Participants took on average 30.24 minutes ($SD = 13.71$) to complete the overall study and received \$3.50 for their participation.

Hero’s Journey Re-storying Intervention. In the Hero’s Journey re-storying intervention condition, participants were told that “we want to learn more about your life story and how it has shaped you into the person you are today. To help you write your story and capture the important details of your life, we will be providing prompts for you to complete.” We provided participants with the prompts detailed in Table 3. First, participants completed prompts (one to two sentences per prompt) identifying each of the seven Hero’s Journey elements in their lives. For example, we had participants reflect on how their life journey showed evidence of

¹⁴ As per our preregistered process, we used participants’ responses in the opt-in survey as an initial quality check. 27 participants (separate from the 275) submitted responses that were of insufficient quality or did not pledge to complete the follow-up survey and were thus not sent the second survey.

Shift by asking, “What change of setting or novel experience prompted your journey to become who you are today?” and providing a sentence starter, “My journey to who I am today began as a result of...” Importantly, as shown in Table 3, the prompts were presented to participants in the same temporal order as the classic Hero’s Journey to ensure that the narrative they constructed not only contained the elements of the Hero’s Journey, but followed the same narrative arc. Then, after reflecting on their constructed story, we asked participants to reflect on how they combined into a unified Hero’s Journey narrative by instructing, “Reflecting on the various aspects of yourself and your story, describe how you might see yourself as a hero on an epic journey.”

Table 3

Hero’s Journey Re-storying Intervention used in Studies 4-8 & Supplementary Studies 5-6

Hero’s Journey Element	Intervention Writing Prompt
Protagonist	What makes you <i>you</i> ? Think about your identity, personality, core values
Shift	What change of setting or novel experience prompted your journey to become who you are today?
Quest	What overall goal were you striving for that led to who you are today?
Challenge	What challenges or obstacles, such as a nemesis/rival or negative event, stood in the way of your journey?
Allies	Who supported or helped you in your journey?
Transformation	How did you personally grow as part of your journey to become who you are today?
Legacy	In what ways has your journey left a legacy?
Reflecting on the various aspects of yourself and your story, describe how you might see yourself as a hero on an epic journey	

Control Condition. Following prior experimental research using psychological narrative interventions (e.g., Kilduff & Galinsky, 2013; King, 2001), we designed a control condition in which participants would engage in written reflection on neutrally-valenced items. We adapted the writing prompts from Foulk and colleagues (2018) to create a control writing task that replicated the re-storying intervention structure (using the same number of prompts), and more importantly, focused on similar content (describing aspects of participants' personal lives) — without the Hero's Journey frame or other confounding psychological effects. We instructed participants, “you will be telling us about various features of your life. Specifically, you will be telling us about objects in different domains of your life, such as your work and home,” and then asked them to describe 8 aspects of their lives, such as “two noticeable items in your house” and “two noticeable activities you do.” These prompts have served as neutral counterpoints to other narrative interventions related to power, growth mindsets, best possible selves, and positive leadership (Foulk et al., 2018; Jennings et al., 2021; Lanaj et al., 2019; Rogers et al., in press). Importantly, while the subjects of the prompts are neutrally-valenced, they still focus on aspects of people's lives – their possessions, homes, how they spend their time – that are important to their identities (Bellezza et al., 2017; Belk, 1988), and, as we saw from the structural topic modeling conducted in Study 2, are frequent subjects of life stories that people share with others.

Measures

Coder HJS. Following the same training and coding procedure as Studies 2 and 3, trained coders (distinct from coders in prior studies) rated the participant's life stories from Time 1 and Time 2 for the presence of each of the Hero's Journey elements ($\kappa = 0.77$). These ratings were averaged to create the Coder HJS which captures the extent to which the participants' life stories resemble a Hero's Journey ($\alpha_{\text{Time 1}} = .77$; $\alpha_{\text{Time 2}} = .75$).

HJS. Participants completed the 21-item Hero's Journey Scale ($\alpha = .93$).

Results

As shown in Figure 4, results supported our predictions as life stories from participants in the re-storying intervention condition were rated by coders as significantly more similar to a Hero's Journey ($M = 3.18, SD = 0.69$) than participants in the control condition ($M = 2.98, SD = 0.69, t(238) = 2.25, p = .026, d = .29$). Importantly, the effect of the re-storying intervention on how people told their life stories was significant while controlling for Coder HJS ratings of their life stories at Time 1 ($t(237) = 2.86, p = .005$), indicating that the difference in Coder HJS between condition was due to the re-storying intervention, as opposed to within-person variance.

The re-storying intervention also led participants to perceive their lives as more similar to a Hero's Journey. As expected, participants in the re-storying intervention condition had higher self-reported HJS ($M = 5.48, SD = 0.83$) than participants in the control condition ($M = 4.97, SD = 0.93, t(238) = 4.45, p < .001, d = .57$). We then assessed whether the intervention's effect on perceptions of life as a Hero's Journey was mediated by the way in which participants told their story, as captured by the Coder HJS rating. Bootstrap analysis with 5,000 samples revealed that the 95% confidence interval for the size of the indirect effect excluded 0 (*indirect effect* = .06, *SE* = .03, 95% *CI* [.01, .15]), suggesting a significant indirect effect of re-storying intervention on self-reported HJS via the Coder HJS rating (Baron & Kenny, 1986; Preacher & Kelley, 2011).¹⁵ This provides evidence that our intervention can help guide participants in how they think about their lives by offering a compelling way for participants to construct their life stories.

Discussion

¹⁵ Note: all subsequent mediation analyses in the manuscript used the same bootstrapped analytical approach.

Results from Study 4 provide evidence of the causal effects of our re-storying intervention. Prompting people to write their life stories using the elements of a Hero's Journey allowed participants to rewrite their own stories as closer to the archetypal narrative, leading them to subsequently see their lives as more similar to a Hero's Journey. This may be an effective tool to shape broader attitudes and feelings about life, a possibility we test in the remaining studies.

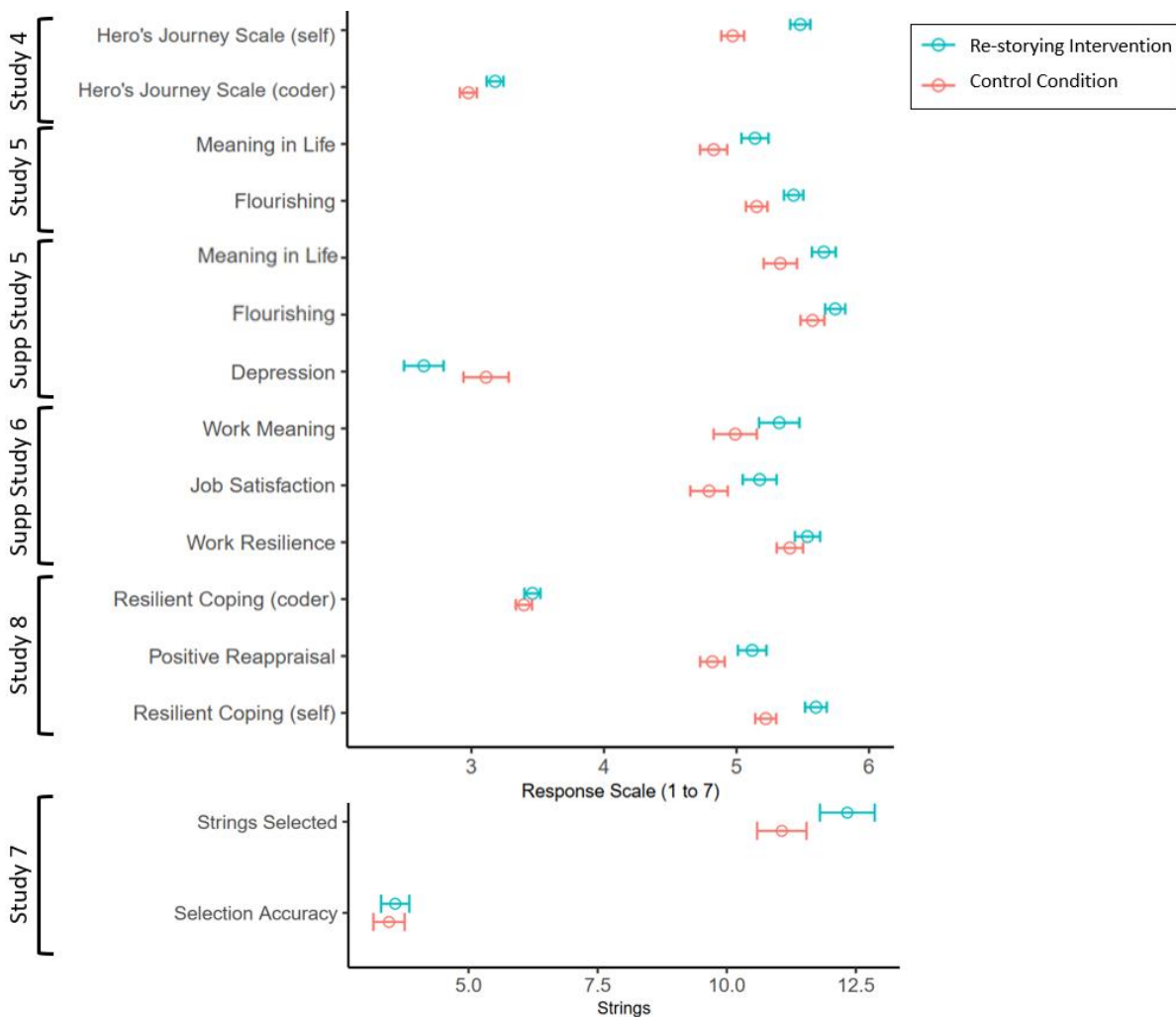


Fig. 4. Average ratings of study outcomes by condition in Re-storying Intervention Studies 4-5, 7-8, and Supplementary Studies 5-6. For concision, we only display the self-rated HJS outcome for Study 4, but note that the mean difference between conditions for self-rated HJS was significant for all intervention studies. Error bars indicate standard error of the mean.

Study 5: Hero's Journey Re-storying Intervention Increases Meaning in Life

Study 4 showed that a short re-storying intervention led participants to see their life stories as closer to a Hero's Journey—seeing the narrative framework in their own stories. Re-storying personal narratives to disrupt and dislodge ruminative stories has aided victims of trauma (Flora et al., 2016; Harvey et al., 2000; Nourkova et al., 2004) and suggests the potential utility of a re-storying intervention that leverages the Hero's Journey narrative. We next test whether the Hero's Journey re-storying intervention can help people to discover more positive meaning from their personal narratives and enhance their well-being. We also explore whether existing perceptions of meaning in life impact the effect of the re-storying intervention on life meaning and well-being. If participants' baseline level of life meaning interacts with the re-storying intervention to predict these outcomes, this might point to a boundary condition for the efficacy of the intervention, such as ceiling effects (if the re-storying intervention had limited efficacy on high-meaning in life participants) or floor effects (if the re-storying intervention failed to boost meaning for low-meaning in life participants). We preregistered our study design and analysis plan at https://aspredicted.org/L2X_T83.

Method

Participants

450 participants on Amazon Mturk completed the opt-in survey (Time 1), 384 of whom completed the follow-up survey (Time 2) on the following day. We excluded three participants for either failing two out of three attention checks or providing an open-ended response that did not follow instructions (i.e., was plagiarized), as per our preregistered criteria. This left a final sample of 381 participants (166 men, 209 women and 6 non-binary/third gender; $M_{\text{age}} = 36.77$ years, $SD_{\text{age}} = 11.47$).

Procedure

This study used a time-separated design which allowed us to measure participants' existing perceptions of meaning in life at Time 1 without impacting their reactions to the Hero's Journey re-storying intervention or control task at Time 2. At Time 1, participants rated their general meaning in life, answered an open-ended question about why they started working on Amazon Mturk (used as a data quality check), and completed demographic questions. The following day, participants completed either the Hero's Journey re-storying intervention or control task before responding to psychological measures. Participants took on average 15.21 minutes ($SD = 8.39$) to complete the study and received \$2.00 for their participation.

Measures

HJS. Participants completed the 21-item Hero's Journey Scale ($\alpha = .92$).

Meaning in life. We used the four-item meaning in life measure from Study 2 to measure participants' perceptions of meaning in life at both Time 1 and Time 2. At Time 1, participants rated how meaningful their life felt generally ($\alpha = .93$), while at Time 2 they rated how meaningful their life felt "right now" ($\alpha = .95$).

Flourishing. As a secondary outcome, participants also responded to the eight-item flourishing measure used in Study 2 ($\alpha = .92$).

Results

As predicted, participants in the re-storying intervention condition more strongly characterized their life as a Hero's Journey ($M = 5.21$, $SD = .87$) than did control participants ($M = 4.96$, $SD = .94$), $t(378) = 2.67$, $p = .008$, $d = .27$.

As shown in Figure 4, the re-storying intervention increased meaning in life and a sense of flourishing. Intervention participants perceived higher levels of meaning in life after the intervention task ($M = 5.14$, $SD = 1.40$) than did control participants, ($M = 4.83$, $SD = 1.42$),

$t(378) = 2.16, p = .031, d = .22$. Additionally, intervention participants had a stronger sense of flourishing ($M = 5.43, SD = 1.01$), than control participants, ($M = 5.15, SD = 1.12$), $t(378) = 2.55, p = .011, d = .26$. We also explored whether seeing one's life as a Hero's Journey (as measured by the HJS), mediated the effect of the re-storying intervention on downstream outcomes (as depicted in the model in Figure 1). Secondary analyses supported this prediction, indicating that seeing oneself as a hero on a journey mediated the effect of the re-storying intervention on both meaning in life (*indirect effect* = .31, *SE* = .12, *95% CI* [.08, .53]) and flourishing (*indirect effect* = .24, *SE* = .09, *95% CI* [.07, .42]).

Finally, we explored whether participants' baseline level of meaning in life impacted the effect of the re-storying intervention on meaning or flourishing. Results did not show a significant interaction effect of general meaning in life and condition in predicting either meaning or flourishing ($ps > .52$). Given the lack of interaction, we assessed whether the re-storying intervention predicted meaning and well-being above and beyond participants' trait level of meaning. When the participants' general level of meaning in life was included as a covariate, the re-storying intervention remained a significant predictor of meaning ($b = .26, SE = .09, t(378) = 3.09, p = .002$) and flourishing ($b = .25, SE = .08, t(378) = 3.16, p = .002$). This suggests that, regardless of a person's prior perceptions of meaningfulness, our Hero's Journey re-storying intervention can boost how meaningful their lives feel and improve well-being.

Discussion

The Hero's Journey re-storying intervention does not just increase participants' perceptions that their lives match a Hero's Journey, it also increases how meaningful their lives feel, regardless of whether they initially perceived their lives as highly meaningful or not. Thus, we see that the association between the Hero's Journey and meaning in life found in the first set

of studies is not just correlational, but also causal, and it extends to other indicators of well-being, such as perceptions of flourishing.

Building on these results we present two additional studies in the Supplemental Materials (Supplementary Studies 5 and 6) that demonstrate additional domains in which the re-storying intervention can make a positive impact. In Supplementary Study 5 we examine the effect of the re-storying intervention on mental health, finding that crafting personal narratives as a Hero's Journey can lead to reduced feelings of depression, along with replicating the findings of Study 5 on meaning in life and flourishing. Next, in Supplementary Study 6, we look at the impact of the re-storying intervention on the narratives and attitudes that people have about their careers, given the importance of work to many people's lives and identities (e.g., Ibarra & Barbulescu, 2010). Results showed that a career-focused version of the Hero's Journey re-storying intervention had both domain-specific and general benefits as it increased job satisfaction and meaning in life as well as indirectly fostered work meaning and resilience through perceptions that one's career story was more similar to a Hero's Journey.

These three studies (Study 5 and Supplementary Studies 5-6) show that the Hero's Journey re-storying intervention increases meaning in life, but they leave an open question: are the effects of our intervention on meaning in life actually stemming from the rewriting of personal narratives as a Hero's Journey or are our effects simply the result of priming seven elements tied to aspects of a meaningful life? Or, alternatively, is thinking of yourself positively as a hero – as participants do in the final prompt of the intervention – sufficient to make life feel more meaningful? Our next study explores these questions and examines the underlying mechanisms of the re-storying intervention.

Study 6: Mechanisms of the Hero's Journey Re-storying Intervention

As a type of narrative, the Hero's Journey represents a set of elements connected in a specific causal and thematic structure (e.g., Onega & Landa, 1996). We designed our re-storying intervention to address both aspects: it (1) asks participants to reflect on the Hero's Journey elements as they appear in their lives and 2) helps them to tie together the elements into the specific narrative framework associated with the Hero's Journey (i.e., the prompts are presented in the same temporal order as the Hero's Journey and the final prompt asks participants to reflect on how the elements connect together into a unified narrative of the self as a hero on a journey).

If the effect of our re-storying intervention on meaning in life is due to the crafting of a personal story specifically as a Hero's Journey (and not a different non-narrative explanation), we would expect two things to be true. First, the inclusion (vs. absence) of the elements of the Hero's Journey in a narrative should increase perceived meaningfulness. Second, the use of the particular Hero's Journey narrative framework (versus an alternatively ordered structure lacking thematic connection) should also increase perceived meaningfulness. To assess these predictions, we compare the re-storying intervention against three conditions: (1) the Heroic Episodes condition: a condition in which participants are asked to see themselves through a heroic frame, but without reflecting on the Hero's Journey elements, (2) the Random Prompts condition: a condition in which participants reflect on the presence of the Hero's Journey elements in their lives, but without the Hero's Journey narrative framework – the order of element prompts is randomized and the elements are not connected to a heroic frame – and (3) our control condition. We preregistered our study at https://aspredicted.org/EGG_ZXJ.

Method

Participants

With four conditions, we aimed to collect 450 participants on Amazon Mturk to account for potential exclusions. Only one participant was excluded, leaving a sample of 449 (176 men, 268 women, 2 non-binary/third gender, 3 did not identify; $M_{\text{age}} = 37.97$ years, $SD_{\text{age}} = 12.09$).

Procedure

This study used a 2(Hero's Journey elements vs. not) x 2(heroic frame vs no heroic frame) design (see Table 4): (1) our Hero's Journey re-storying intervention where participants reflect on the Hero's Journey elements with the heroic frame, (2) the "Heroic Episodes" condition where participants adopt a heroic self-frame by writing short episodes of themselves as an 'epic hero', but do not reflect on the Hero's Journey elements, (3) the "Random Prompts" condition where participants reflect on the seven elements in random order without the heroic framing, and (4) control condition, where they reflected on neither. Participants took on average 17.52 minutes ($SD = 13.66$) to complete the study and received \$3.11 for their participation.

Table 4
Study 6 2 x 2 Condition Framework

	Hero's Journey Elements	No Hero's Journey Elements
Heroic Frame	Hero's Journey Re-storying Intervention	Heroic Episodes Condition
No Heroic Frame	Random Prompt Condition	Control Condition

Hero's Journey Re-storying Intervention and Control Condition. In the first two conditions, participants completed the Hero's Journey re-storying intervention or control condition from prior studies.

Heroic Episodes Condition. The heroic episodes condition asks participants to apply the narrative frame of themselves as heroes, but without reflecting on the Hero's Journey elements. Participants in this condition were instructed that "There are lots of different roles that you could

imagine yourself in. For this particular section, we would like you to picture yourself as a "hero." To help with this task, we will be providing short prompts for you to describe how you are (or could be) in this hero role." Participants then completed eight identical prompts: "What is an episode of you as an 'epic hero'? This does not need to relate to any previous responses." After they completed the eight prompts, participants were presented with their responses to review.

Random Prompt Condition. On the other hand, we designed the random prompt condition so that participants would reflect on how their lives match the seven elements of the Hero's Journey without the explicit narrative frame of the Hero's Journey. Participants in the random prompt condition were instructed that "you will respond to a few writing prompts from a database of stock short-answer test questions. These prompts are randomly generated and are not connected to each other." Participants then completed seven of the eight prompts from the Hero's Journey re-storying intervention in randomized order. Instead of the final narrative frame prompt ("reflecting on the various aspects of yourself and your story, describe how you might see yourself as a hero on an epic journey"), participants were asked about their writing, "What is the approximate reading level (basic, average, or advanced) of the text. How can you tell?" This modified final prompt ensured that participants still reflected on their responses but did not necessarily unify them under the narrative of a heroic journey.

After completing one of the four writing tasks, participants completed scale measures presented in counterbalanced order. Participants finished by answering demographic questions.

Measures

Meaning in life. Participants completed the same measure of meaning in life as Studies 2 and 5 ($\alpha = .93$). Results for secondary measures are reported in the Supplemental Materials.

Results

Do both parts of the Hero's Journey re-storying intervention, identifying how one's life fulfills the elements of a Hero's Journey and connecting those elements into a unifying heroic frame, contribute to a greater sense of meaning in life? As predicted, a two-way ANOVA on meaning in life revealed significant main effects of element reflection, $F(1, 445) = 4.93, p = .027, \eta_p^2 = .01$, as well as a significant effect of connecting them into a unifying heroic frame, $F(1, 445) = 6.06, p = .014, \eta_p^2 = .01$. There was not an interaction, $F(1, 445) = 0.01, p = .914, \eta_p^2 = .00$, suggesting that the two effects operate in an additive manner in predicting life meaning, both independently contributing to increase perceptions of meaningfulness.

As shown in Figure 5, participants in the Hero's Journey re-storying intervention rated their meaning in life as the highest compared to other conditions, with pairwise comparisons showing a significant difference between means for the re-storying intervention and control condition ($M_{HJY} = 5.73, SD = 1.21, M_{Control} = 5.20, SD = 1.26, diff = .54, SE = .16, t(445) = 3.35, p < .001$), replicating Study 5. Mean differences between the re-storying intervention and the random prompt ($M = 5.46, SD = 1.19$) and heroic episodes conditions ($M = 5.49, SD = 1.19$) were in the expected direction, although not significant (*re-storying intervention-random prompt* $diff: t(445) = 1.68, p = .094$; *re-storying intervention-heroic episodes* $diff: t(445) = 1.48, p = .140$). Additionally, while the re-storying intervention differed significantly from control for meaning in life, neither of the differences between the control and random prompt ($diff = .27, SE = .16, t(445) = 1.66, p = .098$) or control and heroic episodes conditions ($diff = .29, SE = .16, t(445) = 1.80, p = .072$) were significant, supporting our contention that it is the overall Hero's Journey (the elements and unifying narrative frame) that fosters meaning in life.

Discussion

This study provides support for each our theorized mechanisms: meaning in life is

increased when participants construct their narratives to contain more Hero's Journey elements, as well as when they use the specific Hero's Journey framework, tying the elements together in the same order and with the same unifying frame as the archetypal narrative. These results suggest that the power of the Hero's Journey re-storying intervention to influence how meaningful life seems stems from giving people both the narrative elements and the unifying structure to construct a compelling and meaningful life story. In our next study, we test whether the impact of the Hero's Journey extends beyond retrospection and can shape how people experience life moving forward.

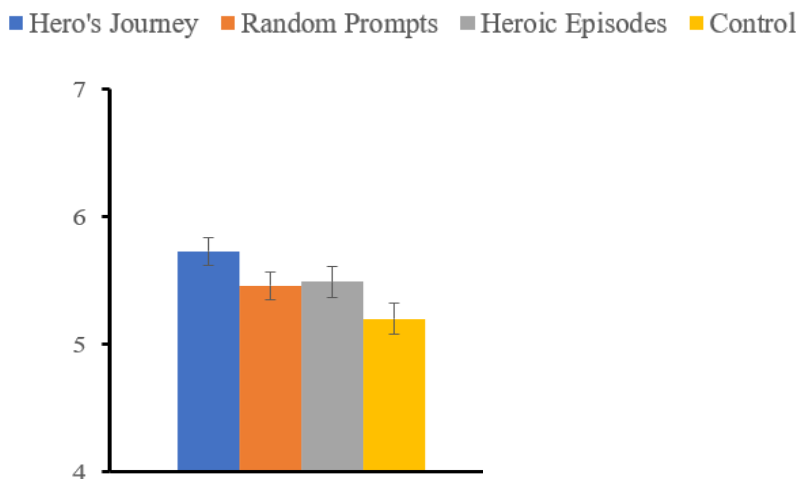


Fig. 5. *Study 6: Meaning in Life ratings by condition. Error bars represent SEM.*

Study 7: Hero's Journey Re-storying Intervention Increases Seeing Meaning in Ambiguous Letter Strings

Can the Hero's Journey provide a frame that primes people to see meaning in the ambiguity of life? We first test this hypothesis outside of the realm of personal lives to see if the Hero's Journey re-storying intervention impacts people's perception of meaning in incoherent letter strings. We use a previously-validated implicit grammar task where participants scrutinize letter strings (e.g., *XMxRTVTM*, *VTTTTVM*) for correspondence to an underlying grammatical

pattern after a brief training. This paradigm, frequently used in the psychological literature (Proulx & Heine, 2009; Randles et al., 2011, 2015), offers an objective measurement of two types of meaning-related behavior (1) *Meaning-perceiving*: whether participants perceive a given string as matching the grammatical pattern, representing their motivation to ascribe meaning to the strings, and (2) *Meaning-accuracy*: participants' ability to distinguish strings that follow the pattern from those that do not, representing their capacity to detect underlying meaning in the strings. Prior research has shown that people increasingly seek and find meaning when their own sense of meaning is threatened (Proulx & Heine, 2009; Randles et al., 2011) but this study examines if these behaviors can instead be fostered by providing a mental framework – the Hero's Journey – enabling them to see more connections in situations they encounter. We preregistered our study at https://aspredicted.org/XIG_SSG.

Method

Participants

We received responses from 275 participants on Amazon Mturk, with no exclusions (113 men, 156 women, 4 non-binary/third gender, 2 did not identify; $M_{\text{age}}=37.08$ years, $SD_{\text{age}}=11.94$).

Procedure

As in our previous intervention studies, participants were assigned to either the Hero's Journey re-storying intervention or control condition. After completing the intervention or control writing task, participants completed the Hero's Journey Scale (HJS).

Implicit Grammar Task. Next, participants were instructed to copy a series of letter strings (e.g., XMXRTVTM) that, unbeknownst to them, all followed specific grammatical rules (see Dienes & Scott, 2005, for full details). Once done, we presented participants with 30 new strings of which they were informed that a portion followed the same pattern as the previously

copied strings (in fact, half of the strings followed the pattern and the other half did not). Participants were tasked with identifying which new strings followed the pattern of the copied letter strings. After finishing the task, participants completed a measure of meaning in life and demographic questions. Participants took on average 23.11 minutes ($SD = 10.23$) to complete the study and received \$3.11 for their participation.

Measures

HJS. Participants completed the 21-item HJS ($\alpha = .93$).

Meaning Perceiving and Accuracy. Following Proulx & Heine (2009), we measured two meaning-related behaviors. First, the extent to which participants perceive meaning in their environment was measured by the total count of strings selected by participants (correctly or incorrectly). Next, accuracy was measured as the number of correctly identified strings subtracted by incorrect selections (strings selected that did not follow the pattern).¹⁶

Results

Replicating previous studies, participants in the re-storying intervention more strongly characterized their life as a Hero's Journey ($M = 5.28$, $SD = .85$) than did participants in the control condition ($M = 4.93$, $SD = .97$), $t(273) = 3.11$, $p = .002$, $d = .38$.

The re-storying intervention impacted participants' meaning-perceiving behavior but did not increase their accuracy at detecting meaning. As meaning-perceiving was operationalized as a count variable, we used Poisson regression to test the effect of the re-storying intervention. Supporting our predictions and as shown in Figure 4, participants in the re-storying intervention selected significantly more letter strings as matching the grammatical pattern ($M = 12.33$, $SD = 6.23$) than did participants in the control condition ($M = 11.07$, $SD = 5.59$), $z(273) = 3.07$, $p =$

¹⁶ Scholars have sometimes used alternative measures of detecting meaning accuracy from the implicit grammar task. In the Supplemental Materials, we describe and test these alternate measures, which mirrored our focal results.

.002. The coefficient estimate ($b = .11$, $SE = .04$) indicates that completing the re-storying intervention is associated with a 11.46% higher rate (incident rate ratio) of selecting letter strings as matching the pattern. Counter to predictions, this effect was not mediated by the HJS (*indirect effect* = .006, $SE = .01$, 95% $CI_{BC}[-.017, .036]$), potentially the result of a mismatch between a life-focused HJS measure and an impersonal grammar task, whereas we would expect mediation for more personal outcomes (as we look at in our next study). The re-storying intervention had no significant effect on how accurately participants detected meaning, as re-storying intervention participants ($M = 3.58$, $SD = 3.21$) achieved the same relative accuracy score as those in the control condition ($M = 3.46$, $SD = 3.54$), $t(273) = 0.29$, $p = .769$, $d = .04$.

Discussion

These results suggest that the Hero's Journey leads people to perceive more meaning in ambiguous letter strings, even if it did not increase the detection of "real" meaning. However, the events of real life seldom have a "true" meaning or not; the search for meaning is subjective, and people's ability to see meaning in any circumstances is valuable to maintain well-being (Steger et al., 2008). Building on these findings, we next test whether the Hero's Journey re-storying intervention can allow people to see personal challenges as more meaningful and to find more meaningful solutions to them.

Study 8: Hero's Journey Re-storying Intervention Changes How People View and Approach Personal Problems

Our previous studies have shown the various ways in which the Hero's Journey increases meaning in life and benefits well-being. Our re-storying intervention enables people to see more meaning in their experiences – whether in life or in an ambiguous grammar task. As such, we anticipate that the Hero's Journey will also allow people to see more positive meaning in their

personal problems. The ability to find positive meaning, particularly from highly challenging experiences, is a critical characteristic of resilient, well-adjusted people (Jayawickreme & Blackie, 2014; Oishi & Westgate, 2021; Tugade & Fredrickson, 2004; Vohs et al., 2019). Study 8 tests whether the Hero's Journey re-storying intervention makes people more resilient to life's challenges. By making people feel that they are heroes on a journey, the re-storying intervention should reframe obstacles as an expected – even necessary – part of people's journeys to eventual transformation and triumph, leading to increased resilience.

While we predict the re-storying intervention will increase resilience broadly, we assess in this study whether the intervention has a differential impact on the two key aspects of resilience. The resilience construct and related measures (e.g., Block & Block, 1980; Folkman & Moskowitz, 2000) capture both proximal emotional resiliency (“I usually take stressful things at work in stride”) and the use of downstream adaptive coping behaviors in the face of challenges (“I usually manage difficulties one way or another at work”). Given the focus of the re-storying intervention on how people interpret their experiences, we posit that it may be more effective at increasing emotional resiliency as compared to more downstream resilient behaviors (Major et al., 1998), but we nevertheless expect here too that we might observe an indirect effect of our intervention on the behavioral coping aspect of resilience via the impact of the intervention on seeing oneself as a hero. We preregistered our study at https://aspredicted.org/HXR_JHV.

Method

Participants

We recruited 275 participants from Amazon Mturk and excluded 8 participants for failing both attention checks or inadequate completion of the writing task, leaving a sample of 267 (130 men, 135 women, 2 preferred to self-identify/did not say; $M_{\text{age}} = 37.76$ years, $SD_{\text{age}} = 11.87$).

Procedure

Following Tugade & Fredrickson (2004), we had participants write about their most important personal problem. Participants detailed problems associated with a wider variety of topics: work, finances, health, relationships, and COVID-19 (this study was collected in the Summer of 2020)¹⁷. In a follow-up survey the next day, participants completed the re-storying intervention or control task, followed by the Hero's Journey Scale (HJS). Next, we presented participants with the personal problem they had written about the day prior. Participants responded to a series of scales and an open-ended question about their perceptions of the problem and approaches to solve it. Finally, participants completed a series of exploratory measures (details and results presented in the Supplemental Materials), and demographic questions. Participants took on average 19.24 minutes ($SD = 9.32$) to complete the study and received \$3.10 for their participation.

Measures

HJS. Participants completed the 21-item HJS ($\alpha = .93$).

Positive reappraisal. We used the cognitive change subscale from Diefendorff, Richard, and Yang's (2008) emotion regulation strategy measure to evaluate the extent to which participants attempted to reframe or find positive meaning when thinking about their personal problem. We asked participants to express their agreement (1 = *strongly disagree* to 7 = *strongly agree*) with four statements ($\alpha = .73$) such as "(I) reinterpret my situation in a more positive light" and "(I) consider how things could be worse."

Self-Reported Resilient Coping. We adapted the Brief Resilient Coping Scale (Sinclair

¹⁷ Two members of the authorship team coded participants' responses to identify common topic themes. Of the topics listed, problems associated with work were the most frequently mentioned (59.18% of responses). For details about the coding process and frequency percentages for all topics, please see Supplemental Materials.

& Wallston, 2004) to reference the participant's current problem, rather than difficult situations in general. Participants rated their agreement (1 = *strongly disagree* to 7 = *strongly agree*) with four items ($\alpha = .79$), such as "(I) actively look for ways to overcome the setbacks I encounter" and "(I) look for creative ways to alter difficult situations or stipulations.

Resilient Coping. Participants wrote three to four sentences about how they planned to address their personal problem over the next month. Two independent coders rated the proposed solutions on five resilient coping styles that were averaged together to create an overall index of resilient coping: active search, creative behavior, confidence and control, focusing on positive growth, and self-destructive behaviors (reverse-coded) (see Supplemental Materials for example behaviors for each coping style). The two coders demonstrated sufficient agreement in their overall resilient coping ratings, $ICC(1) = .84$; $ICC(2) = .91$ (see Bliese, 2000), so we averaged their scores for a final rating of resilient coping ($\alpha = .81$)

Results

Replicating previous studies, the re-storying intervention led participants to more strongly characterize their life as a Hero's Journey ($M = 5.39$, $SD = .85$) than did participants in the control condition ($M = 5.02$, $SD = .81$), $t(265) = 3.66$, $p < .001$, $d = .45$.

As shown in Figure 4, re-storying intervention participants appeared to be more resilient to life's challenges, both in terms of how they viewed their problems and the tactics they employed to address them. Preregistered secondary analyses showed that intervention participants engaged in higher levels of positive reappraisal ($M = 5.12$, $SD = 1.23$) than did participants in the control condition ($M = 4.82$, $SD = 1.08$), $t(265) = 2.12$, $p = .035$, $d = .26$, and self-reported using more resilient coping strategies ($M = 5.60$, $SD = 0.93$) than did participants in the control condition ($M = 5.22$, $SD = .92$), $t(265) = 3.33$, $p < .001$, $d = .41$. The HJS mediated

both of these relationships (Positive Reappraisal: $Effect = .19, SE = .06, 95\% CI [.08, .33]$); Self-Reported Resilient Coping: $Effect = .23, SE = .07, 95\% CI [.10, .38]$)¹⁸. Additionally, although the RA-coded resilient coping measure did not differ by condition ($M_{HJY} = 3.46, M_{control} = 3.40, t(262) = .752, p = .45$), the re-storying intervention increased participants' use of resilient coping behaviors via its effect on the HJS, as predicted ($indirect\ effect = .05, SE = .03, 95\% CI [.01, .13]$). We note that the lack of total effect for the resilient coping behavior variable aligns with results in Supplementary Study 6 that suggested the re-storying intervention would more strongly impact psychological resilience while having a lesser direct impact on resilient behavior.

Discussion

The re-storying intervention helped participants to find more positive meaning in their personal problems, a key facet of psychological resilience. Further, by increasing perceptions of life as a Hero's Journey, the re-storying intervention encouraged more resilient coping to life's problems and enabled participants to perceive themselves as more capable, psychologically and behaviorally, to tackle their problems. From the past two studies, we see that people who use the Hero's Journey to tell their story appear better equipped to frame the ambiguity of life as meaningful to them, whether in random letter strings or pressing personal issues.

General Discussion

Humans are natural storytellers. People make sense of their lives using stories and how they tell their stories shapes the way they see and react to the world (McAdams & McLean, 2013). While these stories are drawn from events in their lives, they are inherently subjective and people frame their experiences using common cultural narratives (Hammack, 2008; Meltzoff,

¹⁸ As we posited when discussing the Study 7 results, the significant indirect effects in this study are evidence that the HJS – which assesses the perceived presences of the Hero's Journey in people's lives – mediates the effect of the re-storying intervention on life-relevant outcomes such as appraisals and resilience to personal problems, even if it failed to do so for the outcomes of an abstract grammar task.

1988, McLean & Syed, 2016). In this paper, we tested whether one of the most enduring cultural narratives—the Hero's Journey—is tied to meaning in life.

Across eight studies and six supplementary studies, we found that Hero's Journey narratives predicted meaning in life. We began by distilling the Hero's Journey into its basic narrative elements and constructing a psychological measure using these elements (Supplementary Studies 1-3). Next, in Studies 1-3, we tested our first prediction that there is an association between the Hero's Journey narrative and meaning in life. We found that the perceived presence of the Hero's Journey in people's lives correlated with meaning in life (Study 1 and Supplementary Study 4). The connection between the Hero's Journey and life meaning also manifested in the stories people told to others. Life stories rated by independent coders as more similar to a Hero's Journey predicted higher levels of meaning in life and a sense of flourishing in the self-reports of the storytellers (Studies 2-3).

Studies 4-8 confirmed our second prediction that people can use a re-storying intervention to reframe their personal narratives as a Hero's Journey (Study 4) which can increase meaning and benefit their well-being (Study 5 and Supplementary Studies 5-6). We provided evidence that the intervention increased meaning in life by helping people to identify and connect the important narrative elements in their lives into the culturally resonant Hero's Journey framework (Study 6). The intervention did not only bring psychological benefits, but it also helped people to see more meaning in their ongoing experiences, from perceiving patterns in letter strings (Study 7) to finding solutions for their personal challenges (Study 8).

Implications

Support for the relationship between the Hero's Journey and meaning in life offers several implications for social psychology. First, it points to a new area of inquiry for research on

life stories by looking at the influence of a broadly popular cultural narrative on people's personal stories and attitudes towards life. As discussed in both philosophy (Nietzsche, 1883) and modern social psychological research (McLean & Syed, 2016; Swidler, 1986), cultural frameworks are often thought to inhibit meaning in life by constraining individual agency over personal narratives. Yet, we show that seeing the Hero's Journey narrative in one's life is both correlationally and causally associated with feeling life to be more meaningful and having better well-being. This relationship suggests a more positive role that cultural narrative frameworks can play to reframe past experiences and foster a positive sense of meaning. In particular, rather than force people to conform their experiences into a rigid narrative template, the re-storying intervention allowed people to identify and define how the Hero's Journey elements are already present in their lives. By using the Hero's Journey to craft personal stories in this way, people can connect to the resonant cultural framework while still maintaining agency over how they tell their story.

Next, our research looks at how the alignment between personal and master narratives can lead to beneficial outcomes for people. Given their ubiquity and familiarity, cultural master narratives like the Hero's Journey are often invisible to people, at least to those in the majority who automatically and unconsciously incorporate them into their lives (Kitayama et al., 2003; Oishi, 2004). This can make it difficult to study the psychological effects of master narratives. To address this, researchers have tended to focus on studying situations in which such narratives do not align with individual perspectives, as it is in those circumstances that the narratives are frequently salient and likely to influence behavior (e.g., Proulx & Heine, 2009; Randles et al., 2011). Our research, particularly the re-storying intervention studies, instead looks at the effect of alignment between the self and cultural narratives, suggesting that the Hero's Journey

narrative can motivate people to see more meaning in their lives by providing a framework to more easily see the connections between their experiences. In this way, we posit the role of cultural master narratives in expanding people's sense of meaning, but encourage future work on the push and pull of narrative frameworks to constrain or expand meaning.

Third, our narrative-focused approach, focusing on the Hero's Journey as a narrative template that can tie disparate life events together into a compelling and cohesive personal narrative, highlights how overall narratives can shape perceptions and predict psychological outcomes above and beyond individual narrative elements, such as redemption sequences. Past decades have demonstrated the relationship between psychological functioning and specific themes or sequences in life stories, such as growth or turning points (e.g., Bauer et al., 2005; Tavernier & Willoughby, 2012). But only recently have researchers begun to look at how multifaceted narratives impact attitudes and cognitions (e.g., the redemptive self prototype - McAdams & Guo, 2015; underdog narratives - Nurmohamed et al., 2021). Our findings push this work forward by not just looking at how individual elements of a narrative relate to psychological outcomes, but by showing how the elements, unified into a single familiar narrative, work together to boost meaning and well-being. As we saw in Study 6, the Hero's Journey increases life meaning not solely by capturing important elements of a meaningful life, but by tying them together into a cohesive narrative structure of the self as a hero on a journey.

Fourth, recent scholarship points to the different ways in which people conceive of finding meaning in their lives (Lepisto & Pratt, 2017): stemming from conditions that fulfill psychological needs or from developing a compelling account to justify an existence as existentially "worthy." Our results suggests that both perspectives are likely valid and highlight complementary mechanisms related to each that work to increase meaning. Meaningful lives

feature more elements from the Hero's Journey, suggesting that the ability to construct a compelling life story requires some amount of the basic narrative materials, but a life can also be made more meaningful by reframing it with the Hero's Journey narrative. The use of cultural master narratives like the Hero's Journey allows people to make intuitive connections between their varying experiences and understand how they fit within a larger narrative. Meaning in life is partially a reflection of a coherent existence (Heintzelman & King, 2014), but our work suggests that life can be made more meaningful when it feels coherent with familiar societal narratives.

Fifth, by distilling the Hero's Journey narrative into psychometrically-valid structural elements, our work provides researchers a new tool to assess the presence of the Hero's Journey in people's self-narratives. While Carl Jung's argument for the existence of implicit archetypes shared across time and humanity appears empirically untenable (Jung, 1953), social psychologists have explored how archetypes instead may endure and shape outcomes via cultural mechanisms (Faber & Mayer, 2009). Our work allows researchers to quantitatively assess the presence of the archetypal Hero's Journey narrative in life stories and opens the door for further research to examine its impact on individual outcomes beyond meaning in life. Similarly, our quantitative measurement of the Hero's Journey narrative and experimental approach holds promise for the heroism literature (e.g., Franco et al., 2018) as a new avenue through which researchers can explore the impacts of heroism in the minds and lives of ordinary people.

Sixth, our work uses the tools of social psychology to offer empirical evidence that the ancient Hero's Journey myth matters to people's lives in the modern era. In the past, writers like Carl Jung or Sigmund Freud have borrowed concepts from mythology to use in theories about human psychology (Freud, 1899; Jung, 1953). Our work furthers this exchange by demonstrating what social psychology – offering a scientifically rigorous approach and experimental methods –

can also provide to mythology. The endurance of myths over the course of history speaks to their general importance to humanity but social psychology can enable a deeper and more specific understanding as to how they shape attitudes and behavior.

Finally, our results demonstrate the positive psychological and behavioral effects when people align their life stories with the Hero's Journey narrative, such as in Study 7 where participants in the re-storying condition were more likely to perceive more meaning in their environment (even if they were not necessarily more accurate). This effect is likely to be particularly powerful in the United States where stories of individual triumph and redemption are embedded in the history and culture, as seen in the classic story of the "American dream" (McAdams, 2013). Yet, many in America – and particularly those in areas ravaged by deaths of despair (Van Tongeren & Van Tongeren, 2021) – feel left behind by society and disconnected from dominant cultural narratives. Our work suggests that it is not just social and economic programs that should be an area of focus for policymakers but that work is also needed to re-story the narratives in such communities to realign them with meaningful cultural narratives.

Limitations and Future Directions

Despite the large number of studies with a diverse set of methodologies, no work is without limitations. First, several of our studies include self-report data from online samples, such as Amazon Mechanical Turk and Prolific. While these data sources allow for well-powered and relatively diverse samples, particularly compared to university subject pools (Buhrmester et al., 2011), they are likely not representative of the general population and thus should be used thoughtfully by researchers (e.g., Paolacci & Chandler, 2014). In light of concerns about generalizability from relying on these samples, we also present studies featuring in-depth life stories from community members and a nationally-representative sample that provide evidence

towards a broader generalizability of our effects.

Additionally, as one of our primary goals with this work was to leverage the power of the Hero's Journey narrative to address the challenges of modernity to people's sense of meaning in life, which are particularly salient in the United States (Routledge, 2018), all of our studies were conducted with American participants, which limits our ability to claim whether our findings generalize cross-culturally (e.g., Henrich et al., 2010). While Campbell's (1949) original work on the Hero's Journey noted the structure has been found globally, more recent scholarship suggests that the fascination with redemptive narratives like the Hero's Journey may be a distinctly American, or at least Western, phenomenon (McAdams, 2013). We encourage further research on whether the Hero's Journey can increase meaning in cultures outside of the United States, or if other types of master narratives (see McLean & Syed, 2016 for other examples) might be more effective. As an example, tragedy narratives are more common in Eastern European cultures (Rancour-Laferriere, 1995), which opens up the possibility that personal narratives of woe or regret might feel more meaningful to people in those societies as compared to the positive redemption-focused Hero's Journey.

Second, while Study 6 compares the Hero's Journey re-storying intervention against other types of ways to construct a personal narrative, we do not directly compare the Hero's Journey against other narrative structures in this work. While our studies show how a particular narrative structure, the Hero's Journey, influences our lives, there are many other types of narrative structures that might have similar or different psychological effects. For example, some have proposed a "Heroine's Journey" as an alternate to the more stereotypically masculine-coded Hero's Journey and a better exemplar of the feminine experience (Murdock, 2020). Or alternatively, other master narratives, such as tragedies, romances, or trickster stories, may better

resonate with some people's internal stories (McLean & Syed, 2016). Examining how the dynamics of different stories correspond to personal narratives is a rich area for future research. We hope that our re-storying intervention provides a template for future researchers to use in exploring the role of different narratives in people's lives. Additionally, using advanced text analysis, researchers are uncovering how the plot and shape of stories relate to their cultural success (Boyd et al., 2020; Reagan et al., 2016; Toubia et al., 2021). We encourage work that uses these techniques to explore the role of different cultural narratives on psychological or behavioral outcomes, both based on their popularity and their narrative structure.

Relatedly, we acknowledge that the Hero's Journey Scale, our newly-developed measure to assess the perceived presence of the Hero's Journey elements in people's lives, does not fully capture the Hero's Journey narrative as it does not address the ordering of the elements. This is an important limitation since, as we note in our introduction, a small change in the ordering of the Hero's Journey could instead result in a different narrative and prior work has shown that alignment with expected order is important for coherence and meaning in life (Heintzelman & King, 2014). Thus, this instrument does not capture the Hero's Journey narrative per se, but does capture the extent to which the elements of the Hero's Journey are perceived to exist in people's lives and personal narratives. We attempted to address this limitation through our second set of studies related to the Hero's Journey re-storying intervention in which participants created personal narratives that featured the elements in the correct temporal order. These studies, and in particular Study 6 which showed that the effect of the re-storying intervention on meaning in life was stronger than an alternate version of the intervention in which the same prompts were presented in random order, provide supportive evidence of the causal relationship between the Hero's Journey narrative and meaning in life, despite the limitation inherent in the Hero's

Journey Scale.

We also note that many of our studies were either cross-sectional or occurred at a single time-point which has drawbacks for understanding psychological processes over time. In particular, we are unable to speak to how long the effects of the re-storying intervention will last once people return to their daily lives, which may vary in terms of their natural alignment to the Hero's Journey narrative. Future work should look at the endurance of re-storying interventions over time and how contextual factors – such as the support of others for the new narrative (e.g., Yeager et al., 2021) – impact the resilience of recrafted personal narratives. We also limited the re-storying of narratives to past experiences or current circumstances, but people also tell stories about their future (McAdams, 1985). We posit that people might be able to use re-storying interventions, whether the Hero's Journey or other narratives, prospectively. An entrepreneur might picture themselves within an 'Icarus' story arc (a rise before a fall) and assess whether their own failure is imminent, and potentially take steps to avoid that fate.

Finally, while our final two experimental studies point to linkages between the Hero's Journey and real-world behavioral outcomes, the majority of our studies focused on the social cognitive mechanisms by which the Hero's Journey relates to meaning and well-being. Thus, our work acts as an initial step to establish the role of Hero's Journey narratives in important social phenomena, but more research is needed to identify the behavioral implications of our effects. As suggested by Study 8, the Hero's Journey re-storying intervention has clear implications in terms of resilience and coping behaviors in response to stress, but the Hero's Journey might also increase prosocial behavior, given the emphasis on allies and legacies as part of the Hero's Journey. Alternatively, re-storying personal narratives to cast oneself as a righteous hero may increase narcissistic behaviors or a commitment to misguided causes. Future research should

broaden the scope of the re-storying intervention beyond meaning and explore how seeing oneself as a hero on a journey might increase both desirable or undesirable behaviors.

Conclusion

Eight studies and six supplementary studies point to a profound connection between the lives we live and the stories we tell. In particular, our findings show that seeing life as similar to the enduring and ubiquitous Hero's Journey narrative can lend life deeper meaning. It might seem difficult for people to imagine themselves as mythical heroes, but our results suggest this is not required. The lives of everyday people can—and do—have the elements of a Hero's Journey and most any life can be re-storied as such, leading to more meaning in life and improved well-being. In an era when people may be less able to rely on external society as a source for meaning in life, our findings offer a pathway—grounded in a timeless narrative—for people to experience more significance and purpose through the way they view and tell their own story.

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