Shedding a Light on the Teller:

On Storytelling, Meaning in Life, and Personal Goals

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Abstract

This paper demonstrates that an overlooked personality ability—storytelling—plays a significant psychological role: individuals proficient in storytelling exhibit a stronger sense of meaning in life (MIL) and endorsement of high-level goals (EHG) compared to their less adept counterparts.

We employ two distinct methods to assess the storytelling ability: we developed a self-report scale for storytellers and also gathered assessments from listeners. The listeners comprise three categories: (a) close friends, (b) strangers who listen to the storyteller's narratives, and (c) trained coders who observe videos of these stories.

The relationship between storytelling and both the sense of meaning-in-life and endorsement of high-level goals is consistent across all measures. Additionally, this relationship persists whether the narrative concerns a personality trait or is constructed from three random words. Furthermore, the results are consistent across two different cultures (US and Middle Eastern).

Finally, these relationships are most pronounced among introverts and least evident among extraverts, suggesting that storytelling may compensate for the absence of extraversion in meaning construction and cognitive abstraction.

Keywords: Storytelling, meaning-in-life, goals, personality.

In the last three decades the psychological correlates and consequences of stories and narratives received intense attention. Bruner (1991), McAdams (1993), and Pennebaker (1997) highlighted different aspects of this topic, and their work generated new ideas and led to important research programs. Interestingly, while stories received extensive attention, storytelling has not. In other words, scholars were interested in the content and meaning of stories but not in the way they are being told – i.e., in what is told and not in how it is being told. While the focus on "what" is understood and justified, we suggest that the "how" can also be interesting and important. Specifically, we propose that individual differences in their storytelling ability can shed light on core psychological processes and phenomena, such as the sense of meaning in life and endorsement of high-level goals. Furthermore, the theoretical framework supporting this pivotal role of storytelling is grounded in the extensive psychological literature on narratives, positioning our findings as a direct extension of this scholarly tradition.

Theoretical framework

Previous studies portray stories and narratives as a sense making mechanism (e.g., Bruner 1991 and Karlsson et al. 2004). Stories help us understand ourselves and the world around us. Bruner (1991) suggested that although there are two modes of thinking – scientific and narrative, people construct reality and have a sense of what is happening to them and what they are experiencing at a given moment through narrative thinking. In other words, narrative thinking plays a critical role in the construction of subjective meaning.

Similar ideas about the sense-making role of stories can be found in Schank and Abelson's (1977, 1995) writings, who argued that stories are fundamental constituents of human memory, knowledge, and social communication. Karlsson et al. (2004) made a similar argument: "How do people make sense of the events of their lives? In part, they make up stories…" (p. 68), and later they added: "In virtually all cultures and historical periods,

people have communicated their experiences and understanding of the world by telling stories" (p. 68). That is, Karlsson et al. (2004) suggested that stories make sense of both our lives and the world around us.

The role of stories in personal lives comes across vividly in the work of Pennebaker and colleagues (e.g., Pennebaker 1990, 1997; Pennebaker & Beall 1986) on painful and traumatic experiences. In these studies, findings indicated that encouraging traumatized people to write a story of their personal experiences can improve healing and hasten recovery from post-traumatic responses. When discussing the process behind these findings, Pennebaker (1997) writes: "…people who benefited from writing began with poorly organized descriptions and progressed to coherent stories by the last day of writing." This is consistent with the idea that stories and narratives are a sense making mechanism.

This idea is also fundamental in the work of Dan McAdams on narrative identity. According to McAdams (1993, 2001) and McAdams and McLean (2013), a person's identity results from incorporating her life events into a comprehensive story of the self, which then leads to a sense of meaning and purpose in life. These studies do not only support the sense making role of stories, but also identify the result of this process – meaning-in-life (MIL, hereafter) and purpose.

Stories and why

Our work follows these earlier studies, particularly those by McAdams, suggesting that individuals find their "why"—that is, their sense of meaning in life (MIL) and purpose— by making sense of life's events. In other words, narrative connects various events into a coherent story that embeds the MIL and the "why" of the protagonist. The concept of "why" is cornerstone in stories. Typically, a story revolves around a hero striving to <u>achieve a goal</u>, encountering various obstacles and challenges along their journey. Therefore, when

individuals construct narratives about their life events, they must identify the goals and desires driving their journey – their "why."

Consider a person who has recently worked in three vastly different industries—sports, medicine, and banking. At first glance, it might seem challenging to weave these experiences into a coherent narrative with a protagonist who has a clear sense of "why." However, if we discover that the individual held managerial roles in human resources across all these sectors, the picture begins to sharpen. Further clarity emerges when we learn that they used their positions to bolster the presence of women in decision-making roles. Here, we see a person on a mission, someone with a definitive "why." While this person might have been aware of their purpose throughout this process, it is also possible that they were acting on instinct the entire time, not realizing they were on a mission. Only upon reflecting on their story and constructing a narrative, that connects these life events, did they discover their "why." Either way, this person's narrative encompasses their "why".

The existing literature has focused on how discovering the "why" provides individuals with a sense of meaning in life. Baumeister and Vohs (2002) identified that people's lives gain meaning when they satisfy four needs, including purpose. They noted, "the essence of this need is that present events draw meaning from their connection with future events" (p. 610). In essence, having a purpose—and thus meaning—requires, as discussed above, connecting present and future events. Similarly, McLean and Morrison-Cohen (2013) argue that "meaning comes... from the art of constructing a coherent self with our stories" (p. 201).

Here, we argue that creating a story by linking events and understanding the main character's reason for their actions (i.e., their "why") affects not only the meaning people find in life but also their motivation, particularly in how they think about their goals. We suggest that the mindset of skillful storytellers, who are experienced in uncovering the "why" behind

individual actions, operates at a high level of goal pursuit – i.e., they are more likely to think about the "why" of their actions rather than the "how". On the other hand, storytellers who struggle with this ability may find themselves operating at a lower level of goal pursuit, focusing more on the "how" rather than the "why" of their goal-oriented actions. We use the term "endorsement of high-level goals" to capture these differences in the mindset.

Construal level theory also distinguishes between "how" and "why" (Trope and Liberman 2003): "High-level construals are therefore likely to include action identifications at the superordinate, why level rather than the subordinate, how level." However, since our focus is not on the distinction between abstract and concrete, but rather on the level of goal pursuit, we will be using a different scale to capture the endorsement of high-level goals. We return to this point and elaborate on it soon.

From stories to a storytellers

As noted above, although storytelling has received considerable attention, the nuances of how it varies among individuals have not (McLean and Morrison-Cohen 2013). To our knowledge, while the development of storytelling abilities has been explored in previous studies (e.g., Fivush et al. 2011), individual variations in storytelling have rarely been used to explain other constructs. There are a few exceptions, such as Smith et al. (2017) that showed that skilled storytellers, in the Filipino hunter-gatherer population, are preferred social partners and have higher reproductive success. The authors suggest that they gain this status because their stories promote group-beneficial behaviors and enhance social cohesion. In other words, skilled storytellers are required for evolutionary purposes (see also McAdams 2019 on this point). Another study that identifies the impact of the storytelling ability is

Donahue and Green (2016), which demonstrated that men's storytelling ability enhances their attractiveness to women, and suggest that this effect is mediated by perceived status.[1]

Storytelling is the art of connecting events in a narrative and compelling way. We witness the heterogeneity of this ability daily. Some of our friends can tell us about a mundane activity such as dropping their kids in school and we are highly attentive, while others can describe a series of terrifying experiences and we find our minds wandering after few seconds. Skillful storytellers easily weave a narrative from a series of events, while less adept ones struggle to link them meaningfully.

Following previous studies, discussed above, it seems reasonable to expect that the ability of storytelling is relevant for the sense of MIL and the endorsement of high-level goals (EHG, hereafter). Consider the sense of MIL first. Proficient storytellers (i.e., those who smoothly craft narratives from a series of events) are better equipped to form their narrative identities. Consequently, following the work of McAdams and others, they are also more likely to experience a pronounced sense of MIL. Conversely, those who struggle with storytelling may find it challenging to derive a coherent and meaningful narrative from their life experiences, thereby resulting in a lower sense of MIL.

Now consider endorsement of high-level goals. As discussed above, skillful storytellers are experienced in uncovering the "why" behind individual actions, which suggests that their mindset operates at a high level of goal pursuit and goal-oriented action organization. On the other hand, storytellers who struggle with this ability may find themselves operating at a lower level of goal pursuit, focusing more on the "how" rather than the "why" of their goal-oriented actions.

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[1] The role of one aspect of good storytelling – the coherence of the story – was examined in the context of personality disorder (BPD). It turns out that while the coherence of the story is associated with BPD, when identity diffusion is taken into account, the coherence of the story does not significantly affect the disorder (Lind et al. 2019).

Formalizing this rationale, we hypothesize:

H1: A positive association between storytelling ability and the sense of meaning in life.

H2: A positive association between storytelling ability and endorsement of high-level goals.

These two hypotheses build upon previous research on the sense-making role of storytelling and the relationship between narrative and the sense of MIL. Both MIL and EHG are influenced by the same process of narrating connected events. Individuals who are skilled (or unskilled) in this process are expected to exhibit a higher (or lower) sense of MIL and be (less) more likely to endorse high-level goals when organizing their goal-oriented actions. Essentially, MIL and EHG represent two facets of the same phenomenon. A somewhat similar argument presented by Hicks and King (2007): "This global focus may play a role in the experience of meaning in life. When people think broadly, they may be more likely to see how their daily existence is connected to a larger system of meaning (King et al. 2006)."

While our theoretical framework rests on the sense-making role of storytelling, there are other aspects of storytelling that can lead to a stronger sense of both MIL and EHG. For example, consider its social aspects. Storytelling helps in sharing personal experiences and values with others, building social connections, and enhancing empathy. These social aspects can contribute significantly to one's sense of meaning in life by fostering relationships and community belonging. Moreover, sharing stories can also help individuals see their own lives from new perspectives, which can influence both their endorsement of high-level goals and their sense of life's meaning.[2]

From an empirical perspective, we don't explore the specific mechanism that links storytelling with MIL and EHG. The focus of our research is primarily on establishing the

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[2] Pasupathi and Rich (2005) and McLean and Pasupathi (2011) demonstrate the significant role listeners play in shaping the storyteller's self-perception. For instance, McLean and Pasupathi (2011) used data from new romantic partners to show that developing a coherent narrative identity involves not only the teller's personal reflections but also the social interactions and validations provided by listeners.

association between storytelling and these two constructs, rather than finding the underlying mechanisms. As it is an initial examination of the psychological role of storytelling, the remainder of the introduction addresses the complexities involved in measuring storytelling ability through various methods and solidifying its relationship with both MIL and EHG. This approach underscores the intriguing role of storytelling and sets the stage for future research to further unravel how storytelling can influence one's sense of meaning and cognitive perspectives.

Measuring storytelling

We use two distinct approaches to measure storytelling ability: Asking both the teller and the listeners about it. There are three types of listeners that we interview for this purpose. First, we asked a good friend of the teller. Specifically, participants in our surveys were asked to nominate a friend who knew them very well. Then, we asked this person (who was blind to participants' scores in the study's scales) to provide a global rating of the participant's storytelling ability.

Second, we interviewed strangers who listened directly to stories told by the narrator but did not know this person prior to the meeting. Specifically, we invited three people who were not familiar with each other to our lab, let each one of them construct and tell particular stories (as explained below) and then asked each one of them to rate the storytelling ability of the other two.

Third, we used trained coders to evaluate the storytelling ability of our participants. To get these evaluations we videotaped each of the sessions with the three storytellers (described above). We then asked coders, who completed a storytelling course and were trained to rate the quality of storytelling, to watch these video clips and rate the storytelling ability of each person in these trios.

Our last measure is based on participants' self-reports. For this purpose, we have developed a self-report scale tapping a person's evaluation of their storytelling ability. In developing such a scale, we account for three characteristics of storytelling ability: (a) it is an individual-difference variable that varies across people, (b) it is a subjective construct, and (c) it is based on unobservables. The first two characteristic are obvious and immediate: (a) as discussed above, some people are better storytellers than others, and (b) the wide range of book reviews on Amazon and Goodreads demonstrates the subjectivity in how storytelling is being perceived. The third characteristic implies that the whole is different from the sum of its observable parts. In other words, even if we could have measured various elements that are supposed to portray a good storyteller (e.g., invoking curiosity), we could not base our scale on them, since the art of storytelling is likely to depend also on some unobservables – i.e., variables that we might miss in the data collection or ones that are difficult to measure.

The suggested scale takes into account the three characteristics above, which imply that storytelling ability is best reflected by the reaction of others. In other words, while a good storyteller is likely to attract large audiences, the stories of a bad storyteller would interest small crowds. The scale captures such reactions by asking participants two sets of questions. First, participants are asked directly on the reaction of others (e.g., "My stories usually excite my listeners"). Second, participants are asked on their storytelling ability (e.g., "My storytelling ability is better than the average"), assuming that this assessment is based on their personal experiences with audiences in the past (i.e., the reaction of others).

Two types of stories

In the videotaped trio-sessions, participants were requested to tell two types of stories: a personal one, and a fictional one. For the personal story, each participant received written instructions to think of a personality trait that characterizes them, recall an event from the last five years exemplifying this trait, and then tell a 2-minute story about this event to the other

two participants. For the fictional story, each participant received three random words and was requested to create and tell a story that includes these three words.

It is important to note that these stories were not on the "why" or on the sense of MIL. Furthermore, none of them is a life story. In order to shift the focus from the story to the teller, we depart, in this one dimension, from the literature on narrative identity (which focuses on life stories). In other words, by distancing our measure from life stories, we focus on the art of storytelling (i.e., the construction of a story and telling it) rather than on the particular events in the stories. This serves as the strictest test of the relationship between storytelling, MIL, and EHG.

While it might be obvious how the fictional story departs from previous work, the uniqueness of the personal story should be explained. The research of narrative identity is based on how individuals use narrative to connect the main events and experiences of their life. Thus, even the personal story represents a departure from previous work because it focuses on telling a single event that reflects a personality trait, rather than connecting multiple events.

In summary, we aim to illuminate the storytelling process because we hypothesize that it plays a crucial psychological role—it strengthens the sense of meaning in life and favors the endorsement of high-level goals while organizing and enacting goal-oriented actions. The theoretical foundation for these potential relationships is based on the sense-making capacity of stories and narratives. To explore these relationships, we asked both the teller and the listeners about the teller's storytelling ability.

Study 1 employs cross-sectional data where participants completed a storytelling self-report scale. It examines the relationship between storytelling and our two variables of interest, meaning in life (MIL) and endorsement of high-level goals (EHG), while accounting for the role of the Big Five personality traits and self-esteem. Additionally, the analysis

considers the potential interaction between storytelling and these personality traits. Study 2 uses a close friend's assessment of participants' storytelling ability to examine the relationship between storytelling and the two dependent variables, MIL and EHG.

Finally, Study 3 investigates the hypothesized contribution of storytelling to the sense of MIL and EHG by relying on (a) informants' ratings of participants' storytelling ability during an interaction where participants told stories to these informants, and (b) trained coders' ratings of participants' storytelling abilities based on video clips of the stories participants told to others. Study 3 also explores whether the contribution of storytelling to the dependent variables is specific to personally relevant stories or can be generalized to other kinds of personally irrelevant stories.

Study 1

The main goal of Study 1 was to examine the associations between participants' self-reports of their own storytelling ability (on the scale we constructed for this research) and presence of MIL and the EHG. For this purpose, we conducted a cross-sectional correlational study in which participants completed self-report scales tapping the above variables. To strengthen the generalizability of the findings, we conducted this study in three different samples: One sample of Middle Eastern adults and two samples of American adults. Culture has a role in how people construct their narrative identities (McAdams 2019) and thus generalizing the findings is important. Study's 1 main prediction was that self-reports of storytelling ability would be associated with higher presence of MIL and more endorsement of high-level goals.

In examining these associations, we attempted to control for other potentially related individual-difference factors and examine the unique contribution of storytelling ability beyond these "third-variable" factors. Specifically, we focused on two individual-difference factors: (i) The five core personality traits of neuroticism, extraversion, openness,

agreeableness, and conscientiousness (Judge et al. 1999), and (ii) global self-esteem.[3] It is possible that scores in the <u>self-report</u> scale tapping storytelling ability are associated with these individual factors, and thus one should control for this association before examining the contribution of storytelling to the sense of MIL and EHG. For example, it is possible that self-reports of storytelling ability are a mere reflection of a person's global sense of self-worth and that this global measure is the most important contributor to the sense of MIL and EHG. Therefore, we examine the unique contribution of self-reports of storytelling ability to the sense of MIL and EHG while taking into account these potential associations.

Method

  Participants and procedure. The study was conducted in three independent samples. Sample A consisted of 171 Middle Eastern undergraduates, 99 women and 72 men, ranging in age from 20 to 50 (*Mdn* = 23), who took part in the study for course credit. Sample B consisted of 148 American adults, 55 women and 93 men, ranging in age from 18 to 50 (*Mdn* = 35), who were recruited through Amazon's Mechanical Turk (www.mturk.com) and paid for participating. Sample C consisted of 252 American adults, 100 women and 152 men, ranging in age from 18 to 50 (*Mdn* = 25), who were recruited through the Prolific online crowdsourcing platform (https://prolific.com) and paid for participating. The observed power for detecting small-to-moderate effects (4% of explained variance; Faul et al. 2009) was 83% in Sample A, 78% in Sample B, and 94% in Sample C.

  In the three samples, participants were invited to participate in an online study concerning personality and social attitudes, signed an informed consent, and completed self-report scales tapping storytelling ability, sense of MIL, endorsement of high-level goals, the big five high-order personality traits, and self-esteem. Middle Eastern participants in Sample

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[3] Interestingly, Steiner et al. (2019) find that writing about life stories increases self-esteem.

A completed versions of the scales in their native language, whereas American participants in Samples B and C completed English versions of the scales. The order of the scales was randomized across participants.

Measures. To assess self-reports of storytelling ability, we constructed an 8-item scale that included items tapping perceived others' responses to storytelling (e.g., "My family members love hearing my stories;" "My stories usually excite my listeners") and self-evaluation of storytelling ability (e.g., "My storytelling ability is better than the average;" "My storytelling ability is significantly better than the rest of the population"). Participants rated the extent to which they agree with each item on a 7-point scale, ranging from 1 (*not at all*) to 7 (very much). Cronbach αs for the eight items were high in the three samples (see Table 1, average α = .92). On this basis, we computed a total score for each participant by averaging the seven items, with higher scores reflecting higher appraisals of storytelling ability (see *M*s and *SD*s in Table 1).

We assessed participants' sense of MIL with the Presence of Meaning subscale of the Meaning in Life Questionnaire (MLQ, Steger et al., 2006). This subscale includes five items (e.g., "I understand my life's meaning") and participants rated the extent to which each of them is representative of their feelings and beliefs. Ratings were made on a 7-point scale ranging from 1 (*not at all*) to 7 (*very much*). Cronbach αs for the five items were high in the three samples (see Table 1, average α = .89). We therefore computed a total score for each participant by averaging the five items, with higher scores indicating a higher sense of MIL (see *M*s and *SD*s in Table 1).

We assessed participants' endorsement of high-level goals with a 4-item scale that was constructed specially for the current study based on Vasquez and Buehler's (2007) procedure. Participants were asked to focus on important tasks they perform at their studies (Sample A) or workplace (Samples B and C) and to complete four items tapping their

understanding of the goals of these tasks. Each item asked participants to consider an aspect of their tasks (e.g., performing well at studies/workplace, investing energy and time in performing well at studies/workplace) and to choose one of two sentences that best describe themselves. One sentence reflected low-level goals (e.g., "doing something I was asked to complete"), and the other sentence reflected high-level goals (e.g., "advancing my career at the workplace"). The questions and the possible answers are presented in Appendix B. Cronbach αs were acceptable for the four items across the three samples (see Table 1, average α = .70). We then computed for each participant a total score by counting the number of high-level goals they chose (see *M*s and *SD*s in Table 1). Pearson correlations revealed that the association between presence of meaning and endorsement of high-level goals was positive across the three samples, ranging from .34 to .39 (all *p*s < .001, average *r* = .36).

The big-five high-order personality traits of neuroticism, extraversion, openness, conscientiousness, and agreeableness were assessed with the 44-item Big Five Inventory (BFI, John et al. 1991). In the BFI, participants rated the self-descriptiveness of each item on a 5-point scale, ranging from 1 (*not at all*) to 5 (*very much*). In the three samples, Cronbach αs for each BFI subscale were high (see Table 1). We therefore computed five scores for each participant by averaging items on each of the BFI subscales (see *M*s and *SD*s in Table 1).

Participants' global sense of self-worth was assessed with the 10-item Rosenberg Self-Esteem scale (Rosenberg 1979). In this scale, ratings were done on a 4-point scale, ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Cronbach αs were high for the 10 items in the three samples (see Table 1) and we then computed a total score for each participant by averaging these items. Higher scores reflect a higher sense of self-worth (see *M*s and *SD*s in Table 1).

In the three samples, Pearson correlations revealed that whereas extraversion, openness, conscientiousness, and self-esteem were significantly associated with higher self-

reports of storytelling ability (*r*s ranging from .19 to .51, all *p*s < .01), neuroticism was

significantly associated with lower scores on this scale (*r*s ranging from -.19 to -.35, all *p*s <

.05). In addition, extraversion, openness, conscientiousness, and self-esteem were

significantly associated with higher sense of MIL and EHG (*r*s ranging from .14 to .55, all *p*s

< .05), and neuroticism was significantly associated with lower scores on these scales (-.24

and -.36, *p*s < .01). These significant associations highlight the need to examine the unique

contribution of self-reports of storytelling ability to the sense of MIL and EHG beyond the

contribution of global personality factors.

Results

      Storytelling, MIL, and EHG. Data analyses for all the studies reported in this paper

were conducted using SAS/STAT software, Version 9.1.3 of the SAS System for Windows

(2002--2004). In examining the hypothesized links between storytelling and the sense of MIL

and endorsement of high-level goals, we conducted Pearson correlations between these

variables in each sample. However, since the perceived storytelling ability, the sense of MIL,

and the EHG were significantly associated with personality variables (big-five high-order

traits, self-esteem), we also conducted multiple regressions examining the unique

contribution (standardized regression coefficient, β) of self-reports of storytelling ability to

the sense of MIL and EHG beyond the contribution of personality variables. In these

regressions, we included all potential predictors together – i.e., self-reports of storytelling

ability, the big-five high-order traits (neuroticism, extraversion, openness, agreeableness,

conscientiousness) and self-esteem. These regressions were conducted separately for the

sense of MIL and EHG in each of the three samples.

      As can be seen in Table 2, the total storytelling ability score had significant positive

associations with the sense of MIL and EHG. In line with our hypotheses, participants who

scored higher on perceived storytelling ability reported higher sense of MIL and were more

likely to endorse high-level goals when describing academic/work-related tasks. These significant associations were replicated in both Middle Eastern and American samples.

Across the three samples, multiple regressions revealed that the unique contributions of self-reports of storytelling ability to the sense of MIL and EHG were still statistically significant even after controlling for the five core personality traits and global self-esteem (see βs in Table 2). That is, although the βs for self-reports of storytelling ability decreased a bit, the assessed global personality factors only partially explained the Pearson correlations between storytelling ability and each of the dependent variables, MIL and EHG, (see Table 2). These findings provided supportive evidence for the incremental validity of self-reports of storytelling ability in accounting for individual variations in the sense of MIL and EHG beyond global personality factors.

Exploring interactions between storytelling and personality factors. In this section, we report explorative analyses concerning possible interactions between self-reports of storytelling ability and global personality factors in accounting for individual variations in the sense of MIL and their EHG. For this purpose, beyond the unique effects reported in Table 2, we added an additional step to the multiple regressions examining interactive effects of self-reports of storytelling ability with each of the assessed personality factors on the sense of MIL and EHG.

These regressions revealed that all the interactions of storytelling with four of the global personality factors (neuroticism, openness, conscientiousness, and agreeableness), and self-esteem were not significant for both dependent variables, all βs < .14 all ps > .076. However, the interaction between self-reports of storytelling ability and extraversion made a significant contribution to the sense of MIL in the three samples, β = -.16, p = .017 in Sample A, β = -.19, p = .005 in Sample B, and β = -.13, p = .015 in Sample C. In addition, this

interaction made a significant contribution to EHG in Sample A, $\beta = -.28$, $p < .001$ (but not in Samples B and C, βs of -.08 and -,12, ps > .059).

The pattern of the significant interactions between self-reports of storytelling ability and extraversion were identical across the sense of MIL and EHG (see Figure 1 for these interactions on the sense of MIL). Specifically, the contribution of self-reports of storytelling ability to heightened sense of MIL and more endorsement of high-level goals was stronger when extraversion was relatively low (-1 SD) than when extraversion was high (+1 SD). In addition, the contribution of extraversion to heightened sense of MIL and more endorsement of high-level goals was stronger when self-reports of storytelling ability were relatively low (-1 SD) than when this variable was high (+1 SD). Overall, participants who scored relatively low on both perceived storytelling ability and extraversion showed the lowest sense of MIL and were the least likely to endorse high-level goals. Increases in either perceived storytelling ability or extraversion contributed to heightening of participants' sense of MIL and stronger endorsement of high-level goals. The implications of these findings are explored in detail in the general discussion section.

Study 2

The results of Study 1 are based on self-reporting – an approach that has its own disadvantages and potential biases. Consequently, subsequent studies will revisit the research questions using alternative storytelling measures. Specifically, Study 2 will utilize evaluations provided by a close friend of each participant. For this purpose, participants completed the storytelling ability scale and the two scales tapping the sense of MIL and EHG described in Study 1. In addition, we got participants' storytelling ability ratings made by a close friend of them and used this rating to examine the main study hypothesis concerning the affective-cognitive and motivational correlates of storytelling.

Method

Participants. Study 2's sample consisted of 160 Middle Eastern Psychology undergraduates (103 women, 57 men), ranging in age from 20 to 29 years ($M = 23.62$, $SD = 1.75$, $Mdn = 23.50$), who participated in the study in exchange for academic credits. To be part of the study, both participants and one of their good friends should sign an informed consent and agree to complete the study's scales. Originally, we approached 204 participants who signed an informed consent form and agreed to take part of the study, but only 160 participants' best friends also agreed to take part of the study (78.4%).

Measures and Procedure. Participants were invited to the laboratory to participate in a study concerning personality and social interactions, signed an informed consent, and completed the self-report scales described in Study 1: storytelling ability, the Presence of Meaning subscale of the Meaning in Life Questionnaire, and the 4-item scale tapping endorsement of high-level goals (Cronbach αs ranging from .78 to .90). The order of the scales was randomized across participants. For each scale, we computed a total score by averaging items in each scale. Before ending the study, participants were asked to nominate a friend who knew them very well. Then, we asked this person (who was blind to participants' scores in the study's scales) to provide a global rating of the participant's storytelling ability. Friends' ratings were done on a 10-point scale ranging from 1 (*extremely poor ability*) to 10 (*extremely high ability*) ($M = 7.17$, $SD = 2.26$).

Results

The data were analyzed with Pearson correlations. The association between the perceived storytelling ability and their friend's evaluation was statistically significant, $r = .44$, $p < .001$, implying a partial overlap between the way people evaluate themselves as good or poor storyteller and the way their friend evaluates them. More important, both participants' own self-evaluation and friend's evaluation of their storytelling ability were significantly associated with the sense of MIL and EHG. In line with our hypothesis, participants who

reported higher levels of storytelling ability or their friend evaluated them as better storytellers showed heightened sense of MIL and were more likely to endorse high-level goals in describing their academic/work-related tasks (see Table 3).

Study 3

The main goal of Study 3 was to examine the hypothesized contribution of storytelling to the sense of MIL and EHG by relying on (a) informants' ratings of study participants' storytelling ability during an interaction in which participants told stories to these informants, and (b) trained coders' ratings of participants' storytelling ability, who watched video-clips of the stories participants told to other participants. A second goal of Study 3 was to examine whether the contribution of storytelling to the sense of MIL and EHG is limited to the ability to tell personally relevant stories or can be generalized to other kind of personally irrelevant stories.

Participants completed the storytelling ability scale and the two scales tapping the sense of MIL and EHG described in Study 1. Then they were randomly divided into groups of three participants and were instructed to tell two short stories (a personal story and a fictional story based on three random words they received) to the other two participants. After the three participants finished to tell each of the stories, participants served as informants and rated the storytelling ability of each of the other two participants. All the stories participants told were videotaped and two trained external coders rated the quality of storytelling for each of these stories.

Method

Participants. Another independent sample of 99 Middle Eastern Psychology undergraduates (79 women, 20 men), ranging in age from 20 to 27 years ($M = 23.00$, $SD = 1.62$, $Mdn = 23$), participated in Study 3 in exchange for academic credits.

Measures and Procedure. Participants were invited to the laboratory to participate in a study concerning personality and social interactions, signed an informed consent, and completed the self-report scales described in Study 1: storytelling ability, the Presence of Meaning subscale of the Meaning in Life Questionnaire, and the 4-item scale tapping endorsement of high-level goals (Cronbach αs ranging from .64 to .87). The order of the scales was randomized across participants. For each scale, we computed a total score by averaging items in each scale.

Participants were randomly divided into 33 groups of three participants (20 groups included one man and two women; 13 groups consisted of three women). In these triads, each participant (blind to the two other participants' scores in self-report scales) was instructed to tell two short stories and to serve as informants about the storytelling ability of each of the other two participants. For the first story, each participant received written instructions to think of a personality trait that characterized him or her, to think of an event that occurred in the last five years exemplifying this personality trait, and then to tell a 2-minute story of this event to the other two participants. After the three participants finished telling their stories, they rated the storytelling ability of each of the other two participants on a 8-item scale (e.g., "His/her story was not interesting," "There is a chance that I will tell this story to my friends later today," "He/she doesn't know how to tell a story," "I would like to hear more of his/her stories," "The character in the story had a clear goal they were trying to achieve," "The character in the story seemed believable to me," "The story was intriguing," and "There was a turning point in the story"). Ratings were made on a 5-point scale, ranging from 1 (*not at all*) to 5 (*very much*).

For the second story, each participant received three random words (different for each participant; e.g., dove, liver, and a box) and were asked to incorporate the three words into a short 2-min story. Then they were instructed to tell the story they generated to the other two

participants. Again, after the three participants finished telling their stories, they were asked to accomplish their informant role and to rate the storytelling ability of each of the other two participants on the 8-item scale described above.

Cronbach αs for the eight informant ratings of a participant's storytelling made by each of the two informants for each of the two stories were acceptable (αs ranging from .70 to .79). On this basis, we computed four total informant scores for each participant by averaging the eight ratings that were made by each of the two informants in each of the two stories. Pearson correlations revealed significant mild-to-moderate associations between the two informants' scores for the personal story, $r = .38$, $p < .001$, and the fictional story based on the three random words, $r = .27$, $p = .007$. Therefore, we computed two total scores for each participant by averaging the two informants' storytelling scores ($M = 3.35$, $SD = 0.61$ for the personal story; $M = 2.97$, $SD = 0.54$ for the fictional story). A significant moderate association was found between these two kinds of stories, $r = .47$, $p < .001$. However, since we are interested in examining whether the contribution of storytelling to the sense of MIL and EHG is limited to the ability to tell personally relevant stories or can be generalized to other kind of stories (e.g., fictional stories), we decided not to collapse the two scores into a global storytelling ability score.

We videotaped all the stories (a total of 198 stories – two stories made by 99 participants) and asked two external coders (Business Administration undergraduates who took an academic course on storytelling and were trained to rate the quality of storytelling) to independently watch the video-clips and rate the storytelling ability of each of the participants in each of the two stories they told ("To which extent they know how to tell a story?"). Ratings were made on a 7-point scale, ranging from 1 (*not at all*) to 7 (*very much*). These coders were blind to participants' scores in the self-report scales.

Pearson correlations revealed significant moderate associations between the two external coders' scores for the personal story, $r = .39$, $p < .001$, and the fictional story based on the three random words, $r = .51$, $p < .001$. On this basis, we computed two total external coder scores for each participant by averaging the two coders' storytelling ability ratings ($M = 3.90$, $SD = 1.35$ for the personal story; $M = 3.40$, $SD = 0.98$ for the fictional story). A significant moderate association was found between these two total scores, $r = .58$, $p < .001$. However, as explained above, we decided not to collapse the two total scores into a global storytelling ability score.

Results

The data were analyzed with Pearson correlations. As can be seen in Table 4, the two external coder storytelling ability scores (for both personal and fictional stories) were significantly and positively associated with participants' self-reports of storytelling ability. Moreover, these two external coder scores were significantly and positively associated with the two informant storytelling ability scores (for both personal and fictional stories). However, the two informant scores were not significantly associated with participants' self-reports of storytelling ability.

Pearson correlations also indicated that each of the measures of storytelling (self-reports, informant scores, and external coder scores) were significantly associated with the sense of MIL (see Table 5). The higher participants appraised themselves as good storytellers or the higher informants or external coders rated them as good storytellers of personal or fictional stories, the higher their sense of MIL. In addition, informant scores and external coder scores of storytelling ability (but not self-reports) were significantly associated with endorsement of high-level goals (see Table 5). The higher informants or external coders rated a participant as a good storyteller of personal or fictional stories, the more likely the teller endorsed high-level goals for describing academic/work-related tasks.

Discussion

While the psychological role of narratives and stories has received substantial scholarly attention over the past three decades, the art of storytelling itself has been somewhat overlooked. Scholars have traditionally focused on the content and meaning of stories—essentially, "what" is being told. However, they have not paid as much attention to the manner in which these stories are conveyed—"how" they are told. This study suggests that understanding "how" a story is told (i.e., storytelling) is both interesting and important.

We show that individuals proficient in storytelling exhibit a stronger sense of meaning-in-life and endorsement of high-level goals compared to their less adept counterparts. These results are shown to be robust in several dimensions. First, we use two distinct methods to assess the storytelling ability: a self-report scale for storytellers and also assessments and evaluations from listeners. Furthermore, we collect data from three different types of listeners: (a) close friends, (b) strangers who listen to the storyteller's narratives, and (c) trained coders who observe videos of these stories. Second, the findings are consistent across two diverse cultures (US and Middle Eastern). Third, the observed relationship persists whether the narrative involves a personality trait or is constructed from three random words. This last finding is particularly significant and impactful because previous studies have always focused, in one way or another, on life stories. Thus, the evidence that the results hold even when people construct stories from three random words is especially meaningful. Furthermore, as mentioned above, the research of narrative identity is based on how individuals use narrative to connect the main events and experiences of their life. Thus, even the personal story represents a departure from previous work because it is not about connecting events but rather about telling a single event that reflects a personality trait.

The data also suggests that the relationship between storytelling and our dependent variables are most pronounced among introverts and least evident among extraverts. This

suggests that storytelling may compensate for the lack of extraversion in meaning construction and cognitive abstraction. In other words, we find that to some degree storytelling can substitute another personality trait – extraversion – in meaning construction. Both storytelling and extraversion are related to expressiveness. Extraversion represents people's urge to express themselves in social settings and storytelling ability stands for their talent in doing so via stories. It turns out that anyone of these two variables is enough to stimulate the sense of meaning and purpose.

The psychological role of storytelling, documented here, suggests that enhancing this ability can significantly benefit individuals. Consequently, storytelling workshops, which have gained popularity over the past decade for both professional and personal growth, may serve as effective psychological health interventions. These workshops often use the hero's journey as a framework, focusing on how protagonists overcome obstacles to achieve their goals (i.e., their "why"). These workshops also help individuals to connect events via a narrative that makes-sense of reality. Therefore, by improving the storytelling ability, individuals are likely to enhance their ability to find meaning in their lives and organize their actions around high-level goals. The professionalization of storytelling workshops means they are now available in various formats, some of which are quite brief, making them a practical and accessible intervention option. It is worth noting that a similar intervention has already proven its value. For example, Rogers et al. (2023) demonstrated nicely that assisting people in rewriting their life story using the hero's journey framework leads to an increased sense of meaning in life (MIL). The intervention suggested here is slightly different. It proposes that even without applying the framework to life stories, improving one's ability to structure any series of events in a narrative form can enhance the sense of MIL.

This study explores the psychological role of storytelling, yet the findings hint at potential implications for physical health as well. Prior research indicates that a robust sense

of meaning in life is linked to various health benefits, including decreased mortality (e.g.,

Boyle et al. 2009; Krause 2009; Steger et al. 2009). Given the relationship between

storytelling and MIL observed in this study, it is plausible to consider a corresponding link

between storytelling and physical health. Additionally, storytelling may enhance social

connectedness, potentially enlarging an individual's social network. Given the well-

documented impact of social relationships on health outcomes, including their influence on

mortality (Berkman et al. 2000; Uchino 2006; Hawkley and Cacioppo 2010; Holt-Lunstad et

al. 2015), it is reasonable to propose that storytelling could indirectly affect physical health

through its enhancement of social networks. This hypothesis warrants further investigation to

fully understand the implications of storytelling on physical health.

The objective of this study was to evaluate the psychological role of storytelling and

verify the consistency of the findings. The hypothesized underlying mechanism for this

relationship is the sense-making attribute of storytelling. However, this manuscript does not

attempt to confirm whether this is indeed the mechanism at play. Additionally, alternative

mechanisms, such as the social aspects of storytelling, have been suggested. Given that the

empirical results highlight a relatively overlooked personality ability, it is prudent to first

establish the relationship robustly. Concurrently, it would be beneficial to investigate and

study potential mechanisms in future research.

The art of storytelling has two distinct layers. The first layer involves structuring the

story, which means connecting events through a narrative. The second layer concerns

delivering the story, or how it is presented to the listener. This study primarily focuses on the

first layer, as we hypothesize that connecting events in a meaningful way is fundamental to

the relationship between storytelling and meaning in life and endorsement of high-level

goals. However, future research could benefit from distinguishing and examining these two

layers separately to explore the specific psychological roles each plays. Specifically, it might be useful to redo the experiments with one change – instead of telling a story, writing it.

Our findings with respect to the big-five personality traits shed some light on the roots of the storytelling ability. We find that extraversion, openness, conscientiousness, agreeableness, and self-esteem were significantly associated with higher perceived storytelling ability. In addition, neuroticism was significantly associated with lower scores on perceived storytelling ability. These associations are far from being surprising. For example, one might expect to find a relationship between openness and storytelling because people who are open to experiences are likely to encounter various extraordinary events that make a good story. However, such explanations are post hoc speculations that need to be systematically examined in further studies. In fact, the findings raise interesting questions about the nomological network of individual differences in storytelling ability, its personality correlates, and its genetic and environmental influences, and its developmental trajectory. Further studies should conduct systematic research on all these important issues

The evidence presented in this study is correlational. While the findings are robust, causality has not been established. To use storytelling effectively as an intervention, it is essential to confirm that storytelling ability causes improvements in meaning in life and endorsement of high-level goals, rather than the reverse. This requires an experimental setup where storytelling ability is manipulated in a controlled and reliable manner. Priming techniques, effective for altering perceptions and beliefs, may not be suitable for enhancing an ability like storytelling. Therefore, the most effective approach may involve comprehensive training for a large group of participants in storytelling techniques, followed by an extended period of assessment to measure their MIL and EHG. This is clearly a challenging task.

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Table 1

Descriptive Statistics and Cronbach Alphas for the total scores of the Study Variables in

Each of the Samples (Study 1)

	Sample A			Sample B			Sample C		
	M	SD	α	M	SD	A	M	SD	α
Storytelling ability	4.85	1.09	.90	4.40	1.35	.95	4.14	1.17	.91
Presence of meaning	4.51	1.29	.86	4.79	1.59	.93	4.40	1.40	.89
High-level goals	2.34	1.44	.73	2.02	1.45	.71	2.08	1.38	.67
BFI Neuroticism	2.59	0.79	.86	2.55	0.99	.91	3.05	0.75	.83
BFI Extraversion	3.50	0.68	.85	2.97	0.95	.88	2.94	0.72	.81
BFI Openness	3.60	0.56	.83	3.46	0.65	.80	3.55	0.54	.75
BFI Conscientiousness	3.96	0.53	.75	3.98	0.79	.90	3.41	0.63	.81
BFI Agreeableness	3.95	0.57	.75	3.73	0.74	.83	3.59	0.55	.71
Self-Esteem	3.43	0.45	.78	3.11	0.75	.93	2.83	0.61	.90

Table 2

Pearson Correlations and Standardized Regression Coefficients for Sense of Meaning in Life and Endorsement of High-Level Goals as a Function of Self-reports of Storytelling Ability while Controlling for the Big-Five High-Order Traits and Self-Esteem in Each of the Samples

		Sample A		Sample B		Sample C	
Predicted variables		Coeff.	p	Coeff.	p	Coeff.	p
Sense of MIL							
	r	.49	< .001	.49	< .001	.55	< .001
	β	.40	< .001	.30	< .001	.36	< .001
High-level goals							
	r	.32	< .001	.35	< .001	.35	< .001
	β	.16	.034	.22	.011	.35	< .001

Table 3

Pearson Correlations between Self- and Friend-Reports of Storytelling Ability and

Participants' Sense of MIL and Endorsement of High-Level Goals

Predicted variables		Participant's Self-Report of Storytelling Ability	Friend's Report of Participants' Storytelling Ability
Sense of MIL			
	r	.22	.18
	p	.006	.021
High-level goals			
	r	.23	.20
	p	.004	.011

Table 4

Pearson Correlations between Self-Reports, Informant Scores, and External Coders Scores of

Storytelling Ability

Storytelling ability		Self-reports	Informant Scores		External Coder Scores	
			Personal Story	Fictional Story	Personal Story	Fictional Story
Informant scores						
Personal story	r	.07				
	p	.523				
Fictional story	r	.03	**.47**			
	p	.788	< .001			
External coder scores						
Personal story	r	**.29**	**.27**	**.27**		
	p	.004	.008	.008		
Fictional story	r	**.20**	**.33**	**.27**	**.58**	
	p	.052	.001	.008	< .001	

Table 5

Pearson Correlations between Self-Reports, Informant Scores, and External Coders Scores of

Storytelling Ability and Participants' Sense of Meaning in Life and Endorsement of High-

Level Goals

			Informant Scores		External Coder Scores	
Predicted variables		Self-reports	Personal Story	Fictional Story	Personal Story	Fictional Story
Sense of MIL						
	r	**.24**	**.31**	**.28**	**.31**	**.36**
	p	.014	.001	.004	.002	< .001
High-level goals						
	r	.06	**.23**	**.28**	**.22**	.06
	p	.551	.025	.005	.032	.549

Figure 1. Presence of Meaning as a Function of Self-Reports of Storytelling Ability and Extraversion in each of the Three Samples
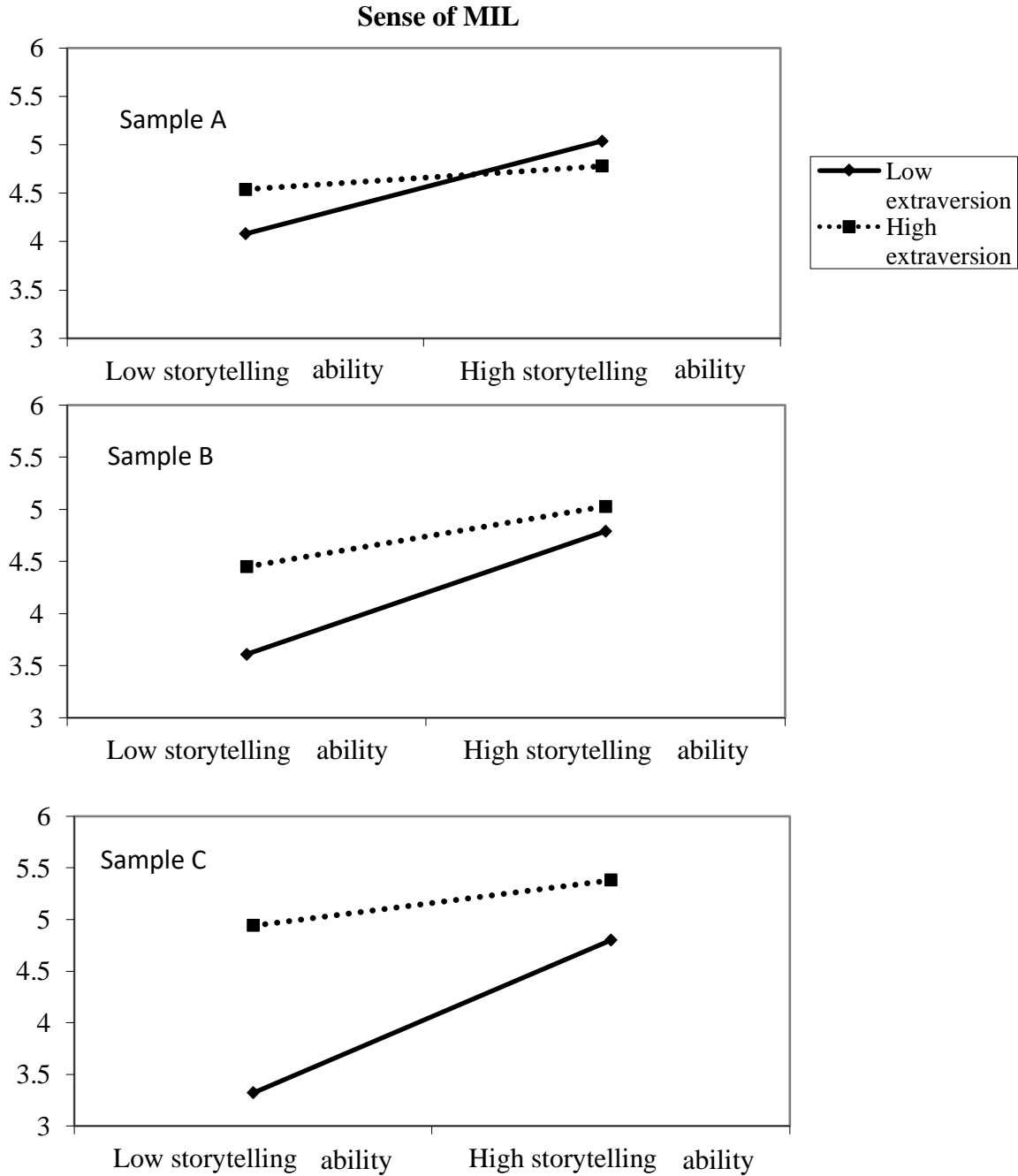
Appendix A: The storytelling scale

Participants rated the extent to which they agree with each of the following items on a 7-point scale, ranging from 1 (*not at all*) to 7 (very much).

1. When I start telling others a story about an interesting experience I had, I'm certain I'll fascinate them

2. My family members love hearing my stories

3. My stories usually excite my listeners

4. My stories usually amuse my listeners

5. My stories usually surprise my listeners

6. My storytelling ability is better than the average

7. My storytelling ability is significantly better than the rest of the population

Appendix B: Measuring Endorsement of High-Level Goals

Here are the questions used to measure endorsement of high-level goals (EHG). This scale which was constructed specially for the current study is based on Vasquez and Buehler's (2007) procedure.

The next statements concern attitudes toward tasks people are asked to do at the workplace. With regard to each statement, please choose the alternative sentence that best describes your personal attitude.

When I'm working on a specific task at the workplace, I'm viewing myself as:

○ doing something I was asked to complete

○ advancing my career at the workplace

When I receive positive feedback about a job I did, I'm satisfied because:

    ◯ I performed the job as was expected to do

    ◯ I cope well with the job's demands and challenges

Performing well at the workplace is important for:

    ◯ receiving positive feedback and better conditions

    ◯ knowing the abilities and skills I have

I invest energy and time in performing well at the workplace, because:

    ◯ I want to receive positive feedback and better conditions

    ◯ I want to be the best I can