ELSEVIER

Contents lists available at ScienceDirect

Journal of Research in Personality

journal homepage: www.elsevier.com/locate/jrp



Full Length Article

The autobiographical critic within: Perceiving oneself as a major character in one's life story predicts well-being

Ryan Goffredi a,*,1, Kennon M. Sheldon a,b

ABSTRACT

Narrative identity research typically assumes that people always play the role of the main character in the life stories they provide (McAdams, 2018). However, it is possible that some people view themselves as playing the role of a "side" character or minor character in their life story. Such views of the self are likely to influence well-being outcomes. In three studies we use a novel self-report method to show that seeing oneself as a major versus minor character within one's own life story significantly impacts well-being both prospectively and retrospectively. Additionally, we demonstrate that this major character construct is associated with rated psychological need satisfaction, autonomous goal pursuit, and coded agency. We believe these findings contribute to expanding available autobiographical assessments and predictions of well-being from narrative data.

1. Introduction

Life experiences often affect people long after the experience occurred. Impactful past events may be encoded as autobiographical memories and are packaged alongside the emotions and cognitions experienced during the original event, waiting to be evoked upon retrieval (Lekes, et al., 2014). These autobiographical memories, when linked with other key memories over time, play a significant role in the development of one's identity because people make use of these remembered events to make meaning of their lives as they tell their own narrative story or personal myth. Narrative identity research (Bauer et al., 2008; McAdams & McLean, 2013) has demonstrated that key memories, events, or epochs during one's life reliably impact well-being outcomes through narrative themes such as affect, agency, communion, contamination, and redemption. Past research has also shown that narrative characteristics can help to satisfy a person's basic psychological needs (see Adler et al., 2016 for a review). Most narrative work has viewed the research participant as the author and narrator of their personal story when they are asked to recount key events during the life story interview (LSI; McAdams, 2008). The relative presence (versus absence) of particular narrative themes is later coded from the autobiographical memories. These coded variables are then correlated with various measures of well-being.

This article takes a more explicit approach to assessing autobiographical memories that situates participants not as the assumed

narrator of their life story but as a literary critic of that story, by tapping their subjective perception of the extent to which they play the role of the major character within their life story versus a minor or background character. We further demonstrate the importance of this autobiographical metacognitive perspective as it is associated with felt autonomous goal pursuit, agency, psychological need satisfaction, and subjective well-being both cross-sectionally and over time. We suggest the novel major/minor character perception variable may provide a new way for researchers to investigate autobiographical memory as related to well-being outcomes and narrative constructs. We elucidate this claim below.

1.1. Autobiographical approaches to personality

There are multiple approaches to the study of autobiographical memory, each focusing on different aspects of individual experience and personality through stated memories, and each interested in how such memories and stories of oneself are related to individual well-being. Here we discuss two such approaches that are relevant to the current work: narrative life story assessment and functional approaches.

1.1.1. The narrative life story approach

Narrative identity (Bauer et al., 2008; McAdams & McLean, 2013) approaches to personality capitalize on the importance of autobiographical stories, using peoples' self-generated life stories to assess their

a University of Missouri. Columbia

^b HSE University, Russia

^{*} Corresponding author at: Department of Psychological Sciences, 209 McAlester Hall, Columbia, MO 65211, United States *E-mail address*: rjgbf3@mail.missouri.edu (R. Goffredi).

¹ We have no known conflicts of interest to disclose. This article was prepared within the framework of the HSE University Basic Research Program.

identities. Narrative identity researchers contend that rich details of personality are lost when focusing solely at the level of personality traits, and therefore one's identity is best represented as an autobiographical story, or a personal myth (McAdams, 1990). Such self-narratives encompass events and situations placed in chronological relation from remembered past to lived present to anticipated future (McAdams, 1985). This experience of identity as a continuously evolving story allows individuals to retain a sense of continuity across various contexts and social roles and provides avenues of meaning making across time (Josselson, 2009).

The conceptualization of identity as a story carries with it related literary structures such as settings, characters (minor and major), plotlines, roles, conflicts, and themes commonly encountered in novels, television, movies, and the like. (McAdams, 1985,1996). From this perspective, individuals might think about themselves and those around them as characters in a story, each living out their own unique narrative within a dynamic psychosocial context with interacting cultural values, social interchanges, and subjective realities (McAdams, 2018). These story elements are captured in the most common method of assessment in narrative identity, the life story interview.

The life story interview has become the standard assessment tool for narrative identity for good reason. Each component of the LSI captures watershed moments in an individual's life and integrates these various memories into a coherent narrative that maps onto the author's personal history and timeline in a way to illustrate temporal causality. Such moments or chapters of an individual's life include high points, low points, turning points, impactful memories from childhood, challenges taken on or overcome, major life transitions, as well as other formative events and epochs. As an individual engages with the process of the LSI or other narrative assessment, they are called to reflect on their cognitions, their emotions, and their phenomenological experiences as actors in the world.

Once a life story interview has been conducted and the participant's responses recorded, a wide variety of variables can be coded from the narrative text. Such variables generally fall into one of four categories: structural elements, motivational themes, affective themes, and themes of integrative meaning making (Adler et al., 2016). Notably, structural elements coded from life stories such as complexity and coherence (Baerger & McAdams, 1999), common affective narrative themes such as redemption and contamination (McAdams et al., 2001), as well as the motivational themes of communion and agency (Bauer & McAdams, 2004) have all been fairly reliably associated with a wide range of important life outcomes and states including psychological well-being, meaning in life, social well-being, life satisfaction, anxiety, and depression both cross-sectionally and over time.

1.1.2. Functional approaches to autobiographical memory

A different approach to investigating the adaptive role of autobiographical memories is a functional approach that focuses on how people use these memories to inform or influence their patterns of cognition and behavior (Philippe et al., 2011). This approach is unique in that rather than extracting data from autobiographical memories by coding participants' stories or life events, participants are directly asked about the meanings, function, or qualities of such events and memories. Past research has examined meta-narrative perspectives including how often memories have been retrieved (Alea & Buck, 2007), what lessons have been learned from a memory (Pratt et al., 1999), how a participant feels about their life story (Jensen et al., 2019), how well they know other people's life story in relation to their own (Thomsen & Pillemer, 2017), and how a single event in their past may become a reference point for the way they understand new experiences (Berntsen & Rubin, 2006). These and other functional/explicit approaches lend additional insight and predictive power for autobiographical processes that cannot be tapped using the traditional LSI assessment alone (Dunlop, 2021).

The present studies aim to further expand this nomological network of autobiographical assessment to include an additional perspective that

to our knowledge has not been directly investigated; we ask participants to be a kind of literary critic of their own autobiographical narrative by asking to what extent they see themselves as the main character of their narrative, versus as a minor or background character. We use the terms major character and minor character, respectively, to denote these differences, which reside on a spectrum along which an individual may perceive themselves. In literary terms, major characters are those whose actions advance the storyline. They are central figures to the story, playing an important role in how the plot progresses, often via making decisions that aim to further their goals or affecting change through interactions with other characters. Their motives and behaviors steer the story towards a variety of settings and narrative arcs. Minor characters, in contrast, tend to have less influence on the story. They are commonly seen at the periphery of the story's focal point, or may be even further removed from the spotlight. A minor character is often one whose actions are either irrelevant to the storyline, or who may only have an indirect effect on the plot. They are typically not viewed as being as important to the story as major characters.

We propose that individuals can use autobiographical memory in conjunction with information found in their current social contexts and personal goal pursuits to inform themselves of the prominence of the character they play in their life story. Are they playing the central role of a major character while striving purposefully towards desired goals? Or are they removed from the general spotlight as a side character or minor character in this story? This approach has the advantage of gaining insights into how people evaluate their life-story, from a *meta*-cognitive perspective. Such information is likely to escape narrative coding approaches.

We believe this approach carries weight as a topic for scientific inquiry for several reasons. First, the inclusion of the literary critic perspective allows for novel investigation of self-reflective processes in autobiographical memory research. While previous research has focused on the meaning that is built into personal narratives or on the structure of the narratives themselves (Adler et al., 2016; McAdams, 2008), the proposed approach places participants at higher vantage point from which they can view, judge, and reflect on the role they play in their story. Second, the work expands the current repertoire of available autobiographical assessments and can be used as an additional tool in line with other functional measures, or in combination with standard narrative theme-oriented paradigms. Lastly, this major versus minor character perspective has significant implications for predicting individual well-being, as will be further discussed.

Because they are the author and narrator of the story as well, the literary critic has privileged knowledge and insight into the selfcharacter. The critic knows how well the character is acting in accordance, or discordance, with their values, and how well they are projecting agency onto the world. Accordingly, when viewing one's own life story from this metacognitive perspective, individuals can review past and present actions of their character, and other characters, in the surrounding sociocultural milieu, as well as the outcomes arising from those actions, and are likely able to evaluate whether they feel their character is acting as a major character or otherwise. Do they occupy at least as much of the "spotlight" as do others, on the shared stage of social reality? A person who perceives themselves as a major character, progressing towards personally endorsed ends in the context of other agents, would likely benefit from higher self-esteem and well-being outcomes. In contrast, those who see themselves as a minor character, an "extra," relegated to the background while struggling to bring about desired goal outcomes would be expected to experience more negative affect, reduced well-being, and lower self-esteem. Such findings would be expected when viewing individual phenomenological experiences through the lens of self-determination theory (SDT; Ryan & Deci, 2000).

Naturally, personal narratives are not created in a vacuum, but are heavily influenced by one's sociocultural context. Narrative identity researchers conceptualize personality development as a continuously evolving story which is situated within narrative parameters designated by cultural values, norms, traditions, cultural assumptions, expectations, and so on (Rosenwald & Ochberg, 1992). Therefore, the defining characteristics of what it means to be a major versus minor character are similarly culturally bound. In the United States and other Western nations, major characters are often portrayed in narratives as those individuals who are self-efficacious, autonomously engaged in personal goal pursuits and interests, and are agentic (Leightman et al., 2003; McAdams, 2006; Wang, 2016). That is, individuals whose choices are guided by personal aspirations, desires, and values, and who have the ability to bring about the outcomes they want through their own efforts are typically seen as major characters. They are able to navigate and influence their environmental surroundings and social worlds to create desired results.

1.2. Motivation, need Satisfaction, and Well-Being

SDT is an approach to human motivation that investigates the nature and qualia associated with various forms of self-regulation, describes developmental processes involved in motivational internalization of values and behaviors from social contexts, and posits universal psychological needs which directly influence mental health and well-being (Ryan & Deci, 2017). Here we briefly review SDT concepts relevant to the current studies before moving into a more detailed discussion of the literary critic construct and its relation to motivation and well-being.

One aspect of SDT focuses on the process of organismic integration whereby individuals internalize values, beliefs, and/or behaviors from significant others and social contexts (Ryan & Deci, 2000). The degree to which such values and behaviors are internalized corresponds to several types of motivation which lie on a continuum from being experienced as fully autonomous (i.e., self-endorsed) at one extreme and fully controlled (i.e., coerced or forced upon) at the other. External motivation is a type of extrinsic motivation that is least internalized and occurs when a person engages in a behavior solely due to external rewards or punishments. Introjected motivation is experienced when one is performing a task in order to avoid guilt or shame. Identified motivation is a more autonomous and internalized form of regulation where individuals engage in behaviors that they find personally meaningful or important. Finally, intrinsic motivation is a fully autonomous form of regulation which is demonstrated when an individual engages in behavior simply because it is enjoyable. Each of these forms of motivation is associated with various degrees of functioning, behavioral persistence, goal attainment, and satisfaction of basic psychological needs (BPN), with more autonomous forms of motivation (identified or intrinsic regulations) leading to more beneficial outcomes (Ryan & Deci, 2017).

This spectrum of autonomous to controlled experiences of motivated behavior are relevant to descriptions of major characters in Western narratives. Though at times major characters are forced into situations or behaviors unwillingly, the norm is that of autonomous and volitional action. Such characters generally pursue idiographic goals they believe to be personally important and often follow through on self-endorsed decisions even though they might require difficult steps to be taken (McAdams, 2006). Thus, we would expect that individuals who see themselves as a major character in their life story would, on average, tend to pursue choices and goals that are well-internalized and experienced as authentic and autonomous. Conversely, those who see themselves as more of a minor character would likely feel compelled to perform tasks through the influence of others or contingent rewards/punishments. Such behaviors lend themselves to the experience of being controlled, and are associated with deleterious outcomes.

SDT also posits that humans have innate psychological needs, the fulfillment of which is directly related to enhanced self-motivation, personality integration, and positive well-being outcomes (Ryan & Deci, 2000). SDT has identified three BPN – the needs for autonomy (Deci, 1975), competence (White, 1959), and relatedness (Baumeister & Leary, 1995). These needs are seen as essential components for flourishing, and to the extent that these needs are satisfied in an individual's

life they will experience increased well-being and optimal functioning. Conversely, thwarting of these needs results in ill-being and diminished growth (Ryan & Deci, 2017). We now turn to a discussion of need satisfaction and well-being within autobiographical memory and narrative contexts, and how our proposed narrative assessment is situated within these theoretical perspectives.

1.3. Autobiographical Memory, Narrative, and Well-Being

As personal narratives express an individual's sense of meaning, purpose, affective states, schemas, belonging, self-exploration, etc., it should not be surprising if such narratives are linked in a consistent way to the well-being of the storyteller. As mentioned previously, past literature has demonstrated that motivational and affective themes such as redemption, communion, and agency are reliably linked to variations in well-being (Adler et al., 2016; Bauer & McAdams, 2010; McLean et al., 2020). The three SDT needs have also been coded from autobiographical accounts and have been shown to be associated with individual well-being (Austin & Costabile, 2021; Lekes et al., 2014; Philippe et al., 2011). While such narrative coding variables have been frequently linked with well-being, very few functional narrative assessments have been measured in association with well-being and need satisfaction (but see van der Kaap-Deeder et al., 2016). This suggests a need for explicit autobiographical measures that can reliably predict variations in wellbeing. Therefore, we endeavored to test a novel functional assessment with this end in mind.

We propose that one's perception of themselves as being more of a major versus minor character in their life story would lead to variations in the experience of BPN satisfaction or thwarting, as well as subjective well-being. Need satisfaction has frequently been seen to mediate wellbeing outcomes (Chen et al., 2015; Dehaan et al., 2016; Ryan et al., 2010; Sheldon & Elliot, 1999), and while the major focus of the present research is on well-being, associations between the major/minor character construct and BPN would be expected. For example, as mentioned earlier, major characters tend to exhibit autonomy as they move towards self-endorsed goals. Through their ability to effect change on their environment and exert influence on others in their social sphere, they may experience feelings of competence and agency. Further, playing an important and central role in relating to other characters in the story is likely to help satisfy relatedness needs. Minor characters, on the other hand, tend to be pushed along by the whims of others, may feel unable to influence desired outcomes, and by their self-view of living in the background of the social stage are likely to experience thwarting of relatedness needs. Thus, the satisfaction or thwarting of these BPN would be associated with corresponding variation in well-being.

1.4. Present studies

Across three studies, we endeavored to test the hypothesis that seeing oneself as more of a major character is associated with greater satisfaction of the three BPN as well as subjective well-being outcomes. The opposite was hypothesized to hold true for those participants who saw themselves as more of a minor character in their life story. Study 1 tests these hypotheses using a prospective design, while study 2 utilized a retrospective design. Study 3 sought to replicate and extend these findings by including coded agency as a potential predictor of need satisfaction as agency is assumed to be directly related to participant experiences of themselves as minor versus major characters in their life story. Additionally, Study 3 investigates the relationship between SDT's relative autonomy continuum and major/minor character perceptions.

We also included two potential confounding variables in our analyses, namely, narcissism and self-esteem. It is likely that both BPN and well-being outcomes are influenced by these two factors, as demonstrated in previous research (Baumeister et al., 2003; Bosson et al., 2008; Hyatt et al., 2018). Therefore, we attempted to show unique explanatory variance in BPN and well-being outcomes specifically from self-

perceptions of participants as being more of a minor, or major, character.

2. Study 1

Using a two-wave prospective design we collected data via online surveys at two timepoints, four weeks apart. We developed three items to measure the degree to which a participant feels like a major vs. minor character in their life story and used previously validated scales to measure psychological need satisfaction and well-being.

2.1. Hypotheses

We endeavored to test three specific hypotheses in Study 1. Hypothesis 1 was that individual differences in major character are related to variation in well-being. Hypothesis 2 was that major character is similarly related to basic psychological need satisfaction. Hypothesis 3 was that major character at time 1 predicts well-being at time 2, even when controlling for well-being at time 1.

These hypotheses follow from a proposed theoretical process whereby perceptions of oneself as a major character influence need satisfaction and well-being both cross-sectionally and in changes over time. Specifically, we assume that one's perceptions of themselves as a major (or more of a minor) character are influenced both by chronic underlying memories providing a continuous sense of identity, i.e., major character behaves like a stable trait, and also by events which make major or minor character status salient in a state-like manner. In either case, individuals' perceptions of their character likely recall corresponding autobiographical memories (e.g., times when they were agentic, autonomous, competent, etc. in the case of major characters) which may increase rated need satisfaction, life satisfaction, and positive affect felt in the moment. Further, activation of such memories may lead to more engagement in need satisfying experiences over time. For example, suppose a person perceives themselves as a major character and remembers a time when they studied hard for an exam and got the highest score in the class. Their sense of competence, life satisfaction, etc. increase momentarily, but these memories also serve as affirmations and reinforcers of such need satisfying behavior (Sheldon, 2011). Thus, remembering the actions that led to previous success, the same person may study hard again, and again may receive a high score. As such, their experience of need satisfaction, autonomy, life satisfaction, etc. may be further bolstered over time (Houser-Marko & Sheldon, 2006).

2.2. Method

2.2.1. Participants

Participants were 358 students at a large Midwestern university, 275 female, 76 male, 2 transgender/nonbinary, with 5 missing data points for gender. Average age of participants was 18.7 years and 76.5 % of the sample was Caucasian, 8.8 % African-American, 5.7 % Asian, 4.2 % Latinx, and 4.8 % Other. They participated in the online surveys in exchange for required research credit in an introductory psychology course. There was no stop-rule as we accepted all students who participated during each study period over the semester. An a priori power analysis was conducted using G*Power version 3.1.9.7 (Faul et al., 2007) to determine the minimum sample size to achieve 80 % power for detecting a small-to-medium effect using a significance criterion of $\alpha =$ 0.05 for planned multiple regression analysis. A small-to-medium effect size was used in line with previous meta-analytic findings on the effects of narrative themes and psychological need satisfaction on well-being (Adler et al., 2016; Ryan et al., 2022). Results indicated a sample size of 114 participants would be required for these analyses thus, the obtained sample size was deemed adequate to test the study hypotheses.

Hypotheses 1 and 2 were tested using 358 students who completed the first questionnaire as well as the 197 participants who also completed the second questionnaire. Hypothesis 3 was tested using the 197 participants who completed both the first and second assessments approximately four weeks apart during the semester. Attrition analyses showed that participants who dropped out of the study after time 1 did not score significantly different on any variable of interest compared to participants who completed measures at both timepoints (all ps > 0.069).

2.2.2. Procedure

Participants completed an initial online survey which included a wide range of self-report assessments (e.g., personal goal pursuits, intrinsic/extrinsic motivation, personal values, and several personality measures). All variables relevant to the current research (see below) were embedded within the context of this larger study on motivation and individual differences. Four weeks later, those who completed the first survey were emailed and invited to participate in the second survey which included identical measurement items.

2.2.3. Measures

Major Character. When they arrived at the relevant survey module, students read "Most of us experience our lives as being like a 'story,' that we are embedded in. There are main characters and minor characters; there are 'befores,' and there are 'afters'; and there are 'narrative arcs,' as our stories change and develop." Then, participants rated themselves on three items aimed at indexing the degree to which they felt like a minor versus major character in their life story. All three items ask a version of the following with slight modifications: "How do you experience yourself as a character in your own life-story? What kind of character do you play, in your own lifestory?" A 1 (I always feel like a minor character in my life-story) to 5 (I always feel like a major character in my life-story) scale was provided for item 1. The second item uses the terms "side character" and "primary character" in the response scale rather than major and minor character, and the third item uses the terms "background character" and "lead character." These face-valid items were intended to exemplify the literary distinction between major versus minor characters within the plot of a story. The three ratings were averaged to arrive at a single major character score for each participant at each timepoint. The alpha reliability of this measure was 0.92 at the first timepoint and we measured it again at time two to test the reciprocal path between need satisfaction and major character ($\alpha = 0.95$ at the second timepoint).

Well-being. To measure well-being (WB) we collected participant ratings of positive affect (PA), negative affect (NA), and life satisfaction (LS), and these were combined into a single well-being score in accordance with previous literature (Diener, 2018). To assess positive and negative affect, a nine-item positive and negative mood measure was used (Emmons, 1991), consisting of five positive and four negative mood adjectives. Participants were asked to what extent they felt each mood right now in their life. A 1 (strongly disagree) to 5 (strongly agree) scale was included. Example adjectives include joyful and upset, respectively. All reliability estimates were $\alpha = 0.88$ or greater across timepoints. In addition, a two-item measure of life satisfaction was used with the same scale. The items read "I am completely satisfied with my life," and "Things will have to change before I feel satisfied with my life" (Brunstein, 1993). Reliability estimates using Cronbach's Alpha for these two items was $\alpha = 0.83$ or higher across timepoints. Averaging positive affect, negative affect, and life satisfaction measures and then converting into standardized Z scales allowed us to calculate a final well-being score at each timepoint for participants using the formula WB = PA + LS– NA (overall $\alpha = 0.85$ at both timepoints).

Need satisfaction. To measure need-satisfaction a six-item scale was used (Titova and Sheldon, 2021) which contains one positively worded adjective and one negatively worded adjective for autonomy, competence, and relatedness need-satisfaction. Example items, respectively, are autonomous, masterful, and connected. Cronbach's alpha was at least $\alpha=0.71$ across both timepoints.

Self-esteem. We measured self-esteem at timepoint two using a single item (Robins et al., 2001). Participants stated the extent to which

they agreed with the statement "I have high self-esteem" on a 1 (not very true of me) to 5 (very true of me) scale.

Narcissism. Narcissism was measured with the 16-item Narcissistic Grandiosity Scale (Rosenthal et al., 2020). Example items include "I find it easy to manipulate people," and "I like having authority over other people." These items are measured on a 1 (Strongly Disagree) to 5 (Strongly Agree) scale. Scale reliabilities were at least $\alpha=0.82$ across both timepoints.

2.3. Results

Table 1a gives descriptive statistics and correlations for the variables of interest both at time 1 and time 2, whereas Table 1b provides correlations between the two timepoints. At time 1, scores on the major character variable were significantly positively correlated with wellbeing, which provides support for hypothesis 1. Evidence in support of hypothesis 2 was also obtained as major character was positively associated with satisfaction of basic psychological needs. Similar results were found at time 2 for all bivariate correlations. We therefore found preliminary evidence that when looking at two separate timepoints in cross-section, the greater the extent participants perceived themselves as a major character in their life story, the more positive well-being and psychological need satisfaction they tended to experience. Conversely, those who see themselves as more of a side character or background character tended to experience worse outcomes.

As these findings within each timepoint are correlational in nature, no inference into directional influences can be made. Therefore, we tested whether major character predicted well-being outcomes across timepoints by conducting hierarchical linear regression. At step 1, major character at time 1 was entered with well-being at time 2 as the dependent variable. This regression was statistically significant, $R^2 = 0.13$, F(1, 194) = 24.58, p < 0.001. At step 2, well-being at time 1 was entered so it could be controlled for. The step 2 regression was also statistically significant, $R^2 = 0.39$, F(2, 193) = 53.10, p < 0.001. Major character at time 1 significantly predicted well-being at time 2, even while controlling for well-being at time 1, $\beta = 0.14$, p = 0.044. Not

Table 1

Variable	$M(SD)_1$	$M(SD)_2$	1	2	3	4	5
1. Major	3.77	3.77		0.34	0.34	N/A	0.33
Character	(0.83)	(0.84)					
2. Need	3.35	3.28	0.47		0.73	N/A	0.17
Satisfaction	(0.68)	(0.72)					
3. Well-being	0.01	0.00	0.45	0.77		N/A	0.11
	(2.44)	(2.45)					
4. Self-Esteem	N/A	3.02	0.45	0.45	0.5		N/A
		(1.13)					
5. Narcissism	3.94	2.82	0.30	0.17	0.17	0.36	
	(1.09)	(0.61)					

Study 1 Between Timepoint Correlations (N = 197)

Variable	1	2	3	4	5
1. Major Character	0.73	0.37	0.36	0.4	0.17
2. Need Satisfaction	0.33	0.51	0.49	0.35	0.24
Well-being	0.35	0.48	0.62	0.43	0.17
4. Self-Esteem	N/A	N/A	N/A	N/A	N/A
5. Narcissism	0.27	0.11^{\dagger}	0.12^{\dagger}	0.31	0.68

surprisingly, well-being at time 1 also significantly predicted well-being at time 2, $\beta=0.56$, p<0.001. These findings provide evidence in support of hypothesis 3.

2.3.1. Alternative variables and models

A possible alternative explanation for the relationship between major character and well-being outcomes is that this perception of oneself as more of a major character in their life story is simply a proxy for self-esteem. Indeed, these two concepts seem conceptually similar as they are both cognitive appraisals of the self. Self-esteem is defined as global feelings of self-worth or adequacy as a person (Rosenberg, 1965), and its positive relationship to happiness and well-being are well documented (Diener & Diener, 1995; Lyubomirsky & Lepper, 1999). Due to the potential for conceptual overlap and similarities in correlates of well-being outcomes, we sought to investigate the relationship between major character and self-esteem.

Major character was moderately positively correlated with time 2 self-esteem. To differentiate the two variables, we tested whether the major character construct predicts well-being above and beyond self-esteem. Multiple regression analysis was conducted with both major character and self-esteem (both at time 2) predicting well-being (also at time 2). The overall regression was statistically significant ($R^2=0.31, F$ (2, 193) = 43.31, p < 0.001). It was found that, indeed, major character significantly predicts well-being even while controlling for self-esteem, $\beta=0.29, p$ < 0.001, though both variables are significant predictors of well-being. This lends evidence to major character being related to, but distinct from, self-esteem as it contributes unique explanatory variance to well-being outcomes.

In a similar vein, it is possible that the major character variable simply represents a continuum of narcissism. Being that perceptions of oneself as a major character include a type of focus on oneself as being on "center stage," it might be reasonable to expect that those who are highly egocentric, i.e., narcissistic, would also consider their character to be in the spotlight at all times. Therefore, we tested whether seeing oneself as a major character could not simply be reduced to narcissistic egocentrism. In our sample, major character was moderately positively correlated with grandiose narcissism. However, multiple regression with both narcissism and major character as predictors of well-being demonstrated that major character significantly predicts well-being, when controlling for narcissism, $\beta = 0.35$, p < 0.001, but narcissism is not a significant predictor of well-being when including major character in the model, $\beta = -0.02$, p = 0.714. This provides additional evidence that the major character variable is a unique aspect of human narrative identity which influences important life outcomes such as well-being and is not reducible to either self-esteem or narcissistic tendencies.

A further consideration to be addressed is the directional nature of the relationship between major character, need satisfaction, and wellbeing. We have theorized that perceptions of oneself as a major character leads to enhanced feelings of need satisfaction and well-being over time, however, it seems possible that the opposite may also be true, i.e., that having one's basic psychological needs satisfied or feeling positively about our lives could contribute to how we view ourselves as major characters. Major character at time 1 significantly predicts need satisfaction at time 1 (β = 0.34, p < 0.001), and also positively predicts need satisfaction at time 2 while controlling for time 1 need satisfaction $(\beta = 0.20, p = 0.005)$. Major character at time 1 also significantly predicts well-being at time 1 ($\beta = 0.34$, p < 0.001) and we have shown it predicts well-being at time 2 while controlling for time 1 well-being. These findings suggest that both at a single timepoint and prospectively, perceptions of the self as a major character may significantly impact basic psychological need satisfaction and well-being. To test alternative direction of effects, we first tested whether need satisfaction at time 1 would positively predict perceptions of major character at time 2, while controlling for major character at time 1. Initial need satisfaction did not predict increases in major character at the second timepoint ($\beta = 0.07$, ns). We similarly tested whether well-being at time 1 would

² Readers interested in the results for the separate needs can consult the online supplement. Across the three studies those results present a somewhat mixed pattern which we do not attempt to interpret. https://osf.io/vyaf4/?view_only=84058d9f073244c29492df1521011226.

predict major character at time 2 while controlling for major character at time 1, and found that time 1 well-being was not a significant predictor ($\beta=0.09,$ ns). Though not directly relevant to our hypotheses, readers interested in the relationships between basic psychological need satisfaction and well-being at both timepoints can find this information in the online supplemental materials. In light of our previous findings, these results taken together may suggest that need satisfaction and well-being are outcomes rather than predictors of major character perceptions. However, further work is needed to elaborate the full nature of these relationships.

2.4. Brief discussion

Our three hypotheses were all supported by the findings in study 1, namely that perceptions of oneself as more of a major character is predictive of well-being (hypothesis 1) and basic psychological need satisfaction (hypothesis 2) both at a single timepoint and prospectively (hypothesis 3). This research illustrates the role of narrative self-appraisal as related to wellness outcomes.

3. Study 2

While study 1 demonstrates that perceptions of oneself as a major character in their life story had significant implications for need satisfaction and well-being over time, a limitation of study 1 is its correlational rather than experimental design. We therefore sought to introduce a manipulation of the major character variable in study 2 by randomizing participants to two conditions in which they would either recall a time they felt like the major character in their life story, or they felt like a minor character, before measuring associations with well-being. We assumed that, although people vary on how much they feel like a major character overall, everybody can recall times when they were either minor or major, depending on the prompt. Thus, as discussed earlier, feelings of characterhood (major or minor) is both a trait and potentially a state, evocable by an experimental manipulation.

3.1. Hypotheses

Two main hypotheses were tested in study 2. For the sake of continuity, they are labeled hypothesis 4 and 5, respectively. Hypothesis 4 was that participants in the major character condition would experience significantly higher need satisfaction following the manipulation than those in the minor character condition. Hypothesis 5 was that those in the major character condition would also experience higher well-being than participants in the minor character condition, following the manipulation.

3.2. Participants

Participants were 326 students from a large Midwestern university who were participating for required course research credits in an introductory psychology course. The sample was composed of 204 females, 117 males, 5 transgender/non-binary individuals, and 14 missing data points for gender. Mean age of the sample was 20.2 years of age and 80.7 % of participants were Caucasian, 6.1 % African-American, 2.1 % Asian, 5.5 % Latinx, and 5.5 % Other. No stop rule was created and all study participants with complete data for relevant measures were included. An a priori power analysis using G*Power version 3.1.9.7 (Faul et al., 2007) indicated a required sample size of 128 participants to achieve 80 % power for detecting a small-to-medium effect in the planned hypothesis tests using ANOVA including main effects and interactions, which this study exceeded.

3.3. Procedure

This study used a pre/post manipulation methodology. Participants

completed an online survey which broadly included measures of motivation, autonomy support, and well-being. About halfway through the survey, participants arrived at a block of items which introduced the present study. Participants were randomized to one of two conditions aimed at recalling a time in their lives when they have acted either as a major (condition 1) or a minor (condition 2) character. Participants read and responded to the following prompt in the major character condition (alternative prompt in parentheses for those randomized to the minor character condition):

Most of us experience our lives as being like a "story," that we are embedded in. There are major characters and minor characters; there are "befores," and there are "afters"; and there are "narrative arcs," as our stories change and develop. Also, we play characters in other peoples' stories, just as they play characters in our stories.

There are times when we feel like the major character within our story — playing an important role in determining our own lives, but also, being an important character in other peoples' stories. (There are times when we feel like a minor character in our story — being swept along by events, and not being a very important character in other peoples' stories.).

Below we'd like you to <u>recall</u> and <u>describe</u> a recent time when you were acting as a <u>major character</u> (<u>minor character</u>) in your story. What was the situation, what were you doing, and how did things turn out? Try to recreate that feeling!

Participants completed all measures related to the current study both prior to, and after, responding to the above prompt. We will discuss the content of participants' writing in the discussion, below.

3.4. Measures

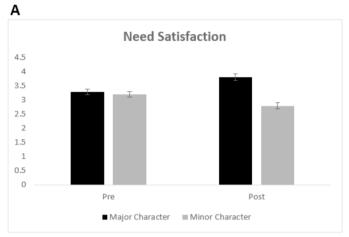
Need Satisfaction. A 12-item version of the Basic Psychological Need Satisfaction and Frustration Scale (BPNSFS; Chen et al., 2015) was used which includes four items for each of the three basic psychological needs of autonomy, competence, and relatedness. Sample items include "I felt a sense of choice and freedom in the things I did," "I felt confident that I could do things well," and "I felt close and connected to people," respectively. The BPNSFS uses a 1 (strongly disagree) to 5 (strongly agree) scale. Reliability was at least $\alpha=0.68$ across timepoints.

Well-being. In this study a similar measure of well-being was utilized as in study 1 which we define as affect balance. This measure takes into account participants' positive affect and subtracts from it their scores on negative affect. Both positive and negative affect were measured using the same scales as in study 1. Reliability scores for PA were at least $\alpha=0.88$ for pre- and post-manipulation measures. Reliability scores for NA were at least $\alpha=0.84$ across timepoints.

3.5. Results

Two separate 2(Condition: Major vs Minor Character) x 2(Time of assessment: Pre vs Post) mixed design ANOVA were conducted for the dependent variables of need satisfaction and affect balance. For need satisfaction, results of the omnibus ANOVA indicated a significant interaction effect of condition and pre/post measures of need satisfaction ($F[1,306]=99.97, p<0.001, \eta^2=0.246$). We note that according to Cohen et al. (2003), this represents a large effect size for the interaction term. For affect balance, the omnibus ANOVA similarly indicated a significant interaction effect ($F[1,307]=109.29, p<0.001, \eta^2=0.263$).

We followed up on these significant interactions by evaluating the simple main effects of condition and timepoint (before and after the manipulation) on each outcome. Results are shown in Fig. 1. Within groups, participants in the major character condition increased significantly on measures of basic psychological need satisfaction [M(SD) = 3.28(0.65) to M(SD) = 3.80(0.71), t(309) = 8.36, p < 0.001, d = 0.78] and affect balance [M(SD) = 0.71(1.50) to M(SD) = 1.70(1.96), t(154) = 6.41, p < 0.001, d = 0.57] from before to after the manipulation. In opposing fashion, participants in the minor character condition



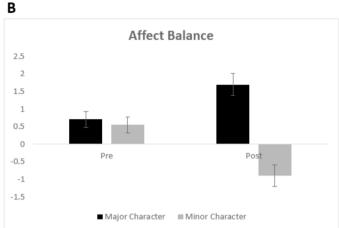


Fig. 1. *Need Satisfaction and Affect Balance for Each Group Before and After Manipulation Note.* Pre = pretest, Post = posttest. Graph A illustrates the felt need satisfaction of participants in the major character condition (dark bars) and minor character condition (light bars) both at pretest and posttest. Higher number on the vertical scale indicate higher need satisfaction. Graph B illustrates affect balance of both groups at pretest and posttest. As these values reflect a difference in positive and negative affect, positive scores represent more positive affect than negative affect while negative scores represent more negative affect than positive affect.

decreased significantly on measures of basic psychological need satisfaction [M(SD)=3.20(0.61) to M(SD)=2.79(0.74) t=-5.91, p<0.001, d=0.61] and affect balance [M(SD)=0.56(1.46) to M(SD)=-0.90 (1.91), t(153)=8.28, p<0.001, d=0.86] from before to after the manipulation.

Between conditions: the two conditions did not significantly differ on measures of need satisfaction or affect balance prior to the manipulation (both ps at least 0.321), indicating successful randomization. Following the manipulation, the major character condition was found to score significantly higher, on average, than the minor character condition on measures of both need satisfaction [M(SD) = 3.80(0.71) versus M(SD) = 2.79(0.74), $t(3\,0\,6) = 12.15$, p < 0.001, d = 1.39] and affect balance [M(SD) = 1.70(1.96) versus M(SD) = -0.90(1.91), $t(3\,0\,7) = 11.82$, p < 0.001, d = 1.34].

3.6. Brief discussion

Study 2 provided additional evidence that the way in which one perceives themselves within their life-story has a significant effect on their well-being. We randomized participants to recall a time in the recent past where they were acting like a major or minor character in their life story. Participants in the major condition tended to write about experiences such as being a key player in winning a team sporting event or enjoying having friends help celebrate their birthday. Participant stories often included comments related to increased feelings of autonomy ("One time I was at work, and my boss left me in charge of the store...I actually felt like I had really choice over what happens."), competence ("When I became captain of the baseball team I felt like I played an important role and was a major character"), or relatedness ("When me and my friends were hanging out...they all were telling me how much they would miss me next year and it made me feel very appreciated"), often in combination. In addition, many major character stories were characterized by "being in the driver's seat" or being in control of one's actions and life course. For example:

A recent time that I felt like the major character was my decision to choose where I wanted to go to college. I felt empowered because I worked extremely hard in high school to have the ability to choose which schools I was interested in. I was accepted into all of the colleges that I applied to and I am very thankful for that. I felt like I was in control of my life and my future and the decision made me happy.

These memories presumably prompted increasing perceptions of being a major character in their life story which led to enhanced ratings

of both need satisfaction and well-being following the manipulation. In contrast, participants in the minor character recall condition wrote about experiences such as being socially excluded ("We were discussing all the events we have planned for next year and I felt like I had some good ideas, but many people seemed to ignore those ideas making me feel like a minor character") or feeling unable to change the flow of negative life events ("Last year around this time, I was going through a difficult time in my life and I felt out of control. I felt as if I was merely existing instead of living. I was just going through the motions"). Many minor character stories also illustrate combinations of BPN thwarting such as impediments to relatedness and autonomy (e.g., "A lot of times I let people walk over me and make decisions for me. I do not feel important when this happens"). This thwarting of basic psychological need satisfaction was likely negatively impactful on the affective states of participants.

Hypothesis 4 stated that those in the major character condition would experience higher felt need satisfaction after recalling a time when they were acting as a major character in their life, when compared with those in the minor character condition. This hypothesis was supported. Hypothesis 5 similarly held that individuals in the major character condition would report higher well-being than those in the minor character condition following the recall manipulation. This too was supported. Taken together, both study 1 and study 2 illustrate the influence of one's character meta-cognitions on experiences of need satisfaction and well-being. We note that while study 1 examined participants' views of themselves as major/minor characters broadly, study 2 makes use of a forced story paradigm which elicits autobiographical memories of a single event. Therefore, study 2 investigates not characterological tendencies, but rather state-like effects of the major character construct. The similarity of the results across the two studies supports our presumption that the major character construct can be experienced and conceptualized as both a trait and a state.

4. Study 3

We conducted a third study with the aim of gaining a deeper understanding of the processes that led the perception of an individual as a major versus minor character in their lives to affect well-being outcomes. Specifically, we were interested first in how autonomous versus controlled forms of personal goal motivations, e.g., extrinsic motivations such as external and introjected motivations and more internalized forms of motivation such as identified and intrinsic motivation, were related to major and minor character perceptions. We were also

interested in investigating the role of agency in relation to major/minor character, need satisfaction, and well-being.

As mentioned previously, main characters in much of Western literature are characterized by autonomous goal pursuit and integrity in the sense that they strive to accomplish ends that are personally important. In this light, we sought to explore whether participants' ratings of the extent to which they play a major character are positively related to their idiographic goal pursuits. We did so by asking participants to write three current goals they were pursuing, and their motivated reasons for engaging with those goals. Several subscales for motivational quality allowed us to look at how major character perceptions relate to various qualities and categories of motivated regulation which lie along SDT's relative autonomy continuum. Hypothesis 6 is that participants who see themselves as more of a major character (higher ratings on self-report measures) will tend to pursue personal goals more autonomously while being less likely to engage in more extrinsic, controlled forms of regulation.

Additionally, while the previous two studies primarily relied on self-report data, as in other functional autobiographical approaches, we aimed to extend our findings by integrating narrative life story methods. In addition to using participant-generated subjective evaluations of themselves as minor versus major characters as well as subjective well-being, we aimed to code agency from participant narratives. Agency is a commonly coded theme from narrative data (McAdams & McLean, 2013). Previous research has shown that participants who demonstrate agency in their life narratives tend to benefit from enhanced well-being and mental health (Adler, 2012; Bauer & McAdams, 2004). This extra link might give a better understanding of the phenomenological experience of being a major character and its associations with need satisfaction and well-being.

Agency is defined as the degree to which an individual can affect change in their own lives (McAdams & McLean, 2013)). Influencing the outcomes in one's life and exerting control over circumstances is one of the most basic needs of human beings (Ryan & Deci, 2006; White, 1959). Rather than passively "suffering the slings and arrows of outrageous fortune" (Shakespeare, 1599, 3.1.58–59) or being tossed about like a ship without a rudder, humans seek to affect their environments through purposeful behavior. Further, feelings of self-efficacy and agency are paramount for one's psychological well-being (Pöhlmann, 2001; Smith et al., 2000).

Autonomy and agency are essential in describing the major character construct, but these terms should not be conflated as being interchangeable. Autonomy arises when a person acts in a manner than is self-endorsed and willing and is a reflection of operating in a way that expresses one's authentic self (Ryan & Deci, 2000). Agency has more to do with outcomes of one's actions. To be agentic is to be able to influence elements of their surroundings to bring about desired ends. Seeing oneself as a major character, at least in Western societies, should subsume and predict these elements. The perception of oneself as a major character denotes a *meta*-cognitive perspective which includes self-reflections on one's goals, potentials, and interactions with their social context. It is a "step up" in level of cognitive abstraction that allows for self-appraisal and judgment about how well the self has expressed their agency and whether this character is successfully satisfying their needs.

In order to investigate the links between major character perceptions and agency, we asked participants what it is like to be the kind of character they see themselves as within their life story, and how they tend to act in the world. We then coded each of these narratives on the degree to which they illustrated agency and modeled the relationships between major character, agency, need satisfaction, and well-being. As in the previous two studies, we expected that the experience of feeling like more of a major character in one's life would be associated with higher levels of need satisfaction and well-being. We further hypothesized that being more of a major character may affect these outcomes in conjunction with having agency over one's life. Therefore, our seventh hypothesis was that the experience of being a major character would be

associated with increases in felt agency, and our assumption is that agentic individuals are better able to fulfill their basic psychological needs and benefit from increased well-being.

4.1. Participants and methods

Study 3 (N=298, 74.2% female, 77.9% White, $M_{age}=19.1$) was delivered to undergraduate psychology students via an online survey. The survey broadly included measures of core values and motivation in addition to personality and well-being measures. When participants got to the section relevant to the present study, they were first asked to write down three goals they would like to accomplish and then had them rate the extent to which they were pursuing each of those goals for eight possible reasons (e.g., "You are striving for this goal because someone else wants you to, or thinks you should do this," and "You are striving for this goal because it is personally meaningful to you"). These reasons correspond to motivated regulation that are more, or less, internalized or autonomous.

Following the goal motivations section, participants filled out measures of need satisfaction, affect, life satisfaction, and major character prior to describing themselves as a character in their life-story. Participants read and responded to the following prompt (Average word count of responses = 158.9):

People often think of their lives as being like a story, novel, or movie. There are plots and plot-twists, major and minor characters, and long histories going back into the past.

In this exercise we'd like you to describe the story YOU live in, going back into your past, and continuing into the present and future. Imagine you're telling your life to someone as if it were a story or movie script. Specifically, we'd like you to describe yourself as a character in this story: What is this character like, and how does your character act in the world?

G*Power version 3.1.9.7 (Faul et al., 2007) was used to determine the minimum sample size to achieve 80 % power for detecting small-to-medium effects using a significance criterion of $\alpha=0.05$. Results indicated a sample size of 114 participants would be required for the planned multiple regression analyses, thus, the obtained sample size was deemed adequate to test the study hypotheses.

4.2. Measures

Need Satisfaction. A 12-item version of the Basic Psychological Need Satisfaction and Frustration Scale (BPNSFS; Chen et al., 2015) was used as in study 2. Reliability was $\alpha = 0.80$.

Well-being. To measure well-being, positive affect (PA), negative affect (NA), and life satisfaction (LS) were assessed, and these were combined into a single well-being score as in study 1. Reliability estimates for PA were 0.89; $\alpha=0.86$ for NA; $\alpha=0.83$ for LS, and $\alpha=0.86$ for subjective well-being.

Self-reported Major Character. This variable was measured with the same three items as study 1, following the writing task. The three items were averaged to arrive at a single major character score for each participant timepoint. Reliability was $\alpha=0.95$.

Goal Autonomy. Participants listed three current goals they are pursuing. Then they completed an eight-item perceived locus of causality (PLOC; Ryan & Connell, 1989) measure following each of the three listed goals. This is a measure of *why* the participants are pursuing each goal and asks them to what extent they agree with each item on a five-point scale from "Not at all" to "Completely for this reason." Examples of items are "because I feel like I don't have a choice," "because I would be ashamed if I didn't," "because it's something I value and find important," and "because it is interesting and fun." Self-concordance scores for each goal are calculated as adding the intrinsic and identified ratings together and subtracting both the introjected and external ratings. Overall self-concordance scores are then calculated by averaging each of the three self-concordance scores for each participant. PLOC subscales (external, introjected, identified, and intrinsic

motivation subscales) are also calculated and averaged for each participant.

Coded Agency. Agency was defined as "the degree to which protagonists are able to affect change in their own lives or influence others in their environment, often through demonstrations of self-mastery, empowerment, and achievement." Participant narratives, described below, were coded on a 1 (helpless, passive, not in control, at the whim of external forces) to 4 (pursuing and accomplishing goals, having control over outcomes in multiple life domains, being the driving force in their life) scale in accordance with previous literature (Adler, 2012). Three judges who were blinded to self-report results rated all narratives for the theme of agency. Judges rated the first 10 % of narratives as a group to establish standardization of rating criteria. Discrepancies were discussed until raters came to agreement. Each judge then rated all remaining narratives independently. Further discrepancies were resolved via consensus. Narratives from which agency could not be coded, e.g., due to lack of agentic content or misunderstanding the prompt were excluded from final analyses. In addition, narratives less than 75 words were thrown out as agency themes were unlikely to be reliably extracted from such little data.³ After applying these exclusion criteria, a total of 222 narratives were rated for agency. An intraclass correlation (ICC) was calculated using a two-way random model with absolute agreement for multiple raters to establish interrater reliabilities. The ICC for rated agency was 0.62, indicating moderate agreement between raters (Koo & Li, 2016).

4.3. Results

Descriptive statistics for study 3 are shown in Table 2. Major character perceptions were positively associated with overall PLOC. More specifically, major character was negatively correlated with more controlled forms of motivation, i.e., external and (marginally) introjected regulation, but positively associated with more internalized forms of regulation in terms of identified and intrinsic motivation. These results provide support for hypothesis 6 which presumed that individuals who see themselves as major character in their life story are more likely to set and pursue goals that are personally important and integrated into their sense of self and are therefore experienced as being more autonomously engaged in (Sheldon, 2014).

As with our previous studies, higher self-reported major character was associated with higher need satisfaction and psychological well-being. Importantly, major character was also significantly positively correlated with coded agency, providing support for hypothesis 7. Higher coded agency was associated with increased need satisfaction and well-being, as was expected based on previous literature.

These results are well-corroborated when looking at participant narratives. Participants who scored highly on the self-rated major character measure tended to write about their character as being able to make desired outcomes happen in their life, i.e., were highly agentic. For example, the following is a narrative with a coded agency score of 4:

My character is kind, caring, compassionate, and loves to help others, while also making sure to take care of herself. She works a job that she loves and really feels like she is changing the world around her and making a difference. She hangs out with friends that she has genuine, great relationships with, and makes time for her family to have quality time together as well. She is living the dream of owning her own things, loving her job, and pursuing her dreams.

At the same time, those who scored low in perceptions of being a major character often wrote stories involving the negative effects of traumatic or difficult events that they had no control over, as exemplified in this excerpt (coded agency score = 2):

5. Am a character is who is deeply troubled and lost. I have hopes and dreams, but I have also faced constant tragedy in my life. As a kid, when I was 5, my parents got divorced because of infidelity. When I was 11, I was diagnosed with a very aggressive form of blood cancer, and I am still dealing with the effects of my treatment today

Alternatively, many participants who scored low in major character wrote about feeling ineffective in their actions or goal pursuits (the following excerpt was given a coded agency score of 1):

My character is the random background character you see for a split second in the scene and forget as quickly as you saw them. My actions are of next to no impact on the world and when I die nothing will change.

These stories seem to suggest a link between autobiographical character perceptions, agency, BPN satisfaction, and well-being. In order to further investigate these relationships, several multiple linear regression analyses were performed. First, we tested whether major character and coded agency are both significant predictors of need satisfaction when both variables are included in the model. The results indicated that the two predictors explained 56.1 % of the variance in need satisfaction (F(2, 219) = 50.17, p < 0.001). It was found that both major character ($\beta = 0.37, p < 0.001$) and agency ($\beta = 0.32, p < 0.001$) significantly predicted need satisfaction. We similarly tested major character and agency as simultaneous predictors of well-being and found that the two predictors explained 34.9 % of the variance (F(2), 219) = 15.15, p < 0.001). Again, major character ($\beta = 0.18$, p = 0.008) and agency ($\beta = 0.25$, p < 0.001) were both significant predictors. Finally, a multiple regression analysis was performed which used major character, agency, and need satisfaction to predict well-being. The three predictors explained 65.4 % of the variance in well-being (F(3, 218) =54.17, p < 0.001). It was found that need satisfaction ($\beta = 0.67, p < 0.001$) 0.001) was a significant predictor of well-being, but major character (β = -0.07, p = 0.218) and agency ($\beta = 0.04$, p = 0.510) were not significant predictors. This final regression model is consistent with previous research (Chen et al., 2015; DeHaan et al., 2016; Sheldon & Elliot, 1999) demonstrating the role of BPN satisfaction as a mediator of well-being, though we are unable to formally test this given the cross-sectional nature of the data. Future work will be needed to provide causal evidence to establish directionality of associations.

These results support previous narrative findings that agency coded from personal narratives has significant predictive validity in terms of participant BPN satisfaction and well-being outcomes (Adler, 2012; McAdams & Bauer, 2004). In addition, these analyses provide further evidence for the predictive validity of the major character construct on those outcomes. We note that a limitation of these findings was the moderate agreement between raters in terms of coded agency.

5.1. Brief discussion

Based on features that are emblematic of main characters in Western literature, we hypothesized that participants who rated themselves high in major character would, on average, to strive towards goals that are more integrated into their sense of self. This was demonstrated by the finding that higher major character scores were positively correlated with autonomous forms of motivation (identified and intrinsic) and negatively correlated with less integrated, controlling forms of motivation (external and introjected). This suggests that those who see their character playing a central role as they navigate their social worlds tend to set goals that are better aligned with their values, interests, and authentic selves (Sheldon, 2014).

Additionally, Study 3 replicated our previous findings that major character is positively associated with basic psychological need satisfaction and well-being. A novel finding was that major character is positively associated with the extent to which a participant demonstrated agency, as expressed in their self-narrative. Thus, major

 $^{^3}$ Though we note that including all participant narratives in our analyses did not result in any significant changes to the findings.

Table 2

/ariable	M(SD)	1	2	3	4	5	6	7	8
. Major Character	3.72(0.89)								
2. Overall PLOC	3.63(2.71)	0.23							
3. External	1.88(0.84)	-0.16	-0.78						
. Introjected	2.95(1.25)	$-0.12\dagger$	-0.81	0.64					
i. Identified	4.57(0.59)	0.21	0.53	-0.27	-0.10				
. Intrinsic	3.89(0.99)	0.22	0.74	-0.33	-0.35	0.50			
. Need Satisfaction	3.75(0.72)	0.47	0.39	-0.27	-0.32	0.22	0.29		
. Well-Being	0.01(2.64)	0.25	0.28	-0.16	-0.23	0.20	0.23	0.65	
. Coded Agency	3.39(0.82)	0.30	0.24	-0.22	-0.14	0.12^{+}	0.23	0.43	0.3

characters may be partially defined by their ability to exert influence on themselves and their surroundings to move towards desired life outcomes. Conversely, those who feel as though they are a minor or background character in their life story do not tend to report instances of self-governance and effectance (White, 1959). This study gives a first look at what it means to be a major or minor character in one's life. Rather than passively accepting what comes their way in life, major characters may demonstrate an ability to control aspects of their life in such a way that predicts greater experiences of autonomy and competence, and higher subjective well-being.

6. General discussion

Conventional narrative methods such as the life story interview assume an individual is the de facto main character of their life story, but not all people may feel this to be the case. The present research tested the idea that an individual may feel to some extent that they are (or are not) the main or major character of their life story, and that this view of the self significantly affects aspects of their well-being. The first study used a prospective design that assessed the degree to which participants felt like a major versus minor character in their life story, which was predictive of basic psychological need satisfaction and well-being four weeks later. The second study used a retrospective experimental design which randomized participants to either remember a time they felt like they were a major (or minor) character of their life story, and this was similarly predictive of need satisfaction and well-being as measured by affect balance. The third study asked participants to write three goals they are currently pursuing and their motivations for doing so, as well as personal narratives about how they see themselves as characters in their life story, which were coded for the theme of agency. This final study assessed the relationship between major character perceptions and autonomous goal pursuit, as well as the degree to which agency coded from the narratives is associated with major character and well-being outcomes.

We found good support for our seven hypotheses. Individuals who view themselves more as a major character tend to have higher wellbeing (hypothesis 1) and need satisfaction (hypothesis 2) than those who see themselves as a minor character in their life story. Further, these effects can be seen both cross-sectionally and over time where the relationship of major character at time 1 positively predicts well-being four weeks later (hypothesis 3). Similar effects were seen in a retrospective experiment (study 2) whereby recall of major versus minor character experiences predicted need satisfaction (hypothesis 4) and well-being (hypothesis 5). Finally, study 3 demonstrated that higher ratings of major character were associated with more autonomous goal pursuit (hypothesis 6), and greater agency (hypothesis 7).

These results support our notion that the way in which an individual perceives themselves as a character in their life story is likely to impact their well-being. When people see themselves as being the agentic force in their lives and make decisions for themselves, as major characters do, rather than being swept about by external forces (and other people),

they are more integrated and fully functioning selves (Kim et al., 2020; Ryan & Deci, 2017). Such individuals feel more autonomous, more competent and effective, and also experience better relational satisfaction with others, as evidenced by their increased basic psychological need satisfaction. Conversely, those who see themselves as minor characters are more likely to feel thwarted in getting these needs satisfied, a condition associated with diminished self-integration and wellbeing (Deci & Ryan, 2000).

While one's perception of themselves as a major versus minor character is no doubt influenced by self-esteem and potentially narcissism, as demonstrated by significant positive correlations between all three of these variables, it seems that being a major character in one's life story exerts influences on well-being outcomes above and beyond these other factors. This increased explanatory power highlights the importance of considering major character perspectives in narrative research. Future work should focus on disentangling these relationships further to gain a fuller understanding of the major character construct.

Overall, we believe the introduction of this novel narrative approach adds significant value to the current body of narrative research for several reasons. Having participants reflect on the role their character plays from a metacognitive perspective as an autobiographical literary critic is a novel perspective relative to the traditional assumption that personal narratives are necessarily provided by the main character of the story. Asking the question of how one sees their character in their life story provides an underlying narrative foundation which may place other narrative themes and outcomes into a single meaningful and coherent context. As such, it allows for the generation of new scientific questions relating major character perceptions to variations in narrative themes or trajectories (e.g., redemption vs. contamination), and adds to the available methodological tools narrative researchers can pull from. Finally, the predictive validity of major character perceptions on need satisfaction and well-being both cross-sectionally and across time suggests it contributes to more full understanding of optimal functioning and health in a narrative context.

Limitations. As mentioned previously, the concept of being a major versus minor character in one's life is likely influenced by one's cultural mores. Internalized values of how one ought to express themselves, especially in social situations, can vary widely from culture to culture. In groups that are individualistic, people subscribe to a view of the self as autonomous (Wang, 2016), see their choices as expressing their unique attributes and interests (Kim & Sherman, 2007), and place a premium on the independence of the self from others (Markus & Kitayama, 1991). Therefore, we might expect that those in individualistic cultures, such as the participants in our studies, may feel more positive attitudes towards main characters. This may have led our samples to associate such distinctiveness with increased self-esteem, satisfaction with life, and fulfillment of basic psychological needs such as autonomy and competence. In contrast, there is a tendency of those in collectivist cultures to defer to those around them to maintain social harmony, and to see oneself in terms of relationships with those around them (Choi & Choi, 2002; Nisbett & Masuda, 2003). In this cultural context, being a

background character does not necessarily have a negative connotation, and therefore may not be associated with lower well-being. Future work should focus on extending the present research to culturally diverse samples to elucidate the role of culture in phenomenological experiences of being a major character.

Further, this work studied autobiographical narratives in traditional undergraduate college students with the majority being between 18-21 years of age. This particular group represents a specific developmental epoch which is often categorized by increased autonomy due to being away from parental oversight often for the first time (Zarrett & Eccles, 2006). College students follow common trajectories of trying to earn high grades, investigate future career paths, and build social networks (Mather & Winston, 1998). It is possible that such a sample may be likely to have increased perceptions of themselves as major characters, emphasizing their uniqueness, autonomy, and goal pursuits. Relatedly, it was found that the mean coded agency score was 3.39 on a scale of 1 to 4 for this sample. This implies that, on average, our sample of undergraduate students felt particularly agentic in their lives while pursuing personally important goals rather than feeling out of control or merely "putting up" with their current situations. This may make sense given that many undergraduates attend universities with personal and career goals to work towards (Duffy et al., 2014). Such students tended to benefit from this high agency by experiencing associated increases in need satisfaction and well-being. We suggest that future studies aiming to replicate these results should be conducted in varied samples to see if the associations between variables hold in other populations which may not demonstrate such heightened agency.

It would also be beneficial to conduct similar studies investigating major character perceptions in older populations to include more individuals who are parents, caretakers, as well as those who have a high interest in generativity, to investigate those who willfully and happily place others, such as their children or future generations in general, in the forefront of their life story. Comparisons between sample populations would shed light on when and how aiding others leads to individuals perceiving themselves as minor characters versus major characters, and whether or not this affects their need satisfaction and well-being in the same way it does in college samples.

Another study limitation is that we did not consider participants' narratives in the context of other peoples' narratives. Being a "major character" implies being an impactful player in other peoples' lives, not just one's own, within a shared narrative in which multiple people are perhaps vying to be the most important actor. Future research could examine how peoples' characters vary in the context of groups in which they play more or less impactful roles, and could also examine how people perceive and negotiate who is/are the most major character(s), within particular contexts. Such a multilevel perspective of people nested within groups could provide fascinating new information about interpersonal dynamics.

Finally, narratives generated by participants in studies 2 and 3 often included experiences of negative affect and hopelessness. Though we did not include measures of depression in these studies, there is a possibility that perceptions of oneself as a minor character are associated with depressive symptoms. This may be an avenue for future research.

In conclusion, this research has identified a new *meta*-narrative construct that varies between individuals and has important implications for experiences of well-being. We hope this work represents a significant contribution to expanding approaches to narrative and autobiographical assessment, and suggest that this new perspective could be considered in future narrative identity research as a short supplemental measure, allowing narrative researchers to take into consideration the subjective viewpoint participants take on as they respond to narrative assessments.

CRediT authorship contribution statement

Ryan Goffredi: Writing - original draft, Investigation, Formal

analysis, Data curation, Conceptualization. **Kennon M. Sheldon:** Writing – review & editing, Methodology.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.jrp.2024.104510.

References

- Adler, J. M. (2012). Living into the story: Agency and coherence in a longitudinal study of narrative identity development and mental health over the course of psychotherapy. *Journal of Personality and Social Psychology*, 102(2), 367–389. https://doi.org/10.1037/a0025289
- Adler, J. M., Lodi-Smith, J., Philippe, F. L., & Houle, I. (2016). The incremental validity of narrative identity in predicting well-being: A review of the field and recommendations for the future. Personality and Social Psychology Review, 20(2), 142–175. https://doi.org/10.1177/1088868315585068
- Baerger, D. R., & McAdams, D. P. (1999). Life story coherence and its relation to psychological well-being. *Narrative Inquiry*, 9(1), 69–96. https://doi.org/10.1075/ni.9.1.05bae
- Bauer, J. J., & McAdams, D. P. (2004). Personal growth in adults' stories of life transitions. *Journal of Personality*, 72, 573–602. https://doi.org/10.1111/j.0022-3506.2004.00273.x
- Bauer, J. J., & McAdams, D. P. (2010). Eudaimonic growth: Narrative growth goals predict increases in ego development and subjective well-being 3 years later. *Developmental Psychology*, 46(4), 761–772. https://doi.org/10.1037/a0019654
- Bauer, J. J., McAdams, D. P., & Pals, J. L. (2008). Narrative identity and eudaimonic well-being. *Journal of happiness studies*, 9, 81–104. https://doi.org/10.1007/s10902-006-9021-6
- Baumeister, R. F., Campbell, J. D., Krueger, J. I., & Vohs, K. D. (2003). Does high self-esteem cause better performance, interpersonal success, happiness, or healthier lifestyles? *Psychological Science in the Public Interest*, 4(1), 1–44. https://doi.org/10.1111/1529-1006.01431
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*(3), 497–529. https://doi.org/10.1037/0033-2909.117.3.497
- Berntsen, D., & Rubin, D. C. (2006). The centrality of events scale: A measure of integrating a trauma into one's identity and its relation to post-traumatic stress disorder symptoms. Behaviour Research and Therapy, 44, 219–231. https://doi.org/ 10.1016/j.brat.2005.01.009
- Bosson, J. K., Lakey, C. E., Campbell, W. K., Zeigler-Hill, V., Jordan, C. H., & Kernis, M. H. (2008). Untangling the links between narcissism and self-esteem: A theoretical and empirical review. Social and Personality Psychology Compass, 2(3), 1415–1439. https://doi.org/10.1111/j.1751-9004.2008.00089.x
- Brunstein, J. C. (1993). Personal goals and subjective well-being: A longitudinal study. *Journal of Personality and Social Psychology*, 65(5), 1061–1070. https://doi.org/ 10.1037/0022-3514.65.5.1061
- Chen, B., Vansteenkiste, M., Beyers, W., Boone, L., Deci, E. L., Van der Kaap-Deeder, J., Duriez, B., Lens, W., Matos, L., Mouratidis, A., Ryan, R. M., Sheldon, K. M., Soenens, B., Van Petegem, S., & Verstuyf, J. (2015). Basic psychological need satisfaction, need frustration, and need strength across four cultures. *Motivation and Emotion*, 39(2), 216–236. https://doi.org/10.1007/s11031-014-9450-1
- Choi, I., & Choi, Y. (2002). Culture and self-concept flexibility. Personality & Social Psychology Bulletin, 28, 1508–1517. https://doi.org/10.1177/014616702237578
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). Applied multiple regression/ correlation analysis for the behavioral sciences ((3rd ed.).). Lawrence Erlbaum Associates Publishers.
- Deci, E. L. (1975). Intrinsic motivation. Plenum Press. https://doi.org/10.1007/978-1-4613-4446-9
- DeHaan, C. R., Hirai, T., & Ryan, R. M. (2016). Nussbaum's capabilities and self-determination theory's basic psychological needs: Relating some fundamentals of human wellness. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being*, 17(5), 2037–2049. https://doi.org/10.1007/s10902-015-9684-y
- Diener, E., & Diener, M. (1995). Cross-cultural correlates of life satisfaction and selfesteem. *Journal of Personality and Social Psychology*, 68(4), 653–663. https://doi.org/ 10.1037/0022-3514.68.4.653
- Duffy, R. D., Douglass, R. P., Autin, K. L., & Allan, B. A. (2014). Examining predictors and outcomes of a career calling among undergraduate students. *Journal of Vocational Behavior*, 85(3), 309–318. https://doi.org/10.1016/j.jvb.2014.08.009
- Dunlop, W. (2021). Narrative Identity's Nomological Network: Expanding and Organizing Assessment of the Storied Self. Personality Science, 2, 1–31. https://doi. org/10.5964/ps.6469

- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. Behavior Research Methods, 39, 175–191. https://doi.org/10.3758/BF03193146
- Houser-Marko, L., & Sheldon, K. M. (2006). Motivating behavioral persistence: The self-as-doer construct. Personality & social psychology bulletin, 32(8), 1037–1049. https://doi.org/10.1177/0146167206287974
- Hyatt, C. S., Sleep, C. E., Lamkin, J., Maples-Keller, J. L., Sedikides, C., Campbell, W. K., & Miller, J. D. (2018). Narcissism and self-esteem: A nomological network analysis. *PloS one*, 13(8), e0201088.
- Josselson, R. (2009). The present of the past: Dialogues with memory over time. *Journal of Personality*, 77(3), 647–668. https://doi.org/10.1111/j.1467-6494.2009.00560.x
- Kim, J., Christy, A. G., Rivera, G. N., Hicks, J. A., & Schlegel, R. J. (2020). Is the illusion of authenticity beneficial? Merely perceiving decisions as guided by the true self enhances decision satisfaction. Social Psychological and Personality Science, 12(1), 80–90. https://doi.org/10.1177/1948550620903202
- Kim, H. S., & Sherman, D. K. (2007). "Express yourself": Culture and the effect of self-expression on choice. *Journal of Personality and Social Psychology*, 92, 1–11. https://doi.org/10.1037/0022-3514.92.1.1
- Koo, T. K., & Li, M. Y. (2016). A Guideline of Selecting and Reporting Intraclass Correlation Coefficients for Reliability Research. *Journal of chiropractic medicine*, 15 (2), 155–163. https://doi.org/10.1016/j.jcm.2016.02.012
- Lekes, N., Guilbault, V., Philippe, F. L., & Houle, I. (2014). Remembering events related to close relationships, self-growth, and helping others: Intrinsic autobiographical memories, need satisfaction, and well-being. *Journal of Research in Personality*, 53, 103–111. https://doi.org/10.1016/j.jrp.2014.09.002
- Lyubomirsky, S., & Lepper, H. S. (1999). A measure of subjective happiness: Preliminary reliability and construct validation. *Social Indicators Research*, 46(2), 137–155. https://doi.org/10.1023/A:1006824100041
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98(2), 224–253. https://doi.org/ 10.1037/0033-295X.98.2.224
- Mather, P. C., & Winston, R. B., Jr. (1998). Autonomy development of traditional-aged students: Themes and processes. *Journal of College Student Development*, 39(1), 33–50.
- McAdams, D. P. (1985). Power, intimacy, and the life story: Personological inquiries into identity. Dorsey Press.
- McAdams, D. P. (1990). Unity and purpose in human lives: The emergence of identity as a life story. In A. I. Rabin, R. A. Zucker, R. A. Emmons, & S. Frank (Eds.), Studying persons and lives (pp. 148–200). Springer Publishing Co.
- McAdams, D. P. (1996). Personality, Modernity, and the storied self: A contemporary framework for studying persons. Psychological Inquiry, 7(4), 295–321. https://doi. org/10.1207/s15327965pli0704 1
- McAdams, D. P. (2008). *The life story interview*. Evanston, IL: The Foley Center for the Study of Lives, Northwestern University. Retrieved from http://www.sesp. northwestern.edu/foley/instruments/interview/.
- McAdams, D. P. (2018). Narrative identity: What is it? What does it do? How do you measure it? *Imagination, Cognition and Personality*, 37(3), 359–372. https://doi.org/10.1177/0276236618756704
- McAdams, D. P., & McLean, K. C. (2013). Narrative Identity. Current Directions in Psychological Science, 22(3), 233–238. https://doi.org/10.1177/0963721413475622
- McAdams, D. P., Reynolds, J., Lewis, M., Patten, A., & Bowman, P. J. (2001). When bad things turn good and good things turn bad: Sequences of redemption and contamination in life. Personality and Social Psychology Bulletin, 27, 472–483. https:// doi.org/10.1177/0146167201274008
- McLean, K. C., Syed, M., Pasupathi, M., Adler, J. M., Dunlop, W. L., Drustrup, D., Fivush, R., Graci, M. E., Lilgendahl, J. P., Lodi-Smith, J., McAdams, D. P., & McCoy, T. P. (2020). The empirical structure of narrative identity: The initial Big Three. *Journal of Personality and Social Psychology*, 119(4), 920–944. https://doi.org/ 10.1037/pspp0000247
- Nisbett, R. E., & Masuda, T. (2003). Culture and point of view. Proceedings of the National Academy of Sciences, 100(19), 11163–11170. doi: 10.1073/pnas.1934527100.

- Philippe, F. L., Koestner, R., Beaulieu-Pelletier, G., & Lecours, S. (2011). The role of need satisfaction as a distinct and basic psychological component of autobiographical memories: A look at well-being. *Journal of personality*, 79(5), 905–938. https://doi. org/10.1111/j.1467-6494.2010.00710.x
- Pöhlmann, K. (2001). Agency- and communion-orientation in life goals: Impacts on goal pursuit strategies and psychological well-being. In P. Schmuck, & K. M. Sheldon (Eds.), Life goals and well-being: Towards a positive psychology of human striving (pp. 68–84). Hogrefe & Huber Publishers.
- Rosenberg, M. (1965). Rosenberg Self-Esteem Scale (RSES). APA PsycTests [Database record] doi: 10.1037/t01038-000.
- Rosenthal, S. A., Hooley, J. M., Steshenko, Y., Montoya, R. M., & van der Linden, S. L. (2020). The Narcissistic Grandiosity Scale: A Measure to Distinguish Narcissistic Grandiosity From High Self-Esteem. Assessment, 27(3), 487–507. https://doi.org/10.1177/1073191119858410
- Rosenwald, G. C., & Ochberg, R. L. (Eds.). (1992). Storied lives: The cultural politics of self-understanding. Yale University Press.
- Ryan, R. M., Bernstein, J. H., & Warren Brown, K. (2010). Weekends, work, and well-being: Psychological need satisfactions and day of the week effects on mood, vitality, and physical symptoms. *Journal of Social and Clinical Psychology*, 29(1), 95–122. https://doi.org/10.1521/jscp.2010.29.1.95
- Ryan, R. M., & Connell, J. P. (1989). Perceived locus of causality and internalization: Examining reasons for acting in two domains. *Journal of personality and social* psychology, 57(5), 749–761. https://doi.org/10.1037//0022-3514.57.5.749
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55 (1), 68–78. https://doi.org/10.1037/0003-066X.55.1.68
- Ryan, R. M., & Deci, E. L. (2006). Self-regulation and the problem of human autonomy: Does psychology need choice, self-determination, and will? *Journal of personality*, 74 (6), 1557–1585. https://doi.org/10.1111/j.1467-6494.2006.00420.x
- Ryan, R. M., & Deci, E. L. (2017). Self-determination theory: Basic psychological needs in motivation, development, and wellness. *The Guilford Press*. https://doi.org/10.1521/ 978.14625/28806
- Ryan, R. M., Duineveld, J. J., Di Domenico, S. I., Ryan, W. S., Steward, B. A., & Bradshaw, E. L. (2022). We know this much is (meta-analytically) true: A meta-review of meta-analytic findings evaluating self-determination theory. *Psychological Bulletin*, 148(11–12), 813–842. https://doi.org/10.1037/bul0000385
- Shakespeare, W. (1992). Hamlet, prince of Denmark. C. Watts & K. Carabine (Eds.). Wordsworth Editions. (Original work published 1599).
- Sheldon, K. M. (2011). Integrating behavioral-motive and experiential-requirement perspectives on psychological needs: A two process model. *Psychological Review*, 118 (4), 552–569. https://doi.org/10.1037/a0024758
- Sheldon, K. M. (2014). Becoming oneself: The central role of self-concordant goal selection. Personality and Social Psychology Review, 18(4), 349–365. https://doi.org/ 10.1177/1088868314538549
- Sheldon, K. M., & Elliot, A. J. (1999). Goal striving, need satisfaction, and longitudinal well-being: The self-concordance model. *Journal of Personality and Social Psychology*, 76(3), 482–497. https://doi.org/10.1037/0022-3514.76.3.482
- Smith, G. C., Kohn, S. J., Savage-Stevens, S. E., Finch, J. J., Ingate, R., & Lim, Y. O. (2000). The effects of interpersonal and personal agency on perceived control and psychological well-being in adulthood. *The Gerontologist*, 40(4), 458–468. https://doi.org/10.1093/geront/40.4.458
- Titova, L., & Sheldon, K. M. (2021). Happiness comes from trying to make others feel good, rather than oneself. *The Journal of Positive Psychology*, 17(3), 341–355. https://doi.org/10.1080/17439760.2021.1897867
- Wang, Q. (2016). Remembering the self in cultural contexts: A cultural dynamic theory of autobiographical memory. *Memory Studies*, 9(3), 295–304. https://doi.org/ 10.1177/1750698016645238
- White, R. W. (1959). Motivation reconsidered: The concept of competence. *Psychological Review*, 66(5), 297–333. https://doi.org/10.1037/h0040934
- Zarrett, N., & Eccles, J. (2006). The passage to adulthood: Challenges of late adolescence. New Directions for Youth Development, 111, 13–26. https://doi.org/10.1002/yd.179