

# Rewriting civilization for the ecological citizen: How and why storytelling can empower and mobilize sustained ecological actions

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Humanity confronts ecological challenges at the planetary level requiring the mobilization of leadership and public action on an unprecedented scale. Doing so may require, at the very least, the partial reinvention of civilization. Such a reinvention is, in part, a reimagining of ourselves as ecological citizens – and *storytelling* can help us to achieve that. An examination of the role of storytelling as a civilization-building activity and the science behind effective stories, shows ways of rethinking how the conservation sector should communicate with the broader public.

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Before Gilgamesh was a man, he was a god-king, alone in his idle thoughts excepting the occasions he left the palace to lie with the city's virgins. Even then, in their tender company, the god-king could not fully escape an elusive and persistent anxiety, which he experienced as an expanding void irretrievably overcoming the very fabric of his being.

One night, Gilgamesh had a vision of a star. What does this mean, he asked the priestess upon waking; the star fell from the sky, and the people wondered at it. I was jealous of it and tried to keep it for myself, but when I tried to lift it I was overcome with exhaustion. I have never failed before. I cannot explain it.

The priestess said: The star is a man who is your friend and equal. He will not forsake you and you will never wish to be apart. He will lift you from your tiredness.

**Gilgamesh was quiet for a moment before he spoke: O priestess, I want your words to be true.**

**I**t is an old story, the oldest story we know, written in cuneiform on twelve clay tablets, recounting the tale of a god-king named Gilgamesh who loved and lost a friend to death, and learned he lacked the power to bring him back to life. It's about the discovery of what it means to be human, and its most notable feature is that it can still captivate modern audiences four thousand years after its first telling.

For those who study mass mobilization, *The Epic of Gilgamesh* and stories like it raise important questions about how and when individuals organize into improbable groups of thousands and even millions to achieve common objectives that are sometimes at odds with their immediate interests.

The example of *Gilgamesh* points to the deep connections between stories, collective identity and civilization building. Setting aside for a moment materialist explanations of how civilization emerged through a series of largely physical innovations, we find that underlying those discoveries is already a great work of the imagination. There were those who dared to imagine and even propagate the idea that large groups of people numbering in the thousands and tens of thousands, without direct genetic ties, could work together to achieve feats never before accomplished. These leaders forged the first large-scale collective identities that laid the basis for the building of pyramids and other great works of the ancient world. Their vehicle for transmitting common values and behaviours among social leaders and the portions of the public who were not enslaved was very likely *story*.

Is it any wonder, then, that the first story, *The Epic of Gilgamesh*, concerns a friendship between two unrelated men? In large civilizations, kinship cannot be the only reliable force for social cohesion. As Harari writes,

*Any large-scale human cooperation – whether a modern state, a medieval church, an ancient city or an archaic tribe – is rooted in common myths that exist only in people's collective imagination. [...] There are no gods in the universe, no nations, no money, no human rights, no laws, and no justice outside the common imagination of human beings. (2011: 463, 472)*

For those who embark upon the journey of inventing the ecological citizen, as I do, forging a citizenry that is capable of mobilizing planetary-scale collective action, nothing could be more relevant to our endeavour than a comprehensive understanding of storytelling. In the past, civilization builders provided answers to the question of what it means to be human within the context of their new societies, answers in the form of stories that resonated with ordinary people and persuasively conveyed a code of conduct to which they could aspire. Whether we are conscious of it or not, stories are the basis for collective pursuits and sacrifice; when they are told well, they lay an enduring foundation upon which a society may flourish.

## The difference between science communications and story, and why the latter still matters

In 2018, a 15-year-old girl stopped attending school. Camping outside the Swedish parliament instead of attending class, she held a sign that simply read: *Skolstrejk för klimatet* [School strike for climate]. Alone, she protested; a girl in braids, vulnerable and proud – taking action, however seemingly futile, as she knew how and when no one else would. The public responded to her in a way it had not to others more famous and accredited. Within months, Greta Thunberg would be a household name around the world. She became, perhaps, the first relatable global climate emergency protagonist. Her example began an expansion of the climate discourse away from the sole primacy of research to a more inclusive dialogue that made liberal use of stirring examples of personal courage, thus creating a storyline with a more reliable power to mobilize millions.

Science is a method for apprehending relationships within the physical world and testing whether these discoveries hold true across time and space. As such, science has crafted a uniquely rigorous communication style that deliberately avoids emotional manipulation in preference for a cautious and objective discussion of scientific findings. ‘What is’ is the chief concern of scientific research. In general, scientists speak to a narrow audience of experts held to high standards of rational discourse.

Science communicators have emerged as popular emissaries of science to the general public. They occupy themselves with increasing the public’s appreciation for science by translating the uncomfortably formal language of expert hypotheses, theories and discoveries into accessible and entertaining metaphors and terminology. While this can include storytelling, oftentimes it does not because science communication is still a subset of the hyper-rational scientific endeavour. Science communicators avoid the cultivation of emotion (excepting curiosity) while appealing to rationality as they elucidate the ‘what is’ for a broad audience.

Humans receive years of training to understand the strictures of science, but stories are different. They require no training whatsoever to appreciate because humans are programmed for stories. Stories are a communication style purposely crafted to trigger a wide range of emotional responses, unwittingly leveraging aspects of our primal biology to capture our attention and elicit empathy. While many stories are told merely for the enjoyment of sharing them (storytelling is, after all, a much easier, more intuitive form of communication for both the audience and the communicator), stories are also one of the most powerful tools of persuasion and mass mobilization because they avoid rational discourse altogether, striking straight for the heart instead.

Our brains like storytelling for several reasons. Stories, when properly constructed, leverage the human stress response system, and in so doing rise in importance relative to other information we receive. Humans evolved to focus on phenomena that elevate our adrenaline and cortisol levels. When we are stressed our entire attention is focused on an imminent threat giving us the

best opportunity to successfully respond. Effective storytellers draw upon stressful problems and situations to capture and hold human attention, something they are able to reliably accomplish because of our biology.

Listening to stories also lowers our resistance to persuasion by aiding empathetic responses. This occurs through a process of “neural coupling” (Schmälzle *et al.*, 2015; Stephens *et al.*, 2010) or “mirroring” (Kilner and Lemon, 2013), meaning that the neurons in our brain fire in the same patterns as those of the speaker allowing us to share in the speaker’s emotional response to the people and events described. If the storyteller is effective – for example, by incorporating a lot of detail, emotion and relatability – the more we listen (or read), and the deeper we experience what scientists call a “somatic state,” meaning that what we are told triggers the same areas of the brain that would activate were we actually to experience the events of the story in real life (Gallo, 2016).

In many ways, the above information answers a frequent lament of environmental scholars, practitioners and activists baffled by public scepticism of science. In fact, polls show that the public is, more often than not and on most issues (including environmental ones), supportive of science influencing policy decisions (Funk 2020), but again and again, this support seems to be too weak to surmount competing narratives.

One example from health policy is the decades long campaign to convince the public to stop smoking. While corporate disinformation played a big role in the public’s refusal to act on science, there were also several competing narratives, driven by story, that made the science, however true, irrelevant to the public’s immediate interests for social acceptance and life fulfilment. How many teenagers started smoking because it was seen to be ‘cool’ to do so? What role did fictional figures like the Marlboro Man and Joe Cool Camel have in that perception? It’s hard to measure, but it’s also hard to argue that the impact of these brand protagonists was zero. The tobacco industry understood well the power of iconic protagonists – they had been successfully advertising with them for years. In fact, the twentieth century’s preeminent marketing authority, Edward Bernays, deliberately staged opportunities for storytelling. During the 1929 Easter parade in New York City, the American Tobacco Company, under Bernays’ recommendation, organized a group of “genteel and respectable” women to march holding “torches of freedom” – cigarettes. By weaving the public display of this group of women into the larger narrative of women’s suffrage and independence, they successfully told a story about the relationship between women, cigarettes and freedom: women who smoked cigarettes were liberated women (Tye, 1999).

No matter how much the science definitively counters narratives like these, it can take decades to overcome the indelible perceptions left by such powerful storytelling.

I am not arguing here that storytelling is *superior* to science communication; each serves different purposes and is necessary for those purposes. Science communication aids understanding of objective reality, storytelling aids empathy and persuasion. One is a tool for empowering more effective actions,

the other a tool for generating the political and collective will to take those actions. My key point is that science alone may not be enough to forge the collective response required to address the climate and biodiversity emergencies, but that the actions science recommends could become more palatable to the general public should ecological leaders effectively bundle them within the exciting and heroic narratives of storytellers.

### The structure of an effective story

Every year, environmental activists on the frontlines of biodiversity loss take great personal risks to defend other species. Some of these activists die in the line of duty, many live under long-term threat from the powerful interests (both criminal and legal) that they oppose.

One of these activists is Andre Baume, a park ranger in Virunga National Park, responsible for the care of orphaned mountain gorillas. When asked why he is willing to take such risks, Andre responded: “You must justify why you are on this earth – gorillas justify why I am here, they are my life. So if it is about dying, I will die for the gorillas” (von Einsiedel, 2014).

While reading the paragraphs above, many readers will notice a shift in attention that occurs as the narrative moves away from a general description of the plight of environmental activists to focus on a named individual with first-hand experience of the problems described. Human brains are more active when they encounter fewer subjects; our brains cope with individuals far better than they do with groups (Västfjäll *et al.*, 2014). This may impact how we experience compassion, as research shows that the more who suffer, be it from genocide or environmental disasters, the less humans care (Slovic and Västfjäll, 2015). But if one life alone is at stake, people will often quickly mobilize to protect it.

This paves the way for understanding the first of two indispensable elements of a story: the protagonist possessed of a great desire for something. Due to the way humans experience compassion and empathy, a single protagonist is perhaps the most reliable vehicle for eliciting these emotional responses. While in literature protagonists need not be relatable to spur page-turning devotion to a story (their desire is enough to keep readers engaged – consider some of literature’s most infamous anti-heroes: Humbert Humbert in *Lolita*, Lucifer in *Paradise Lost*, or even Walter White in *Breaking Bad*), stories that mobilize collective action require a hero who resonates with the audience in one way or another. Perhaps it is their vulnerability (*e.g.* Greta Thunberg) or their frustration with themselves and the problem they confront (*e.g.* Gilgamesh); whatever it is, something about these heroes must open a gateway to their humanity in a way most people can understand.

The second indispensable element of a story is the obstacle or problem. A protagonist alone is not enough to capture and hold human attention. Our stress response demands, well, stress. The obstacle the protagonist confronts on their journey to achieve their heart’s desire is the element that captivates audiences.

The combination of the character in pursuit of an objective and the obstacle in the way of them achieving the outcome drives the plot, the conflict, the theme and the dramatic arc. Whether the story is non-fiction, fiction or truthful fiction, these two elements provide all the structure needed. Journalists know this formula well. When they seek out inspiration for an article, more often than not they look for a 'poster child' who represents in microcosm a larger, more complex situation. Not only are readers then more likely to read the article, they are also more likely to respond to it.

The notion of conflict in a story might challenge those who hold dear to the belief that stories must be 'positive' in order to mobilize action. And, indeed, there is much truth to this statement. Under the best of circumstances, moving an audience to collective action is difficult. But if a storyteller offers them nothing in the way of hope they can transform a group of would-be activists into bitter nihilists. Fortunately, the presence of conflict alone does not determine whether a story is optimistic or pessimistic; rather it is the outcome of the story or the pathway to change that sets the audience's state-of-mind.

Political science has much to say about the types of narratives that result in action. This falls under a broad category of research called "problem definition," the activity undertaken by opposing coalitions to create a dominant understanding of the situation at hand: is it a problem or merely a condition?

A key finding from this body of literature is that conflict most serves those who seek change (Baumgartner and Jones, 1993; Pralle, 2006). Those who wish to maintain the *status quo* fight vigorously to maintain the public's current understanding of a situation which limits audience participation and lowers the likelihood of substantial conflict. They do so by utilizing a few proven methods:

- 1 sowing confusion by creating the perception of disagreement between scientists or experts;
- 2 appealing to the audience's sense of inferiority, claiming that this is a matter best left to a select group of highly-trained and credentialed experts;
- 3 defining the situation as a 'natural' occurrence without any hope of effective human recourse.

Oftentimes, they will categorize a situation as either highly technical or related to national security, frames that almost immediately quell public engagement.

Time and again, we can see these same tactics deployed by powerful interests who oppose environmental policies. Whether it is climate change, the use of nuclear power, extinction, landscape change or a host of other issues, the playbook is the same. Suppress conflict by convincing the audience that there is nothing they can do about a condition even if they tried.

But stories can be used to overcome these tactics. They won't always win. The influence of powerful entrenched interests in politics cannot be underestimated. But they do give David the best chance of overcoming Goliath.

Deborah Stone (1989) researched numerous environmental campaigns, evaluating them on their ability to engage the public in meaningful actions. Her findings reveal that the campaigns that were most successful were those that succeeded in defining a situation as a problem with both a human cause and a human fix. Her research is confirmed by others who compare and control for the multiple variables present in a policy context (interest groups, institutional openness and transparency, public sentiment before the campaign, *etc.*). Repeatedly, scholars find that one of the most important variables in determining the outcome is an environmental coalition's success in defining the problem.

Just as stories can be successfully used by marketers to overcome a scientific consensus, stories that help us to understand the human origins and solutions to problems can also overcome entrenched interests and become the basis for reinventing civilization.

**Before I became an ecological citizen, I was a successful professional at what seemed to be the pinnacle of civilization. I travelled the world and enjoyed the fruits of many cultures and regions. But for all this, I was alone in my idle thoughts, seeking diversion and a sense of community where I could find it – on LinkedIn and during fleeting conversations with colleagues. Even then I could not fully escape a persistent sense that I was alone in the world. Most of the time, I successfully managed it, but there were moments, when I was tired or anxious, in which it would ambush me, an insatiable hunger of unknown origin come to devour my sense of purpose and belonging.**

**One night, I dreamed of a leaf falling from a tree. It glowed like the sun before it touched the ground and I envied its beauty, but when I tried to lift it to carry it with me, I could not. Overcome with exhaustion from my effort, I became frustrated that I could not carry out such a simple thing.**

**Glumly, I contemplated the leaf when a voice interrupted my brooding.**

**The leaf is another lifeform, the voice told me, who is your friend and equal. It will not forsake you and you will never wish to be apart. It will lift you from your tiredness.**

**I was quiet for a moment before answering: Oh, please let these words be true.**

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