Stories of Wisdom to Live By: Developing Wisdom in a Narrative Mode

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A Story of Personal Wisdom

The story goes that one day King Pasenadi of Kosala approached the Buddha and greeted him. The Buddha asked him where he was coming from in the middle of the day. King Pasenadi replied that he had been engaged in issues of state needed to keep stable control over a large kingdom.

The Buddha then asked, "What do you think, great king? Here, a man would come to you from the east, one who is trustworthy and reliable, having approached, he would tell you: 'For sure, great king, you should know this: I am coming from the east, and there I saw a great mountain high as the clouds coming this way, crushing all living beings. [And suppose other reliable people, with the same message, came from the north, south, and west?] Do whatever you think should be done, great king.' If, great king,...such a great peril should arise...what should be done?"

King Pasenadi answered, "If, venerable sir, such a great peril should arise, such a terrible destruction of human life, the human state being so difficult to obtain, what else should be done but to live by the Dhamma [eternal law], to live righteously, and to do wholesome and meritorious deeds?"

To which the Buddha replied, "I announce to you, great king: aging and death are rolling in on you" and added that, while great armies can often defeat an enemy, no armies can defeat aging and death; while crafty councilors can sometimes divide enemies or buy them off, not so when aging and death roll in. "So it is, great king! As aging and death are rolling in on you, what else should you do but live by the Dhamma, live righteously, and do wholesome and meritorious deeds?" (Samyutta Nikaya, 2000, Vol. 1, ch.3:25 (5) <224–29> passim)

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This is a great story. But what is it about this sort of story that has stood the test of time and still speaks to us, even though most of us are not kings or even politicians? We propose that a story like this invites the reader to transport him or herself into the storyworld, simulating the experience firsthand and provoking insight about fundamental personal matters, and so helps develop personal wisdom. Following Bruner's (1986) distinction between paradigmatic and narrative modes of thought, we propose that personal wisdom involves narrative at its core (such as the narrative simulation above), whereas general wisdom emphasizes abstract paradigmatic theoretical knowledge (although even paradigmatic conceptualizations of wisdom contain narrative elements, as we shall see).

Thus, a science of personal wisdom is essentially incomplete if it does not consider wisdom in a narrative mode. The development of personal wisdom is bound to narrative in a number of ways. We suggest that a full science of personal wisdom consider the following:

- 1. The narrative simulations individuals create of (a) hypothetical situations that may come to pass and (b) situations lived by others (e.g., literary or historical exemplars, or others personally known), as well as the reasoning processes through which individuals make meaning of these simulations
- 2. How individuals actively reflect on their own past life experiences that are relevant to wisdom by crafting stories about these events, a process that has become known as autobiographical reasoning (see Habermas & Bluck, 2000; Singer & Bluck, 2001)

Indeed, in simulating events experienced by others and reasoning through their own life experiences retrospectively, individuals extract wise life lessons and insights for future application when making sense of the vicissitudes of their life as lived. In running simulations of hypothetical situations, that is, in casting themselves as protagonist in a hypothetical narrative, individuals may discern the wisest course of action.

We believe that these narrative processes represent related developmental pathways to personal wisdom. The first pathway is that of narrative simulation, the second pathway is that of life reflection or autobiographical reasoning. These pathways are related to the extent that the outputs of the narrative simulations that we run (e.g., lessons, insights) can be used for reasoning through our lived experience, and conversely, we bring our accumulated life story (including previous reasoning) to our narrative simulations. We consider these pathways in further detail in the sections to come. But first, we explore how current dominant theories of wisdom to some degree invoke narrative understandings of wisdom in their measurement models.

Current Theories Are (Supposedly) About Paradigmatic General Wisdom

Most scientific research into wisdom has sought a general conceptual or paradigmatic account of wisdom. Such explicit theories involve theoretical constructions of wisdom that can be operationalized and investigated empirically, and for which one can identify relevant antecedents, correlates, and consequences of wisdom (Baltes & Staudinger, 2000). There are several explicit theories, but for ease of exposition, we will discuss two broad types: wisdom as task performance and wisdom as personal disposition.

Wisdom as Task Performance: The Berlin Paradigm

Researchers at the Max Planck Institute for Human Development in Berlin, originally led by Paul Baltes, advocated a view of wisdom as a kind of "expert knowledge system concerning the fundamental pragmatics of life" (Baltes & Staudinger, 2000, p. 122). Their interest lies in wisdom itself-and specifically, in a Western concept of wisdom-that highlights cognitive elements, like knowledge and analytical abilities, although they do not make a sharp distinction between intellectual and moral excellence, claiming that wisdom coordinates mind and virtue. Wisdom is defined by the presence of five criteria. Two basic wisdom criteria concern *factual* and *procedural knowledge* about the fundamental pragmatics of life (i.e., knowledge of human nature, critical life events, and how to conduct oneself in life). Three additional meta-criteria involve lifespan contextualism (i.e., recognizing the influence of context on people's thinking and behavior), relativism of values and life priorities (i.e., acknowledging different values and priorities while still holding certain values to be universal), and managing uncertainty given the limits of human knowledge. According to the theory, three kinds of factors (general person, expertise-specific, and context factors) influence the wisdom expressed in people's judgments about life planning, life management, and life review. Wisdom is a utopian quality, and because humans are "failing and permanently incomplete beings, [Baltes and Kunzmann] claim that wise persons are imperfect illustrations" of it (Baltes & Kunzmann, 2004, p. 293). Humans are merely carriers of wisdom-related knowledge.¹

The Berlin paradigm proposes that wisdom is found in responses to hypothetical vignettes that meet or approach the performance criteria set by this theoretical

¹Robert Sternberg's (1998) balance theory of wisdom is very similar to the Berlin wisdom paradigm, proposing the wisdom involves balanced judgments promoting the common good—decisions that, in principle, might be better made by a group than by any one individual. As most studies have been done within the Berlin paradigm, we will direct our focus to methodological discussion on those studies.

model. In these vignettes, participants are asked to give advice to a fictitious person in a think-aloud format. For example, "A 15-year-old girl wants to get married right away. What should one say or do?" The advice generated in think-aloud responses are then rated on a scale of 1–7 by a panel of judges trained to identify each of the above criteria.²

As Ardelt (2004) notes, given the lack of available information for any one of these vignettes, the wisest answer might be "It depends [...] on the specific conditions, personalities, priorities, and commitments of the people involved" (p. 262). Sternberg (1998) adds that, "because wisdom is in the interaction of person and situation, information processing in and of itself is not wise or unwise. Its degree of wisdom depends on the fit of a wise solution to its context" (p. 353).

Admittedly, Baltes and Kunzmann (2004) grant that "specific cognitive, emotional, motivational, and social factors need to interact, and in their combined effects and individual constructions, they produce higher and higher forms of mental representations, including *understanding the context of life in which wisdom-related knowledge is required*" (p. 294, emphasis added). However, this reply does not address the difference between a real-life and a hypothetical situation. Most real-life problems are not difficult because one lacks information but rather because of too much information (Vervaeke & Ferraro, Chap. 2, this volume). In real-life contexts, wise respondents rule out certain possibilities. Past personal experience can make the decision easier or harder and may even determine whether particular situations will elicit wisdom in the first place. The point is that the hypothetical question makes it a *different* problem because hypothetical problems cannot replicate the context and variables of a real-life problem.

In fact, in the hypothetical case, any answer to the Berlin paradigm vignettes requires the creation of a "hypothetical narrative simulation"—a thought experiment about the imagined case presented. However, any such simulation may not be very good, because participants may lack the relevant information needed to effectively simulate the situation (even if they score high on the Berlin criteria). This is different from the sort of simulation one can create based on one's own experience. And here we agree with Staudinger (Chap. 1, this volume; Mickler & Staudinger, 2008) that it is a very different matter to reflect on what to do when one's own 15-year-old daughter wants to get married right away than to provide advice to a hypothetical friend concerning how he or she should handle this situation. This is no longer just a matter of creating a narrative simulation but also of reasoning through our past autobiographical experience with personally known characters and their actual behavior with an eye to future possibilities. We suggest that wisdom depends precisely on the quality of our reflection on such examples and learning from them. Before considering this claim further, let us first consider wisdom as an ideal characteristic of the mature personality.

² The specifics of this procedure are discussed most thoroughly in the *Manual for the Assessment of Wisdom-Related Knowledge* (Staudinger, Smith, & Baltes, 1994).

Wisdom as Personal Disposition: A Three-Dimensional Model

Self-report questionnaires are designed to measure how closely participants approximate a set of personality characteristics that describe the ideally wise person, at least in terms of the operating theory. Again, this work proposes to develop a paradigmatic conceptual model that gives a general account of wisdom, not to reflect or measure wisdom as manifest in peoples' personal lives. Consider the following example from the work of Ardelt.

Ardelt (1997, 2003) developed a self-administered 39-item questionnaire, the *three-dimensional wisdom scale* (3D-WS), in which wisdom is operationalized and measured as a latent variable that has cognitive, reflective, and affective dimensions. The 3D-WS includes items from existing scales as well as new items that assess each of these three dimensions: *cognitive* (e.g., "A person either knows the answer to a question or he/she doesn't"), *reflective* (e.g., "When I'm upset at someone, I usually try to 'put myself in his or her shoes' for a while"), and *affective* (e.g., "I don't like to get involved in listening to another person's troubles" [reverse scored]; Ardelt, 2003, p. 318).

The advantage of self-report questionnaires is that they allow for standardization and control (Glück, Bluck, Baron, & McAdams, 2005). Besides the 3D-WS, there is also the work of Jason and colleagues (Jason et al., 2001), Brown and Greene (2006), Webster (2003, 2007), and Levenson and colleagues (Levenson, Jennings, Aldwin, & Shiraishi, 2005) who have developed their own self-report measures to assess wisdom. However, there is no general agreement on what characteristics should be included in these questionnaires, and there is an ongoing dispute over the quality of their psychometric properties. Witness, for instance, the recent exchange between Ardelt and Webster and his colleagues (Ardelt, 2011; Taylor, Bates, & Webster, 2011; Webster, Taylor, & Bates, 2011). In our opinion, Ardelt's model has greater conceptual clarity than does Webster's self-assessed wisdom scale, but both remain at a very high level of abstraction far removed from direct personal experience.

Note that all these questionnaires can be said to give an account of the personal characteristics of wise people, and so are personal in a general way (they describe the personality traits of a wise person), but are not able to capture the nuances of how wisdom is understood or expressed in peoples' lives. In terms of the levels of the three-tiered personality theory proposed by Dan McAdams (1996; McAdams & Pals, 2006), these questionnaires measure wisdom at the trait level and do not address either the characteristic adaptations (stock roles) of the wise person or the particular narratives in his or her life that would present a personally meaningful story of wisdom.

Furthermore, in order to answer questionnaire items about wisdom, participants must call upon past autobiographical narratives or construct a self-relevant narrative simulation about the items asked in order to determine a response. The three items mentioned earlier invite three separate stories, or one that combines them: One can imagine someone who disagrees with the item, "I don't like to get involved in listening to another person's troubles" and in fact thinks, "When I'm upset at someone, I usually try to 'put myself in his or her shoes' for a while" because it

belies the final item, "A person either knows the answer to a question or he/she doesn't." Or one might imagine oneself in a situation that agrees with each of these items. The consequence of this is that the ability to answer any self-report measure necessarily requires a context, which in turn requires a narrative simulation that allows a judgment about how one would respond to the questionnaire item or the recollection of a past personal event that sheds light on the item in question.

Our main point is that wisdom as autobiographical reasoning and narrative simulation allows us to coordinate the strengths of two competing approaches to the scientific study of wisdom: Wisdom vignettes focus on narrative plot; selfreported dispositions focus on the kind of character needed to enact plots involving wisdom, either as imagined or in one's own life experience. Furthermore, narrative is an important medium through which to investigate personal wisdom for two reasons: First, examining real-life experiences of wisdom through autobiographical narrative is an ecologically valid and contextually rich method for studying this elusive phenomenon; second, the processes involved in constructing or simulating an autobiographical narrative support the development of personal wisdom itself.

The Narrative Turn in Studies of Wisdom

That wisdom is essentially captured through autobiographical narrative is not a new idea. Randall and Kenyon (2001, 2004) proposed that wisdom inhabits the life story and that we access our own wisdom by telling our personal narrative (internally or externally). In telling our life story, we can then step back from it to investigate and interpret it-to "read" it, so to speak. Reading our life story is a reflective process whereby we make connections between our experiences and our sense of self and learn lessons along the way. From this process we glean the wisdom of our lives. While the position taken by Randall and Kenyon is theoretically sound, they did not empirically test it. Others have filled this gap, investigating autobiographical narratives for the types of situations where wisdom is found and the forms that it takes (Glück et al., 2005), wisdom's relationship to growth and life lessons across the lifespan (Bluck & Glück, 2004), and self-reflective processes that might lead to wisdom (Ardelt, 2005; Mansfield, McLean, & Lilgendahl, 2010; Staudinger, 2001). Before examining this research in detail, let us first explore the theoretical tradition of narrative identity more generally, to which this narrative wisdom research is closely aligned.

Autobiographical Reasoning Processes Support the Development of the Life Story and, In Turn, Personal Wisdom

There has been a great deal of theoretical and empirical work dedicated to the idea that "who we are" is intimately bound up with—and perhaps inseparable from—the

stories we tell. In storying some of our most important lived experiences, we render our life meaningful and construct our personal identity (Bruner, 1986; Cohler, 1982; McAdams, 1996, 2001; McLean, Pasupathi, & Pals, 2007; Ricoeur, 1992). McAdams refers to this self-defining and selective collection of autobiographical narratives as the *life story*. From his view, the life story is an internalized and evolving narrative that brings us a degree of meaning, purpose, and unity across time (for a review of the concept see McAdams, 2001).

The narrative processes that support the development of the life story are collectively referred to as *autobiographical reasoning*. Habermas and Bluck (2000) define autobiographical reasoning as a process of self-reflective thinking or talking about the personal past that links specific events in one's life with a greater understanding of the self and world, resulting in the construction of a coherent narrative identity, and we argue, wisdom.

While autobiographical reasoning can take many forms, we believe that the type of reasoning most relevant to developing personal wisdom involves the derivation of deep meaning from our life experiences that is then integrated into our life story. The model of autobiographical reasoning that perhaps best and most intuitively describes this process is Kate McLean's meaning-making framework (see McLean & Pratt, 2006). McLean (2005) defines meaning-making as "a kind of causal coherence used to integrate experiences, which emerges as late adolescents begin to think about constructing their life stories in order to explain how a past event led to or influenced another event or aspect of the self" (p. 683). Revising her original coding system (see McLean & Thorne, 2003), McLean and Pratt proposed four increasingly sophisticated levels of meaning-making activity evident in autobiographical narratives: no meaning, lesson learned, vague meaning, and insight gained. Thus, in its simplest form, autobiographical reasoning can lead to the extraction of life lessons from past experience (e.g., "My divorce taught me that it is safest just to remain single"), and in its more sophisticated form, autobiographical reasoning can lead to deep insight or a new understanding of life (e.g., "From my divorce, I learned that one needs to first know and love themselves before they can expect to participate in a respectful, balanced relationship. Since my separation, I've been searching for who I am and have found a deep sense of fulfillment in this new mission.").

Other theorists have proposed analogous models to conceptualize and measure forms of autobiographical reasoning that are relevant to wisdom: Jefferson Singer (Blagov & Singer, 2004; Singer, Rexhaj, & Baddeley, 2007) analyzes autobiographical narratives for evidence of *integrative meaning*, Monisha Pasupathi (Pasupathi, Mansour, & Brubaker, 2007; Pasupathi & Weeks, 2011) searches for *self-event connections*, and Jen Lilgendahl (Pals, 2006; Pals & McAdams, 2011) investigates forms of *transformational* or *growth-related autobiographical reasoning*, to name a few.

How then does one develop wisdom through autobiographical reasoning? At least in Western contexts, it is widely believed that we become wise through life experience (Glück & Bluck, 2011; Takahashi & Bordia, 2000). When we experience a wisdom-related event (events that involve a fundamental life change, see

Glück & Bluck, Chap. 4, this volume), we are presented with the opportunity to gain insight—a pearl of wisdom—that can be integrated into our ongoing narrative of the self. This leads to a more complex or sophisticated perspective on the event at hand but also bears significance for our meaning-making of similar past and future events. Thus, through storying our past experiences we arrive at wise lessons and insights that—to the extent that we integrate them into our ongoing self-narrative—become part of the fabric of who we are.

On our view, that individuals learn from the past through autobiographical reasoning also explains why wise individuals are better at learning from past experiences—they are better at autobiographical reasoning (Ardelt, 2005; Staudinger, 2001). A quote from Singer (2004) describes this process nicely: "The progressive momentum is from story making to meaning making to wisdom accumulation that provides individuals with surer and more graceful footing on life's path" (p. 446). We believe this is what is meant by living the proverbial "examined life."

As mentioned earlier, this viewpoint is implicitly shared by other wisdom researchers who have begun to study the narrative basis of wisdom (Ardelt, 2005, 2010; Bluck & Glück, 2004; Staudinger, 2001). We now turn to a review of these studies.

Scientific Evidence that Wisdom is Related to Optimal Autobiographical Reasoning

While some researchers have collected autobiographical narratives as a means of investigating lived experiences of wisdom, they have not specifically looked at autobiographical reasoning processes (e.g., Montgomery, Barber, & McKee, 2002; Yang, 2008a, 2008b). Other researchers like Staudinger (2001), Bluck and Glück (2004), and Ardelt (2005, 2010), however, do have something to say about autobiographical reasoning as a process relevant to the development of personal wisdom.

The Socio-Cognitive Process of Life Review

Life reflection is one way to acquire wisdom. Staudinger (2001) defines *life reflection* as one part remembering and one part further analysis. This "further analysis" is both explanatory and evaluative, making it synonymous with autobiographical reasoning as described here. In a study of life reflection, Staudinger found that a sample of wisdom nominees and two comparison groups of young and old adults reported the same frequency of reflective processing on life events. She observed, however, that wisdom nominees more often used reflection as an evaluative process, as opposed to simple reminiscing about the past.

In general, this research supports the idea that wise individuals possess more advanced autobiographical reasoning skill than do their unwise counterparts. With that said, an important limitation of Staudinger's methodology is that she did not collect autobiographical narratives but rather asked participants decontextualized questions such as how often they reflect on their life, why they do so, and what exactly they do when reflecting (Staudinger, 2001). In a related set of studies on life reflection, Staudinger asked participants how they would expect a fictitious woman to reflect on her life when confronted with opportunity to do so (Staudinger, 1989; Staudinger et al., 1992). Examining life reflection in narratives of real-life events is needed to confirm that wise individuals actually do participate in optimal reasoning about life.

Wisdom of Experience

Bluck and Glück (2004) proposed a "wisdom of experience" approach, in which they collected autobiographical narratives of events that individuals perceived to involve wisdom. At the most basic level, they examined whether ordinary people have some sense of themselves as being wise in thought or action and investigated how fully this self-understanding is integrated into their life stories through autobiographical reasoning.

Bluck and Glück (2004) found that most participants (60%) illustrated causal coherence in their wisdom-related memories—that is, they connected the wisdom-related event to later events or to the self in general. Midlife and older adults were twice as likely to show causal coherence as compared to adolescents. High levels of causal coherence indicate greater integration of wisdom into the life story. Further, they found that most participants reported learning a lesson from the wisdom-related event, a lesson that was generalized to other events or aspects of the self 80% of time. However, adolescents were less likely to learn a generalized lesson than were young and older adults. Bluck and Glück interpret age differences in causal coherence and lesson learning as evidence that wisdom is still developing during adolescence, an interpretation supported by research showing that both the life story (Habermas & Paha, 2001) and wisdom (Pasupathi, Staudinger, & Baltes, 2001) emerge in adolescence. One limitation of this study is that there is no way to know whether people who are wiser engage in more or different kinds of autobio-graphical reasoning than those who are less wise.

Coping with Hardships and Obstacles in Life

Ardelt (2005) suggested that successfully coping with life's crises and hardships in life might be both a hallmark and one pathway to wisdom. In two studies, Ardelt (2005, 2010) examined the narratives of the most pleasant and unpleasant life experiences of a sample of older adults who were relatively high and low in wisdom according to her three-dimensional model. In the first study (Ardelt, 2005), an in-

depth analysis found that wise individuals engaged in "higher-order" coping strategies such as mental distancing, active coping, and the application of life lessons, while relatively unwise older adults rely on passive coping strategies that avoid reflection.

In Ardelt's (2010) second study, high wisdom scorers showed more evidence of personal growth than low wisdom scorers. Personal growth was defined as learning important life lessons from experience (following Bluck & Glück, 2004) and increases in insight, integrity, and self-transcendence (following Staudinger & Kunzmann, 2005). Although Ardelt does not situate her work within the narrative identity literature, her emphasis on a personal growth orientation and the importance of reflective processing supports models of autobiographical reasoning and suggests that relatively wise individuals participate in more sophisticated reasoning processes.

A recent study by Mansfield, McLean, and Lilgendahl (2010), provides further evidence for the link between wisdom and autobiographical reasoning. Using Ardelt's 3D-WS, the researchers found that greater evidence of a narrative process they called "personal growth" (e.g., insights gained, lessons learned, positive selftransformation) predicted higher levels of wisdom in autobiographical narratives about transgressions. Likewise, King and colleagues found that optimal autobiographical reasoning, involving high levels of narrative resolution and accommodative change in the face of adversity, leads to ego development (King, Scollon, Ramsey, & Williams, 2000). Although wisdom and ego development are not synonymous, high levels of ego development may be necessary for wisdom (Wink & Helson, 1997). Thus, relatively wise individuals may be more able to grow from negative or difficult life experiences as a function of their skills in autobiographical reasoning.

Taken together, these studies suggest that autobiographical reasoning processes are meaningfully related to wisdom. Further, examining the sophistication of autobiographical reasoning in personal narratives is a potential way to differentiate wise and unwise individuals. Consistent with the idea that wisdom is a rare commodity, we propose that not all forms of autobiographical reasoning generate wisdom. Wisdom is likely to result from reasoning that (1) is sufficiently sophisticated, (2) involves fundamental life matters, (3) is oriented toward personal growth or flourishing, and (4) conforms to a culturally appropriate wisdom ideology. In light of these considerations, we propose that the type of reasoning characteristic of wise individuals be thought of as "optimal" autobiographical reasoning.

Clearly, progress has been made in terms of studying life reflection and autobiographical reasoning as a pathway to wisdom. We next consider another path to wisdom through narrative simulation, an idea that has as of yet received no empirical attention. On this view, wisdom can result from the simulation of literary, historical, or hypothetical narratives from which one extracts a wise lesson, just as in the Buddhist story that opened this chapter.

The Potential Role of Narrative Simulation in the Cultivation of Wisdom

Understanding Narrative Simulation

According to Oatley (1999; Mar & Oatley, 2008), literary narratives are simulations of the real world: "Narrative fiction models life, comments on life, helps us to understand life in terms of how human intentions bear on it" (Mar & Oatley, p. 173). By projecting ourselves mentally into such simulations, we can extract general and personal wisdom from them. In understanding a story, readers or listeners participate in a meaning-making process whereby they "read between the lines" of the story, interpreting and analyzing their lived experiences to achieve a deeper meaning in the text, and through this process, extract lessons to live by. Simulations provide abstract models of human intention in the social world—both what has happened and what could happen. Unlike didactic theoretical explanations, narrative simulations allow us to experience events vicariously by putting ourselves in the storyworld—heightening sympathy and empathy and extending our general and social knowledge (Gordon, 1986, 2009; Nichols, 2002; Mar & Oatley, 2008; Oatley, 1999, 2011).³

According to Mar and Oatley (2008), there are two purposes of simulation. First, simulations allow us to access experiences that we cannot otherwise access directly. We may not be able to access an experience because it is beyond our means (e.g., past historical periods or events), or we may not want to access an event directly because the potential costs are too great (e.g., war, traumatic personal events). Simulation allows us to indirectly gain wisdom by reflecting on the experiences of those fictional and real persons who have come before us. The second purpose of simulation is to understand and predict behavior that is embedded in a dynamic system involving complex interactions. A story reveals a network of causal relationships as the plot unfolds, unlike a single event, which is understood only in light of what happened before and after it. Because a story depicts real life, literary simulations allow us to understand and predict behavior we encounter in the real world with a high degree of verisimilitude. Additionally, Mar and Oatley, state that:

When reading we are also recipients of a narrator's or protagonist's construal of the situation and its solution, and such a contribution may provide us with new perspectives and possibly new solutions. Narratives allow us to try out solutions to emotional and social difficulties through the simulation of these experiences, as we try to comprehend the actions of protagonists and ponder how our own responses may compare were we presented with the same situation. (p. 184)

Of course, simulations are also tested against what actually happens, and that outcome can change the way that subsequent simulations are generated and

³Evidence from the study of mirror neurons sheds some light on the biological basis of our capacity for social simulation.

interpreted. Thus, one can learn to become better skilled at simulation, much like one can optimize autobiographical reasoning (Gordon, 1986, 2009; Nichols, 2002).

Two types of simulations are relevant to the acquisition of personal wisdom. First, we can run simulations of stories created about wise literary and historical figures⁴ in an attempt to emulate their behavior or to adapt it to particular life situations. In other words, not only do we emulate people personally known to us who we perceive as wise, we also look to literary, historical, political, religious, or philosophical figures as exemplars of what it means to be wise-and to stories of their lives often specially crafted to provide narrative examples of their exemplary behavior. We project or immerse ourselves in the storyworld of these wise characters, reasoning through an event from their perspective to gain deeper understanding of their thoughts, feelings, and motivations. This insight can then be generalized, by analogy, to our own lives. Some literary and historical narratives have become known as wisdom texts in their own right and are considered stories that possess lessons for living the good life. For example, a work of literary fiction that models wisdom is Hesse's (1922/2007) Siddhartha, based on the story of the Buddha. Examples of historical texts that portray wisdom include Erikson's psychobiographies depicting the stories of Gandhi (Erikson, 1969) and Martin Luther (Erikson, 1958). Historical and literary characters embody or personify narratives of wisdom because their story is considered emblematic of a cultural wisdom ideology, an idea that we elaborate on in the next section.

The second type of personal simulation is a hypothetical narrative one constructs about a future event that may come to pass. As Singer and Blagov (2004) describe it, "There is extraordinary evolutionary adaptive value to being able to 'test the waters' psychologically before actually diving in and taking action" (p. 124). In creating our own simulation, we craft a possible narrative, casting ourselves as protagonist. We explore our own actions and outcomes in this mental simulation. For example, in an interview study that we are currently conducting, one of our older female participants who was asked of a moment in her life when she was wise demonstrates what we mean by hypothetical simulation:

It was really small, but the decision to quit smoking, because I smoked about three packs a day when I was about your age [early twenties]. And uh I did it for reasons of vanity. Really, I stopped smoking because I don't like to be a slave to any habit, I don't like a habit to take me over, you know. And uh so I thought, no I don't need to do this, I don't need to be standing in an elevator that's going down 20 floors with an unlit cigarette in my mouth and a lighter in my hand waiting to step off the elevator... No, I don't want to be that person, and I mean, it did benefit me, it's been 4 years now since I've smoked, but I don't have lung cancer I don't ever have to worry about that.

Integral to this autobiographical narrative is a hypothetical simulation within which the participant explores the possible health consequences of smoking and the sort of person who is a slave to habit. The simulative experience revealed that a

⁴ The stories told about the lives of many historical figures have reached a canonical status in our culture (e.g., Gandhi, Jesus).

wise course of action would be to quit ("I don't want to be *that* person"), and in reflection, she affirms this was the right decision ("it did benefit me"). Incidentally, this participant was among the highest female scorers in our sample according to Ardelt's 3D-WS.

A hypothetical simulation such as required by the Berlin or Bremen paradigm vignettes, or even imagining our own future, is potentially less informative than a literary or historical simulation because we are left to our own devices to simulate the myriad factors that come to bear on an imagined situation, not an easy task, since many potentially critical factors acting upon us may not be accounted for. Still, we argue, in the absence of a literary or historical narrative, we will spontaneously construct our own hypothetical narrative that models real-life events that may transpire.

What Narratives Do We Simulate, and Why Does It Matter?

As we've suggested, individuals are not limited to reflection on their lived experience when it comes to developing wisdom. Individuals become wiser through simulating hypothetical situations that they could potentially encounter. Individuals can also project themselves into the narratives of literary and historical exemplars of wisdom, or of people they know personally and consider wise, so as to glean wisdom from the lived experience of these memorable people. But what storylines are likely to be simulated in the pursuit of wisdom? The answer to this question leads us to consider cultural master narratives.

Cultural Master Narratives

There is a burgeoning field of research that focuses on the socially and culturally situated nature of narrative identity (see Fivush, Habermas, Waters, & Zaman, 2011; Hammack, 2008; McLean, 2008; McLean, Pasupathi, & Pals, 2007). The idea here is that narrative processing does not happen in a vacuum but draws on the ideology particular to a culture. As McAdams and Pals (2006) suggest, "A person constructs a narrative identity by appropriating stories from culture" (p. 212). Singer (2004) agrees that, "The stories individuals create draw from the existing repertoire of cultural narratives based in myth, fable, literature, popular entertainment, and ethnic family history that define the meaning making parameters of their lives" (p. 445).

But the use of cultural stories is not made at random. Some works of literary fiction and historical narratives become canonical for the exact reason that they model or portray a generally accepted ideology that is abstracted into a master narrative. Cultural master narratives are sense-making structures available to individuals, effectively guiding and shaping the stories they tell to others and to themselves. These cultural stories are called "master" narratives because they espouse an ideology that is valued by members of the immediate social environment and are thus dominant, even commonplace; that is, they are more commonly told because they say something important about a culture and how one should live within that culture.⁵ Bruner (1987) puts it best:

Given their constructed nature and their dependence upon the cultural conventions and language usage, life narratives obviously reflect the prevailing theories about "possible lives" that are part of one's culture. Indeed, one important way of characterizing a culture is by the narrative models it makes available for describing the course of a life. And the tool kit of any culture is replete not only with a stock of canonical life narratives (heroes, Marthas, tricksters, etc.), but with combinable formal constituents from which its members can construct their own life narratives: canonical stances and circumstances, as it were. (p. 694)

Not only do master narratives guide our self-telling and help us to make sense of our lived experience retrospectively, we can also simulate them and, in doing so, use them as a cultural resource for developing personal wisdom. In this way, simulation comes close to emulation, to the extent that through simulation, we can access wisdom we feel is worth appropriating and integrating into our own life story—we begin to live in accordance with someone else's wisdom, making it our own. Importantly, because it is a master narrative that we simulate, that wisdom is also likely to conform to the standards of our culture.

The concept of master narrative recasts prototype (e.g., Neisser, 1979) and exemplar theories of reasoning (e.g., Smith & Zárate, 1992), focusing on the common plotlines that substantiate the wisdom of exemplary characters associated with canonical narratives. Research by Paulhus and colleagues reveals that individuals have a repertoire of wisdom exemplars that can be drawn from (Paulhus, Wehr, Harms, & Strasser, 2002). However, beyond simply nominating an exemplar of wisdom, a master narrative analysis also captures the story in which prototypical or exemplary instances of wisdom are embodied, providing for a more nuanced analysis.

In creating our personal narrative simulations, we invoke any one of a variety of master narratives and their associated exemplars. Aleida Assmann (1994) has identified four master storylines and exemplars that are historically and culturally representative of different kinds of wisdom in the Western world, and other authors in this volume have identified more. First, Assmann describes the creative and discerning judgment of King Solomon as representing a political understanding of wisdom. Shakespeare's Prospero, the exiled magician king from *The Tempest*, represents the second figure, whose wisdom lies in instrumental cosmic knowledge; with the rise of the empirical sciences, this wizard figure might be re-interpreted as possessing deep scientific knowledge of the natural world. Third is Polonius, a character in *Hamlet*, who parodies traditional practical wisdom, guiding others in solving life's problems through the use of pragmatic maxims and proverbs. Lastly, Assmann calls upon the character of Jaques, from Shakespeare's *As You Like It*.

⁵ For examples of master narrative analyses on *gender*, see Bamberg (2004) and Thorne and McLean (2003); on *sexual identity*, see Hammack, Thompson, and Pilecki (2009) and Weststrate and McLean (2010); and on *national identity*, see Hammack (2006).

Jaques, a professional fool, portrays the contradictory, paradoxical, and impermanent ways of the world—a skeptical, problem-finding wisdom that is very different from Polonius's problem-solving orientation (Assmann).

Master narratives thus contain two components: plot and character. They provide a plotline that meaningfully describes a type or form of wisdom, which can be embodied by one of potentially many exemplars who personify that form of wisdom. The character (or exemplar) helps us to personally relate to the story and facilitates our projection into the shoes of the protagonist.

Consider for a moment the story of the life of Jesus Christ—a widely told and studied narrative in North America and in many countries around the world. A powerful example of simulation is the expression, "What would Jesus do?" This turn of phrase is employed as a heuristic by many Christians to arrive at a wise course of action in a challenging situation. Some North American Christians go as far as to wear bracelets adorned with 'WWJD' as a reminder to seek the wisdom of Jesus Christ.⁶

But even the most devout follower of Jesus must critically negotiate the stories told about him. For example, consider the story of Jesus cursing the fig tree, from Mark 11:12–14 and 11:20–25 (see also Matthew 21:18–22) in the Christian holy Bible (1989 translation). According to Mark,

[...] when they came from Bethany, he [Jesus] was hungry. Seeing in the distance a fig tree in leaf, he went to see whether perhaps he would find anything on it. When he came to it, he found nothing but leaves, for it was not the season for figs. He said to it, "May no one ever eat fruit from you again." And his disciples heard it. (Mark 11:12–14)

In the morning as they passed by, they saw the fig tree withered away to its roots. Then Peter remembered and said to him, "Rabbi, look! The fig tree that you cursed has withered." Jesus answered them, "Have faith in God. Truly I tell you, if you say to this mountain, 'Be taken up and thrown into the sea,' and if you do not doubt in your heart, but believe that what you say will come to pass, it will be done for you. So I tell you, whatever you ask for in prayer, believe that you have received it, and it will be yours. (Mark 11:20–25)

That faith can move mountains is an inspiring message, but what about the fig tree? Wasn't it excessive to kill the tree just to make a point? Of course there can be many subtle allegorical interpretations of this story, but our point is that Christians today must interpret this story in order to align it with modern Christian wisdom ideology, in which no one kills even a tree for an irrational reason (i.e., not bearing fruit out of season)—a point that also bothered Bertrand Russell (1927/1957). Cultural narrative and ideology are not usually accepted without question in circumstances where much is at stake for one's sense of self, but instead are examined, negotiated, and refined—sometimes generating a new and alternative narrative or ideology that may emerge be either accepted or rejected by oneself or others in a culture.

⁶ We find an analogous process in Pakistan, where most of those interviewed from children to the elderly spontaneously chose Mohammed as the wisest person in history and used his life and words as a reference point to discuss wisdom in their own lives (Ferrari, Khan, Benayon, & Nero, 2011).

The Cultural-Personal Interface in Simulation

Notably, simulation doesn't happen independent of our own lived experience-while the master narrative being simulated is cultural, the process of simulation is still deeply personal. With every simulation we conduct, we bring our accumulated autobiographical experience to bear as an interpretive lens. This lens tells us whether or not the wisdom extracted from a given simulation will "fit" within the context of our own lives. In fact, we may need to run iterations of a simulation before we settle on a final version because of its resonance with our lived experience. Thus, Jesus's life story need not be emulated in an absolute sense; aspects of it are extracted and endorsed separately. Research by Green (2004) supports the idea that our autobiographical experience influences the simulation of master narratives. She has shown that individuals with prior knowledge or experiences relevant to the content of a given story indicate greater levels of "transportation" into the narrative (Green). That is, they perceive the narrative to be more real and become more cognitively and emotionally involved in the story. Such transportation is bound to increase the effectiveness of the simulative experience, as the individual is expected to be more attuned to details of the story and better able to interpret the events within it.

The idea that Jesus Christ's story is a narrative that is commonly simulated reflects values of the local culture. That is, whether Jesus is deemed wise depends on cultural expectations about what ideal type of character is wise. For instance, in China, it is likely more common that the figure of Confucius would be called upon in light of an educational system that espouses his teachings (for a discussion of Eastern and Western conceptions of wisdom see Takahashi, 2000). In Pakistan, Mohammed will be taken as a historical model of wisdom (Ferrari et al., 2011; Khan, 2009). Additionally, while members in the broader culture might share a common set of expectations about such an ideal type, members of different subcultures or even different professions may have different ideals in mind (Edmondson, Chap. 9, this volume; Sternberg, 1985). This is precisely why it matters what stories we simulate and for what purpose. Wisdom is by nature ideological. Simulating a narrative that does not conform to the values of a given society and then appropriating its wisdom would be either foolish or revolutionary. In terms of the latter, endorsing a narrative that runs counter to the canon may in fact be the wisest course of action to the extent that it catalyzes social change on a broader scale. What is considered personally wise may be that which is also wise for society in general, and this may involve resisting or subverting the dominant ideology. This stance is reminiscent of the wisdom of social activists such as Nelson Mandela, Mahatma Gandhi, and Martin Luther King Jr. to name a few.

The Larger Stories Within Which We Live: A Study of Master Narrative Engagement

To learn more about the master narratives available for simulation by Canadians, we are investigating how individuals differentially invoke cultural storylines relevant to wisdom across levels of age, gender, and degree of wisdom. We recently conducted a study that explored the autobiographical wisdom narratives of eight individuals selected from a larger sample of 82 participants (Weststrate, 2011; Weststrate & Ferrari, 2011). These participants were selected so that they were equally distributed across two age cohorts (young and old adults), gender, and degree of wisdom assessed according to the 3D-WS. For this qualitative analysis, we selected extreme scorers on the wisdom scale, in keeping with Ardelt's (2005, (2010) methods. It was believed that selecting representatives from the highest and lowest pool of wisdom scorers would accentuate any differences that may naturally occur between them. Specifically, we looked for differences in how these individuals engaged with master narratives of wisdom. To invoke a master narrative, we asked participants to tell us a story about a historical or cultural exemplar that they believed to be wise and to articulate how this character had influenced or impacted them personally. Interestingly, master narratives were also spontaneously referenced in other sections of the interview, such as discussing a time when people saw themselves as wise or times when an acquaintance they knew had acted wisely. No notable age or gender differences were discovered, but interesting trends did emerge between those who were high and low scorers on the wisdom scale.

Consider this quote from a member of the older adult cohort and a high wisdom scorer, Marty,⁷ who at the very start of his interview references a master narrative of wisdom that clearly draws on general ideological knowledge about wisdom:

I think first of my father, who wasn't on the surface a wise old man or explicitly wise, but he was quiet, pensive, seemed to be kind of a quiet but common sense kind of person, so I think of him when you ask me about wise. Who else would I think of? It's strange I don't really, I don't think of anybody who I would say, 'Oh that's a wise person'. I think my current wife is wise in many ways, but not in the sage, old, old man wisdom kind of way, but she has a lot of common sense, which is, I think, a fork of wisdom.

Marty makes reference to the figure of the "sage" or the "old wise man," a popular prototypical image of wisdom. He associates this prototypical image with specific attributes of wisdom and uses this as a compass to direct him to exemplars of wise people in his life. This is evident in how he compares his father to the prototype. Marty then goes on to nominate his wife as wise, claiming that she too possesses common sense characteristic of the wise, but diverges from the old wise man narrative in other ways that are not clearly specified. While it sounds like there are subtle differences in the type of wisdom exemplified by Marty's wife and father, in general, the prototype and associated master narrative invoked draws on

⁷ All names are pseudonyms.

knowledge that is closely aligned with the practical wisdom of Polonius that we discussed earlier (Assmann, 1994). Thus, we can begin to see the various ways in which exemplars and master narratives are called upon to understand the concept of wisdom (e.g., the practical wisdom of the old wise man). Notably, Marty does not recall or generate a depersonalized, abstracted definition of wisdom to drive his memory search. Instead, he engages various prototypes and tests their fit to people known to him for the purposes of evaluating their wisdom. This is an interesting twist on the standard implicit theory research, which seeks to identify the latent "wisdom concept" we all possess. We argue that exemplars of wisdom reflect this underlying implicit theory, but do so in the more contextual and nuanced manner that narrative emplotment allows.

The eight participants analyzed in this pilot study invoked multiple exemplars for the purposes of describing wisdom. For example, Mahatma Gandhi, Martin Luther King Jr., Rosa Parks, Mother Teresa, Jesus Christ, Buddha, Nelson Mandela, and Roméo Dallaire surfaced in seven of the eight cases. We combine all of these exemplars into one "character" because the individual narratives that they represent share important similarities, and these similarities converge on a master narrative of wisdom. Despite their differences, in one capacity or another, all of these exemplars were chosen because they represent selfless, self-sacrificial people, who cared deeply about the welfare of others and the world, and who also had the strategic know-how to execute their visions. If one must condense this to a single plotline, we might call this the wisdom as concern for others narrative. This master narrative was the most dominant narrative presented and was instantiated by calling upon the aforementioned characters and their life stories. Each instantiation, however, represented a nuanced version of the master narrative, reflecting personal understandings of the story and meanings contained within it. This is clearly a master narrative that is valued by Canadians and, interestingly, is not one of Assmann's prototypes—although it might arguably be related to Solomon. As we review the narrative excerpts below, we will attempt to expose a small selection of these storylines.

While it is true that participants demonstrated some agreement concerning what figures of wisdom come to mind, the quality and nature of engagement with such master narratives differed across levels of high and low wisdom. High wisdom scorers are keenly aware of and critically engage with master narratives of wisdom, sometimes appropriating them and sometimes rejecting or refining them.

For example, consider this story shared by Beverly, a high wisdom scorer from the older cohort. Her response shows deep engagement with the master narrative, offering ample evidence for why she views Gandhi as a wise individual:

Another incredibly wise person is Mahatma Gandhi, who lived uh a very, very hard life. He was imprisoned for his beliefs, he was beaten, he was tortured, and he believed in nonviolence, now that was not a popular way to do things in his day, but um he was wise enough to see that if you indulge in violence even in retaliation, you're only escalating the violence that uh any resistance to brutal authority must be met with non-nonviolent resistance um and the British were pretty brutal in India at the time... He was an Indian lawyer. His name was actually Mohandas Gandhi, Mahatma was a title, like a lord or a

servant. A tiny man, as he got older, he wore only a white sarong, shaved his head, tiny wingless spectacles. Preached nonviolence wherever he went, and uh there was a great civil war in India between Muslims and Hindu, and oh people were just being massacred for no other reason than that they were Muslim or Hindu, and he declared he was going to go on hunger strike, and by this time, everyone in India knew who he was because of his many marches and his lectures on freedom and peace and nonviolent resistance, and uh so he came within an evelash of dying of hunger, but the violence stopped, and he was resuscitated and said he could take a little bit of food now, and someone came to him, a uh Hindu, and he said uh "Bapu" which means father in one of the Indian dialects, "Bapu, I've done a terrible thing. I have killed, there was a riot in the streets, and I have killed a little Muslim boy. I can't forgive myself for it." And uh Mahatma said, "Well there is one thing you must do for you own salvation. To get yourself out of the hell that you're in right now, you must find an orphan child, and you must raise him as your own, only be sure that you raise him as a Muslim and that it's not your faith, but his". See, that is how I define wisdom by giving you an example of what wisdom is. That's hard to do, but it heals hatred with love, and that's what Jesus's mission on earth was to do, and uh that's how I define wisdom, by example.

Notice the clarity of this response. Beverly does not invoke an abstract image like the old wise man (although Gandhi would conform to this) but draws upon a detailed historical narrative surrounding the life of a particular exemplar of wisdom: Gandhi. She has clearly simulated his experiences-she has projected herself into his story, reasoned through his experience, and concluded that this story resonates with her view of wisdom or perhaps helped to form that view in the first place. This is no simple endorsement; she is able to provide an elaborate story to substantiate her position and makes a connection to the story of Jesus Christ, which she goes on to discuss in much more detail later in the interview. Notice one of the important features of simulation—Beverly is able to learn vicariously from the experiences of Gandhi without having to endure the hardships that he has faced. Although she is bound to have some emotional reaction to this experience, it is conducive to the simulative experience, as opposed to overwhelming her. In her interview, Beverly discusses the life philosophy that she has acquired from Gandhi, which is the importance of caring for others, a theme exemplified by other personal stories she shares, such as that of her best friend Paul, a businessman who always conducted his work in the best interest of his clients and not for personal gain. These themes pervaded Beverly's interview, and while she rejects the idea that she is wise herself, she makes the following claim about the wisdom of Jesus Christ: "It inspires me to try to emulate him as far as I can." All of this is to say that Beverly has taken the time to enter the storyworld of Gandhi and Jesus, and although her life does not conform to their narratives per se, she has drawn lessons and insights from these characters and strives to enact them in her own life.

Stephan, a young male who scored high on the wisdom scale, engages with Gandhi in a different way:

Well, I guess it's just kind of like [Gandhi] has that stereotypical wisdom aura around him, whereas his ability via nonviolent protest, use of words in negotiation as opposed to physical action to bring an end to the colonization of India, was amazing, but at the same time, I don't know if I per se identify with that strongly, but at the same time, he was the

first person that came to my mind. I don't know if that is because that's just the default, everyone knows who Gandhi is, or if that's 'cause I identify with him per se.

Here, Stephan refers to Gandhi as the default answer. At this point, Stephan has not appropriated this master narrative but reveals a process of critical engagement, as opposed to Beverly who has already evaluated and chosen to appropriate the narrative through simulation. We suggest this indicates a "simulation in progress." It is not that Gandhi is unworthy of the title of wise; Stephan is more concerned with whether or not this story resonates with him personally—whether he can use the Gandhi story in a simulation that is personally meaningful. This is what we mean when we say that one brings their accumulated autobiographical experience to the simulation of cultural master narratives. While Stephan grants that Gandhi is an exemplar of wisdom in his own right, it may not be the type of wisdom that "fits" with Stephan's life story. Given more time, Stephan may choose to endorse, reject, or refine this narrative so that it meaningfully relates to his lived experience.

It seems clear that relatively wise persons deeply engage wisdom master narratives. They are able to articulate a comprehensible story and provide an explanation for why they selected a particular character. They also provide evidence of critical engagement with the narrative and reflect upon its personal meaning. That is, they do not accept the narrative without first subjecting it to an evaluative process. An ability to simulate such master narratives could be one of the factors that led to their wisdom; that is, recognizing the larger stories of wisdom within which we live might provide individuals with the opportunity to refine their understanding of wisdom, critically engage with their meaning vis-à-vis their personal narratives, and ultimately integrate this into their life story.

Now let's consider a narrative that Craig, who is from the younger cohort and scored poorly on the wisdom measure, gives in response to the prompt for a historical figure that exemplifies wisdom:

The wisest historical figure... uhm... no one comes to mind, I mean, I guess... I'm having a tough time putting a name, uhm but let's just be general and say an army commander or someone to that nature... they... I think they need to be wise, I believe the definition of wisdom, in my opinion, is uh it's two parts: it's education/ intelligence and experience, and I think a person to that nature would have to possess those characteristics uh to be successful at what they do, and I would definitely think that it would be a person with great wisdom to be in those roles uhm... but yeah, I'm just having a tough time naming anyone and for whether, I guess, they're considered an evil army general or commander or uh one of the better ones, I would say, you know, someone like Napoleon, even Hitler—whether you agree or not, but uh I think they are wise people. Uhm, whether considered heroes or not... I guess... but yeah I think you can speak in general on that one.

By all accounts in the wisdom literature, figures like Hitler are not personifications of wisdom. Although one might argue that such figures approach the Solomonic master narrative of strategic thinking, they are devoid of affective concern for others. Sternberg (1998) has spoken about Hitler specifically as a figure that might demonstrate intelligence, but not wisdom, at least in accordance with his balance theory of wisdom that sees wisdom as the balance or maximization of good across interpersonal, intrapersonal, and transpersonal domains. Ardelt (1997, 2003)

sees wisdom as involving compassion for others, as captured by her affective dimension of wisdom, which is far from all historical accounts of Hitler. In other words, a historical character like Hitler cannot represent wisdom, even if he might reflect a master narrative of intelligence. This level of engagement lacks the critical or discerning nature of relatively wise individuals and also suggests a lack of historical knowledge about Hitler. To say that Hitler is a figure of wisdom indicates a superficial and faulty simulation of his story. Indeed, the example of Hitler could be considered by some to be a counter-narrative to wisdom (see Bamberg & Andrews, 2004). In general, low wisdom scorers show less clear understandings of wisdom master narratives and cannot easily articulate a story surrounding the character chosen, despite being prompted for a story about wisdom.⁸

In conclusion, this qualitative analysis suggests that individuals engage with the larger stories of wisdom within which we live. Master narrative engagement appears to differ across degrees of wisdom, but not across age or gender. Relatively wise persons are aware of and engage critically with master narratives of wisdom, while relatively unwise individuals only superficially invoke master narratives or confuse master narratives of wisdom with those of intelligence. The differing levels of engagement suggest that wise persons are more adept at simulating master narratives from a first-person perspective and, possibly, that they have become wise by virtue of so doing.

Optimal Narrative Simulation and the Development of Personal Wisdom

With this framework in mind, let us consider one of the most important points we wish to explore: How the process of narrative simulation contributes to developing personal wisdom across the lifespan. Developing personal wisdom involves an expert or masterful simulation of living. Results of such simulations can be offered as advice to others and, in one's own case, can be enacted and thus tested against reality. Such simulations are expected to lead to a more positive life outcome. Lessons and insights learned from reflecting on the actual outcomes of enacted simulations can be incorporated into subsequent simulations, always negotiated in light of archetypal characters and cultural master narratives. Life performances or experiences that are unworthy of being integrated into future simulations or actions become part of what Bruner (1992) calls the "narrative unconscious" and are ignored.

In order for it to lead to wisdom, a narrative simulation must be optimal, that is, it must involve plots or characters consistent with core ideological beliefs that instantiate a wisdom ideology or important aspects thereof. This wisdom ideology

⁸ One limitation of the study being presented here is that we did not measure intelligence. It is possible that the participant's nomination of Hitler might indicate a lack of knowledge about who Hitler was.

will include ideas about what is thought to contribute to psychological and physical well-being and generally to a better quality of life. Although each person must come to decide for him or herself, common ideas about what contributes to a good life include selflessness needed for balanced judgment (Sternberg) and compassion (Ardelt), as well as deep insight into the human condition that allows for exceptional advice and problem solving (Baltes). When the results of a narrative simulation align with these ideological criteria and when this wisdom is integrated into the life story, a good life seems within reach.

While we know less about the positive effects of narrative simulation than we do about reflective autobiographical reasoning on real-life experiences, some research allows for speculation. King and colleagues found that adults who richly elaborate⁹ (or, we would say, "simulate") lost possible selves, that is, selves that did not come to pass but at one time may have, show increased ego development (King & Raspin, 2004; King & Smith, 2004), and were more likely to report personal growth in stories of difficult life transitions (King & Patterson, 2000; for a review of this research see King & Hicks, 2006). We may infer from these results that optimally simulating lost possible narratives may also be important to the development of wisdom.

This could be equally true for simulating narratives lived by others. Research has begun to look at how the simulation of fictional narratives can lead to personal change. A qualitative study by Levitt, Rattanasampan, Chaidaroon, Stanley, and Robinson (2009) investigated the processes of personal change reported by six individuals who read a fictional narrative that they perceived to have a profoundly positive impact on their lives. Themes were extracted from interview transcripts and reduced to five mechanisms that accounted for the experience of personal change. These centered on the core idea that "identification with characters' experiences created a safe venue to consider threat and experiment with new possibilities and perspectives" (p. 326). This finding supports the theorizing of Mar and Oatley (2008; Oatley, 1999, 2011) as discussed earlier.

Recently, Kaufman and Libby (2012) coined the term "experience-taking" to describe a process analogous to narrative simulation. In their abstract, they define experience-taking as "the imaginative process of spontaneously assuming the identity of a character in a narrative and simulating that character's thoughts, emotions, behaviours, goals, and traits as if they were one's own." In a series of primarily experimental studies, Kaufman and Libby examined the antecedents and consequences of experience-taking. They found that reduced self-concept accessibility (or what we would call self-transcendence) facilitated the experience-taking process and led to a greater internalization of the main character's personality traits. Reducing the accessibility of one's identity is thought to make it easier for the participant to "forget" (i.e., transcend) him or herself and simulate the experience of the protagonist. Such experience-taking was enhanced when the narrative was written in the first person and depicted a main character with whom the participant

⁹ Elaboration refers to the degree of detail, vividness, and emotional depth provided in stories about a lost possible self.

shared a relevant in-group membership, a combination of conditions that seems to create a sense of closeness and familiarity with the protagonist of the narrative.

Importantly, Kaufman and Libby found real-world effects of engaging in these kinds of narrative simulations. Participants who read a first-person narrative and shared a salient in-group membership with the main character were more likely to align their subsequent voting behavior with that of the main character. Kaufman and Libby also found that engagement in experience-taking led participants to judge homosexuals and African Americans less stereotypically and report more favorable attitudes toward these groups when the protagonist's out-group identity was disclosed later in the narrative.

In summary, Kaufman and Libby are among the first to test the extent to which narrative simulation can lead to change in our beliefs and our behaviors. They have shown that simulation, under certain conditions, can be a powerful tool for selftransformation, which suggests its importance for the development of personal wisdom.

These studies by Kaufman and Libby are thus a promising direction for future research, although they have not yet specifically investigated the outcomes of narrative simulation for the development of personal wisdom. Future research should compare the merits of simulation to other forms of learning, such as intensive conversations with friends, engaging with art or philosophy, practicing mindfulness, and the like.

Conclusion

Following Bruner's (1986) distinction between paradigmatic and narrative modes of thought, we propose that personal wisdom involves narrative processes that depict the vicissitudes of human intentions, whereas general wisdom primarily involves explicit paradigmatic theoretical knowledge. We propose that personal wisdom comes from reasoning about life experiences and narrative simulations that provoke insight about fundamental personal matters. Thus, a science of personal wisdom is essentially incomplete if it does not consider narrative. Indeed, in simulating and reflecting upon our own and others' life narratives, individuals appropriate wise life lessons for future application and for making sense of their own lives.

We believe that narrative simulation and autobiographical reasoning represent two paths to developing personal wisdom. In the best cases, life imitates art, and the greatest artists of life embody and convey deep insight achieved through optimal autobiographical reasoning and simulation. Just as great art teaches us something, so do inspiring exemplars of the "art of living," like Buddha or Christ or our most inspiring friends and relatives; critically reflecting on their lives and our own increases our quality of life. This is what we mean by personal wisdom and why stories about wisdom, both invented and handed down to us, continue to inspire.

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