

Review

# Not Just ‘Once’ upon a Time

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**Abstract:** Multidisciplinary research indicates the importance of storytelling in child development, most recently exploring the evolved nature of language and narrative. Many questions remain about how children develop competence within such a vital but highly complex process. The ‘once upon a time’ concept is present within nearly every human language on Earth, indicating what a powerful hold ‘storying’ has over human beings and what a central role it plays within human societies. Sue Lyle proposes that human beings are above all, ‘storytelling animals’. Emergent questions include whether and how current mass-produced storytelling products and interactive media developed by Western technology impact children’s competence in the human ‘storying’ process and, in particular, whether such rapid change should be approached with more reflection and caution than is currently the case. In this article, I will consider the process of child development with respect to language and ‘storying’, the traditional role of stories and ‘make-believe’ in the fabric of children’s lives, how this has changed in the recent past in technologically advancing societies, and how such change may impact children’s learning and development.

**Keywords:** narrative; storying; mythology; human evolution; children; play; media

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## 1. What Do We Know about Language, Narrative, and Evolution?

The role of language and culture creates a crucial separation, distinguishing human from non-human animals (Bruner 1976, 1990, 1996; Bronfenbrenner and Ceci 1994; Low 1989; Tomasello 1999; Geary 1998; Dunbar et al. 1999; Boyd 2009, 2018) and underpinning greater environmentally mediated plasticity within human beings. Thus, language and culture bestow on humans a huge capacity to individually understand and innovatively adapt to different environments.

Jerome Bruner proposed that human beings are creatures who evolved to critically rely upon sharing symbolic meaning to operate within their world, ‘depending upon the human capacity to internalise language and use its system of signs ... such a social meaning readiness is a product of our evolutionary past’ (Bruner 1990, p. 69). He later reflected on the way that human beings understand many, sometimes deceptively similar, aspects of their world very differently, depending on the meanings that they attach to them (Bruner 1996):

Humans can do [what] other primate species cannot do. We organise social systems, networks of interaction that require cooperation between individuals who may never have seen one another before and who may never expect to see one another again. (Chase 1999, p. 36)

Bruner (1991, p. 9) emphasized the central role that narrative comprehension plays in this process, proposing that it is ‘among the earliest powers of mind to appear in the young child and among the most widely used forms of organizing human experience’. Lyle (2000) agreed, describing human beings as a storying animal, making sense of thoughts and events via stories and narratives, with the result that human beings live in ‘a largely story shaped world’ (Lyle 2000, p. 55).

This is an essentially ‘biocultural’ paradigm (e.g., [Tomasello 1999](#); [Bruner 1996](#); [Jarvis 2006](#)) in which the evolved human competency for symbolic communication is mediated through language, which shapes and gives meaning to individual human lives and thence to human societies. The human primate comes equipped with the potential for enormous elasticity in cognitive and social development, far outreaching any other species on Earth, underpinned by this ability to reason and communicate through abstract symbolic thought, which is principally rooted in language. There is an important ‘priming’ role for biology in providing a template for human development, in partnership with a huge amount of plasticity, to allow a person to shape him/herself to the environment in which he/she develops. With increasing maturity, human beings additionally become the only creatures on Earth with the ability to flexibly adjust themselves to different environments via the use of manufactured equipment and, to some extent, the environments themselves.

While the biocultural model of the human being has recently generated a significant amount of debate between psychologists, philosophers, biologists, and anthropologists, human fascination with their own capacity for language, storytelling, and narrative are much older. The ancient Greek philosophers Plato and Aristotle discussed the distinction between deeply rooted narrative forms within human cognition and how these gave rise to a range of specific stories ([Swearingen 1990](#)). The ‘story’ refers to a specific sequence of events in which certain characters and situations appear (for example, Cinderella, the ball, and the slipper or Snow White, the mirror, and the enchanted sleep); the ‘narrative’ is the underlying cultural message that ‘lies beneath’ (for example, the beautiful, oppressed princess, the wicked stepmother, and the handsome savior prince).

In this article, I will focus upon a very small corner of this arena: the issue of storytelling in childhood and its perceived function, history, and future potential. I will rely upon a theoretical concept of the human being as a biocultural creature, involving ‘a confluence between innate and learned influences’ ([Mallon and Stich 2000](#), p. 143). The issues addressed will be premised upon on [Tinbergen \(1963\)](#) questions relating to development, function, and history ([Wilson 2019](#)), and through this lens, the role of ‘storying’ during the human developmental period will be explored, as well as how modes of storying have recently changed in Western culture in tandem with technological advancement. First of all, I will investigate how children develop an understanding of how to engage with human ‘storying’ and begin to create storying activities of their own, and then, I will subsequently explore some examples of storying in a range of cultures. Particular attention will be paid to how storying has recently changed within the technologically advancing environment of the English-speaking West and some consequent potential impacts upon contemporary Western early childhood.

## 2. How Do Children Develop the Capacity to ‘Story’?

It has long been observed that parents engage with their infants in ‘protoconversations’ ([Bateson 1975](#)), in which the turn-taking elements of speech can be discerned—the child and the adult vocalizing in turn. Most recently, [Yoo et al. \(2018\)](#) discovered that caregivers engage in this type of behavior in response to babies’ ‘protophones’ (early speech-like noises, such as coos and gurgles) but not in response to cries, indicating a natural human awareness of the functional difference between the noises that babies make. [Zeedyk \(2006, p. 322\)](#) describes the early protoconversation interactions of babies and caregivers as a rhythmic ‘jazz duet’, in which the baby and the adult exchange expressions, noises, and eye contact in a type of improvised symbolic ‘dance’. This is not always led by the adult; the baby quickly becomes an equal partner in signaling the beginning, end, and direction of the ‘dance’. The adult helps the infant to learn to ‘story’ such interactions through their contributions, initially in very simple games, such as peek-a-boo—“here I am . . . I’ve gone again”—and a little later in infancy in more sophisticated play episodes, for example, “what are you doing with teddy, giving him a cuddle? Shall we sing to him . . .”.

In non-literate societies, as linguistic competence increases, children are introduced to the stories and myths of their culture by adults; for example, this is the role of grandparents within traditional Native Australian society ([Ungunmerr-Baumann 1988](#)). Most contemporary Western parents read to

their children from a very early point in life and are strongly encouraged to do so within their cultural milieu, through government-produced advice to parents and charity-funded initiatives. For example, the United States (US)/United Kingdom (UK) charity 'Imagination Library' provides one free book a month to children under the age of five registered with their website. Through this progressive regime of introduction to language, narrative, and storying during early childhood, human beings are inducted into the overarching narratives of human existence that societies craft into culturally relevant 'storying'. Jung (2003) referred to the characters and events that inhabit such grand narratives as 'archetypes' that commonly appear in myths and fairy tales, for example, the beautiful young woman in need of rescue, the young man on a journey who becomes the rescuer and hence the hero, the wise old man who acts as a mentor to the young man, and the wicked witch who becomes the antagonist. As demonstrated by well-known Western fairy tales, such as Cinderella, Sleeping Beauty, and Snow White, the same narrative can underpin a number of different stories. 'The archetype is essentially an unconscious content that is altered by becoming conscious and by being perceived, and it takes its color from the individual consciousness in which it happens to appear' (Jung 2003, p. 4).

This inherent level of flexibility, in which culture plays a crucial role in the process of weaving a story around a narrative, indicates the complex interaction of the biological and the cultural within the human being. When we engage with a story, we do so through a cultural filter rather than by simply absorbing basic content, and while that filter will, in turn, play an important role in the re-telling, the story is never entirely fixed by it. In a commentary on the philosopher E. D. Hirsch's concept of 'validity in interpretation' (Hirsch 1967), Michael McGuire comments:

I break from Hirsch . . . not only the author's intentions constitute an epistemic structure of a narrative against which interpretations can be measured, but the participation of a narrative in a language of earlier texts and thoughts is necessary to the interpretation of that particular narrative. (McGuire 1990, p. 229)

So, how do children learn to manage such a complex process for themselves? Prior to Hirsch's thesis, the philosopher George Herbert Mead had already attempted to describe how such understanding is constructed in early childhood, proposing that 'the self is something which has a development; it is not initially there at birth but arises in the process of social experience and activity. . . the self is essentially a social structure' (Mead 1934, p. 135). He developed a theory that he termed 'symbolic interactionism', in which make-believe play, during which children draw upon stories and events from the world in which they are immersed, plays a crucial part in the development of a socially connected 'self'.

Mead proposed that, for example, in making a cardboard box 'stand for' a pirate galleon or a towel for Batman's cape and, consequently, making the self a pirate or Batman, children become able to view the world from a flexible range of culturally relevant perspectives. While it is likely they have no real idea beyond a simple stereotype about how pirates or Batman behave, by playing 'let's pretend' with their culture's stories in this way, they take on different roles from the one that they inhabit as their 'real' self and, from this perspective, step outside the self and consider how it might feel to be someone else in the world in which they are becoming immersed.

Narrative requires our unique capacity for meta-representation, not only to make and understand representations, but also to understand them *as* representations. This develops in children without training between their second and fifth years. Boyd (2009, p. 129)

Boyd's proposal is that young children have a natural urge to engage in such activities to develop the capacity for 'meta-representation' and, consequently, that the evolved human capacity to grasp ideas through the flexible manipulation of story underpinned by archetypal human narrative is an evolved behavior. In this sense, he is proposing that storying is essentially a 'primary skill' (Geary 2007); the adult provides the basic content rooted within a particular culture, and the child further 'works on it' through play, learning to move with increasing fluidity between underpinning narrative and specific story.

Jarvis (2006) observed children aged between four and six engaging in the natural primate style of chasing and catching but with the addition of culturally relevant narration to make human sense of the activities in which they were engaged. This play style has been found wherever play researchers have conducted investigations, for example, in non-Western cultures such as in the hunter–gatherer societies of the Khalahari Desert and in the ancient, multicultural environment of Oaxaca in Mexico (Jarvis 2019). Generations of British children will recognize the game as ‘he’, ‘tig’, or ‘tag’, depending on their regional origin (Opie and Opie 1969, p. 20), and it is also present within non-Anglophone post-industrial societies under a variety of names, such as ‘El Dimoni’ in Spain and ‘Oni’ in Japan (Jarvis 2019). Both of these words translate to ‘devil’ or ‘demon’, indicating the role that the catcher is perceived to take in the game, tapping into a pancultural archetype that can be traced back into pre-literate antiquity.

Jarvis (2006)’s child participants additionally added comprehensive make-believe to some of their chasing and catching play, drawn from stories that they had been introduced to both at home and at school, flexibly translating underpinning narratives, such as fear, heroic activity, and salvation into play relating to a wide range of contemporary media heroes and events of the time, such as Beyblades, Robot Wars, Batman, Disney Princesses, and even the primary hero of the English soccer team of that time, David Beckham. These children used gesture in parallel with verbalization to communicate meaning, including ‘play face’ (Konner 1972) and play intention signaling (Power 1999), exploring rudimentary non-verbal signaling. ‘Narrative . . . can operate through modes like mime, still pictures, shadow puppets or silent movies . . . it need not be restricted to language’ (Boyd 2018, p. 159).

In summary, there is evidence to suggest that, at a very young age, human beings become quite adept at ‘storying’ and that this is developed in a central element of their play with other children, drawing upon the underlying narratives in the stories to which they are introduced by adults and surrounding societal events. The urge to play at ‘make-believe’ with such cultural content appears to be naturally evolved. So, why might this have become an evolved feature via selection within the human species? What function might it fulfill?

### 3. What Is the Function of the Story?

The literary critic and educational theorist, Professor E. D. Hirsch emphasizes the importance of storytelling with young children, commenting that ‘nothing is more universal and natural than the explicit communication of communal knowledge’ (Hirsch 2016, p. 68). However, as previously indicated by McGuire (1990), Hirsch’s take on what he dubs “cultural literacy” implies passivity in the learner, blurring the importance of active engagement with the contents of the story. Words only have meaning in context, however, and many words have more than one meaning. For example, do we eat a blackberry, or do we use it for texting people? Do we eat dates, or do we put them in our diaries? Moreover, what would a four-year-old’s understanding of a ‘raspberry pi’ look like? Carroll (1871, online) archly explored this flexible element of language in an authoritative statement voiced by his pompous fictional character Humpty Dumpty: ‘when I use a word, it means just what I choose it to mean, neither more nor less’. The child Alice replies, ‘the question is whether you CAN make words mean so many different things’, to which Humpty responds from the adult perspective: ‘the question is which is to be master- that is all’.

A strong explanation for the function of stories in human development is the provision of a base for children to play with language during their developmental period in order to develop such mastery. Adults and societal events provide the raw materials for them to further shape this base in the collaborative make-believe activities outlined by Mead (1934) and Jarvis (2006). Adult-to-child transmission of story is only the first stage and must be followed by much further processing in order to develop full human competence and flexibility. The anthropology and history of childhood does not suggest passivity in the processing of cultural information through storying, particularly in the early years of life when children are learning how to manipulate story and narrative to make ‘human sense’ in the culture in which they are placed. Early childhood in hunter–gatherer and, later, rural societies

of the past, including those of the Anglo-American West, involved listening to stories recounted by adults, observing societal events from an ‘onlooker’ child perspective, and many hours of free play with other children (Jarvis et al. 2017), in which make-believe was a universal play form (Mead 1934). More recent anthropological researchers propose that the roots of such behaviors are likely to be evolved in the natural selection of those whose cognitive architecture underpinned their ability to engage in such activities:

A human cultural system may be immeasurably more complex than any game of pretend play. But just as a game is constructed out of pretend play tokens and rules, so human symbolic culture in general is composed entirely of entities constructed via a kind of play. Nettle (1999, pp. 232–33)

Harré (2002) gives a worked example of this phenomenon by comparing Snow White’s magic mirror and Maui’s magic fishhook to the ‘magic’ credit card he carries around in his pocket and the bank note that is really a valueless piece of paper containing a written promise, concluding that, in the human world, premised upon complex symbolic rules that underpin human understanding, ‘material things have magic powers only in the contexts in which they are embedded’ (Harré 2002, p. 25). This sets a daunting task for the human apprentice, learning to negotiate such a world in which all meaning is deeply immersed in symbology. Within this frame, children’s participation in storying activities can be theorized as an evolved human vehicle for learning how to manipulate such an abstract system of meaning creation.

Emergent theory relating to the evolved nature of language and narrative is beginning to reveal the central importance of narrative and storytelling in human lives and human societies: ‘storytelling appeals to our social intelligence. It arises out of our intense interest in monitoring one another and out of our evolved capacity to understand one another’ (Boyd 2018, p. 383). Boyd proposes that stories foster cooperation by eliciting social and moral thought, as well as creativity, by requiring an individual to think beyond his or her immediate reality. Oatley (2016, p. 618) claims that engagement with fiction is the equivalent of ‘taking in a piece of consciousness’.

Pellegrini and Galda (1990) propose that storytelling helps children to develop intersubjectivity and empathy with the emotions and motivations of others. Adams (1986, p. 4) comments that stories ‘conspire with language’ to produce a form of enjoyable instruction that is consistent with the culture in which the person is placed. This raises questions about the history of the story—how it works flexibly within culture to make meaning within time and place: ‘the fairy tale offers a range of meanings ... [but] can only do that if it is itself structured around effect and if the child can identify with this structure’ (McGuire 1990, p. 5). So, what examples can be provided to evidence this process?

#### 4. The History of the Story

Bettelheim (1975, p. 45) proposed that folk and ‘fairy’ tales have a perennial purpose in addressing children’s questions, such as ‘what is the world really like? How am I to live my life in it?’ He continues, ‘like all great art, fairy tales both delight and instruct; their special genius is that they do so in terms which speak directly to children’ (Bettelheim 1975, p. 53). As a Freudian, he suggests that some of the problems that characters within traditional folklore encounter may help children to contemplate some of their subconscious emotional concerns; for example, the cruelty of Cinderella’s stepmother compared with the benevolence of the fairy godmother may allow children to contemplate their own mother from the perspective of both ‘nice and nasty’. This evokes the psychoanalytic perspective of Melanie Klein, in which mothers (one of the most important Jungian archetypes) are integrated into the psyche as the source of both comfort and disappointment (Zaretsky 2005).

It has recently been suggested that some well-known European fairy tales were orally passed down through generations for at least 6000 years (Schultz 2016) prior to the introduction of printed versions. Native Australian grandparents continue in their traditional task of orally recounting the history of their culture to their grandchildren, in a traditional process known as ‘Dadirri’, which has

been claimed to date back as far as 40,000 years (Ungunmerr-Baumann 1988). The concept of Dadirri is not fully translatable; however, it describes a process through which children are expected to develop quiet concentration and deep listening, paying close attention to the wisdom of their ancestors in order to become spiritually aware and socially responsible adults (Ungunmerr-Baumann 2002).

Several sources in Native Australian folklore accurately pinpoint flooding in areas that geographers now know experienced a dramatic raise in water levels between 12,000 and 9000 years ago, at the end of the last Ice Age: 'Garnguur, the seagull woman, took her raft and dragged it back and forth across the neck of the peninsula letting the sea pour in and making our homes into islands' (Reid and Nunn 2015, online). Floods of this nature happened all over the world at this time (Montgomery 2016), but Native Australian folk stories, recounted in the Dadirri process, are unique in their pinpointing of events to areas that correspond with modern geographical analysis.

Gough (1990) cites the very different example of the Xhosa people of South Africa, who have an oral storytelling tradition called *iintsomi*, in which the designated purpose is to create an original story from chunks of existing folklore, whilst still making narrative sense to the audience. This further illustrates the importance of cultural relevance in storytelling, which is also emphasized by McGuire (1990) and Adams (1986). 'Hearers expect their speakers to be relevant [and] their comprehension is based and calculated on this assumption' (Gough 1990, p. 200).

Many traditional Western folk stories, songs, and rhymes have more organically developed over time, matched to changing cultural conditions; in Western culture, this can most obviously be demonstrated by the ways in which stereotypical gender roles have changed in recent years and the manner in which Disney princesses changed alongside them, from the sweet, passive princesses of the 1950s films, such as *Snow White*, *Sleeping Beauty*, and *Cinderella*, to the feistier princesses of the early twenty-first century, such as the troubled, powerful ice queen Elsa in *Frozen*, her adventurous would-be-heroine sister Anna, and warrior Princess Merida in *Brave*.

There is also a clear, extended historical progression of traditional Western fairy stories in which details have gradually changed over centuries of retelling. For example, modern children would probably be highly disturbed by some of the first printed versions of *Hansel and Gretel*, *The Little Mermaid*, and *Cinderella* produced by the Brothers Grimm and Hans Christian Anderson in a century where harsh retribution was more public and commonplace. Hansel and Gretel kill the wicked witch by roasting her on her own fire, the Little Mermaid suffers pain and death as a consequence of her attempts to transcend her physical limitations, and Cinderella's stepsisters cut off their toes to fit the slipper with the prince only noticing the deception when their shoes fill with blood (Dawson and Tanaka 2018). This reflects Adams (1986) point about the necessity for stories to have an effective cultural meaning to their audience; hence, their existence within human culture not as a fixed phenomenon but as 'living, breathing entities, shifting in response to the needs of the community or listener' (Dawson and Tanaka 2018, p. xix). As McGuire (1990) points out, this problematizes Hirsch's concept of cultural stories 'fixing the vocabulary of a national culture' (Hirsch 1988, p. 84).

Wilson (2019, p. 43) reflects that 'when the environment changes, there is no reason to expect organisms to be well adapted to their new circumstances ... new adaptations [need] to evolve'. While stories are not living organisms, they are the cultural equivalent, the flexible carriers of the archetypal narrative, endlessly transformed by human beings to inform the next generation of universal 'truths' of what it is to be human but within a vehicle that is continually culturally crafted to fit the listener. So, how might stories be changing in our current culture, and what part does modern technology play?

## 5. The History of the Story: Embracing Technology?

Dawson (in Dawson and Tanaka 2018, p. xvii) makes the point that the current technological revolution is not the first such major change to impact the way in which human beings share stories, commenting that, over the eighteenth and nineteenth centuries, 'oral storytelling completed its almost total migration towards the written word, forever changing how we pass on knowledge and

culture'. The flexibility of the story and its success in perpetuating the essential human narratives has endured, however.

The hero's journey (Campbell 2008) is a clear example of an archetypal narrative that can be followed through generations of diverse storying across a vast period of time in Western culture, during which orally transmitted tales were first committed to writing, then to print, and finally to film and interactive media: 'the hero is the man or woman who has been able to battle his past, his personal and local historical limitations . . . to return transfigured and teach what he has learned of life' (Campbell 2008, pp. 14–15). Such a narrative is as clearly discerned in the ancient Greek tale of Odysseus as it is in modern 'journey of the hero' epics, such as Tolkien's published *Lord of the Rings* saga and Lucas' *Star Wars*, which was written and produced for the cinema. The journey of the Jedi knight Luke Skywalker has unfolded over a period of over forty years, both within the story itself and in real life (Galipeau 2001). Changing cultural conditions create the basis for continual reincarnations of the hero, morphing over many centuries from Odysseus sailing the Aegean in wooden ships to Luke Skywalker navigating the stars in his X-wing fighter. As such, it is a clear example of how such a fundamental human archetype is adapted for the audience over many centuries. While the narrative and its archetypal content may be perennial, the story belongs to the person who tells it and the culture and generation in which it is embedded.

The ancient 'distressed princess' is also an archetype that is commonly evoked in modern media and retold through a number of different stories, some drawing directly upon traditional Western stories, such as *Cinderella* and *Snow White*; some loosely based upon them, such as *Frozen* and its roots in Hans Christian Anderson's *The Snow Queen*; and some originally constructed for the cinema, for example *Brave*. Over a century of technological advancement, we have therefore begun to routinely communicate fundamental, panhuman, and very ancient narratives to young children through media, which can offer a far more visual and, more recently, technologically interactive world for the imagination than the traditional orally delivered presentation.

In terms of storying through dramatic performance, there is always the issue of appealing to both adult and child audiences. Willmott (2015, online) comments 'The art of pantomime humour used to be that it was risqué [sic] enough to make the adults chuckle while the innuendo went over the kids' heads'. This introduces the concept of 'double coding'—a story that is narrated on different levels, carefully crafted for children of all ages and also for adults to enjoy by the extraction of different meanings. Obvious modern examples include double-coded jokes in cartoons in which children laugh at the obvious clowning and inadequacies of the characters, whilst adults engage with a far more deeply layered satire. For example, the world famous cartoon series *The Simpsons* introduced a cartoon-within-a-cartoon in *Itchy and Scratchy*—a violent TV program watched by the Simpson children that, to adult viewers, provides a biting satire of the *Tom and Jerry* cartoons that they watched as children and additionally:

[M]ock[s] how contemporary society is dominated by the cultivation of a conspicuous consumer lifestyle through the importance of the idiot culture that "Ugly American" Homer Simpson relates to so well . . . [whilst] using the cartoon-with-in-a-cartoon as a metaparodic device to play with the boundedness of the text as a text. Knox (2006, pp. 75–76)

There are long-standing debates about whether such conceptual 'layering' techniques were in fact always present within Western storytelling. For example, there is a long-standing debate over whether Cinderella's glass slipper—'verre' in French—was a mistranslation of 'vair' (fur) that arose as it began to be orally recounted in English. Dundes (1989) further commented that 'fur slipper' has been purported to be a sly reference to female genitalia. While traditional folk stories and rhymes originated within populations that were largely illiterate, the narrative that underpinned them was not necessarily simple or one-dimensional. For example, this deceptively childish rhyme has been proposed to contain both politically cynical and risqué messages for the adult audience of the time:

I had a little nut tree  
 Nothing would it bear  
 But a silver nutmeg,  
 And a golden pear;  
 The King of Spain's daughter  
 Came to visit me,  
 And all for the sake  
 Of my little nut tree

[Gillespie \(2012\)](#) proposes that 'the King of Spain's daughter' to which the rhyme refers was Catherine of Aragon, who came to England in 1501 to marry the oldest son of King Henry VII, Prince Arthur and that, as such:

The golden pear turns into an expansive pun and joke that combines the notion of Arthur's lineage (the tree) and the golden pear (the royal womb). In other words, all that Arthur has to offer (and promise) is his semen, (the silver nutmeg), and an impregnated womb. The pear, or the womb, is gold because it will carry a royal child . . . In other words, the Little Nut Tree, the prince's genitalia, can produce nothing other than 'silver' semen and a 'golden' pear because of his royal lineage. Translation: The Little Nut Tree won't settle for anything less than an equally royal womb. The Prince must wait for a Princess. [Gillespie \(2012, online\)](#)

So, what of contemporary double coding? The first point to make is that, in the West, the contemporary cultural storying process has moved beyond the medium of print into sophisticated audiovisual mass media, presenting children not only with the highly visual messages that emerged from twentieth-century technological advances but also, since the early twenty-first century, associated interactive opportunities. There is evidence that, through this process, young children may be exposed to rather more intricately layered messages than they were in the storytelling of the past. For example, *The Lego Movie* weaves its story around the 'warrior discourse' ([Jordan 1995](#), p. 75)—a perennial archetype often closely associated with the journey of the hero. In this modern guise, however, it contains a range of violent story lines bereft of human consequence. Lego characters 'die' in battle through a process in which they are cleanly disassembled into the pile of plastic bricks of which they are comprised, with an ongoing potential for reassembly. The story of the film elaborates on and jokes with respect to this process in the characters' fear of being glued together, thus curtailing their constant reincarnation via reconstruction. The final punchline revolves around a scene in which a powerful villain 'beheads' a character depicted as a spiritual leader, with the dialogue pitched towards adult cynicism when the disembodied head confesses that he was in fact a fraud all along.

This creates some potentially troubling messages for young children to absorb, in particular clean, stylized violence, which is removed from its consequences. This narrative is repeated in the *Lego Star Wars* games for iPad, in which the player becomes a Jedi knight wielding a light saber. While the intention of the programmers is clearly that the player should only behead the 'baddies', this requires the child to have quite a sophisticated grasp of the story underlying the game—pre-existing knowledge, which, in some cases, has been overestimated by the manufacturer. This issue stems from the remoteness of the adult storyteller, who not only narrates the tale bereft of contemporaneous interaction with the child audience but also dictates how the interactive element rooted in make-believe unfolds, which is often particularly constrained in games programmed for children under eight years of age. Additionally, the activities that are available in such games are typically undertaken by a solitary child in interaction with a machine rather than in collaboration with peers.

Might such modern sanitization of blood and death, based upon a technology in which Lego people neither bleed nor permanently die, blunt the messages originally carried by the earlier, conventionally communicated stories that Bettelhem suggested help children to prepare effectively for real life?

Additionally, the advent of such remote 'story products' could be extending the sanitization that initially occurred in the purged, printed fairy tales of the twentieth century, for example the versions of Cinderella in which the ugly sisters simply fail to fit their feet into the slipper and in which the little mermaid is able to transform her tail into legs via a benevolent magic spell. Willmott (2015, online) makes the point that, with respect to live pantomime performance, society has become obsessed with protecting children from negative or disturbing images, regardless of how accurately these reflect societal reality.

The princess narrative has recently been not only double- but multi-coded, ostensibly to disrupt traditional gender roles; however, traditional and 'new' narratives sometimes compete uneasily for supremacy within the structure of the story. For example, *Shrek's* homely ogre Princess Fiona is by contrast extremely beautiful in her original non-cursed state, which she becomes able to inhabit at will, and while it is the sisterly love between Princesses Elsa and Anna in *Frozen* that has the strength to break a bad spell rather than the intervention of a savior prince, Elsa's magic nevertheless causes her to develop a far more mature (and sexually desirable) figure during her 'Let it Go' transformation (Stevens 2014). These are extremely sophisticated narratives to underpin stories created for very young children, containing potentially troubling cultural messages and perpetuating what Naomi Wolf calls 'the beauty myth' (Wolf 1991).

In the contemporary 'mediated' post-industrial world, then, young children are pitched into a deluge of densely layered, fast-moving audiovisual stories in which there may be no reality-relevant consequences emerging from the actions of the characters. Additionally, many such media products have given rise to associated adult-programmed interactive activities undertaken by solitary children, which share the 'no consequences' element and further extend it to the actions of the players themselves. In such modern 'mediated' fantasy worlds, women have a choice of when to be and when not to be beautiful with no obvious consequences, and there is no pain, blood, or death associated with physical violence.

Less 'sanitized' electronic games for older children may not create quite the same level of concern; for example, Cheryl Olson describes older children using more sophisticated gaming, frequently in multi-player formats, to work through feelings of fear, playing the game from different character perspectives to master the frightening content. She concludes that 'compared with other media such as books, films, and radio, electronic games appear to have an unusually expansive appeal and serve a surprising number of emotional, social, and intellectual needs' (Olson 2010, p. 185). It may therefore be that we have to take the player's age and developmental level quite carefully into account when carrying out research in this area and that it is specifically in the area of the lone-player fairytale-style games produced for younger children that the impact of online interaction needs to be most carefully explored. As Currie (2016, online) concludes, 'where I suspect this field of research is heading is to discover that some fictions are good for some people in some circumstances. Finding the which, who and what will take some time'. This will no doubt include online, interactive storying as technology continues to advance.

A key question can be focused on the ability (or not) of a young listener to provide ongoing feedback to the storyteller, which is hampered in our current society by the screen—the so-called 'fourth wall' between the storyteller and the audience. To reflect effectively upon this, we need to more deeply consider the organic nature of human language and storying—its dynamic exchange process that carries cultural messages between children and adults, allowing young children to meet, question, and collaboratively explore the complex ways in which human beings understand and operate in their world.

The concept of 'once upon a time' is so powerful for human beings that it is not just a traditional opening gambit in Western children's storybooks but an idea that can be detected in nearly every human language on Earth (Konnikova 2012). Is it as effectively articulated, however, through a modern audiovisual 'fourth wall' as it was in ancient legend, orally presented to children sitting around a campfire? This leaves us with many unanswered questions, such as the following:

- Do the commercialization and technologizing of ancient narrative into sanitized audiovisual stories and adult-programmed interactive games create a schism between young human beings and their evolved biological modes of storytelling?
- Is an organic element of human interaction lost in this process? Are commercialized adult-generated story products simply transmitted to and subsequently consumed by distant, solitary children, replacing the collaborative, organic 'in the moment' evolved human storytelling process?
- Is it possible that adults who do not receive ongoing feedback from child listeners via the evolved human communication process become isolated to the extent that they increasingly create over-sanitized and oversophisticated messages within modern, mediated storytelling for young children?

'Tens of thousands of years ago, when the human mind was young, and our numbers were few, we were telling one another stories' (Gottschall 2012, p. xiii). Our numbers are now much greater, and the ways in which we transmit our stories have greatly expanded. It may be that modern technology is fulfilling a vital role in this way, facilitating the much wider dissemination of human narrative. However, are the contemporary ways in which we reach so much further beyond ourselves than human beings of previous generations over-dictated by commercial imperatives and 'distant' technological media, removing much of the organic experience from the process? Moreover, what implications might this have for such a highly socially dependent species, which despite its technological wizardry, remains 'Homo Sapiens 1.0' (Bishop 2012), heavily reliant upon the ability to collaboratively construct, understand, and communicate cohesive narratives to create and sustain cooperative societies?

## 6. Modern Life and the Story

The fact that storytelling still holds a crucial place in human lives is reflected in our giant multinational entertainment franchises; however, in the past, storytelling held a greater potential for young children to ground and explore their own imaginations, both in direct interaction with the storyteller and subsequently by using ideas drawn from stories to play with the underlying narratives in social free play with other children. While modern children may be the first generation to personally interact with the characters and events in their favorite stories through the magic of technology, such engagement is inevitably scripted by adults via the programming of the product, which limits young children's potential for creativity and moves such interaction into a solitary event, which takes place outside of the natural environment.

Additionally, opportunities for Western children's active independent free play have gradually declined over recent decades, which has resulted in less freedom for children aged between five and twelve years to 'roam' unsupervised by adults around public areas in the close vicinity of their homes. A subsequent plethora of adult-structured and -supervised activities, both conventional and technically mediated have arisen, purportedly to keep children 'safe' whilst parents work for long hours within neoliberal economies. A growing focus on academic achievement has additionally resulted in less time allocated for children to engage in active collaborative free play during their school day (Jarvis 2019). Upstart Scotland (2018, online) posed the following question to parents of young children: 'When was the last time you heard the shouts, squeals and laughter of children as they ran, jumped, climbed, built dens, made mixtures and played "let's pretend" in their local neighbourhood?' Such silence provides a sharp contrast with the findings of mid-twentieth-century play researchers Peter and Iona Opie:

There is no town or city known to us where street games do not flourish . . . To understand the "wanton sports" of the Elizabethan day, and the horseplay of even earlier times is to watch the contemporary child engrossed in his traditional pursuits on the metal floor of a twentieth-century city. (Opie and Opie 1969, p. ix)

Jarvis et al. (2014) suggested that social free play deprivation during the developmental period may result in social disconnectedness amongst a species that has evolved to live within highly socially connected environments. Bruner (1976, p. 56) commented, 'development which is separated from

a natural social environment ‘provides no guide, only knowledge ... These are the conditions for alienation and confusion’.

Jarvis (2019, p. 323) considers potential ‘fall-out’ from such a sudden generational change:

In September 2012, the British newspaper the Daily Telegraph reported that ‘A “cotton wool culture” of over-protecting children has contributed to a decline in freedom for them to play’ ... a “shocking” half of children aged between seven and 12 were not allowed to climb a tree without an adult present and one in five children of the same age had been stopped from playing conkers because it was “too dangerous”.

In 2017, the same newspaper reported again on the same generation, now teenagers, outlining a growing public concern that young people were ‘perceived to be over-sensitive and intolerant of disagreement’ (Jarvis 2019, p. 323).

Psychologist Gray (2011) has no doubt about the negative effects of decreasing opportunities for children to engage in collaborative, independent free play in natural environments, proclaiming that our current modes of raising children are unnatural and, consequently, produce adults who lack social and emotional skills, which he further poses as an explanation for the recent increase in mental breakdowns amongst young people. Wilson (2019, p. 73) also reflects on the problems that may arise as natural play modes disappear from children’s lives: ‘with disruptions of child development we are faced with the tragic possibility that we are harming our own children, based on our lack of biological knowledge’.

‘Storying’ has, however, not featured very highly in such explanations, and there has been little research specifically focused upon the ways in which it acts as both adhesive and lubricant in the social interactions of children engaged in collaborative free play. Some practice-based research has documented the importance of storying in the classroom; for example, Paley (1984, 1991, 2005) describes the ways in which children use stories to negotiate their lives in the early stages of primary school, while Nicolopoulou et al. (2015) found that participation in a storytelling and story-acting practice was associated with improvements in narrative comprehension, print and word awareness, pretend abilities, self-regulation, and reduced play disruption, but these studies were facilitated through a relatively fixed, adult-imposed, and classroom-based agenda.

The development of modern technology has undoubtedly brought many advantages to humanity, but we have not yet thought deeply enough about the ways in which hurried ‘mediated’ modern lifestyles may impact young human beings who come into the world equipped with the same psychobiological needs as their Ice Age ancestors. If we wish to nurture human development of sociability, flexibility, and creativity, we might be well advised to make deliberate time and space in children’s lives for collaborative free play and for face-to-face storytelling, both in the home and in the primary school. The application of Tinbergen’s questions relating to the development, function, and history of storying (Wilson 2019) suggests that we have not yet effectively considered the evolved role of storying in the development of a fully symbolically, socially, and creatively competent human being. Stories are a natural food for the human mind, and perhaps, cultivating both the listening and creativity skills that are evoked by organic engagement with human storying is as conducive to the health of the human mind as natural foods are to the health of the body.

Gottschall (2012, p. xiv) reflects, ‘story for humans is as water to a fish—all-encompassing and not quite palpable’. Does this in turn make it difficult for us to unravel ‘the story of the story’ in the evolution of humanity and to effectively reflect upon the impact that relatively rapid, radical changes in modes of transmission may have upon our species? While it is clearly counterproductive to take a wholly negative orientation to modern technological innovation, it is likely that we would benefit from becoming more consciously aware of the evolved ways in which human beings have, for many centuries, introduced their children to the organic human phenomenon of narrative and ‘storying’ and how this might be more effectively harnessed to consciously and explicitly nurture healthy social development and emergent flexible creativity.

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