Authenticity and inauthenticity in narrative identity

Joshua A. Wilt [a,*], Sarah Thomas [b], Dan P. McAdams [c]

[a] Case Western Reserve University, USA
[b] PBS-SoCal (KOCE-TV), USA
[c] Northwestern University, USA

ARTICLE INFO

ABSTRACT

Self-reported authenticity is related to higher well-being, however, employing self-report questionnaires to measure authenticity may be limited in that they do not capture the lived experience of authenticity. We employ a narrative identity approach to the study of authenticity to potentially better capture some of the idiosyncratic richness and nuance of authentic experience. In Study 1, 87 undergraduates wrote descriptions of three separate memories: one in which they felt authentic, one in which they felt inauthentic, and a vivid, emotional memory. Thematic analysis identified five dimensions of authenticity (relational authenticity, resisting external pressures, expression of true self, contentment, owning one's actions) and 4 dimensions of inauthenticity (phoniness, suppression, self-denigration, and conformity). In study 2, 103 undergraduates provided written descriptions of authentic and inauthentic experiences. Scenes were coded for the dimensions of authenticity and inauthenticity listed above, and those categories were related to self-report scales assessing authenticity and related constructs (autonomy, honesty, Machiavellianism). Correlational and factor extension results suggested that narratives themes showed evidence of both convergent and discriminant validity. Implications for narrative and self-report approaches to authenticity are discussed.

1. Introduction

The idea of finding and expressing one's true nature, or being *authentic*, has been exalted through the ages by philosophers, social theorists, and psychologists alike (Robinson et al., 2012). The converse, denying and subjugating one's real identity, or being *inauthentic*, is portrayed in a more negative light (Nehamas, 1999). This consensus of attitudes toward authenticity and inauthenticity may stem from the view that authenticity is an honest and therefore morally superior way of being (e.g., Christy et al., 2016; Gino et al., 2015; Strohminger et al., 2017). Research also suggests that authenticity is beneficial; studies consistently document associations between authentic functioning and higher levels of self-esteem, psychological well-being, positive affect, relationship quality, and a host of other indicators of psychosocial adaptation (Erickson and Whatron, 1997; Goldman and Kernis, 2002; Harter, 2002; Schlegel et al., 2016; Wood et al., 2008).

The studies cited above relied on self-report scales to measure various aspects of authenticity and inauthenticity (e.g., Kernis et al., 2006; Wood et al., 2008). These scales treat authenticity as a trait-level individual difference, that is, they quantify the extent to which people believe they are being authentic versus inauthentic across a number of different dimensions. We believe that the narrative identity perspective (McAdams, 2008) may complement the trait approach to authenticity by offering a compelling framework from which to explore individuals' lived-experience of authenticity and inauthenticity. According to this approach, the psychological construction of life-stories brings together one's remembered past and imagined future into a narrative identity that provides life with some degree of unity and purpose (McAdams, 1996). Constructing life stories involves autobiographical reasoning, which involves making connections between experiences and aspects of the self (McLean and Fournier, 2008). It is possible that, during the process of autobiographical reasoning, individuals could evaluate whether their lived-experience was consistent with their core sense of self, or whether the experience felt phony or fake with reference to the self. That is, people could form judgments about whether their ways of being in different situations in their lives were authentic or inauthentic.

In this paper, across two studies, we aim to (i) develop a coding system for authentic and inauthentic themes, and (ii) relate those themes

---

to existing self-report measures of authenticity and inauthenticity. Achieving these aims may show areas of convergence and divergence between self-report and narrative approaches to authenticity.

1.1. Conceptualization and measurement of trait authenticity and inauthenticity

Authenticity has been an eminent concern across the history of personality psychology. Humanistic psychologists (e.g., Maslow, 1968; Rogers, 1961) characterized the true self as being an innate set of attributes that may be discovered on the journey to self-realization and optimal functioning. Psychodynamic perspectives noted the importance of honest self-appraisal (acknowledging one's strengths and weaknesses) as crucial to achieving a balanced psychological mindset (Horney, 1950). Personality developmental approaches to authenticity have emphasized that owning one's inner psychological characteristics (thoughts, emotions, desires) and expressing oneself in ways consistent with that inner life are fundamental to healthy maturation (Harter, 2002). Despite such interest, efforts to measure authenticity and related constructs have emerged only relatively recently.

Kernis et al. (2006) developed a multicomponent self-report measure of authenticity, the Authenticity Inventory 3 (AI3), that was based on a review of philosophical approaches to the true self (e.g., Aristotle, Kierkegaard, Sartre). The four components identified were Awareness, or knowing and trusting in one's motives, feelings, desires, and self-relevant cognitions; Unbiased Processing, or objectivity with respect to one's positive and negative self-aspects; Behavior, which measures the extent to which one behaves in accord with one's values; and Relational Orientation, which measures valuing and striving for openness, sincerity, and truthfulness in one's close relationships.

A three-factor model of authenticity proposed by Wood et al. (2008), meant to encompass previous philosophical and psychological approaches, is operationalized by the Authenticity Scale. This self-report measure consists of Authentic-Living, or living in accordance with one's own values and beliefs; Accepting External Influences, or the belief that one must conform to the expectations of others; and Self-alienation, or feeling out of touch with the true-self.

Scores from each of the measures have shown good evidence of internal consistency as well as validity for predicting multiple domains of well-being across several studies (e.g., Boyraz et al., 2014; Kernis et al., 2008). Other reliable and valid self-report measures of authenticity have been developed for more specific purposes, for Example, to assess authenticity in different social contexts (Robinson et al., 2012), in relationships (Gan and Chen, 2017; Wang, 2016), and as a short-term state (e.g., degree of perceived authenticity over a 30-minute period) as opposed to a more enduring trait (Lenton et al., 2016; Sedikides et al., 2017). Thus, there are a wide array of self-report inventories of authenticity that may be applied flexibly for different research aims.

Self-report measures of authenticity have notable strengths, including their previously noted psychometric characteristics. They also consist of a relatively small number of items and require a short amount of time to complete, which allows for efficient data collection on a large scale. Further, as the self may have privileged knowledge regarding a person's perceived "true self" (as compared to peers or observers), self-reports could reflect a fundamentally important source of data on authenticity (Fleeson and Wilt, 2010).

Self-report authenticity questionnaires may also carry some disadvantages that are highly relevant to authenticity. For instance, people may miss the subjective details related to how people understand their own lives in the framework of their society and culture (McAdams, 1996). Furthermore, the scope of self-report questionnaires is limited by the content of questions, and thus such measures may not capture individuals' experiences of authenticity (Schlegel and Hicks, 2011). Social desirability and self-enhancement biases may be particularly likely with a construct as socially valued as authenticity. Additionally,

general limitations of self-report scales include the possibility that individuals may not understand the questions or the response options, and that people may interpret the questions and response options differently.

1.2. A narrative identity approach to assessing authenticity

Narrative identity is typically studied by collecting a select set of scenes from individuals' life-stories memories that portray a personally significant event (McAdams, 2008). Narrative identity researchers aim to quantify important characteristics of stories (e.g., narrative complexity, different themes, affective tone) and have developed a myriad of valid measures of a number of these qualities (McAdams and Manczak, 2015). The current project examined life-story scenes that are specifically related to authenticity and inauthenticity and attempted to create a reliable and valid system for coding authenticity/inauthenticity themes. This approach is grounded in notions of authenticity as being an experience in which people evaluate themselves in relation to aspects of their identity, namely against aspects of their "true self" identity (Vannini and Franzese, 2008). That is, authenticity and inauthenticity emerge as one self-reflects on whether their behaviors, goals, and feelings in specific circumstances were congruent or not with their "true self" concept.

One previous project examined authenticity and inauthenticity in narratives of when participants felt "most me" or "least me" (Lenton et al., 2013, p. 280). Narratives were coded for self-aspects, experiential themes, emotions, and needs that were theoretically related to authenticity- and inauthenticity-based reviews of the literature. The "most me" narratives were characterized by higher levels (as compared to the "least me" narratives) of ideal-self attributes, themes such as fun, familiarity, and achievement, by higher levels of positive emotions, and by higher reports of need-satisfaction in the domains of self-esteem, relatedness, autonomy, competence, security, meaning, popularity, and physical thriving. In contrast, the "least me" narratives contained relatively more themes of doing as expected, feeling judged, facing difficulty, isolation, failing one's own or others' standards, and illness, and by higher levels of negative emotions. Furthermore, upon reflection, participants reported more nostalgia and positive emotions when thinking about the "most me" scene. Another study found that different groups report varying levels of affect, need satisfaction, and self-consciousness in their "most me" and "least me" scenes (Lenton et al., 2014).

1.3. Overview of studies

The results presented in Lenton et al. (2013, 2014) went beyond self-report research by capturing experiences of authenticity as expressed in life-stories. Yet the narrative coding also included the limitation of coding themes that had been previously identified in the literature. Therefore, those studies may not capture unique aspects of authenticity that emerge from a bottom-up approach to coding participants' lived-experience. That was the aim of Study 1, described next.[1] In Study 2, we relate aspects of authenticity/inauthenticity that emerged in Study 1 to self-reported authenticity and other potentially relevant traits. Study 2 answers questions about whether people who think of themselves as authentic/inauthentic describe their experiences in ways that reflect their traits. These studies occur in a particular sociohistorical context, particularly, they involve American undergraduate students at a midwestern university in the early 21st century. Cultural influences

---

[1] Both studies were part of larger projects and thus contained additional self-report measures that were not included in the current analyses. All study materials, all data, and all analyses for the current manuscript are available at: https://osf.io/u9fea/?view_only=5bb21c2ba8d442218ed4f750c6c2a4c1.

undoubtedly influence notions of authenticity and inauthenticity of our study participants. Therefore, though generalizability to other contexts cannot be assumed, we hope to provide an approach that can be generalized to other populations in the future. All materials, data, and analyses are provided at https://osf.io/u9fea/?view_only=5bb21c2ba8d44 2218ed4f750c6c2a4c1.

2. Method

2.1. Study 1

We collected descriptions of life-story scenes that were experienced as authentic, inauthentic, and emotionally vivid. We coded themes present in the scenes using a bottom-up approach. In order to identify the themes that were uniquely prevalent in the authentic and inauthentic scenes, we compared the frequencies of themes in these scenes to the same themes in the emotionally vivid scene.

2.1.1. Participants

Study 1 consisted of 87 undergraduate students (54% men), aged between 18 and 22 ($M = 18.66$, $SD = .93$), at a large, private Midwestern university who participated in partial fulfillment of the research participation requirement of an introductory psychology course. Ethnicities were: White (41%), Asian-American (36%), Hispanic or Latino (9%), Black (4%), Multiracial (4%), and "other" (5%). All methods were approved by the Northwestern University Institutional Review Board (IRB).

2.1.2. Procedure

Participants were recruited to the study through the introductory psychology student participant pool. Individuals deciding to participate in the study navigated to a secure website affiliated with the university where they gave informed consent. Then, participants completed written narratives of scenes in the past year of their lives that were remembered as authentic, inauthentic, and emotionally vivid. The authenticity prompt directed participants to describe "an authentic scene, a scene in which you were most like your true self." The inauthenticity prompt directed participants to describe and "an inauthentic scene, a scene in which you were least like your true self." Prompts were comparable to those used in Lenton et al. (2013) and were kept short because longer and more descriptive prompts could be more likely to bias participant responses toward the description contained in the prompt. The instructions for the emotionally vivid memory were to describe "a particularly emotionally vivid scene, a scene which you experienced as very memorable." For each scene, participants were asked to describe what happened, where and when the event took place, who was involved, thoughts and feelings during the event, and what the event says about "you and your personality."

2.1.3. Coding procedure

The purpose of the coding procedure was to identify and classify the phenomenology of authentic and inauthentic experiences. In the first part of the coding procedure, we employed an approach similar to grounded theory (Creswell, 2007; Strauss and Corbin, 1998) to inductively derive themes from the data. Two undergraduate research assistants (coders) read the authenticity and inauthenticity scenes independently and generated lists of adjectives and phrases to describe the content of each scene. Coders were instructed to generate descriptors of the protagonist's behavior and mental state (e.g., thoughts, feelings, goals, etc.), the physical location of the scene (e.g., at school, at home, etc.), and the people present in the scene (e.g., friends, family, etc.). The two coders' lists were combined and duplicate descriptors were deleted. In all, a total of 108 unique descriptors were identified (see Appendix). In the second part of the coding procedure, two independent, undergraduate coders rated whether each of the 108 descriptors identified in the first part of the coding procedure were present or absent in the authentic scene, inauthentic scene, and emotionally vivid scene.[2] In order to illustrate and clarify the coding procedure, we provide in the Appendices an Example of one participant's authentic, inauthentic, and emotionally vivid scenes and the characteristics that were noted as present in each scene during in the second part of the coding procedure.

2.1.3.1. Inter-coder agreement.
We first examined whether coders agreed on the relative frequency of the different characteristics across each scene. We created variables reflecting the frequency of each characteristic occurred in each scene for each coder. For Example, for the authenticity scene, the number of times each characteristic occurred represented a row value in this variable. In order to assess inter-coder agreement, we computed intraclass correlations (*ICCs*; Shrout and Fleiss, 1979). For example, coder 1's authentic scene variable was correlated with coder 2's authentic scene variable.

2.1.3.2. Identifying unique characteristics.
Characteristics that occur frequently in participants' authentic scene narratives and with high relative frequency compared to their occurrence in inauthentic and emotionally vivid narratives could be said to be uniquely definitive of authentic experiences. In order to quantify "uniqueness," we relied on three criteria.

The first criterion of uniqueness was calculated as the *total frequency* of occurrence for characteristics in authentic and inauthentic scenes. The second criterion was the *raw difference* between frequency of occurrence between the target scene (authenticity or inauthenticity) and the sum of frequencies across other scenes. For the authenticity scene, this would equal the frequency of occurrence of the characteristic in the authenticity scene minus the sum of the frequencies in the inauthenticity and vivid scenes. This criterion is important because characteristics that occur frequently in the target scene may occur at a high rate in other scenes as well and therefore not be unique to the target scene. The third criterion was calculated by multiplying the raw difference (i.e., the value obtained for the second criterion) by the ratio of occurrence in the target scene compared to the sum of occurrence in the other scenes. For the authenticity scene, this value was obtained by taking the raw difference (i.e., the second criterion) and multiplying it by the quotient of the frequency of occurrence of the characteristic in the authenticity scene and the sum of the frequencies in the inauthenticity and vivid scenes. This *weighted difference* criterion weights the second criterion by the odds of occurrence for each characteristic in the target scene compared to the other scenes combined.

2.1.4. Results

We first assessed the intercoder agreement for the different scenes. Then we identified unique characteristics in each scene using the *total frequency, raw difference, and weighted difference* criteria described in the previous section. Finally, we clustered similar individual characteristics into broader, conceptually coherent categories.

2.1.4.1. Intercoder agreement.
ICCs were uniformly high for the authentic (.95), inauthentic (.88), and vivid (.92) scenes, indicating that coders agreed on the relative frequency of each characteristic for each scene.

---

[2] Coders were instructed to work on only one type of scene at a time in order to reduce the likelihood that the coding of the participant's target scene (i.e., the scene being coded) was influenced by the content of the participant's other scenes. For instance, we did not want the content of a participant's authenticity scene to influence how a coder perceived the same participant's inauthenticity scene.

2.1.4.2. Unique characteristics. The top 30 most frequently occurring characteristics (and ties) for the authentic scene and inauthentic scene are shown in Tables 1 and 2, respectively. These tables also show each characteristic's values for the absolute difference and ratio of occurrence criteria (along with the ranking of those characteristics based on each respective criterion). Most of the frequently occurring characteristics were also identified as highly unique based on the absolute difference and ratio criteria (indicated with *italics* in the table). Indeed, 23 of the most frequently occurring authentic characteristics and 19 of the most frequently occurring inauthentic characteristics were in the top 30 (and ties) based on the other criteria as well. We selected these criteria to be uniquely definitive of authentic and inauthentic experiences, respectively.

2.1.4.3. Conceptual and thematic aggregation. Many of the characteristics identified as highly unique in authentic scenes (e.g, "trusting others," and "understanding others") and inauthentic scenes (e.g., "feeling phony/ fake," and "putting on an act.") were deemed conceptually similar. We therefore sought to increase the parsimony of the results by clustering characteristics together. This was done by the first and second author independently, then discussed by both authors and again and discussed with the third author. Authors classified similar themes together and

Table 1
The top 30 most frequently occurring characteristics (and ties) for the authentic scene.

Characteristic	Frequency	Raw Difference (Rank)	Weighted Difference (Rank)
Companionship	81	25 (5)	36.16 (6)
Being with friends	74	-6 (51)	-5.55 (51)
Feeling comfortable	60	42 (29)	140 (1)
Enjoyment	58	19 (10)	28.26 (11)
Acting in a genuine way with others	53	40 (1)	163.08 (2)
Caring for others	49	-22 (79)	-15.18 (79)
Happiness	48	5 (26)	5.58 (27)
Revealing true feelings to others	40	13 (15)	19.26 (16)
Acting in accordance with beliefs/values	37	28 (3)	115.11 (4)
Expression of true thoughts	37	25 (4)	77.08 (5)
Feeling true to oneself	35	28 (2)	140 (3)
Honest with others	35	24 (7)	76.36 (8)
Feeling understood by others	30	24 (6)	120 (7)
Not being judged	29	22 (8)	91.14 (9)
Being at school	25	-23 (82)	-11.98 (82)
Understanding others	24	16 (11)	48 (12)
Ownership of choices	23	19 (9)	109.25 (10)
Accepting responsibility	20	15 (12)	60 (13)
Relaxed	20	14 (14)	46.67 (15)
Confident	20	12 (16)	30 (17)
Accomplishment/ achievement/success	20	5 (25)	6.67 (26)
Resisting others' influence/ disobeying authority	18	8 (22)	14.4 (23)
Encouragement/support from others	17	-2 (39)	-1.79 (39)
Trusting others	16	14 (13)	112 (14)
Caution/wariness	16	-13 (67)	-7.17 (67)
Upset	16	-67 (104)	-12.92 (104)
Being carefree	15	8 (20)	17.14 (21)
Competence	15	8 (21)	17.14 (22)
Acceptance of imperfections/flaws	15	7 (24)	13.13 (25)

Note. The Raw Difference was computed as the Authentic Scene frequency minus the sum of frequencies across other scenes. The Weighted Difference is equal to the Raw Difference divided by the sum of the frequencies in the other scenes. The numbers appearing in parentheses are the ranks of each characteristic according to the Raw Difference and Weighted Difference criteria, respectively. Characteristics in bold were in the top 30 for each of the criteria and were selected as uniquely definitive of authenticity scenes.

Table 2
The top 30 most frequently occurring characteristics (and ties) for the inauthentic scene.

Characteristic	Frequency	Raw Difference (Rank)	Weighted Difference (Rank)
Awareness of internal characteristics	91	-101 (104)	-47.87 (106)
Awareness of typical interaction patterns	70	-12 (59)	-10.24 (102)
Different from usual self	56	47 (1)	292.44 (6)
Denying/subverting/ changing emotions	50	40 (3)	200 (7)
Uncomfortable	47	21 (12)	37.96 (17)
Going with the crowd/ conformity	41	41 (2)	NA (1)
Putting on an act	40	39 (4)	1560 (2)
Holding in true beliefs	40	33 (6)	188.57 (8)
Self-criticism	40	19 (15)	36.19 (18)
Being with friends	39	-76 (100)	-25.77 (104)
Being at school	38	3 (34)	3.26 (34)
Feeling phony/fake	36	35 (5)	1260 (3)
Acting to please others/ gain approval	36	30 (7)	180 (9)
Influenced by others' opinions/expectations	36	24 (11)	72 (14)
Making a good impression	32	29 (8)	309.33 (5)
Strive for acceptance/ fitting in	31	26 (9)	161.2 (10)
Upset	30	-39 (90)	-16.96 (103)
Lying to others	25	24 (10)	600 (4)
Role-experimentation	23	20 (13)	153.33 (11)
Anger	23	-13 (62)	-8.31 (101)
Being unsociable	22	19 (14)	139.33 (12)
Living up to others' expectations	21	15 (16)	52.5 (16)
Disgust with self	21	13 (17)	34.13 (19)
Guilt	21	4 (30)	4.94 (33)
Pleasing others	18	8 (22)	14.4 (25)
Caution/wariness	17	-11 (57)	-6.68 (97)
Loss of composure	17	-35 (89)	-11.44 (102)
Avoiding negative evaluation	16	10 (19)	26.67 (21)
Disliking others	16	2 (35)	2.29 (35)
Lack of social support	15	-11 (56)	-6.35 (95)

Note. The Raw Difference was computed as the Inauthentic Scene frequency minus the sum of frequencies across other scenes. The Weighted Difference is equal to the Raw Difference divided by the sum of the frequencies in the other scenes. The. The Weighted Difference for "Going with the crowd/conformity is listed as "NA" because the sum of occurrence for this characteristic in the Authenticity and Emotionally Vivid scenes was equal to 0. The numbers appearing in parentheses are the ranks of each characteristic according to the Raw Difference and Weighted Difference criteria, respectively. Characteristics in bold were in the top 30 for each of the criteria and were selected as uniquely definitive of inauthenticity scenes.

assigned a name to the cluster that represented the concept common among the individual themes (see Table 3).

2.1.5. Discussion

This study represents a first step to examine themes occurring in narratives of authentic and inauthentic experiences. We identified individual themes that were conveyed at relatively high levels in life story scenes of authentic and inauthentic experiences as compared with scenes depicting an emotionally vivid experience.

For the authentic scene, the first category was named *relational authenticity*. This category is similar to the relational component of authenticity proposed by Kernis et al. (2006), as it encompasses the values of openness and honesty in interpersonal interactions, as well as striving for empathy and understanding in relationships. Furthermore, authenticity in relational contexts has received increased empirical attention and has been shown as a robust predictor of relational health, such as more secure romantic attachment, higher caregiving to a partner, positive responses from interaction partners, and interpersonal trust

Table 3

Conceptual and thematic aggregation of characteristics that were uniquely definitive of the authentic scene and inauthentic scene.

Authenticity Scene

Theme	Characteristics
Relational Authenticity	Acting in a genuine way with others
	Companionship
	Feeling understood by others
	Honest with others
	Revealing true feelings to others
	Trusting others
	Understanding others
Expression of True Self	Expression of true thoughts
	Feeling true to oneself
	Genuineness
	Revealing true self
Contentment	Enjoyment
	Feeling comfortable
	Happiness
	Relaxation
Ownership of Actions	Accepting responsibility
	Acting in accordance with beliefs/values
	Ownership of choices
Resisting External Pressures	Disobeying authority
	Resisting influence
Unclassified	Acceptance of imperfections/flaws
	Accomplishment/achievement/success
	Being carefree
	Competence
	Confidence
	Not being judged

Inauthenticity Scene

Theme	Characteristics
Phoniness	Different from usual self
	Feeling phony/fake
	Putting on an act
Conformity	Acting to please others
	Going with the crowd
	Influenced by others' expectations
	Living up to others' expectations
	Making a good impression
	Pleasing others
	Striving for acceptance, fitting in
Suppression	Denying/subverting/changing emotions
	Holding in true beliefs
	Lying to others
Self-denigration	Disgust with self
	Self-criticism
Unclassified	Avoiding negative evaluation
	Being unsociable
	Role-experimentation
	Uncomfortable

(Gouveia et al., 2016; Plasencia et al., 2016; Wickham, 2013). The second category, *expression of true self*, is similar to the authentic behavior component of Kernis et al. and the authentic living component of Wood et al. (2008), as it reflects a genuine expression of one's true thoughts and feelings. The *contentment* category, reflecting comfort and enjoyment, is not well-represented by self-report authenticity measures; however, this theme is similar to the positive emotions theme that characterized the "most me" narratives in Lenton et al. (2013). *Ownership of actions* reflects taking responsibility for behaviors and a sense of self-authorship of one's life, similar to the construct of autonomy in Self-Determination Theory (Deci and Ryan, 1985, 2000). *Resisting external pressures,* such as by disobeying authority and resisting outside influence seems to be the conceptual inverse of Wood et al.'s accepting external influence component.

For the inauthentic scene, the *phoniness* category reflects being "fake" or putting on an act that is inconsistent with one's true self. This component seems to capture the recognition that one is not behaving authentically and may therefore be thought of as the opposite pole of the *expression of true self* category. To the extent that being fake reflects perceptions of being out of touch with one's true self, this category may

also be similar to the self-alienation component of Wood et al. (2008). *Conformity*, encompassing themes such as "going with the crowd" and "living up to others' expectations" has the flavor of controlled behavior (low autonomy) along with the accepting external influence component of Wood et al. The *suppression* category reflects both a knowledge of one's true way of being and actively denying its expression through thought, feeling, and behavior. Thus, it seems this category captures both the awareness component of Kernis et al. (2006) and the denial of authentic behavior or authentic living. Finally, the *self-denigration* category encompasses derogatory thoughts and disgust directed toward the self. This category is not well-represented in self-report measures of authenticity but seems related to the negative emotions theme found in the "least me" scenes in Lenton et al. (2013).

In sum, most of our categories shared conceptual space with existing self-report measures. *Contentment* and *self-denigration* do not have corresponding self-report scales, however, similar themes were observed in "most me" and "least me" scenes reported in Lenton et al. (2013). Well-being and ill-being are typically seen as outcomes of authenticity and inauthenticity, respectively (Boyraz et al., 2014), and so it may not be surprising that these categories have emerged as uniquely definitive of authentic and inauthentic experiences. All components from self-report measures were reflected in our categories of aggregated themes with the exception of the unbiased awareness component of Kernis et al. (2006). However, single themes that uniquely defined the authenticity scene ("acceptance of imperfections/flaws") and inauthenticity scene ("avoiding negative evaluation") suggest that the unbiased awareness component may be relevant to participants' memories of authentic and inauthentic scenes.

2.2. Study 2

Our goals in Study 2 were twofold. First, we aimed to use the clusters of themes that were characteristic of authenticity and inauthenticity scenes as the basis for generating a systematic and reliable coding system for memories of authenticity and inauthenticity. Second, we aimed to examine the relations between our coding categories with self-report measures of authenticity, as well as with the traits of autonomy, honesty-humility and Machiavellianism.

The construct of autonomy from Self-Determination Theory (Deci and Ryan, 2000) may be thought of as related to authenticity, as it is defined by experiencing one's behavior as congruent with inner values and interests as opposed to being controlled by external forces. Autonomy may be distinguished from classical views of authenticity by the lack of the assumption of a single "true self"; that is, from the perspective of SDT, any aspect of the self that feels autonomous is considered true and authentic.

Honesty-humility is a trait from the HEXACO model of personality that reflects individual differences in tendencies to approach others in fair, sincere, and modest ways as opposed to being deceptive and greedy (Ashton and Lee, 2001). When included in factor analyses with other personality traits, honesty-humility loaded on a factor defined by authenticity and autonomy measures (Maltby et al., 2012).

Machiavellianism is part of the "Dark Triad" of traits, including narcissism and subclinical psychopathy (Paulhus and Williams, 2002), that reflects individual differences in tendencies to manipulate others, experience cold affect in interpersonal situations, have negative views of other people, and pursue selfish goals (Rauthmann and Will, 2011). Though no studies (to our knowledge) have examined the relations between authenticity and Machiavellianism, studies have suggested that Machiavellianism is strongly, negatively associated with honesty-humility (Jonason and McCain, 2012; Lee and Ashton, 2005) and thus might be expected to relate negatively with authenticity.

This study may be important for at least three reasons. First, it serves as a first step toward establishing the reliability and validity of a coding scheme for authentic and inauthentic experiences. Second, it begins to situate a narrative approach to authenticity within prominent trait

approaches to authenticity (and to related traits) in the personality literature. Third, including measures of honesty-humility and Machiavellianism allowed us to explore whether people at different ends of socially desirable (i.e., honesty-humility) and undesirable (i.e., Machiavellianism) traits understand authenticity in different ways.

2.2.1. Participants

Participants were 103 undergraduate students (40% men) from the same university as in Study 1, ages 18 to 22 ($M = 18.79, SD = 1.06$), who completed the study as partial fulfillment of the requirements of an introductory psychology course. Ethnicities were: White (58%), Asian-American (21%), Black (9%), Hispanic or Latino (6%), Multiracial (4%), and Native Hawaiian or other Pacific Islander (1%). The sample size was based upon practical limitations of the undergraduate subject pool. All methods were approved by the Northwestern university IRB.

2.2.2. Procedure

Participants were recruited to the study through the introductory psychology participant pool. Individuals deciding to participate in the study navigated to a secure website affiliated with the university where they gave informed consent. Then, participants completed an online questionnaire containing the self-report measures described below as well as the written narratives of authentic and inauthentic scenes. As in Study 1, the authenticity prompt directed participants to describe "an authentic scene, a scene in which you were most like your true self", and the inauthenticity prompt directed participants to describe and "an inauthentic scene, a scene in which you were least like your true self." For each scene, participants were asked to describe what happened, where and when the event took place, who was involved, thoughts and feelings during the event, and what the event says about "you and your personality."

2.2.3. Self-report measures

2.2.3.1. Authenticity Inventory.
Participants completed Kernis et al. (2006) Authenticity Inventory (AI-3), which includes 45 items that assess four components of authenticity: awareness (e.g., I am in touch with my motives and desires); unbiased processing (e.g., I am very uncomfortable objectively considering my limitations and shortcomings (reverse scored)); behavior (e.g., I frequently pretend to enjoy something when in actuality I really don't (reverse scored)); and relational orientation (e.g., I want people with whom I am close to understand my weaknesses). Participants responded to items on a 6-point scale ranging from 1 (strongly disagree) to 6 (strongly agree). Alphas were acceptable for each subscale: for awareness, $\alpha = .83$; for unbiased processing, $\alpha = .74$; for behavior, $\alpha = .74$; and for relational orientation, $\alpha = .79$.

2.2.3.2. Authenticity Scale.
Participants completed Wood et al.'s (2008) Authenticity scale, which includes 12 items that assess their tripartite model of authenticity: self-alienation (e.g., I don't know how I feel inside); accepting external influence (e.g., I usually do what other people tell me to do); and authentic living (e.g., I am true to myself if most situations). Participants responded to items on a 6-point scale ranging from 1 (strongly disagree) to 6 (strongly agree). *Alphas* were acceptable for each component: for self-alienation, $\alpha = .90$; for accepting external influences, $\alpha = .84$; and for authentic living, $\alpha = .83$.

2.2.3.3. Autonomy.
Participants completed the 7-item assessment of autonomy included in the Basic Psychological Needs Scale (Gagné, 2003). Items assess the degree to which participants feel their need for autonomy is currently satisfied (e.g., I feel like I am free to decide for myself how to live my life). Participants responded to items on a 6-point scale ranging from 1 (strongly disagree) to 6 (strongly agree), and $\alpha = .72$ for the scale was acceptable.

2.2.3.4. Honesty-humility.
Participants completed the International Personality Item Pool (IPIP) assessment of honesty-humility (IPIP-HEXACO; Ashton et al., 2007; Goldberg et al., 2006). The IPIP-HEXACO honesty-humility scales assess the four facets of honesty-humility included in the HEXACO model of personality with 10 items for each facet: sincerity, (e.g. "Don't pretend to be more than I am"); fairness, (e.g., "Try to follow the rules"); greed avoidance (e.g. "Don't strive for elegance in my appearance"); and modesty (e.g. "Am just an ordinary person"). Participants responded to items on a 6-point scale ranging from 1 (strongly disagree) to 6 (strongly agree). Alphas were acceptable for each facet: for sincerity, $\alpha = .87$; for fairness, $\alpha = .85$; for greed avoidance, $\alpha = .62$; and for modesty, $\alpha = 83$. The IPIP-HEXACO scales have convergent correlations of between .76 and .98 with the original HEXACO facet scales (Ashton et al., 2007).

2.2.3.5. Machiavellianism.
Machiavellianism was measured using the 20-item MACH IV scale developed by Christie and Geis (1970). Each respondent was asked to indicate the extent of his or her agreement or disagreement with each of the 20 items (e.g., "It is wise to flatter important people.") using a 6-point scale ranging from 1 (strongly disagree) to 6 (strongly agree). An α coefficient of .73 was obtained for this scale.

2.2.4. Coding procedure

We developed a content analysis system for coding the themes that were identified in Study 1 as uniquely descriptive of authentic and inauthentic experiences. Two coders blind to information about participants were required to determine (i) how much each authentic scene conveyed each of the themes that were uniquely descriptive of authentic scenes and (ii) how much each inauthentic scene conveyed each of the themes that were uniquely descriptive of inauthentic scenes. Themes uniquely descriptive of authentic experiences in Study 1 were: relational authenticity, expression of true self, contentment, ownership of actions, and resisting external pressures. Themes unique to inauthentic experiences were: phoniness, conformity, suppression, and self-denigration. Coders used the guidelines presented in the Appendix to code each respective theme. Inter-coder reliabilities were calculated as *ICC*s for the average of fixed coders (Shrout and Fleiss, 1979) for all themes, and scores for each theme were calculated as the average of coders' ratings.

2.2.5. Reliability of coding categories

Our first goal of this study was to create reliable coding categories for themes that were uniquely definitive of authenticity and inauthenticity scenes. Based on the guidelines of Koo and Li (2016), this goal was achieved for relational (*ICC* = .75), contentment (*ICC* = .83), ownership of actions (*ICC* = .65), resisting external pressures (*ICC* = .67), phoniness (*ICC* = .75), conformity (*ICC* = .75), and suppression (*ICC* = .62) codes. The expression of true self theme from the authenticity scene (*ICC* = .51) and self-denigration theme from the inauthenticity scene (*ICC* = .51) had moderate interrater reliabilities. However, 70% of expression of true self codes were within one point of complete agreement (e.g., Coder 1 rating = 1, Coder 2 rating = 2) as were 89% of the suppression codes, suggesting that these categories were coded reliably. Nonetheless, results pertaining to these themes should be interpreted with some caution.

3. Results

First, we present descriptive statistics for self-report and narrative variables. We then examine correlations among self-report variables and narrative themes. Finally, we conduct data reduction procedures on the self-report variables and relate the resultant factors to narrative themes.

3.1. Descriptive statistics

Means and standard deviations for self-report and narrative variables

are shown in Table 4. Participants reported relatively higher scores on self-report variables scored in a desirable direction (e.g., authenticity, honesty) than those scored in an undesirable direction (e.g., inauthenticity, Machiavellianism). Although mean values were relatively low for narrative codes, this was likely because only one or two themes were most prevalent in each individual's scene. Supporting this interpretation, 70/103 participants scored at least 2.5 for one of the authenticity codes, and 90/103 participants scored at least 2.5 on one of the inauthenticity codes. Thus, the large majority of participants showed at least moderate levels of at least one of the themes in their authenticity and inauthenticity scenes.

3.2. Correlations among variables

3.2.1. Self-report variables

Pearson correlations among variables are shown in Table 4. As was to be expected, self-report scales scored in the direction of authenticity had strong positive correlations with each other (and autonomy) and strong negative correlations with scales scored in the direction of inauthenticity. Authenticity scales and autonomy also tended to correlate positively with honesty facets and negatively with Machiavellianism, whereas inauthenticity scales showed the opposite pattern of relations. Finally, honesty facets correlated negatively with Machiavellianism.

3.2.2. Narrative themes

Turning to the correlations between authenticity codes (see Table 5), relational authenticity was positively correlated with expression of true self and contentment, and ownership of actions was positively correlated with resisting pressures. Contentment was negatively correlated with ownership of actions. For inauthenticity codes, suppression was positively correlated with conformity and negatively correlated with self-denigration. Looking across authenticity and inauthenticity codes, ownership of actions was positively correlated with self-denigration. Overall, most bivariate correlations between pairs of narrative themes did not reach statistical significance, and magnitudes of those that did were small to moderate. This pattern of findings suggests that individual themes may be considered separately in relation to self-report variables.

3.2.3. Self-report variables and narrative themes

There were several statistically significant correlations between narrative codes and self-report variables (see Table 6). Relational authenticity in authentic scenes was positively associated with relational

orientation from the Authenticity Inventory; people who view themselves as expressing their true selves in relationships described authenticity scenes in which they related to other people in honest, trusting, and understanding ways. Self-denigration in inauthentic scenes was positively associated with awareness from the Authenticity Inventory; people who profess to know their psychological make up (affect, behavior, thoughts, and motivations) tend to criticize themselves when depicting memories of inauthenticity. The negative associations between self-report variables reflecting higher authenticity, autonomy, and honesty and the phoniness code suggests that people who perceive themselves as less authentic emphasize discrepancies from their true selves when recounting inauthentic memories. People who report higher Machiavellianism also emphasized phoniness in inauthenticity memories; thus, people who report using others to get what they want narrated inauthenticity memories in which they acted in a fake manner.

3.3. Factor extension analysis

Factor extension analysis involves deriving factors from a given set of variables, and then finding the loadings of an additional (or extended) set of variables (i.e., variables not included in the original factor analysis) on those factors (Dwyer, 1937; Horn, 1973). Factor extension analysis was desirable for these data because the self-report variables were highly intercorrelated. In order to conduct the factor extension analysis, we first needed to know how many factors to extract. The technique used to answer this question was Very Simple Structure (VSS) analysis (Revelle and Rocklin, 1979), an exploratory method for determining the optimum number of interpretable factors to extract from a data set. This index can take values between 0 and 1 and is a measure of the goodness-of-fit of the factor solution for a given factorial complexity. The VSS value peaked at .91 for a two-factor solution for with a complexity of two.

A minimum residual factor analysis extracting 2 factors was carried out on the self-report scales and rotated using the oblimin rotation. Factor extension analysis determined what the loadings of the narrative codes would be on these factors (see Table 7). Factor 1 was defined at the positive pole by authenticity and autonomy scales, and at the negative pole by inauthenticity. Factor 2 was defined by the honesty scales at the positive pole and by Machiavellianism at the negative pole. The two factors were moderately, positively correlated ($r = .49$). Using a cutoff of .2 for interpretation, factor extension results showed that the narrative codes of "ownership of actions" and "self-denigration" were positively related to the authenticity factor (Factor 1), and that the "phoniness"

Table 4

Means, standard deviations, and correlations for self-report measures (s1–s13).

Variable	s1	s2	s3	s4	s5	s6	s7	s8	s9	s10	s11	s12	s13
Self-report measures													
Aut3 facets													
s1. Awareness													
s2. Unbiased processing	0.44												
s3. Behavior	0.73	0.37											
s4. Relational orientation	0.63	0.35	0.66										
Authenticity Scale facets													
s5. Alienation	-0.66	-0.35	-0.57	-0.55									
s6. External influence	-0.46	-0.38	-0.63	-0.38	0.45								
s7. Authentic living	0.69	0.31	0.70	0.73	-0.67	-0.47							
Autonomy scale													
s8. Autonomy	0.63	0.39	0.61	0.55	-0.60	-0.50	0.70						
Honesty facets													
s9. Sincerity	0.38	0.29	0.45	0.52	-0.48	-0.35	0.52	0.41					
s10. Fairness	0.24	0.06	0.21	0.23	-0.20	-0.05	0.23	0.17	0.38				
s11. Greed-avoidance	0.27	0.22	0.27	0.26	-0.20	-0.28	0.31	0.30	0.45	0.28			
s12. Modesty	0.12	0.19	0.18	0.28	-0.09	-0.12	0.21	0.08	0.47	0.33	0.50		
Machiavellianism scale													
s13. Machiavellianism	-0.35	-0.13	-0.32	-0.41	0.36	0.22	-0.49	-0.32	-0.66	-0.53	-0.37	-0.49	
M	4.36	4.00	3.90	4.51	2.14	3.23	4.57	4.22	4.48	4.87	3.61	3.79	3.13
SD	0.69	0.73	0.66	0.67	0.99	1.11	0.89	0.73	0.83	0.86	0.67	0.86	0.51

Note. Descriptive statistics were calculated at the average item level for self-report variables. Correlations $>.2$ are significant at $\alpha = .05$.

Table 5

Means, standard deviations, and correlations for narrative codes (n1-n9).

Authenticity codes	n1	n2	n3	n4	n5	n6	n7	n8	n9
n1. Relational authenticity									
n2. Expression of true self	0.38								
n3. Contentment	0.42	0.17							
n4. Ownership of actions	-0.05	0.08	-0.29						
n5. Resisting external pressures	-0.07	-0.09	-0.17	0.45					
Inauthenticity codes									
n6. Phoniness	0.14	0.05	0.18	-0.08	-0.06				
n7. Conformity	0.02	0.00	0.02	0.18	0.10	0.10			
n8. Suppression	0.19	0.20	0.09	0.01	0.13	0.11	0.28		
n9. Self-denigration	-0.06	0.11	-0.08	0.27	-0.13	-0.16	-0.08	-0.28	
M	2.06	2.16	1.93	1.20	1.10	2.35	1.96	2.21	1.48
SD	0.96	0.87	1.06	0.51	0.40	1.02	1.03	1.00	0.76

Note. Descriptive statistics were calculated from the average of coders' ratings for narrative variables. Correlations >.2 are significant at $\alpha = .05$.

Table 6

Correlations between self-report variables and narrative codes.

Variable	n1	n2	n3	n4	n5	n6	n7	n8	n9
Aut3 facets									
s1. Awareness	0.09	-0.01	0.07	0.19	0.06	-0.26	0.08	-0.07	0.28
s2. Unbiased processing	0.11	-0.04	0.08	0.19	0.12	-0.17	-0.05	-0.08	0.12
s3. Behavior	0.09	0.05	0.05	0.17	0.02	-0.35	0.03	0.09	0.17
s4. Relational orientation	0.24	0.13	0.05	0.13	0.04	-0.25	-0.09	0.10	0.07
Authenticity Scale facets									
s5. Alienation	-0.04	-0.08	-0.15	-0.13	0.04	0.28	0.05	0.02	-0.12
s6. External influence	0.15	-0.01	0.05	-0.16	-0.05	0.29	-0.01	-0.05	0.00
s7. Authentic living	0.12	0.11	0.13	0.13	0.07	-0.25	0.07	0.16	0.08
Autonomy scale									
s8. Autonomy	-0.01	0.07	0.03	0.21	0.08	-0.32	0.11	0.04	0.16
Honesty facets									
s9. Sincerity	0.03	-0.01	0.12	0.05	-0.08	-0.40	-0.11	0.03	0.06
s10. Fairness	0.08	0.16	0.19	-0.04	0.00	-0.20	-0.10	0.01	0.08
s11. Greed-avoidance	-0.07	0.04	0.07	0.03	-0.09	-0.25	0.08	-0.02	0.08
s12. Modesty	-0.05	-0.04	0.13	0.07	0.03	-0.22	0.07	0.16	-0.06
Machiavellianism scale									
s13. Machiavellianism	0.02	-0.03	-0.10	-0.03	0.06	0.36	-0.07	-0.16	-0.02

Note. Correlations >.2 are significant at $\alpha = .05$. n1 = Relational authenticity; n2 = Expression of true self; n3 = Contentment; n4 = Ownership of actions; n5 = Resisting external pressures; n6 = Phoniness; n7 = Conformity; n8 = Suppression; n9 = Self-denigration.

code was negatively related to both the authenticity and honesty factors (Factor 2). People who scored high on authenticity/autonomy tended to describe their authentic moments as times when they took ownership of their actions, and they described their inauthentic moments as times when they criticized themselves. People who reported themselves as highly inauthentic, as Machiavellian, and as dishonest described their inauthentic moments as containing relatively high degrees of phoniness.

3.4. Discussion

As noted in the discussion of Study 1, there is a great deal of conceptual overlap between our narrative coding scheme and existing self-report measures of authenticity and related constructs. This overlap is also observed in the empirical associations in Study 2, attesting to the convergent validity of both the self-report variables and narrative codes. Yet the degree of overlap is not nearly strong enough to consider the constructs redundant across levels of analysis. The magnitude and consistency of the associations suggests that trait approaches and narrative approaches to authenticity may each tap into unique information about a person's psyche; the narrative codes show evidence of both convergent and discriminant validity with trait measures. This pattern of results mirrors findings from other research examining relations between trait and narrative variables (e.g., Lodi-Smith et al., 2009; McAdams et al.,

2004; Wilt et al., 2011).

4. Discussion and conclusions

Authenticity has been espoused as a central virtue by philosophers and psychologists alike, and recent trait approaches to measurement of authenticity have revealed compelling empirical associations between higher levels of authenticity and greater well-being. Based on the notion that authenticity may be relevant to narrative identity — the evolving life stories that connect one's past with the present and imagined future — our goals in the current research were to (i) identify authenticity and inauthenticity themes as expressed in life story scenes, (ii) create reliable coding categories for such these themes, and (iii) examine the relations between narrative themes and self-report assessments of authenticity and related constructs. These goals were largely realized across two studies of undergraduates, thus representing a first step toward the study of authenticity and inauthenticity in narrative identity.

4.1. Authenticity/inauthenticity in life-story scenes

The different components of authenticity and inauthenticity revealed through life story scenes coincided well with self-report measures. Though this might not seem surprising in hindsight, there are several

Table 7
Factor extension analysis results.

Factor analysis results for self-report variables				
Variable	Factor 1	Factor 2	h2	u2
Awareness	0.86	-0.06	0.70	0.30
Unbiased processing	0.47	-0.01	0.21	0.79
Behavior	0.85	-0.03	0.70	0.30
Relational orientation	0.69	0.16	0.61	0.39
Alienation	-0.74	-0.02	0.57	0.43
External influence	-0.64	0.05	0.38	0.62
Authentic living	0.80	0.13	0.75	0.25
Autonomy	0.79	-0.04	0.60	0.40
Sincerity	0.22	0.67	0.65	0.35
Fairness	-0.04	0.58	0.31	0.69
Greed-avoidance	0.09	0.49	0.30	0.70
Modesty	-0.17	0.73	0.44	0.56
Machiavellianism	-0.05	-0.79	0.67	0.33

Factor extension results for narrative codes				
Variable	Factor 1	Factor 2	h2	u2
Relational authenticity	0.11	-0.05	0.01	0.99
Expression of true self	0.06	0.03	0.01	0.99
Contentment	-0.01	0.19	0.03	0.97
Ownership of actions	0.26	-0.10	0.05	0.95
Resisting pressures	0.11	-0.11	0.01	0.99
Phoniness	-0.22	-0.30	0.20	0.80
Conformity	0.03	-0.02	0.00	1.00
Suppression	-0.03	0.14	0.02	0.98
Self-denigration	0.22	-0.08	0.04	0.96

Note. A minimum residual factor analysis extracting 2 factors was carried out on the self-report scales and rotated using oblimin rotation. Factor extension analysis determined what the loadings of the narrative codes would be on these factors. Numbers underneath columns "Factor 1" and "Factor 2" are factor loadings. *"h2 = communality; u2 = uniqueness.*

reasons that our coding strategy could have identified themes lying outside of existing self-report frameworks (see Adler et al., 2017; Panattoni and McLean, 2018). Methodological reasons include lack of method variance, differences in operationalization of the constructs, and socially desirable responding to both self-reports and narrative prompts. Conceptual reasons include the possibility that generating narratives taps into a different mode of thought than does responding to self-report questions, that narrative measures may be more susceptible to unconscious influences than are self-report items, and that narratives are more contextualized to particular situations and influenced by a perceived audience than are self-report responses. Finally, our use of an inductive or data-driven approach to coding did not necessitate overlap with any existing theoretical frameworks of authenticity (Syed and Nelson, 2015).

The conceptual correspondence seems to be good news for both self-report and narrative approaches to authenticity. Self-report measures need not expand to include content that was missed, and narrative approaches need not seek theoretical justification for content lying outside of self-report boundaries. However, the levels of assessment were not redundant; the moderate associations between narrative themes and self-report measures suggest that narrative assessments do not overlap completely with self-report scales.

Because authenticity has been a robust predictor of mental health, perhaps the most pressing question for future research is to determine whether narrative themes are related to mental health above and beyond self-report measures. There is good reason to think that this might be the case. A recent review concluded that narrative themes have incremental validity in predicting well-being both cross-sectionally and prospectively independently of dispositional personality traits (Adler et al., 2016). Additionally, qualitative studies link authenticity to healthy behavior (Conroy and de Visser, 2015) and quantitative studies show that expressing intrinsic values in memories is related to well-being (Lekes et al., 2014).

Another direction for future research that may further integrate trait and narrative approaches to authenticity is to explore what types of life stories support (self-reported) authentic functioning. That is, how does narrative identity differ among people with higher and lower levels of self-reported authenticity? The current study reveals only limited information related to this question; specifically, our findings suggest that people with different levels of self-reported authenticity see different themes as indicative of authenticity/inauthenticity in life story scenes. For Example, our findings indicate that a person with higher self-reported relational authenticity is likely to view relational honesty as indicative of authenticity. Our findings have nothing to say about whether people with higher levels of self-reported relational authenticity tell life stories (when not primed to tell moments that are authentic) that convey themes of open, honest, and close relationships. It is easy to envision a study that tests these ideas. Scenes from a typical life story interview (e.g., high point, low point, turning point, important memories from different times of life) could be coded for the authenticity/inauthenticity themes identified in the current study, and these themes could be correlated with self-reported authenticity measures. It is worth noting that a study like this could not be conducted without first identifying valid coding categories for authenticity/inauthenticity, as was done in the current studies.

4.2. Limitations

There may be some concern that authenticity and inauthenticity were assessed through subjective methods of self-report and life-story scenes. Therefore, we cannot make claims about more objective aspects of authenticity and inauthenticity that might be captured by measures such as experimentally manipulated reaction times (e.g., Schlegel et al., 2009). Though this is a potential limitation, subjectivity is at the core of a narrative identity perspective on authenticity. The narrative identity approach is authenticity centered on one's personal myth regarding what it means to be true (and false) to oneself. This standpoint is somewhat similar to that taken by Schlegel and colleagues (e.g., 2009; 2011; 2013) regarding the true self-concept. The authors remained neutral on the issue of the ontological reality, preferring instead to define the true self-concept as the cognitive schema and subjective beliefs and feelings what aspects of one's self-concept reflect true, core characteristics. This decision was based on the rationale that perceptions of reality can have important consequences regardless of the accuracy of the perceptions.

The researchers and coders bring unique perspectives and biases to extracting themes from qualitative data. Other labs may have identified different themes and clustered themes in different ways in Study 1. This would have resulted in different quantitative coding categories in Study 2. Indeed, the emergence of categories that were similar to dimensions of authenticity/inauthenticity that emerged in previous research may reflect some of our biases. Therefore, our coding systems is not meant to be exhaustive but rather one potentially useful way of examining authenticity in life-stories.

The generalizability of our findings may also be limited because we relied on samples of undergraduates from a Western, educated, industrialized, rich, and democratic (WEIRD) society (Henrich et al., 2010). Potential limitations to generalizability based on age and culture are highly relevant for the concept of authenticity. Identity conflicts may be more salient for undergraduate participants than for older adults, and therefore older adults might have a more stable ideas about what constitutes authenticity and inauthenticity (Schlegel et al., 2013). More stable notions of authenticity could result in stronger and possibly more reliable associations between scales attempting to measure authenticity-related constructs. Authenticity may also be more highly valued among Western as compared to non-Western nations (Lenton et al., 2013; Slabu et al., 2014). Understandings of authenticity could

therefore vary across cultures, which may have consequences for which themes emerged as uniquely defining of authenticity and inauthenticity; for instance, most themes that were uniquely definitive of authenticity in the current study were primarily concerned with the self, which may be due to the relative emphasis on self-enhancement in Western nations. Perhaps people from non-Western nations would place more emphasis on relational authenticity themes. Regardless of these limitations, narrative studies in their essence are aimed at developing an understanding of how a particular group of people understand themselves in a particular sociohistorical context (McAdams and Pals, 2006).

Finally, our relatively small sample sizes may be considered a limitation. In Study 1, it is possible that different unique themes may have emerged with a greater sample size, or that the rank-ordering of unique themes could have changed. In Study 2, our power to detect small-to-medium effect sizes was not optimal. Though we recommend that future studies employ larger sample sizes, we are aware that logistical challenges to collecting and coding narratives would make doing so a lengthy and costly undertaking.

5. Conclusion

In the current studies, we found that for undergraduates in a Western society, authentic experiences entail expressing one's perceived true nature, being content and relaxed, taking ownership of one's choices, not giving in to external pressures, and having open and honest relationships. In contrast, inauthentic experiences involve being phony, conforming to others' expectations, suppressing one's emotions, and denigrating the self. Thus, life-story scenes characteristic of authenticity/inauthenticity turned out to be similar to the ideas emerging from prominent psychological and philosophical theories. Assessments of narrative authenticity/inauthenticity were related to but distinct from self-report assessments, opening the possibility for narrative approaches to reveal unique insight into the psychology of the true and false selves.

Declarations

Author contribution statement

Joshua Wilt: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Sarah Thomas: Conceived and designed the experiments; Analyzed and interpreted the data; Wrote the paper.

Dan McAdams: Conceived and designed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Competing interest statement

The authors declare no conflict of interest.

Additional information

Data associated with this study has been deposited at Open Science Framework under: https://osf.io/u9fea/?view_only=5bb21c2ba8d442218ed4f750c6c2a4c1.

Appendix A. Unique descriptors of authentic and inauthentic scenes

Abandonment
Acceptance of imperfections/flaws
Accepting responsibility
Accomplishment/Achievement/Success
Acting in a genuine way with others
Acting in accordance with beliefs/values
Acting out of obligation Acting to please others/gain approval
Acting without thinking
Adulation
Adventure
Anger
Avoiding conflict
Avoiding negative evaluation
Being at home
Being at school
Being at work
Being carefree
Being unsociable
Being with family
Being with friends
Boredom/Redundancy
Caring for others
Caution/wariness
Comfortable
Companionship, connecting, having fun with others
Competence
Confidence
Confused
Criticism
Denying, subverting, changing emotions
Desire to change oneself
Different from usual self
Disgust with self
Disinhibition of behavior
Disliking others
Distancing from self (watching from outside)
Embarrassment Empathy
Encouragement/support from others
Enjoyment Escapism
Expression of true thoughts
Fear
Feeling guarded
Feeling insignificant
Feeling phony/fake
Feeling restricted
Feeling true to oneself
Feeling understood by others
Freedom from responsibility
Frustration
Going with the crowd/conformity
Guilt
Happiness
Holding in true beliefs
Honest with others
Hurting others
Impulsivity
Inability to control emotions
Incompetence
Influenced by others' opinions/expectations
Intensity
Lack of social support
Learning a lesson
Living up to others' expectations
Loneliness
Looking for ways to change
Loss of agency
Loss of composure
Lying to others
Lying to self
Making a good impression
Manipulation
Meaningful loss
Nervous

(*continued*)

Not being judged
Optimism
Ownership of choices
Perseverance, overcoming obstacles
Pessimism
Pleasing others
Politeness
Protecting others
Putting on an act
Putting one's own needs above the needs of others
Relaxed
Relief
Religion/presence of God/spiritual presence
Resisting others' influence/disobeying authority
Revealing true feelings to others
Role experimentation
Sadness (depression) Safety
Self-criticism
Stress
Strive for acceptance/fitting in
Surrender to a higher power Sympathy
Trusting oneself
Trusting others
Uncomfortable
Understanding others Unsafe
Upset

Appendix B. Example scenes

Example authenticity scene. "I was with my friends at their dorm room. We were in the common room, just us, it was late and we were laughing about weird ticks that we have. I was with me boyfriend, and when it was my turn I said that I drool a lot while I'm asleep. At the time I was sleeping with my boyfriend but hadn't told him about my drooling. We all laughed, and then my boyfriend turned to me and said, "yeah you do drool a lot" and I felt so embarrassed and ashamed. But we were laughing about it at the same time and it just made me feel comfortable about myself. Then he went and said something equally as embarrassing and I felt better. I realized that everyone does something weird and gross and it was cool to talk about it, out in the open. I really felt like I could be myself around these people."

This scene was coded as containing the characteristics of: "companionship", "acting in a genuine way with others, "feeling true to oneself" "enjoyment" "feeling understood by others", "being honest with others", "receiving encouragement", "being with friends", "not being judged", "embarrassment", "being carefree", "trusting others", "revealing true feelings to others", "being relaxed", "being disinhibited", and "acceptance of imperfections".

Example inauthenticity scene. "The first day at [university blinded] I was really desperate to meet people that would like me. At night I went to a dance party and felt that no one would like me unless I was "on". So I started being funny and comical, people started laughing and soon I had people congregating around watching me tell jokes and be funny. I started saying that I liked music that I hated because these people liked it. I felt so fake! And I wanted to just be myself, but I knew that if I was myself people wouldn't like me. So I kept up being funny because I wanted to be the life of the party. Pretty soon everyone was talking about how funny and clever I was. As the party died down and people left I had a phone filled with new numbers, but I felt just as alone as when I walked in. I walked back to my room and thought that I really wouldn't like anyone that I had met that night personally."

This scene was coded as containing the characteristics (presented in the order in which they were coded) of: "feeling phony", "lying to others", "being different from one's usual self", "desire to make a good impression", "striving for acceptance", "acting to please others", "being pessimistic", and "being upset".

Example emotionally vivid scene. "I drove out of my high school for the very last time. It was the last day of school my senior year, and I was done with all of my tests. It was the last time I would drive out of the parking lot as a student. I felt so many emotions: accomplishment, fear, lots of sadness, yet happiness. I was one of the last ones to finish my exams and when I walked out the parking lot was empty. It was hot I just remembered wanting to stay there, and not leave. I thought back at my experiences and wanted to have the same great moments in college. At the end I remembered being afraid of were life was gonna take me next."

This scene was coded as containing the characteristics (presented in the order in which they were coded) of: "sadness", "happiness", "accomplishment", "being at school", "fear", and "nervousness".

Appendix C. Authenticity and inauthenticity coding guidelines

Relational authenticity. Key characteristics of scenes containing "relational authenticity" (identified in Study 1) are: *acting in a genuine way with others, companionship, feeling understood by others, honest with others, revealing true feelings to others, trusting others,* and *understanding others*. Relational authenticity reflects the degree to which the protagonist feels connected to others. The scene conveys the sense that others are trustworthy and expressions of honesty are welcomed with understanding and in a non-judgmental way. The protagonist feels a strong sense of companionship with others in the scene. Scenes were coded on a scale from 1 (very low) to 4 (very high) based on the degree to which they conveyed relational authenticity: "The scene conveyed relational authenticity to a...degree".

Expression of true self. Key characteristics scenes containing the theme "expression of true self" are: *expression of true thoughts, feeling true to oneself, genuineness,* and *revealing one's true self*. This code reflects the degree to which the protagonist feels true to him/herself. The scene conveys the sense that one's actions and feelings are accurate reflections of one's true nature. The protagonist feels that the scene is a genuine portrayal of one's real self. Scenes were coded on a scale from 1 (very low) to 4 (very high) based on the degree to which the protagonist expressed his or her true self: "The scene expresses the protagonist's true self to a...degree".

Contentment. Key characteristics of scenes containing the theme "contentment" are *enjoyment, feeling comfortable, happiness,* and *relaxation*. This code reflects the degree to which the protagonist feels content in his/her surroundings. The scene conveys a sense of comfort and happiness. The protagonist feels relaxed and natural in the situation or event described in the scene. Scenes were coded on a scale from 1 (very low) to 4 (very high), based on the degree to which they convey contentment: "The scene conveyed feelings of contentment to a...degree."

Ownership of actions. Key characteristics of scenes containing the theme "ownership of actions" are *accepting responsibility, acting in accordance with one's beliefs and values,* and *taking ownership of choices*. This code reflects the degree to which the protagonist feels ownership of his/her actions. The scene conveys the sense that actions were in accordance with the values of the protagonist. The protagonist accepts responsibility for his/her actions by identifying some value or value system and acting in accordance with those values. Scenes were coded on a scale from 1 (very low) to 4 (very high), based on the degree to which they conveyed that the protagonist accepted ownership of his/her actions. "The protagonist accepted ownership of his/her actions to a...degree."

Resisting external pressures. Key characteristics of scenes containing the theme "resisting external pressures" are *disobeying authority* and *resisting influence*. This code reflects the degree to which the protagonist resists external pressures to conform. The scene conveys the sense that the protagonist defies the influence of social pressures. The protagonist opposes authority figures and/or societal expectations. Scenes were coded on a scale from 1 (very low) to 4 (very high), based on the degree to which the protagonist resisted external pressures. "The protagonist resisted external pressures to a...degree."

Phoniness. Key characteristics of scenes containing the theme

"phoniness" are *different from usual self, feeling phony/fake,* and *putting on an act.* This code reflects the degree to which the protagonist feels that he/she is being phony. The scene conveys the sense that the protagonist is putting on an act that is different from how he/she usually behaves (unless the difference is endorsed as authentic). The protagonist feels fake and/or contrived. Scenes were coded on a scale from 1 (very low) to 4 (very high), based on the degree to which the protagonist felt phony. "The protagonist conveys the sense of phoniness to a...degree."

Conformity. Key characteristics of scenes containing the theme "conformity" are *acting to please others, going with the crowd, being influenced by others' expectations, living up to others' expectations, concern with making a good impression, pleasing others,* and *striving for acceptance or to fit in.* This code reflects the degree to which the protagonist conforms to the demands of others or society. The scene conveys a sense that the protagonist is striving to make a good impression, fit in, or is acting in order to please others. The protagonist attempts to gain acceptance by adjusting his/her behavior to conform to social/societal pressures. Scenes were coded on a scale from 1 (very low) to 4 (very high), based on the degree to which the protagonist conformed to external pressures. "The protagonist conforms to external pressures to a...degree."

Suppression. Key characteristics of scenes containing the theme "suppression" are *denying, subverting, or changing one's emotions, holding in one's true beliefs,* and *lying to others.* This code reflects the degree to which the protagonist suppresses his/her emotions, thoughts, and actions. The scene conveys the sense that the protagonist is actively withholding his/her opinions or lies to others in order to avoid revealing true beliefs and opinions. The protagonist actively avoids expressing his/her true self in order to avoid negative consequences. Scenes were coded on a scale from 1 (very low) to 4 (very high), based on the degree to which the protagonist suppresses true feelings, beliefs, and behavior. "The protagonist suppressed his/her true self to a...degree."

Self-denigration. Key characteristics of scenes containing the theme "self-denigration" are *expressing disgust with oneself* and *self-criticism.* This code reflects the degree to which the protagonist describes him/herself in derogatory terms. The scene conveys the sense that the protagonist does not approve of the way he/she acted and may be disgusted with him/herself. The protagonist is critical of him/herself. Scenes were coded on a scale from 1 (very low) to 4 (very high), based on the degree to which the protagonist was self-critical and self-denigrating. "The protagonist was self-critical and self-denigrating to a...degree."

References

Adler, J.M., Dunlop, W.L., Fivush, R., Lilgendahl, J.P., Lodi-Smith, J., McAdams, D.P., et al., 2017. Research methods for studying narrative identity. Soc. Psychol. Personal. Sci. 8, 519–527.

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. Personal. Soc. Psychol. Rev. 20, 142–175.

Ashton, M.C., Lee, K., 2001. A theoretical basis for the major dimensions of personality. Eur. J. Personal. 15, 327–353.

Ashton, M.C., Lee, K., Goldberg, L.R., 2007. The IPIP-HEXACO scales: an alternative, public-domain measure of the personality constructs in the HEXACO model. Personal. Individ. Differ. 42, 1515–1526.

Boyraz, G., Waits, J.B., Felix, V.A., 2014. Authenticity, life satisfaction, and distress: a longitudinal analysis. J. Couns. Psychol. 61, 498–505.

Christie, R., Geis, F.L., 1970. Studies in Machiavellianism. Academic Press, New York.

Christy, A.G., Seto, E., Schlegel, R.J., Vess, M., Hicks, J.A., 2016. Straying from the righteous path and from ourselves. Personal. Soc. Psychol. Bull. 42, 1538–1550.

Conroy, D., de Visser, R., 2015. The importance of authenticity for student non-drinkers: an interpretative phenomenological analysis. J. Health Psychol. 20, 1483–1493.

Creswell, J.W., 2007. Qualitative Inquiry and Research Design: Choosing Among Five Approaches, second ed. Sage, Thousand Oaks, CA.

Deci, E.L., Ryan, R.M., 1985. The general causality orientations scale: self-determination in personality. J. Res. Personal. 19, 109–134.

Deci, E.L., Ryan, R.M., 2000. The "what" and "why" of goal pursuits: human needs and the self-determination of behavior. Psychol. Inq. 11, 227–268.

Dwyer, P.S., 1937. The determination of the factor loadings of a given test from the known factor loadings of other tests. Psychometrika 2, 173–178.

Erickson, R.J., Whatron, A.S., 1997. Inauthenticity and depression. Work Occup. 24, 188–213.

Fleeson, W., Wilt, J., 2010. The relevance of Big Five trait content in behavior to subjective authenticity: do high levels of within-person behavioral variability undermine or enable authenticity achievement? J. Personal. 78, 1353–1382.

Gagné, M., 2003. The role of autonomy support and autonomy orientation in prosocial behavior engagement. Motiv. Emot. 27, 199–223.

Gan, M., Chen, S., 2017. Being your actual or ideal self? What it means to feel authentic in a relationship. Personal. Soc. Psychol. Bull. 43, 465–478.

Gino, F., Kouchaki, M., Galinsky, A.D., 2015. The moral virtue of authenticity: how inauthenticity produces feelings of immorality and impurity. Psychol. Sci. 26, 983–996.

Goldberg, L.R., Johnson, J.A., Eber, H.W., Hogan, R., Ashton, M.C., Cloninger, C.R., Gough, H.G., 2006. The international personality item pool and the future of public-domain personality measures. J. Res. Personal. 40, 84–96.

Goldman, B.M., Kernis, M.H., 2002. The role of authenticity in healthy psychological functioning and subjective well-being. Ann. Am. Psychother. Assoc. 5, 18–20.

Gouveia, T., Schulz, M.S., Costa, M.E., 2016. Authenticity in relationships: predicting caregiving and attachment in adult romantic relationships. J. Couns. Psychol. 63, 736–744.

Harter, S., 2002. Authenticity. In: Snyder, C.R., Lopez, S.J. (Eds.), Handbook of Positive Psychology. Oxford University Press, New York, NY US, pp. 382–394.

Henrich, J., Heine, S.J., Norenzayan, A., 2010. Most people are not WEIRD. Nature 466, 29.

Horn, J.L., 1973. On extension analysis and its relation to correlations between variables and factor scores. Multivar. Behav. Res. 8, 477–489.

Horney, K., 1950. Neurosis and Human Growth; the Struggle toward Self-Realization. Norton, New York, NY.

Jonason, P.K., McCain, J., 2012. Using the HEXACO model to test the validity of the dirty dozen measure of the dark Triad. Personal. Individ. Differ. 53, 935–938.

Kernis, M.H., Goldman, B.M., Zanna, M.P., 2006. A multicomponent conceptualization of authenticity: theory and research. In: Advances in Experimental Social Psychology, Vol 38. Elsevier Academic Press, San Diego, CA US, pp. 283–357.

Kernis, M.H., Heppner, W.L., Wayment, H.A., Bauer, J.J., 2008. Individual Differences in Quiet Ego Functioning: Authenticity, Mindfulness, and Secure Self-Esteem *Transcending Self-interest: Psychological Explorations of the Quiet Ego*. American Psychological Association, Washington, DC US, pp. 85–93.

Koo, T.K., Li, M.Y., 2016. A guideline of selecting and reporting intraclass correlation coefficients for reliability research. J. Chiropr. Med. 15, 155–163.

Lee, K., Ashton, M.C., 2005. Psychopathy, machiavellianism, and narcissism in the five-factor model and the HEXACO model of personality structure. Personal. Individ. Differ. 38, 1571–1582.

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. J. Res. Personal. 53, 103–111.

Lenton, A.P., Bruder, M., Slabu, L., Sedikides, C., 2013. How does "being real" feel? The experience of state authenticity. J. Personal. 81, 276–289.

Lenton, A.P., Slabu, L., Bruder, M., Sedikides, C., 2014. Identifying differences in the experience of (in) authenticity: a latent class analysis approach. Front. Psychol. 5.

Lenton, A.P., Slabu, L., Sedikides, C., 2016. State authenticity in everyday life. Eur. J. Personal. 30, 64–82.

Lodi-Smith, J., Geise, A.C., Roberts, B.W., Robins, R.W., 2009. Narrating personality change. J. Personal. Soc. Psychol. 96, 679–689.

Maltby, J., Wood, A.M., Day, L., Pinto, D., 2012. The position of authenticity within extant models of personality. Personal. Individ. Differ. 52, 269–273.

Maslow, A.H., 1968. Toward a Psychology of Being, second ed. D Van Nostrand, Oxford, England.

McAdams, D.P., 1996. Personality, modernity, and the storied self: a contemporary framework for studying persons. Psychol. Inq. 7, 295–321.

McAdams, D.P., 2008. Personal narratives and the life story. In: Pevin, L.A., John, O.P. (Eds.), Handbook of Personality: Theory and Research, 3 ed. Guilford Press, New York, NY.

McAdams, D.P., Anyidoho, N.A., Brown, C., Huang, Y.T., Kaplan, B., Machado, M.A., 2004. Traits and stories: links between dispositional and narrative features of personality. J. Personal. 72, 761–784.

McAdams, D.P., Manczak, E., 2015. Personality and the life story. In: Mikulincer, M., Shaver, P.R. (Eds.), APA Handbook of Personality and Social Psychology. APA Books, Washington, DC.

McAdams, D.P., Pals, J.L., 2006. A New Big Five: fundamental principles for an integrative science of personality. Am. Psychol. 61, 204–217.

McLean, K.C., Fournier, M.A., 2008. The content and processes of autobiographical reasoning in narrative identity. J. Res. Personal. 42, 527–545.

Nehamas, A., 1999. Virtues of Authenticity: Essays on Plato and Socrates. Princeton University Press, Princeton, NJ.

Panattoni, K., McLean, K.C., 2018. The curious case of the coding and self-ratings mismatches: a methodological and theoretical detective story. Imagin. Cognit. Pers. 37, 248–270.

Paulhus, D.L., Williams, K.M., 2002. The dark Triad of personality: narcissism, machiavellianism and psychopathy. J. Res. Personal. 36, 556–653.

Plasencia, M.L., Taylor, C.T., Alden, L.E., 2016. Unmasking one's true self facilitates positive relational outcomes: authenticity promotes social approach processes in Social Anxiety Disorder. Clin. Psychol. Sci. 4, 1002–1014.

Rauthmann, J.F., Will, T., 2011. Proposing a multidimensional machiavellianism conceptualization. Soc. Behav. Personal. Int. J. 39, 391–403.

Revelle, W., Rocklin, T., 1979. Very simple structure - alternative procedure for estimating the optimal number of interpretable factors. Multivar. Behav. Res. 14, 403–414.

Robinson, O.C., Lopez, F.G., Ramos, K., Nartova-Bochaver, S., 2012. Authenticity, social context, and well-being in the United States, england, and Russia: a three country comparative analysis. J. Cross Cult. Psychol.

Rogers, C.R., 1961. *On Becoming a Person*: (1961) on Becoming a Person. Houghton Mifflin, Oxford, England.

Schlegel, R.J., Hicks, J.A., 2011. The true self and psychological health: emerging evidence and future directions. Soc. Personal. Psychol. Compass 5, 989–1003.

Schlegel, R.J., Hicks, J.A., Arndt, J., King, L.A., 2009. Thine own self: true self-concept accessibility and meaning in life. J. Personal. Soc. Psychol. 96, 473–490.

Schlegel, R.J., Hicks, J.A., Christy, A.G., 2016. The eudaimonics of the true self. In: Vittersø, J. (Ed.), Handbook of Eudaimonic Well-Being. Springer, pp. 205–213.

Schlegel, R.J., Hicks, J.A., Davis, W.E., Hirsch, K.A., Smith, C.M., 2013. The dynamic interplay between perceived true self-knowledge and decision satisfaction. J. Personal. Soc. Psychol. 104, 542–558.

Schlegel, R.J., Hicks, J.A., King, L.A., Arndt, J., 2011. Feeling like you know who you are: perceived true self-knowledge and meaning in life. Personal. Soc. Psychol. Bull. 37 (6), 745–756.

Sedikides, C., Slabu, L., Lenton, A.P., Thomaes, S., 2017. State authenticity. Curr. Dir. Psychol. Sci. 26, 521–525.

Shrout, P.E., Fleiss, J.L., 1979. Intraclass correlations: uses in assessing rater reliability. Psychol. Bull. 86, 420–428.

Slabu, L., Lenton, A.P., Sedikides, C., Bruder, M., 2014. Trait and state authenticity across cultures. J. Cross Cult. Psychol. 45, 1347–1373.

Strauss, A., Corbin, J., 1998. Basics of Qualitative Research: Grounded Theory Procedures and Techniques. Sage, Newbury Park, CA.

Strohminger, N., Knobe, J., Newman, G., 2017. The true self: a psychological concept distinct from the self. Perspect. Psychol. Sci. 12, 551–560.

Syed, M., Nelson, S.C., 2015. Guidelines for establishing reliability when coding narrative data. Emerg. Adulthood 3, 375–387.

Vannini, P., Franzese, A., 2008. The authenticity of self: conceptualization, personal experience, and practice. Sociol. Compass 2, 1621–1637.

Wang, Y.N., 2016. Balanced authenticity predicts optimal well-being: theoretical conceptualization and empirical development of the authenticity in relationships scale. Personal. Individ. Differ. 94, 316–323.

Wickham, R.E., 2013. Perceived authenticity in romantic partners. J. Exp. Soc. Psychol.

Wilt, J., Olson, B.D., McAdams, D.P., 2011. Higher-order factors of the Big Five predict exploration and threat in life stories. J. Res. Personal. 45, 613–621.

Wood, A.M., Linley, P., Maltby, J., Baliousis, M., Joseph, S., 2008. The authentic personality: a theoretical and empirical conceptualization and the development of the Authenticity Scale. J. Couns. Psychol. 55, 385–399.