A Storytelling Approach: Insights from the Shambaa

1. Introduction

Homo sapiens is the only species to engage in storytelling (Thompson, 2010). This uniquely human ability to tell and understand stories has received increasing attention over the past decades. Many now see storytelling as an evolved, innate part of human nature: some argue that storytelling tribes enjoyed a survival advantage due to the cohesive and pedagogic power of stories (Scalise Sugayama, 2001; Coe et al., 2006; Boyd, 2009), others claim that language itself was developed in order to tell stories (McBride, 2014; von Heiseler, 2014). Indeed, the bold claim has been made that "virtually all human knowledge is based on stories" (Shank and Abelson, 1995, 1). All commentators, however, find common ground in agreeing upon the ubiquity of story: stories have been present "at all times, in all places ... all classes, all human groups, have their stories" (Barthes, 1975, 237).

In medicine, there has been much recent interest in the role of patient stories in diagnostics (Greenhalgh and Hurwitz, 1999; Charon, 2001), therapeutics (Pennebaker, 2000; Houston et al., 2011), health promotion (Kreuter et al., 2010; Murphy et al., 2015), and medical education (Haigh and Hardy, 2010; Christiansen, 2011; Gidman, 2013). However, this interest – often termed *narrative medicine* – examines stories told by *patients*; according to this paradigm, doctors have relevant stories to tell only if they are patients themselves (Marini, 2016, 34; Wistrand, 2017). The potential value of the stories that the healthcare community can shape and share

with patients – to explain symptoms and diseases, to communicate diagnosis and prognosis, and to promote healthy behaviour – appears to be under-researched.

The paper will argue that, therefore, the 'stickiness' of a good story can be used to augment understanding and retention in medical communication and, as the innateness of story can transcend cultural barriers, the storytelling approach can be used in most contexts.

This paper starts by exploring the understanding of the bubonic plague amongst the Shambaa people in the Usambara region of Tanzania. It will critically appraise the cultural interpretation of the aetiology of this disease, and argue that the Shambaa 'story' succeeds in three dimensions: it is structurally satisfying, metaphorically rich, and its characters behave with intelligible motivations.

The essay will then contrast the plague-story of the Shambaa with cultural narratives of disease identified by medico-anthropological researchers investigating the understanding of lymphatic filariasis in Ghana. It is argued that while the Ghanaian narratives are not as structurally or figuratively developed as that of the Shambaa, they nonetheless remain memorable.

The paper proceeds to offer an explanation for *why* the Shambaa and Ghanaian narratives are so 'sticky'. Using insights from the fields of mnemonics and neuroscience, the paper will argue that the Shambaa and Ghanaian stories, born from cultures experienced in transmitting oral histories, utilise a number of devices that improve their memorability. It is concluded that the Shambaa explanation for the plague is 'sticky' because it is structurally satisfying, metaphorically rich, and – perhaps most importantly – replete with mnemonic devices; this is contrasted with

the aesthetically infelicitous and unmemorable narrative offered by the medical community.

The paper will then outline the current literature showing that patients – across all cultures – are often harmed by incorrect understanding of disease and low levels of recall of medical information, and it will highlight how this problem has economic and health implications, propagating inequity. The paper will argue that the 'stickiness' of a good story can be used to augment understanding and retention in medical communication. Moreover, given that the innateness of story transcends cultural barriers – the storytelling approach could be used in most contexts.

Finally, the paper examines three potential objections to the use of a storytelling paradigm in medical communication: that it is inaccurate, that it is inappropriate, and that it is inapplicable. Tackling each objection in turn, it is concluded that a story-enabled medical discourse can promote understanding, facilitate recall, and foster healthy behaviour. Moreover, this can be done in an honest, patient-centred, and unpatronising manner. The paper closes by suggesting some possible directions for future research.

2. A plague upon your house

In 2015, I was working on a project in Lushoto, in northern Tanzania. Lushoto is an evocative region: the towering Usambara mountain ranges are covered by thick, lush tropical rainforest; in the morning, dense mists flow through the valleys; in the evening, the sun's glow illuminates the vast plains at the foot of the mountains which extend to Manyara. The Shambaa people have lived in the region for

centuries, using the rainforest as their farm and their pharmacy (Feierman, 1974).

Our group was undertaking a qualitative study to examine traditional healers' understanding of the bubonic plague. The plague, caused by the bacillus *Yersinia pestis*, is a widespread zoonotic disease that has been endemic in the region since the 1980s (Davis et al., 2006). Untreated, plague is often fatal (Perry and Fetherston, 1997, 58).

We interviewed a total of nine traditional healers, and through the semi-structured interviews a core narrative – with differing degrees of embellishment and variation – emerged to explain the provenance of the plague which had affected the region seasonally for nearly 30 years. The story ran thus: many years ago, a farmer broke a pot in the village. Instead of apologising to the Gods, as tradition prescribed, he buried the broken pieces of the pot in the earth, in order to hide his misdemeanour. The harvest in the village that season was poor, causing much anguish and upset. It was then revealed to the villagers that their misfortune was due to the Gods, who had been angered by the deceit of the farmer who broke the pot. At nightfall, the villagers formed an armed band, and chased the recalcitrant farmer from his farm and out of the village. The exiled farmer was enraged, and to punish the villagers who had ejected him, he placed an illness on the rats, and sent the cursed rats into the village. When the rains came, the rats would rush into people's homes and spread the disease to the people living within them. This disease was the plague.

I was struck by the richness of this narrative; its aesthetic qualities arguably extend across three key domains.

Firstly, it can be seen to follow the five-act structure. This narrative framework was recommended in Horace's *Ars Poetica* (Brink, 1971, 189-90), it was embodied in the tragedies of Shakespeare, and was formally defined by Freytag (1900, 114-5). The five-act structure begins with exposition of a central conflict, in this instance the broken pot. The arc then moves through rising action, here, the poor harvest and the disclosure of the guilt of the farmer, to a point of climax: his expulsion by the mob. The fourth act contains falling action in response to the climax, the curse on the village executed through the illness placed on the rats; the fifth and final act, in tragedy, contains the "catastrophe", in this case the plague. The Shambaa disease-understanding, therefore, adheres to a particular structure in order to deliver a satisfying narrative arc.

Secondly, the brief account is rich with metaphor. To the ears of a Western audience, the significance of the broken pot may ring hollow. However, pots are central elements of many sub-Saharan African cultures (Gosselian, 1999) and therefore hold multi-faceted symbolic associations. Pots "are above all vessels, and so may be used to refer to ... heads, wombs, bellies" (Barley, 1984, 99); thus, they can be the receptacles of wisdom or contain evil. Moreover, making pottery, conceived of as an act of creation, is used as a metaphor for the creation of society or the procreation of life (Barley, 1994, 17). We may also observe this symbolism in the Judeo-Christian tradition: in Job's plea to God, he asks "thou hast made me as the clay; and wilt thou bring me into dust again?" (Job 4:19, Revised Standard Version) – a metaphor that sees God as the potter *par excellence*. The breaking of the pot, therefore, can be seen to represent the rupture of society, the destruction of the fertile earth, the creation of disorder from order; for this reason, many African societies

prohibit pot-breaking as it is seen as disrespectful to the gods (Asante, Adjeiu, and Opoku-Asare, 2013, 65).

The expulsion of the farmer is a further metaphor. For a start, we may ask why the villagers did not murder the farmer – given the ultimate havoc that would be wreaked upon them – or imprison him. After Foucault (1965), an antagonist killed or confined is one that can be controlled, circumscribed, defined; however, the banished villain is physically and narratively free. Figuratively, then, plague cannot be defeated any more than the excluded anti-hero. Again, we may observe a thematic overlap with Judeo-Christian lore: subsequent to the 'original sin', the perpetrator is expelled from his Garden, to a life of wandering, a life on the outside, and this departure gives rise to a dichotomy between Good and Evil.

Thirdly, the story contains clearly-intelligible accounts of intention and agency. We often seek to hide our own mistakes, so we understand why the farmer hides his transgression. We can comprehend that the Gods both perceive and punish this act, and why the village rises up to drive out the transgressor. We can explain the farmer's thirst for revenge and subsequent curse. For Coleridge, supernatural tales must nonetheless display "a human interest and a semblance of truth" in order to be believed by an audience (1983, 308). The Shambaa story, containing characters who behave in a way that is plausible, adheres to Coleridge's maxim.

Hence, we can appreciate that the Shambaa plague-story is aesthetically successful in three dimensions: it traces a satisfying narrative arc, it delivers language rich with metaphor, and the motivations of the characters are absorbingly credible.

Lymphatic filariasis (LF) is a disease caused by infection with mosquito-borne nematode worms, or *filariae*, whose adult forms reside, multiply and die in the human lymphatic system. In a significant minority of affected individuals, this chronic disruption to lymphatic drainage results in hydrocoele (swollen scrotum) and lymphoedema (swollen limb), which may progress to elephantiasis (a grossly enlarged, lymphoedematous limb with thickened, rough overlying skin). Though rarely fatal, it is estimated that LF is the leading cause of physical disability worldwide (Molyneux, 2002).

A number of medico-anthropological studies have explored the understanding of LF in areas where it is endemic in Ghana. In her doctoral thesis on socio-cultural aspects of LF in Ghana, Gyapong (1996) reports that each symptom – hydrocoele, lymphoedema, and elephantiasis – is interpreted as a separate entity, each with its own aetiology.

According to one cultural narrative, elephantiasis occurs when a *juju* man – a man imbued with powerful magical powers – displays his supernatural abilities "by throwing spiritual medicines on the ground ... any unsuspecting person who steps on these could get elephantiasis of the leg" (Gyapong et al., 1996, 237). This is echoed by subsequent research in the region, which quotes an interviewee as saying, "when you develop elephantiasis, we say that someone has charmed you with *juju*" (Ahorlu et al., 1999, 255). More recent medical ethnography suggests that this understanding has persisted through the decades: "one case [of elephantiasis] believed she had stepped on a cursed object" (Stanton et al., 2016, 238).

Gyapong reported that, in addition to this understanding of aetiology, which attributed transmission from ground cursed by *juju* to the legs, her interviewees described a multitude of alternative explanations for the manifestations of LF. These included an account of tiny dwarves in the forest who protected people from elephantiasis by removing thorns from their feet, and jealous husbands who would apply magical herbs to their wives' legs overnight so they would develop the condition and become undesirable to others. Gyapong quotes: "I have been married to two very beautiful women but because I did not have enough money they left me. If I had gone to see a *juju* man and put some medicine on their leg, no man would like them and I would still have my wives" (Gyapong et al., 1996, 238).

In the preceding section, the Shambaa story was identified to have benefited from well-structured narrative, metaphorical depth, and the verisimilitude of its characters' intentions. We may measure the Ghanaian narratives by these same metrics. With regard to structure and figurative language, the Ghanaian understanding of LF allows for multiple magical, but ultimately one-dimensional, explanations (*juju* men, herbs, dwarves). The stories do not provide narrative arcs nor rich metaphors. With regard to agents' intentions, we understand the jealousy driving the husband to curse his wife's leg; however, no clear explanation is given as to why the dwarves remove thorns from people's feet. Hence, we might conclude that the Ghanaian narratives are inferior to the Shambaa in all three respects: they are narrative-light, metaphor-free, and near-unbelievable.

However, I would argue that this dismissal is hasty. The image of the tiny dwarf in the forest lingers in the imagination; this applies, too, to the *juju* man spreading magic on the ground. They are no less 'sticky' in the mind than the

Shambaa narrative of angered villagers and cursed rats. The key similarity, I claim, between both cultures' disease understandings is that they are peculiarly *memorable*. In the next section, I outline an argument for why this is the case.

4. Explaining 'stickiness': Trump, toupees, and memory champions

Joshua Foer was a journalist covering the relatively esoteric topic of the U.S Memory Championships in 2005. These championships tested an array of seemingly-impossible feats of memory: memorising the order of a shuffled deck of playing cards in under 20 seconds; being able to recall a list of over 400 random digits that one has seen for 5 minutes; and so on. Foer was captivated by the abilities of the memory champions – mnemonists – and delved into their world for a year, learning their methods, and recounting them in his book *Walking with Einstein* (2011).

Mnemonists, Foer writes, largely rely on two techniques.

Firstly, they encode meaningless data (playing cards, digits, letters) into a new entity according to an algorithm they have devised. One common algorithm is the Person-Action-Object (PAO) sequence. Mnemonists learn – by rote – to associate each two-digit number with a person, an action, and an object. See Table 1 for an example.

Number	Person	Action	Object
52	Elizabeth Taylor	Bathing in milk	Glass of milk
68	Donald Trump	Combing hair	Toupee
80	Houdini	Escaping	Chains

Table 1: Example PAO system. A complete system would include all two-digit numbers (00-99). These associations have to be learned by rote.

Mnemonists parse long numbers into six-digit segments, each of which is then split into three two-digit numbers: the first contributes the person, the second contributes the action, the third contributes object (Yin et al., 2015). Hence, if presented with '68-52-80' the mnemonist, by the algorithm set out in Table 1, would envisage Donald Trump, bathing in milk, wrapped in chains. Mnemonists advocate creating PAO systems that generate images conducive to strong emotive responses (be they amusement or revulsion) in order to maximise their 'stickiness'. Indeed, the ability of emotion to enhance memorability is well-documented in neuroscience (McGaugh, 2013).

The second technique, which works in tandem with the first, is called the Method of Loci. This tool, which can be traced back to ancient times (Bower, 1970), takes advantage of our ability to remember routes and places. A mnemonist will recall a place with emotional significance for them, for example a childhood home, and construct a 'memory journey' through the place, where they deposit images generated by the PAO system at waypoints along their path. Donald Trump bathing in milk, therefore, could be placed at the front door. Upon opening the door, (if the next six digits to remember were '528068'), we would then place the image of Elizabeth Taylor escaping from a toupee, and so on. Mnemonists somewhat grandiosely refer to these memorable loci as 'memory palaces'. Neuroscientists have observed that mnemonists (unlike untrained controls) engage the hippocampus, which has a remarkable storage capacity for detailed spatial memory (O'Keefe and Nadel, 1978; Maguire et al., 2000), when recalling a list of numbers as they re-trace their route through a memory palace (Maguire at al., 2003).

Returning now to the main track of the argument, and armed with insights from the world of mnemonism and neuroscience, we can better assess why the Shambaa and Ghanaian stories are 'sticky': they, remarkably, also appear to use the Person-Action-Object device. Mnemonists would be proud of 'tiny dwarf, removing thorn, from a foot' and 'magical man, spreading *juju*, on the ground'. Indeed, the Shambaa explanation for plague can be traced as a memory-journey where personaction-object images are deposited at places of cultural significance (see Table 2).

Act	Location	Person	Action	Object
1	Farm	Farmer	Breaking	Pot
2	Heavens	Gods	Destroying	Crops
3	Village	Villagers	Chasing	Farmer
4	Outside	Farmer	Cursing	Rat
5	House	Rats	Spread Illness	Villagers

Table 2. The Shambaa aetiology for plague, deconstructed as a memory-journey.

Of course, verbs tend to have subjects and objects, and stories tend to happen in places of significance, and therefore one may wish to adopt caution when considering this interpretation of the Shambaa disease-narrative. Two points, however, are worth remembering.

Firstly, oral cultures like the Shambaa, and not memory champions, are the chief creators and innovators of mnemonic devices. We can trace the absurd imagery of the memory champions back to ancient literature: "bizarre figures ... add another mnemonic aid: it is easier to remember the Cyclops than a two-eyed monster, or Cerberus than an ordinary one-headed dog" (Ong ,1982, 68). Joubert (2010, 31), in her discussion of traditional oral history in Africa, concurs: "the principal technique

... is to enhance elaborate encoding through visual imagery mnemonics". Thus it is not an imposition to suppose that cultural disease narratives use mnemonic devices to make them 'sticky', rather, it is to be expected.

Secondly, if we attempt to construct a similar memory-journey for the medical understanding of plague aetiology, we realise that not all narratives are amenable to the PAO system. The *Oxford Handbook of Tropical Medicine* (Brent et al., 2014) describes plague: "An acute illness cause by the Gram –ve coccobacillus, *Yersinia Pestis*, that can be rapidly fatal unless treatment is started early ... bubonic and primary septaecemic plague are transmitted via the bite of infected rodent fleas or through direct contact with infectious tissues. Domestic rodents are the most common reservoir for human infection". The language, which is general rather than specific, resists the Method of Loci and Person-Action-Object deconstruction.

Indeed, in addition to memorability, it was noted at the end of Section Two that the Shambaa 'story' was successful in three dimensions: narrative structure, metaphorical richness, and credible motivations. We may also measure the *Handbook* account against these three metrics. While the Shambaa narrative adheres to a five-act structure and was replete with metaphorical meaning, the *Handbook* account has no discernible narrative arc and is devoid of figurative speech. The Shambaa account imbues its characters with human motivations, providing a causal, intelligible thread of motivations and actions that leads from the broken pot to the spread of plague. The *Handbook*, conversely, offers us an intention-free description of the mechanism.

It has been argued convincingly that there are two types of reason we can provide for an event: a *how-come* and a *what-for* (Dennett, 2017, 38). Typically, we find the *what-for* explanation more satisfying than the *how-come*: if we ask someone

why they broke a window, we would think it odd to receive an answer about how they picked up a stone, and threw it with a certain force at a certain velocity (the <code>how-come</code>), rather, we expect them to say, for example, that they were angry with the people inside and wanted to scare them (a <code>what-for</code>). The Shambaa 'story' is able to offer us the <code>what-for</code> account of the plague, whereas the <code>Handbook</code> only gives us a <code>how-come</code>.

Of course, the *Handbook* is arguably a 'straw man' to choose as a rival to the Shambaa 'story': it is aimed at a technical audience who demand concision and accuracy. However, the *Handbook* account is still the source of the 'story' that clinicians tell their patients, albeit hopefully with jargon softened and phrases expanded.

5. Telling tales?

If one were feeling well-disposed to the preceding sections, a natural conclusion would be to wish to explore the use of storytelling by medical professionals to improve patient understanding. This could certainly be a worthwhile endeavour.

Numerous studies demonstrate that increased patient understanding can lead to improved medication adherence (Blinder et al., 2001), enhanced quality of life (Davies et al., 2008), lower healthcare system utilization (Marcantonio et al., 1999), and even reduced mortality (Juillière et al., 2013). However, currently patients cannot recall the majority of verbal information given to them by physicians (Godwin, 2000; Horwitz et al., 2013); physicians, in turn, systematically overestimate the extent to which they have been understood (Calkins et al., 1997). Moreover,

much of the information that patients can recall is remembered incorrectly (McGuire, 1996). Multiple factors have been identified which contribute to this substantial lacuna in communication; these include overburdening patients with information (Latorre-Postigo et al., 2017), the emotional stress of the medical environment (Kessels, 2003), and low health literacy (Safeer and Keenan, 2005). Furthermore, those most in need tend to be those worst affected by gaps in communication, propagating health inequalities (Volandes and Paasche-Orlow, 2007).

A number of techniques have been suggested to improve the recall of medical information. These include structuring the information given, checking for understanding at each step, and handing out supporting written materials (Samuels-Kalow et al., 2012).

It has been argued in this paper that the Shambaa and Ghanaian narratives exhibit remarkable 'stickiness'. It was demonstrated that the Shambaa disease-explanation in particular makes use of structural, metaphorical and mnemonic devices to render it more memorable and intelligible. It was claimed, furthermore, that the classical medical description does not succeed in these respects.

From this, one may suggest that clinicians should be willing to incorporate *a* storytelling approach into their communication arsenal: one that embraces the narrative, metaphorical, and mnemonic insights of the Shambaa. Jonathan Gottschall – author of *The Storytelling Animal: How Stories Make Us Human* – recommends: "if you want a message to burrow into the human mind, work it into a story" (2013, 118).

However, there are three immediate objections one may level at a putative paradigm of story-based communication in medical consultations. This section will attempt to address each concern in turn, and in so doing will sketch an outline for how storytelling may be reintroduced into the discourse of doctors. The objections are as follows:

Storytelling is inaccurate. Some argue that to shape information into a story is to distort it (Katz, 2013); indeed, the story can replace the facts. This criticism is exemplified by the Ghanaian accounts of LF. Put bluntly, LF is not transmitted through the ground, nor are tiny dwarves protective. Indeed, Gyapong and subsequent researchers found that mosquitoes were not perceived to be aetiological factors in the development of LF (Gyapong et al., 2006; Stanton, 2016). The important corollary of this is that the Ghanaian people interviewed did not engage in important health-promotion behaviours to reduce their risk of LF (such as using insecticide-treated nets) as the 'story' they used to explain the disease was inaccurate. Conversely, the Shambaa people we interviewed – as their disease-story caused them to believe that rats spread the plague - engaged willingly in healthpromotion behaviours (for example, they changed crop storage methods in order to make crops less accessible to rodents). The plague has only been endemic in the Usambara region of Tanzania since the 1980s, and therefore the Shambaa plaguenarrative has co-evolved with the medical narrative. This, however, demonstrates that the medical community can help shape the cultural disease narrative in a way that promotes accurate disease beliefs (i.e. rats spread the plague) and correspondingly accurate health-promoting behaviour (i.e. anti-rodent crop-storage practices). To criticise stories for being inaccurate is to shoot the message.

Storytelling is inappropriate. We tell children stories. Therefore, for doctors to tell stories would be to patronise, even infantilise, their patients; it would be a return to the dark days of the patriarchal doctor-patient relationships. There are three responses to this argument. Firstly, it is to point out that adults are as avid in their story-seeking as children. The news we skim, the books we read, the films we watch, the television programmes we stream, the video-games we consume in everincreasing quantities are evidence that, as has been maintained throughout this paper, a desire for stories is not child-like, it is innately human (Gottschall, 2013). Secondly, doctors themselves often communicate medical information in a story-like manner to one another. In medical journals, it takes the form of the case report, a medium enjoying a resurgence in popularity (Nissen and Wynn, 2012); in hospital lectures, it may be seen in a case-based 'grand round', described by William Osler as "the natural method of teaching the subject of medicine" (Osler, 1901); in one-on-one interactions, a clinician will ask another "what is the patient's story?". Thirdly, and perhaps most importantly, there is the response that *not* telling stories is dangerous. If clinicians do not provide a story to explain symptoms, illnesses, and prevention strategies then patients will fill the narrative vacuum with a story of their own, or perhaps more dangerously – stories provided by potentially-unscrupulous alternative sources, ranging from online anti-vaccination blogs (Shelby and Ernst, 2013) to charlatan traditional healers (Richter, 2003).

Storytelling is inapplicable. How could one use storytelling to communicate with a patient their diagnosis of type 2 diabetes? or their 10-year cardiovascular risk? It appears that while stories may facilitate the communication of certain messages (i.e. that rats can carry the plague), others are not amenable to 'storification'. As a

first pass, we may reply that trained storytellers have been engaged effectively to compose stories that communicate illnesses from croup (Hartling et al., 2010) to cancer (Cueva et al., 2015). However, this is to lose sight of what a storytelling approach embraces. Learning from the insights of the Shambaa, the proposed approach advocates a willingness to use structured narrative to describe illness over piecemeal facts; it suggests that healthcare workers feel comfortable using metaphor and figurative speech; it proposes that doctors attempt to answer patients when they ask *why* this has happened, instead of merely *how*; it recommends that, where possible, clinicians use people, places, and journeys to make their descriptions more memorable: a storytelling approach does not dictate that every piece of communication need be a story.

6. Final Remarks

This paper has attempted to make a case for *a storytelling approach* to medicine, and has done so in five steps.

Firstly, the background was sketched: it was shown that stories and storytelling are increasingly understood as fundamental to human behaviour, language, and understanding. In the first section, it was also suggested that medicine has not yet adequately investigated the potential uses of storytelling in shaping disease understanding and health promotion.

This paper then explored and analysed the *Shambaa* plague narrative, their 'story' to explain the disease, and found it was successful in its structure, in its use of metaphor, and in the verisimilitude of its characters' motivations.

The paper examined, in the third section, Ghanaian disease 'stories' and the cultural understanding of lymphatic filariasis, and concluded that what was key to both Ghanaian and Shambaa understandings is that they are *memorable*.

The fourth section undertook to deconstruct this memorability as a function of the certain mnemonic devices, specifically, agents performing certain actions along a 'memory journey' though significant loci.

The fifth section considered three counterarguments to the storytelling approach and concluded that clinicians and healthcare workers should further explore how stories may be used to benefit patients. It has been argued that this can be done in an honest, unpatronising, and relevant manner. Ongoing research is needed to establish how best to tell medical stories and ensure that they are culturally appropriate (Woods, 2011, 74). Furthermore, studies ought to be undertaken to establish if the theoretical benefits of storytelling translate into measurable improvements in the outcomes of patients; the scarce current evidence is promising (Houston et al., 2011). Finally, some creative thinking is required to establish what the scope of a storytelling approach could be: perhaps, ultimately, the use of stories in medicine is limited only by the imagination.

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