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Driven to Teach, Compelled to Learn: A Review of the Role(s) of Storytelling in Education

Abstract: Humans have an instinct not only to tell stories but also to listen to them. When the message is passed from storyteller to audience, lessons are frequently transmitted. The stories serve as vessels for cultural transmission. Yet there is a gap in the research evaluating how their effectiveness in teaching informally might be leveraged in a classroom to achieve similar pedagogical ends. The aim of this interdisciplinary review is to formally evaluate the ways in which stories are used to transmit information between people and across generations and the degree to which these capacities have been used in classrooms.

Keywords: critical thinking, praxis, teaching methods, social cognition, cognitive science, learning theories, storytelling, narrative

摘要 (W. Jason Niedermeyer : 执教, 被迫学习: 讲故事在教育中的作用概述) : 人不仅有讲故事的本能, 而且还有听故事的本能。当信息从讲故事者传达给听众时, 通常一些课程也在被传授着。这些故事是文化传播的工具。然而, 在评估如何将其在课堂上的非正式教学中的有效性用于实现类似教育目标的研究中还有着差距。这项跨学科研究的目的是正式评估故事在人与人之间和跨代之间传递信息的方式, 以及这些技能在课堂上的使用程度。

关键词: 批判性思维, 实践, 教学方法, 社会认知, 认知科学, 学习理论, 讲故事, 叙事

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關鍵詞: 批判性思維, 實踐, 教學方法, 社會認知, 認知科學, 學習理論, 講故事, 敘事

Zusammenfassung (W. Jason Niedermeyer: Zum Lehren getrieben, zum Lernen gezwungen: Ein Überblick über die Rolle(n) des Geschichtenerzählens in der Bildung): Der Mensch hat den Instinkt, nicht nur Geschichten zu erzählen, sondern ihnen auch zuzuhören. Wenn die Botschaft vom Geschichtenerzähler an das Publikum weitergegeben wird, werden häufig Lektionen vermittelt. Die Geschichten dienen als Gefäße für die kulturelle Weitergabe. Dennoch gibt es in der Forschung eine Lücke, in der evaluiert wird, wie ihre Wirksamkeit im informellen Unterricht in einem Klassenzimmer genutzt werden könnte, um ähnliche pädagogische Ziele zu erreichen. Ziel dieser interdisziplinären Untersuchung ist es, formal zu evaluieren, auf welche Weise Geschichten zur Informationsübertragung zwischen Menschen und über Generationen hinweg genutzt werden und in welchem Maße diese Fähigkeiten im Klassenzimmer genutzt wurden.

Schlüsselwörter: kritisches Denken, Praxis, Lehrmethoden, soziale Kognition, Kognitionswissenschaft, Lerntheorien, Geschichtenerzählen, Narrativ

Резюме (В. Ясон Нидермайер: И к научению обязанный, и к учебе привязанный: о роли (ролях) нарративной коммуникации в образовании): Человек обладает способностью не только рассказывать какие-либо истории, но и выступать в роли активного слушателя. Если к слушателю с чем-то обращаются, зачастую в послание кодируется некий наставнический знак. Если использовать образное сравнение, можно сказать, что истории, нарративы являются сосудами, через которые осуществляется трансфер культурного знания. При этом в исследовательском дискурсе на данный

момент есть участок, где обсуждается эффективность применения нарративных стратегий для достижения определенных педагогических целей в учебной аудитории. Целью данного междисциплинарного исследования является определение того, как задействовать нарративы для трансфера информации между людьми, в том числе на протяжении нескольких поколений, и в какой степени использовать данный потенциал в учебном дискурсе.

Ключевые слова: критическое мышление, практика, учебные методы, социальная когниция, когнитивистика, теории обучения, нарратив

Introduction

Defining human uniqueness has become a cottage industry. It has been claimed that our species is unique because of language, culture, art, and teaching, among other seemingly elevated activities related to our cognitive capacity. This movement has inspired a counter movement of sorts, inspiring ethologists, psychologists, cognitive neuroscientists, and even philosophers to investigate the degree to which non-human animals have the theory of mind, grasp of syntax and semantics, and the pedagogy necessary to also be considered little linguists and culturally transmitting artistic beasts.

In the past decade, the movement has come to investigate the evolutionary underpinnings of the practice that exists at the confluence of these activities, storytelling. Anthropologists have recently concluded that

Once the process of making meaning had begun, it is not a giant leap to see what we might call ‘figurative language,’ a system of sounds and gestures that enables the emergence of metaphor. The use of gestures and sounds to represent something else—an experience, a thought, a hope, or some other facet of the imagination ... our ancestors were developing the capacity to share what was in their minds, to imagine and to share their imaginings. They were developing the capacity for a central facet of all human lives: the ability to tell stories. (Fuentes, 2017, p. 205)

This universal cultural practice is thought to be so engaging because stories “form a point of intersection between the most emotional, subjective parts of the mind and the most abstract and cerebral” (Carroll, 2006, p. 42). Our active imaginations allow the mirror neurons inherited from our primate ancestors to be activated by the words uttered (or written) by a storyteller (Gazzaniga, 2008). And just as our primate relatives can be inspired to act by watching others engage in an activity, so can humans be inspired to act through story (Gottschall, 2013). This extension of our imagination may explain why leaders throughout time are often gifted orators with relatable life stories (Niedermeyer, 2012).

Since it has been concluded that, “although storytelling talent varies from individual to individual, all normally developing humans capable of understanding stories are capable of telling stories” (Sugiyama, 2005, p. 180) and that “The love of fiction—a fiction instinct—is as universal as hierarchies, marriage, jokes, religion, sweet, fat, and the incest taboo” (Dutton, 2009, p. 109), it would seem that the universality of narrative understanding paired with stories’ capacity to inspire action make them a potentially ideal pedagogical delivery device. And yet there has been little done with regard to reviewing the varied nature and size of stories and their effect on student understanding of content, concepts, and curriculum. Therefore, the aim of this paper is to identify the effects and affects of effective stories and storytellers, the structure of stories, and their current use in classroom settings. The review will proceed in a de facto chronological order, following along the path in which a typical human’s understanding of stories and narrative progress. This process will begin with the storyteller, and then proceed through how the body and mind construct and deconstruct increasingly complex stories as people garner a greater understanding of their own experiences and culture and seek to transmit them to others. Finally, the paper will conclude with a review of the ways in which the cultural institution charged with educating children, our

school system, has leveraged stories across grade levels and subject matter in an attempt to ascertain whether stories are being used as effectively in classrooms as they might be.

The storyteller and the point of the story

For a story to exist, there must be at least two people, a teller and a listener. In such a scenario, “the storyteller models human behavior” (Sugiyama, 2005, p. 186), demonstrating the actions of heroes and villains, the paths to success and failure, and the emotions evinced by all participants. That has meant that, throughout time, storytellers were

teachers (...) providing lessons in how a priest ought to be addressed, how classes of people—women and men, kings and warriors—ought to behave with respect to one another, how the social structure is maintained through such agencies as the intervention of Nestor, how kings (and gods) are petitioned for favor, how ritual sacrifices are to be carried out, how captured concubines are to be treated, and even how one should comport oneself at a table (Dutton, 2009, p. 116).

By positioning the storyteller as the purveyor of the collective knowledge, he/she becomes, for the extent of the story, the cultural conscience for the group. Therefore, in pre-literate cultures, the storyteller ‘ (...) is at once a storyteller and also a tribal encyclopedist.’ (Havelock, 1963, p. 83).

For the person cast as the storyteller, he attempts to effect “not a transfer of his own intentions, but a conventional realization of traditional thought for his listeners, including himself” (Peabody, 1975, p. 176). This description suggests that storytellers attempt to present their material as objective factual accounts with definitive purposes for their telling. However, by choosing to present information in the form of a story, there is an implicit understanding that “The oral song (or other narrative) is the result of interaction between the singer, the present audience, and the singer’s memories of songs sung” (Ong, p. 146). The story becomes a dialogue between the teller and the listeners (Kane, 1998), where the “meaning of a (...) work is not in the events it recounts. It is how events are interpreted that makes a meaning” (Dutton, p. 124). Therefore, the presentation of a story may elicit as many interpretations as there are listeners. This variability, however, does not mean that there are not identifiable universal purposes for storytelling.

Jo-Ann Archibald, a scholar of indigenous mythology and herself a tribal storyteller, has concluded that, in general, “Stories have the power to make our hearts, minds, bodies, and spirits work together” (Archibald, 2008, p. 12). The ends to which stories can be made to activate this internal ecology, however, are quite varied. Among the most widely identified purposes of stories is as a vehicle for the transmission of information (Gottschall, 2013). The “Myths are repositories of practical wisdom” (Kane, 1998, p. 39), full of “factual (or putatively factual) information” (Dutton, 2009, p. 110). The information that is transmitted may be about foraging (Sugiyama, 2001b), medicine (Sugiyama, 2001a), or way-finding (Kane, 1998; Sugiyama, & Sugiyama, n.d.), but because it is delivered in the form of a story, it provides the listener “a vivid and memorable way of communicating information” (Dutton, 2009, p. 110).

The information that is transmitted does not have to be purely of a declarative sort. Rather, because “Stories encourage us to explore the points of view, beliefs, motivations, and values of other human minds (...) Stories provide regulation for social behavior” (Dutton, 2009, p. 110). These behaviors may include understanding family relationships (Ong, 1982) and how to navigate interpersonal interactions (Sugiyama, 2001a), but it can also be used to coordinate with others (Clark, 2016). By turning “their private imaginings into shared, public fictions” a member can create a normative pathway for cooperating with members of the group, a practice that is “qualitatively different from anything observed outside our

own species” (Wyman, 2014, p. 183). The variety of group-level applications explains why for the Metis, an indigenous group in Canada, “Storytelling was a social institution, an ‘oral university’ that taught people young and old about being ‘human’—that is, how to function in the community” (Maclean & Wason-Ellam, 2006, p. 9).

In addition to stories being used to transmit discrete information, they may also be for making sense of events (Gottschall, 2013). Stories allow a person to “frame events and sentences in larger structures (...) These larger structures provide an interpretive context for the components they encompass” (Bruner, 1990, p. 64). While these stories may initially play out in an individual’s mind, “personal narratives are often co-constructed with others, and thus tend to feed the structures and expectations of society back in so that they become reflected in the models that an individual uses to make sense of her own acts and choices” (Clark, 2016, p. 286). These narratives, whether they are internalized or shared, can be used to manipulate the listener (Sugiyama, 2001a). When used as a form of self-talk, the narrative can enable an agent to find solutions to more difficult tasks (Alderson-Day, & Fernyhough, 2015). When used on listeners, it may be to achieve an end that might not otherwise have been achieved (e.g. to impress a potential mate) (Gottschall, 2013). In either (or both) case(s), the cognitive psychologist Jerome Bruner concluded that “Getting what you want very often means getting the right story” (Bruner, 1990, p. 86).

The right story can also be used to prepare listeners (and readers) for life’s challenges (Gottschall, 2013). The cognitive linguist, Daniel Dor, maintains that this use is possible because “Language (...) allows speakers to intentionally and systematically instruct their interlocutors in the process of imagining the intended experience, as opposed to directly experiencing it” (Dor, 2014, p. 106). Preparing in this fashion is low-cost (Dutton, 2009; Sugiyama, 2005). It allows a listener to “witness a variety of adaptively momentous actions (for example, rape, adultery, incest, conspiracy, homicide, ostracism) from multiple perspectives (for example, victim, perpetrator, accessory, kinsman, friend, enemy)” (Sugiyama, 2005, p. 186). Because a person will likely experience many of these charged actions and feel compelled to respond in an emotional fashion, the preparation provided by a story may help modulate the response. This may be why the comparative literary theorist, Eugene Eoyang, declares that the value of “Literature [is that it] offers no facts, no formulas, no answers: what it presents are theories of life, hypothetical experiments in the imagination” (Eoyang, 2012, p. 14).

Though all of these functional applications exist, it is possible, as some theorists have argued, that storytelling may be nothing more than a byproduct of humans’ possession of an imagination, working on our brain like a drug (Boyd, 2009). It is undeniable, however, that stories presented in the form of a narrative are a cultural universal. But what, exactly, constitutes a story?

Storytelling structures

It seems that narrative, like love, is a concept that most people feel they can understand but in actuality, can be difficult to define. In his book, *The Art Instinct*, Denis Dutton (2009) concludes that “the most abstract characterization that can be given stories is that they involve (1) a human will and (2) some kind of resistance to it” (p. 118). Some researchers omit the need for character, instead focusing on the causal and temporal relationships between events (Bordwell & Thompson, 1997). Most, however, expect there to be a character with agency, leading to evolutionary literary theorist Michelle Sugiyama (2005) to declare

The literary consensus is that stories consist of character, setting, actions, and events—linked temporally and/or causally—and conflict and resolution (...) Psychological support for this view comes from story grammar research (...) This research yielded a consensus regarding the essential

components of narrative that parallels the literary one: the generation of narrative requires at least one character, setting, states and events, sequence, causal connections, goal-oriented action, and resolution. (p. 180)

It therefore seems that the compulsion to tell stories is innate. As such, one would expect there to be a developmental process to storytelling, and the cognitive psychologist Jerome Bruner's late career work addresses this expectation.

It is Bruner's (1990) conclusion that there are four components to story grammar— (1) Agentivity, (2) Linearization, (3) Knowledge of the canon, and (4) A narrator's perspective—that develop (largely) sequentially (p. 77). The former two components likely develop because humans are mobile, social animals (Clark, 2016). The latter two components, however, are more affected by the local environment—or setting, which Sugiyama stipulates is “a representation of the potential sources of conflict in a given set of circumstances—that is, a localized representation of ‘the system of forces that regulate all possible action’” (Sugiyama, 2005, p. 186). Based on the amount of storytelling that is engaged in around the household as a child grows, his/her developmental trajectory can be affected, and his/her understanding of what is canonical may differ. Should a child be raised in a household that celebrates birthdays, then hearing that someone is happy on his/her birthday requires no further explanation; however, hearing that someone is sad requires context because it is not canonical. It takes a while for a child's understanding of their physical and social canons to develop, which may be why the narrator's perspective is last to develop—it requires not only a theory of mind, but also an understanding of why and how a non-canonical tale might have transpired and the ability to convey this realization linguistically. The integration of these four aspects of story grammar may explain why Bruner felt confident in his assessment that “The typical form of framing experience (and our memory of it) is in narrative form [and] (...) that what does *not* get structured narratively suffers loss in memory” (Bruner, 1990, p. 56). This conclusion may also explain why we do not have many memories predating our third years (Wang, & Peterson, 2014), the age at which most children have achieved at least rudimentary forms of their story grammars (Bruner, 1990).

Story Structure

Since the use of narrative helps us structure memories of our own experiences as well as vicariously experience those told to us by others, several questions are begged. How large or small can stories be to have functional value? Do stories of different sizes or presented in different modalities have different effects on the listener/reader? And what kind of information is typically conveyed through different types and lengths of stories? These questions need to be answered in order to determine the various and best use of stories in a classroom.

Embodied Cognition. It is quite possible—perhaps it is more accurate to say likely—that our understanding and production of stories predates our ability to tell them. Researchers in the burgeoning interdisciplinary field of embodied cognition have concluded that not only do we think with the help of our body but we also predict outcomes. That makes humans, in the mind of philosopher Andy Clark (2016), “perceivers [and] (...) imaginers too: they are creatures poised to explore and experience their worlds not just by perception and gross physical action but also by means of imagery, dreams, and (in some cases) deliberate mental simulations” (p. 84). The capacity to envision agency that acts within a given setting to overcome obstacles preventing the achievement of a goal aligns with the aforementioned definitions of “story” provided by narrative theorists coming from disparate disciplines.

As described by Bruner at length in his book *Acts of Meaning*, the process of developing these internal stories is one that develops over time. It is as if, as Clark (2016) describes it, our mind works on “finding

the most parsimonious model that successfully *engages* the sensory flow” (p. 271). As our linguistic ability develops in parallel with our perception of agency and our imagination, these various processes begin to interact with one another (Vygotsky, 1986; Prinz 2014), and the compulsion to use stories to explain phenomena grows (Bruner, 1990). We are compelled to determine causal relationships as well as to intuit our fellow agents’ intentions and to put those together into a coherent narrative that allows us to act on our own behalf. Those stories, however, do more than help us understand our present situations— they also help us make sense of those ideas and feelings that are more difficult to grasp.

Metaphor. In many ways, Lakoff and Johnson (2003), sparked the embodied cognition movement with their publication of the seminal work, *Metaphors We Live By*. In it, they concluded that “we tend to structure the less concrete and inherently vaguer concepts (like those for the emotions) in terms of more concrete concepts, which are more clearly delineated in our experience” (p. 112). Those experiences— once causality and intentionality have been identified (i.e. they have been storied)—provide us with an understanding of how entities interact with each other. According to Lakoff and Johnson, as we attempt to use our discoveries and share them with others, our language provides

data that can lead to general principles of understanding. The general principles involve whole systems of concept rather than individual words or individual concepts. We have found that such principles are often metaphoric in nature and involve understanding one kind of experience in terms of another kind of experience” (p. 116).

Taken from this perspective, a metaphor is effectively a short story, whereby the agents are the new and old experiences. The conflict, or “tension” as Ricoeur (2004) terms it in his book *The Rule of Metaphor*, is the potential for a relationship between them. The resolution, therefore, is the identification of how the old provides us with a greater understanding of the new (or vice versa). The analogical nature of the relationship that has been created can then be leveraged in novel situations that gives an actor an advantage over someone who does not have that internal metaphor (Epstein, 2019).

Proverbs. For Lakoff and Johnson (2003), “Metaphorical imagination is a crucial skill in creating rapport and in communicating the nature of unshared experience” (p. 231), and it can produce simple yet profound understandings that can be shared between individuals. Metaphors can also be used to transmit information through more than the space between two people—they can also be used to communicate through the time between generations. The metaphors that are used to transmit cultural knowledge, however, are often repackaged as proverbs.

Used by nearly every culture on the planet, proverbs utilize the mind’s capacity to create analogies by making the metaphors implied. Ranging from those used in China [e.g. A gentleman is ashamed to let his words outrun his deeds. (Confucious, Book XIV: 29 in Reagan, 2005, p. 140)], to those used in Meso-America [e.g. Be not called twice, like the wind art thou to go. (Reagan, 2005, p. 102)], to those used in Africa [e.g. If you take a knife from a child, give him a stick (Reagan, 2005, p. 65), these micro-stories cogently, coherently, and succinctly capture values and concepts that are key to navigating socio-cultural environments.

The stories then become both more concrete because they focus on a single agent but they simultaneously become more abstract because they force the listener to infer the relationship. The use of proverbs means that “Cultural learning (...) [is] not merely (...) a producer of more and more ‘grist’ (transmissible facts about the world) but a source of ‘mills’—the ‘psychological processes that enable us to learn from the grist of others’ (Clark, 2016, p. 281; Heyes, 2012, p. 2182). These ‘mills’—“intuition pumps” for the philosopher Daniel Dennett (2013)—become the means by which a person can find clarity within a situation that initially seems incoherent. The person begins to recognize that the something in the situation

fits a proverbial pattern, and according to at least one scholar of myths, “the knowledge of pattern is the beginning of every practical wisdom” (Kane, 1998, p. 37).

Parables. The power of metaphors and proverbs to provide insight to situations through the perception of hidden relationships and patterns is also a limitation. The brevity of the stories forces listeners (or readers) to provide the context, and they are therefore limited by the breadth of their experiences. The power of a more complete story comes from its ability to develop the context—the characters are enmeshed with the setting as they attempt to achieve their goals. The listener is then provided with , “a concealed knowledge about relationship that is available only in story” (Kane, 1998, p. 45). The boundaries generated by the story allow listeners to immerse themselves in the tale, allowing them to experience its transpirations along with the hero or heroine through mental imagery. This capacity has been recognized as important by no less than Immanuel Kant, who concluded, “[F]or the human being, the postulates of practical reason need ‘to be represented through something visible (sensible) (...) for the sake of praxis and, though intellectual, made as it were an object of intuition” (in Kronman, 2016, p. 45). It seems that through stories, we are better able to grasp the abstract concepts that steer our concrete reality.

Stories that are told by members of a culture countless times become parables, whereby listeners are granted access to not only the patterns provided by metaphors but they also begin to see the patterns of patterns. For some cultures, these are explicitly presented as dilemmas, whereby “in contrast to ordinary folktales, a dilemma tale is not brought to a conclusion by the narrator, but it ends on a question which is followed by a lively discussion by the audience” (Kubik, 1990 in Reagan, 2005, p. 68). The discussion can ostensibly go in any direction with the audience during one presentation agreeing on a solution that was hardly considered during a different session (Archibald, 2008). Parables that promote such discussion are achieving their aim, for according to Kierkegaard (1978), these stories are meant to “challenge one to a different level of being” (p. 23).

Stories may also be used to convey particular bits of ecological knowledge. In one story shared by the Dene and Inuit of North America, the caribou herds occasionally slip into a large hole in the earth that is covered with caribou skin by a pair of guardian rabbits. When it is time, the rabbits will release the caribou back into the world. Therefore, when wildlife biologists observed a rapid decline in caribou numbers in the early 1980’s, attributed the cause to overhunting, and then were shocked when the herd’s decline turned into an explosion, the Dene and Inuit were non-plussed; the caribou’s behavior fit a pattern that had been transmitted culturally for generations (Kane, 1998, pp. 42-43). Stories like this exist in cultures across the globe, conveying knowledge about the relationship between the elements presented within the bounds of the stories (Arnold, 2017).

Stories work—be they ones we have heard before or not—because they activate our associative memories. We observe characters with familiar traits facing familiar obstacles presented by familiar foils even in newly presented narratives because we process predictively based on our previous experience and because there are only so many stories a storyteller can produce. In the work that was the product of twenty-eight years of research, *The Seven Plots*, Christopher Booker (2004) enumerates (and demonstrates) the limited number of trajectories a story can take. Booker drew the conclusion that stories are either about (1) Overcoming the Monster, (2) A Quest, (3) A Voyage and Return, (4) Rags to Riches, (5) Comedy, (6) Tragedy, or a (7) Rebirth. Overlaps exist between these story types and large works are likely to have different plots active at different times for different characters. However, the element most likely to affect the way in which a story’s plot is presented—and therefore the way in which the listener/reader sympathizes with the hero or heroine—is whether the story is presented orally or textually.

Oral Epics. In the first comprehensive investigation into the effects of text (vs. orality) on humans and culture, the scholar Walter Ong (1982) concluded that oral epics, in many ways, become cultural

foundations for groups. They are used to impart knowledge on everything from royal lineages to social customs, from rules of navigation to battle tactics. Among some African tribes, it was recognized that

The stories are manifestations of the tribal memory, the origin and history of the group, the deeds of their great men and women, their victories and defeats in war, their experiences which led to individual and group success and those which led to individual and group failure. (Uka, 1986 in Reagan, 2008, p. 69).

The classicist Eric Havelock (1986) found that these performed stories became a type of instructions, whereby “you do what you are told to do, in this case by a voice which is collective, a voice of the community. The story requires a body of language ‘encoded’ (...) to carry the necessary instructions” (p. 69). It was the cultural expectation that listeners would internalize the messages conveyed by the stories. As this cultural response occurs, a feedback loop is generated where “Myths are embodied in the customs of a people, and the customs replicate the essential patterns of a mythology with each of its aspects a sign pointing to another sign in an endless circularity” (Kane, 1998, p. 194).

This expectation ensures epics that are told and retold for generations codify the myths of a culture into a true mythology. The stories become more memorable when told with the rhythmic cadence and imagery provided by a gifted storyteller (Kane, 1998; Ong, 1982). What captivates an audience, however, is an epic’s use of a hero going through the kind of transformation dictated by the tale’s plot (Booker, 2004). Ong (1982) referred to these heroic characters as ‘heavy,’ and suggests that because they were presented as people (or gods) with strengths and weaknesses, the audience could grasp the completeness of their character. Booker (2004) concurs, finding that the heroes of epics, once they have completed their transformation, have been made whole, activating both the masculine virtues of power and control as well as the feminine virtues of empathy and understanding. Through their external achievements—slaying the beast, reaching the end of the quest, returning home from the journey—the heroes achieve internal totality, and become paragons of virtue for members of a culture to aspire to emulate. The listeners, like the hero or heroine, may have to kill a predator that is threatening their herds, or travel to find an artifact of value, or face a perilous journey home, and should they keep their wits about them, there exists the possibility they could show themselves to be as strong or clever as their epic heroes. But even if they do not, they will certainly, by undertaking the endeavor, grow in the process.

Novels. The oral nature of the epic ensured that even the deep personal growth of a hero was manifested externally and shared with others through the conduit of the storyteller and the presence of an audience. Once writing came to not only exist, but to be used as a means by which to internalize stories, the underlying purpose of what would previously have been labeled epics changed. Rather than encouraging listeners to imagine physical obstacles in the quest to achieve external goals, readers were also left to deal with the psychological obstacles to achieving internal goals. This additional—perhaps primary—burden was born by authors because “As language became separated visually from the person who uttered it, so also the person, the source of the language, came into sharper focus and the concept of selfhood was born” (Havelock, 1986, p. 113). The awareness inspired by writing meant that heroes could not be romanticized as manifestations of the human ideal; rather, they became characters saddled with the same emotional baggage, behavioral idiosyncrasies, and psychological burdens as those that populated the reader’s actual life. As Ong (1982) describes, “The novel is clearly a print genre, deeply interior, de-heroicized, and tending strongly to irony” (p. 159). Heroes turned into protagonists and failure became a possibility. Sentimental and dark versions of the seven plots emerged, with heroes either only outwardly achieving their goals but not demonstrating a complete transformation or instead allowing their character to be drawn toward the shadow versions of masculinity and femininity (Booker, 2004).

By penetrating the psychology of the reader, literature has been shown to generate cognitive responses and experiences in readers that parallel those of hallucinations (Alderson-Day, Bernini, & Fernyhough, 2017). And as with hallucinations, readers can be inspired to act in accordance with the internal speech a text can generate. We can be convinced by fiction (as opposed to non-fiction), as described by the English professor and evolutionary psychologist Jonathan Gottschall (2012), to “drop our intellectual guard [because] (...) We are moved emotionally, and this seems to leave us defenseless” (p. 152). This phenomenon can be implicated in

the way the publication of Goethe's The Sorrow of Young Werther (1774) inspired a spate of copy-cat suicides; the way novels such as 1984 (George Orwell, 1948) and Darkness at Noon (Arthur Koestler, 1940) steeled a generation against the nightmare of totalitarianism; the ways stories such as Invisible Man (Ralph Ellison, 1952), To Kill a Mockingbird (Harper Lee, 1960), and Roots (Alex Haley, 1976) changed racial attitudes around the world. (Gottschall, 2012, p. 148).

The development of the novel, it seems, activated our innate individual and social psychology in a way that oral stories could not, laying the groundwork for the most profound use of stories in human history.

Religion. Through their use of sweeping epics, smaller parables, and stories of every size in between, oral cultures manage a mythology that guides the practices of a community. Often these mythologies are centered around gods and goddesses with humans susceptible to their desires and adhering to their expectations, producing what by all counts is a fully formed religion. Historically, “mythtelling [was] an instrument for keeping the expanding populations of the Neolithic in line” (Kane, 1998, p. 21). As those populations expanded, however, there existed a need to transfer cultural knowledge with fidelity not only through space but through time (Ong, 1982). The advent of writing provided a conduit for the codification of cultural norms and practices and its emergence alongside farming practices helped those cultures with exposure to both expand. Therefore, as the

'Big God(s)' religions (like those in the modern-day Abrahamic faiths of Judaism, Christianity, and Islam) emerged alongside those initial increases in social complexity and coordination just after the transition to domestication and agriculture (in the last 10,000 years or so). As populations became more complex, with larger towns and increasing inequality of wealth and activity, their gods became more moralizing (setting standards for behavior), interventionist (having the potential to have direct effects on human lives), and powerful. (Fuentes, 2017, p. 210).

Though many of the phrasings in these books indicate their origination in the oral tradition (Havelock, 1986; Ong, 1982) by turning the stories into literature, its lessons were shared more widely and without the kind of modifications oral mythtellers often make for their audiences (Havelock, 1986; Ong, 1982; Archibald, 2008). So, even as “The conception of God and his relationship to people, including the rendering of concepts such as original sin, faith, and forgiveness, appeared impressively designed to cultivate an attitude of civic compliance,” (Wilson, 2007, p. 243), it seems that, over time, “worship became more important than the relationships they originally sanctified” (Kane, 1998, p. 45). Rather than be taken metaphorically, the push for literal interpretation of the sacred texts became possible as print copies became widespread, thereby enhancing the opportunity to evangelize strict interpretations of the text (Kronmann, 2016).

And yet, even as the opportunity for contextual manipulation for canonical religious stories began to disappear, the rationale behind ensuring that they were being told remained the same: to produce a better, more just society. As Kronmann (2016) describes in his tome on the evolution of Western philosophy and religion, for Kant, “Immorality is (...) a social disease that requires a social cure. It must be fought through the establishment of an ‘ethical community’ devoted to strengthening the ‘moral disposition’

that society itself corrupts” (p. 452). Religion, it seems, uses its stories to produce self-perpetuating ethical communities.

By using a cascade of stories to produce citizens of predictable moral fiber, it seems the goal of a religion is the same as that of the stories produced by our embodied cognition: to enable an agent to act in a world that he/she understands through prediction. Those predictions are a product of expectations built from experiences and associations that produce patterns in an agent’s mind. The greater the number of experiences and associations an agent has the ability to use, the greater the number of affordances he/she has in a given situation (Clark, 2016). Therefore, it would seem that the goal of stories, at every level of deployment, is the same as the goal of education: to increase students’ feeling of agency by providing them with an increasing awareness of their available affordances. It naturally follows then that if stories are good at producing experiences and associations that they could be used to great effect in teaching. The question then becomes, how are they used? And how might they be used even better?

Stories in indigenous education

Indigenous education and storytelling, while not synonymous, are inextricably bound to each other, because, as one researcher put it, “Families who use stories to teach children important life principles have raised their children ‘right’” (Eder, 2007, p. 279). This perspective likely derives from the implicit assumption—supported by cross-cultural documentation—that by grounding children in their ancestral pasts and cultural mythology they not only are developing a sense of the group’s identity but also provided with potential solutions to problems that recur across generations (Palacios, 2012). These shared narratives also create a

shared perspective on how to evaluate and interpret experiences, which leads to a shared moral perspective. In this regard, an understanding of a self through time influences the way in which the past is constructed, and the way in which the past is constructed influences the way in which the self is conceptualized (McKeough et al., 2008, p. 151).

The use of storytelling to create a cultural lens through which to view both the world and the self enables an educator to foster a sense of agency in students through the depiction of heroes that embody the values of the culture (Carter-Black, 2007; McKeough et al., 2008; Okpewho, 1979).

Storytelling as a pedagogical practice, however, has been used by indigenous cultures as more than a way to transmit tradition and tales of what defines heroism. Storytelling is a sort of “‘oral university’ that taught people young and old about being ‘human’—that is, how to function in the community” (MacLean & Wason-Ellam, 2006, p. 9). Consequently, “storytelling strengthens group cohesiveness through a unified identity and implicit adherence to a set of agreed upon practices” (Palacios, 2012, p. 45-46). The identity that a group is promoting through story and transmitting through storytelling is a result of its history. For the Navajo, the stories convey a sense of harmony and balance between the masculine Protection Way of living and the feminine Blessing Way of living (Eder, 2007). Conversely,

Among African-American women, the liberating cathartic effects of storytelling are found to be helpful in finding meaning in their own lives, bonding with others over storytelling, validating and affirming one another’s experiences, allowing them to vent frustrations, resist oppression, and educate others (Palacios, 2012, p. 46).

Stories and storytelling can therefore provide a conduit for social and emotional learning, allowing the past to be remembered and reflected upon while providing a vision for the future. As one acclaimed First

Nations storyteller explains, “It is not important to preserve our traditions, it is important to allow our traditions to preserve us” (Ellen White, quoted in Hampton, 1995, p. 22).

The information transmitted through stories, however, is not only of the existential variety. For many indigenous groups, stories provide an education on the details necessary to understand what Western culture would identify as different subject matter, ranging from geography (Koki, 1998) to history (MacLean, & Wasson-Elam, 2006) to art and science (Palacios, 2012). They can also be used to teach bigger concepts, like tolerance and acceptance, ideas that many Western classrooms are afraid to broach. As described by a Navajo storyteller, children learn through story and the succeeding discussion,

‘You do not make fun of people who are deformed or as we know them today—people who act like a boy or a girl [when of the opposite sex]. So you don’t make fun of them. They [have] had a very important life (...). Everything that we have has a purpose to it, and it has a spirituality part to it. So you teach young kids to respect all things, to care for one another, to care for the ill, to care for those who are less fortunate than you are, you see.’ (Eder, 2007, p. 287)

The stories allow students to see differences in displayed in context, thereby creating an almost ecological understanding of diversity.

Though the context created by the story allows the information to become grounded for the students (Bruner, 1990; MacLean, & Wasson-Elam, 2006), it is the discussion that happens after the story that cements their learning. This outcome occurs because, as described by First Nations storyteller Ellen White, listeners are told, “We’re going to lift all the little corners of [the story] (...) We’re going to lift this end and lift it and peek under there to see what is going on in there” (Archibald, 2008, p. 135). It is through this process of listening not only to the story but also to others’ interpretations of the story that new details, ideas, and perspectives come to light. As described by MacLean and Wason-Ellam (2006), researchers working with the Metis people, “One tale reminds someone of theirs, which may in turn remind others or of more details than a previous one. Storytelling provides an opportunity for the uncovering of a new way of knowing” (p. 22). The stories also grant the audience insight to the storytellers themselves (Palacios, 2012), enabling them to see the teller not only as a role model (Archibald, 2008), but also

‘as someone different. They see me as a single parent, they see me as a grandmother that’s raising her granddaughter, they see me as somebody that was very, very poor, and I came from a single parent family (...) They see me as a whole.’ (Queedum in MacLean, & Wason-Ellam, 2006, p. 29)

By developing this connection with their audience, the storyteller can create a synergy between the teacher, the students and the content of the story that is characteristic of storytelling (Archibald, 2008), but that is difficult to achieve in other pedagogical practices.

There are specific practices within storytelling that bolster this synergy. One is the idea that the way a story is told can itself convey a message. As noted by Eder (2007),

if the cultural meanings are the in the content of stories, they are also likely to be found in the practices of storytelling (...) the aspects of storytelling such as its cyclical nature—whereby lessons emerge throughout the story—its use of implicit versus explicit lessons, and its focus on honoring relationships (p. 282).

By returning to the same stories or the same themes, cultures that span the globe (Archibald, 2008; Carter-Black, 2007; McKeough, et al., 2008; Palacios, 2012) manage to teach in a fashion that highlights not only recurrent nature of reality but also the experiences of a life that makes for a life well-lived (MacLean, & Wason-Ellam, 2006). Effective pedagogic storytellers also use the experiences of their listeners

to foster connections between the stories and their lives. Researchers working with First Nations teachers concluded, “To make meaning, we make sense of something outside our experiences by pairing it with something known (...) one thing is not taken for another—it’s not a matter of substitution—but is a meaningful pairing” (MacLean, & Wason-Ellam, 2006, p. 17). This purposeful, real-time creation of analogies through the use of both explicit and implicit metaphors by storytellers across cultures (Archibald, 2008; Koki, 1998) promotes agency in learners investigating new content, concepts, and skills.

In many indigenous classrooms, these techniques have been brought to bear on the most traditionally academic of skills, literacy. Recognizing that being a part of a storytelling culture helps students acquire “ (...) an understanding of story structure and a proficiency in creating and sharing stories and legends, children are well positioned to use them in school literacy-related language tasks,” some researchers have discovered the pedagogical power of linking literacy and orality (McKeough et al., 2008, p. 150). This power likely derives from the finding that “ (...) when discourse patterns that correspond to the children’s experience with [I]ndigenous oral forms are recognized and incorporated into the school-based literacy programme, discontinuities between community and classroom begin to break down” (Francis & Reyhner, 2002, p. 52). Given the knowledge that competence in oral narratives is a significant predictor of literacy in later years (McKeough, et al., 2008), some researchers have advocated for explicit programs that utilize indigenous teaching techniques in not exclusively indigenous classrooms (Archibald, 2008; Carter-Black, 2007; Eder, 2007; Koki, 1998; MacLean, & Wason-Ellam, 2006).

The goal, however, could be about more than just developing literacy skills. Given the now well-established need for culturally relevant teaching, one indigenous scholar concludes,

Western schools are faced with the challenges of finding ways to acknowledge the diverse cultural experiences that students bring to school and to structure learning so as to bring out those experiences, allowing children to make their own connections between new knowledge and prior experience (...) By introducing new storytelling practices, teachers can provide much in the way of cultural learning while also modeling respect for different traditions. (Eder, 2007, p. 292)

The inertia for creating classrooms that value all students, cultures, and their associated stories is well-documented, and indigenous practices were seemingly the forerunner of (and perhaps impetus behind the) movement. But if stories and storytelling are more than just conduits for cultural relevance and rather the very vehicles of thought and memory, some savvy Western educators must have managed to find use for them in contemporary classroom settings. The question then becomes, in what ways and spaces have they been successfully deployed?

Storytelling in Western Classrooms

In traditional Western classrooms, the arguments for the deployment of stories and storytelling can be separated into two non-mutually exclusive dichotomies. The first of these is about who plays the role of the storyteller while the second is about the components of a student’s education that are affected by the use of stories. In the spirit of representing education as it is currently constructed, both of these dichotomies will be addressed in sections based on the chronology dictated by state-sponsored education.

Elementary Classrooms. A safe assumption, based on the traditional set-up of the Western classroom, would be that the teacher is cast in the role of storyteller. Several studies have shown that a classroom which deploys this technique promotes student enjoyment by facilitating interaction in the learning process (Al-Mansour & Al-Shorman, 2011; Isbell, Sobol, Lindauer, & Lawrence, 2004; Makinney, 1996; Myers, 1990; Zarei, & Ramezankhani, 2018). Perhaps it is the bonds that have been created that

promote the trust necessary to effectively facilitate the transmission of knowledge (Harris, & Corriveau, 2011) or maybe it is the narrative and figurative language help bridge the gap between students' imaginative and practical worlds that allows for learning (Yeoman, 1999). Some studies have even demonstrated that stories told with greater attendance to prosody promote retention of information (Goldman, Meyerson, & Cote, 2006; Loutrari, Tselekidou, & Proios 2018; Mira, & Schwanenflugel, 2013). In any case, it should not be surprising that recent studies spanning the globe are suggesting that teachers should spend at least some of their time in the classroom as the storyteller (Al-Mansour, & Al-Shorman, 2011; Loutrari, Tselekidou, & Proios 2018; Zarei, & Ramezankhani, 2018).

There is also significant literature suggesting the educational value of placing the students in the role of storytellers. Because students naturally use narratives for various purposes various cultures have different understandings of what constitutes a good story (McCabe, 1997), providing students with opportunities to express themselves as storytellers in oral or written form at the very least seems theoretically promising. In practice, the outcomes have been even more than that. One emerging practice is having students produce disruptive stories, or stories that upend the traditional trajectories of common fairy tales. In one study, students who were provided with opportunities to produce their own disruptive stories gained not only a greater appreciation of the importance of perspective in a narrative, but also generated new meanings for stories (Yeoman, 1999). As described by the students themselves "Instead of waiting for your prince to come, you could be something else" and "It doesn't matter if you're a man or a woman, you can still be a knight in shining armour. All you have to do is get some armour and put it on" (Yeoman, 1999, p. 435). Teachers, like Karen Gallas (1990), who engage in such practices, recognize "that children's stories are making statements about how they understand their world, [and] that conviction sways the course of my teaching, take[ing] it in new directions and deepens its impact" (p. 161). Students' stories have been effectively used to help deliver curriculum ranging from its use introducing science lessons (Gallas, 1990; Rubin, 2013) to creating the first texts students use to read (McCabe, 1997) to promoting advanced language arts skill development (Groce, 2004). In some cases, the overt use of storytelling hasn't been shown to be any more effective than some more traditional methods for the purposes of academic growth, but it has been shown to increase student engagement (Zarei, & Ramezankhani, 2018) and to encourage participation by previously reluctant students (Mages, 2018), suggesting the benefits of storytelling may be more than academic but in the socio-cultural development that it has promoted since time immemorial.

There is even a methodology that positions the teacher as the primary storyteller while positioning the students as not only participants but co-creators of the story. Total Physical Response (TPR) Storytelling is a technique that was an outgrowth of the Total Physical Response methodology developed by Asher that leveraged how children learned their mother tongues by pairing body motions to verbal cues (Bui, 2018). By adding the storytelling component in the 1990s, Blaine Ray sought to pair the narrative instinct identified by Bruner (1990) to Asher's (1977) activation of the body (Ray, & Seely, 2004). Consequently, students become exposed to "personalized mini-stories" that become the foundation for increasingly larger stories that help students acquire more vocabulary and a more nuanced understanding of grammar (Ray, & Seely, 2004). Most often, the technique is used for teaching foreign languages in secondary settings (Lichtman, 2015), however, it has been shown to be an effective technique for language acquisition in elementary ELL programs across the globe (Munoz & Valencia, 2010; Nuraeningsih & Rusiana, 2016) as well as programs hoping to promote indigenous language acquisition (Cantoni, 1999). Perhaps more interestingly, TPR Storytelling has also been shown to be effective in facilitating learning in the area that has proven most difficult to align with storytelling practices, math (Groce, 2004). In one recent study, the use of TPR Storytelling methodology was associated with an increase in math shape vocabulary

(Nurlaili, Nurani, & Yohana, 2015), suggesting TPR storytelling specifically (and stories and storytelling more generally) could be effective methods for delivering content in the more focused curriculum of secondary classrooms.

Secondary Classrooms. As students proceed through their education and begin to have their subjects separated not only by time but also by space, it would seem that some areas would be more likely to use stories and storytelling techniques as a matter of course. The most obvious would be English/Language Arts courses, whereby stories are the curriculum, belying the need to discuss the subject at length. The way stories are selected and presented, however, can have significant effect on student interpretation in the classroom. Rather than reifying the existing power structure through the selection of stories from the canon, teachers who diversify their curriculum promote educational equity and cross-cultural understanding (Darder, Baltodano, & Torres, 2017). Such practices have been advocated for in English classrooms for more than two decades, leading to British Parliament member Diane Abbott's 1995 address to the National Council of Teachers of English (Yeoman, 1999). There she declared, "[it] falls upon those who teach our children, whatever their colour, to teach all our children, whatever their colour, that heroes and heroines can be any shade or gender" (Bianchini, 1995, p. 234). In the intervening decades, teachers have been encouraged in fits and starts to provide diverse curriculum, resulting in a greater array of heroes and heroines; however, some groups continue to be marginalized.

For no one is this story of marginalization more true than for students who identify as LGBTQ. In a recent National School Climate Survey, those students were more likely to have a negative school experience (Kosciw et al., 2014), with those who had experienced harassment having lower grade point averages and plans for post-secondary education (Kosciw, et al., 2012). The remedy, it seems, is inclusive curriculum, for

in schools where students do report usage of an inclusive curriculum, LGBT[Q] students experience a safer school environment, less absenteeism, a feeling of more connection to their schools (...) greater acceptance from their peers (...) [and] perception of safety (...) and reduced homophobia. (Page, 2017, p. 347).

The most obvious place to generate LGBTQ inclusive curriculum is in an English/Language Arts course, where novels and stories presenting the LGBTQ experience can be used as the primary text and can be made available for choice reading time.

These sorts of decisions can have cascading effects, promoting the inclusion of the LGBTQ perspective when larger issues like discrimination, sex, and identity show up in more traditional texts. The decision, according to one inclusivity-aware teacher, comes down to the school and the teachers themselves. "The standards really tell us what to do for the most part, but we get to decide how. And I choose to address the standards through essential questions of equity and justice" (Lanza in Page, 2017, p. 357). By choosing the right kind of stories and allowing the space for the kind of discussion that manifests itself as a part of indigenous storytelling, more student voices are heard and there is increased exposure to and understanding of the diversity of heroes (and people) that fill students' lives.

A second subject area where stories reside as the centerpiece is social studies. Serving as the conduit for understanding human behavior, social studies teachers have the ability to provide their students with the psychological, sociological, and historical context for human activities past, present, and future. That context, however, can easily become lost among a cacophony of facts presented in some sort of chronology (Bage, 2012). This issue is exacerbated when the information that a teacher is attempting to transmit needs to be viewed through a cultural lens different than the students' native one. For the social studies teacher, it then becomes important to realize "storytelling can help awaken the sociological imagination

(...) it (...) can engage students even when such engagement is not normative for them” (Storrs, 2009, p. 43). For the history teacher, a “narrative serves to transform into a story a list of historical events that would otherwise be only a chronicle” (White, 1987, p. 43). Therefore, one of the history teacher’s primary practices should be

the construction and deconstruction of explanatory narratives about the past, derived from evidence and in answer to questions. This can be explained to children as finding answers to questions and questions to answer, by taking apart and putting together again real stories about the past. (Bage, 2013, p. 127-128)

As described earlier, the construction of the narrative may come from either the teacher or the students, with both having been shown to be effective.

In the former case, for the teacher to be an effectual storyteller, he or she must

decontextualiz[e] a text from a national context and recontextualiz[e] it into a personal or local context [and] assert (...) the authority to make oneself a responsible agent who is central to telling about national events, and whose experiences are directly related, through the dialogic process of narrating, to national experience. (Hamer, 1999, p. 376)

By positioning themselves as authorities on the subject through an understood connection to the protagonists of the historical narrative, teachers are granted legitimacy in the minds of their listeners (i.e. students) (Hamer, 1999; Loewen, 1995). They have effectively turned the dry subject of history into a study of the past, a critical distinction because across cultures, “the past [is] pervasive, a natural part of everyday life, central to any effort to live in the present” (Rosenzweig, & Thelen, 1998, p. 9). The same standards apply to positioning students as storytellers in the social studies classroom. Rather than be asked to not only memorize but also understand the vicissitudes of history, students who create blended narratives linking their own stories to those of the past cultivates a connection that enables them to own and share seminal moments in their lives and the way they were raised (Koenig, & Zorn, 2002). It effectively makes them heroes of their own classroom experience (Niedermeyer, 2015; Ohler, 2006).

Storytelling and narrative have been shown to be an effective technique in subjects outside those that are most obvious, however. In fields like science and math, the emphasis on compartmentalization and reductionism can serve to remove the kind of context that stories can produce, which is why there is a growing movement to look to narrative as a better way to convey science to the public (Dahlstrom, 2014; Negrete, & Lartigue, 2004). Whether the narrative is generated by the teacher (Hottecke, & Silva, 2011) or the students (Martin, & Brouwer, 1991), science stories allow students to perceive the nuance and context that often get overlooked in the quest to ascertain causal relationships. When teachers incorporate stories that illustrate the philosophy and history of science, they generate a “romantic understanding of science” (Klassen, & Klassen, 2014, p. 1503) that can

help students understand such ideas as: scientific knowledge, while durable, is tentative and subject to revision, people of both sexes and from many countries have contributed to the development of science, science is a creative activity, science has a sociocultural dimension, and also that there is not a standard scientific method, as scientists use a variety of approaches to explain the natural world. (Hadzigeorgiou, 2017, p. 1)

It seems that narratives about discovery can create the emotional connection to the material necessary for learning.

This result may be a product of the parallels between narrative and science as means for perceiving causation and intent and encouraging predictions and analysis. As described by Klassen (2010),

stories serve to encourage active learning through the generation of hypotheses and explanations. The practical implications of this theoretical analogy can be applied to the classroom in that the utilization of stories provides the opportunity for a type of re-enactment of the learning process that may encourage both engagement with the material and the development of long-term memory structures. (p. 305)

This recognition about the ability of stories to capture a scientific concept in a transferable fashion mirrors the long utilized associations indigenous cultures have identified between mythology and scientific knowledge. It also explains why some districts are turning to indigenous school leaders for ideas about how to incorporate indigenous scientific practices and knowledge into their curriculum (Hewson, & Ogunniyi, 2011; Kawagley, Norris-Tull, & Norris-Tull, 1998). Secondary education, so often a bulwark against change, has seemingly begun to identify the value of one of the oldest pedagogical practices and incorporate it across subject matters.

The Next Chapter

It would be trite to write at this point that storytelling is a universal cultural practice, but it would also be accurate. What is perhaps more interesting is that it is also educationally universal. Educators, whether they are indigenous or Western, whether they teach pre-school students or pre-service teachers, are going to tell stories, and encourage their students to do so as well. Some disciplines may be less likely to use storytelling techniques, but new techniques and technologies are emerging that are making it ever more likely that students will be seen activating their narrative brains not only in a language arts class but also in math and science classes. It is also becoming more likely that younger students are going to be encouraged to share their own stories both in traditional fashions but also digitally. These practices enable students to connect with their own cultures and understand others, to develop analogies and metaphors for understanding concepts that may have otherwise seemed abstract, and they enable teachers to turn their classrooms into communities. In short, stories help make a classroom compelling (Davies, 2014). Given that it is a teacher's job to compel a student to learn, it would seem that the classroom isn't just a place for storytelling; it is *the* place for it.

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