

Storytelling: Functions, Transformations, Effects in Human Thought

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Abstract

This work aims to highlight the importance of storytelling as a tool for thinking and orienting oneself in reality. Some basic concepts such as narrative and story will be defined first. Since storytelling is a way of using language, what is story and what is not will also be clarified. Using a Brunerian-type theoretical framework, the properties of the stories will then be specified. Subsequently, the central theme of this work will be addressed: storytelling as a tool, in particular the functions it performs and their transformative meaning on memory and thought, leading them to be activities aimed at others and the external world. The final part of this work will also highlight the dangers inherent in storytelling for both the narrator and the listener.

Keywords: narrative, story, language, internalization, externalization

1. Aims of this work

The words *story* and *narrative* have entered common usage to such an extent that they have infinitely extended that area of meaning once reserved for other terms such as fable, fairy tale, novella, myth,

legends, and so on. Today, narrative is used to indicate, for example, how a country's media or intelligence services reconstruct historical events that occurred (see the war between Israel and Hamas or between the Russian Federation and Ukraine). The examples may be endless, but from the account given by television and electronic platforms, one thing is clear: thanks to AI and the way social media works, so-called "facts" can be manipulated, invented from scratch, or arranged in chronological order so that A appears to be the cause of B rather than the other way around. The terms *narrative* and *story* are naturally also used on an individual level as in cases of "Mario told me a worrying story about Maria", "Giuseppe loves to tell stories that make Alberto look bad". Similarly, posting inappropriate images or spreading curses on classmates is certainly a way of telling stories though very dangerous. Despite the examples given so far, stories, also due to their frighteningly broad area of meaning, have served an irreplaceable function for the survival of the individual and the community since the birth of verbal language and therefore around 1 million years ago. Without storytelling, language, communication, and verbal thinking probably could not have developed.

The extraordinary semantic significance of the words *narrative* and *story* (but also their ambiguity) and the functions that the narrative act fulfills for both thought and orientation in reality pushed me to devote the present work to storytelling and its importance as a tool for the very life of the human being. Its purpose is therefore not so much to study the effects that the telling of stories can have on others as to analyze the functions that the narrative act performs and in particular the transformative processes that it sets in motion. What are the functions performed by narration? What processes does it set in motion in the narrator? What are the resources and what are the dangers inherent in this instrument?

2. Characteristics of stories

In order not to use terminology that could generate confusion, I will use the terms *narration* or *narrate* to refer to the act of telling and that of *story* to define their product. Whoever narrates therefore produces stories. It is also important to distinguish two levels of the story. The first concerns the chronological order of events, the second the way in which these events are in fact introduced and presented (with their temporal shifts and anticipations) by the narrator. While the first aspect, usually called *fabula*, concerns a sort of logical-causal historical reconstruction of the progress of events, the second aspect, called *plot* or *sjužet* (Thomasevskij 1928; Propp 1928), is immersed in narrative strategy. This can consist of starting the story with the final part and then moving on to narrate the events from their beginning. In this way, the *sjužet* can modify the story because in this case, starting from the ending and then returning to the beginning, it is as if the narrator wanted to demonstrate the necessary concatenation of events: «I show you how we could have arrived at all this» or wanted to immediately make known what the main problem will be on which the story will have to revolve. On this basis, the reader is curious to know how we could have reached this point and how the protagonist will get out of it.

Not everything that comes in the form of language is also a story. The first point to clarify is therefore what it contributes specifically with respect to language, what it specializes in.

The minimum condition for having a story is that it be a linguistic unit that concerns a specific relationship between five elements: an actor, an action, a scene (i.e. a space-time context), a purpose and an instrument. (Burke 1945) J. Bruner (see for example Bruner 1990) proposed adding a sixth: the problem. At a certain point in the course of events, an unexpected event arises that the actor must resolve. This event is also unexpected because it violates a norm linked to the

ordinariness of events. Since the latter is of a cultural nature, the stories bring into a culturally defined world. Note that from these six elements comes the fact that the story concerns concrete and specific people (actor) who perform actions, using appropriate means to achieve their end, and are therefore endowed with intentionality (action, means and purpose) within a temporal processuality. A story therefore has its own diachronicity even if this is not the one on the clock.

These minimum conditions defined by Burke and Bruner mean that all those linguistic accounts or formulations that do not respect these conditions such as chronicles, annals, scripts, lists, instructions, formulas etc. are not stories at least that they are not included within a story such as the one we have defined. Chronicles, annals, and scripts (or scripts) are not stories because events are described generically, while a story must have its own specificity. Lists, instructions, and formulas (such as things to buy at the supermarket; route to get to Mario's house; $A > B$) because they lack an actor, instrument, and so on.

3. Functions of stories

Having made these premises which concern the architecture of stories, so to speak, I would now like to describe what the main functions are in order to demonstrate their usefulness as tools of thought and in life choices.

3.1. Telling the past

The stories we tell serve to communicate what we know, a function that, more than others, corresponds to the way the word story is frequently understood. The narrator communicates to others what he/she has seen or knows. These are stories about the past which, however, contain not only accounts of events that occurred but also of

those that may have occurred, as well as reflections or assessments made by the narrator. As we'll see better in a moment, the stories are about a possible reality. It is important to underline finally that when you tell others what you know (or think you know) you also create or modify (perhaps even imperceptibly) the type of relationship with possible feedback and effects on the narrative level

3.2. Building memory

Having constructed a story and told it has significant effects on memory. It can facilitate the memorization and maintenance of memory, or even its reworking. Furthermore, when stories are told, depending on how they are interpreted and received, they can become part of a collective memory. Based on this function, stories dialogue with other stories, transforming themselves and becoming the trace of a common past but also an element of differentiation and conflict between different groups and cultures (Smorti 2020).

3.3. Building a possible world

Stories are not only directed towards what is known and taken for certain but also towards the possible (see for this Aristotle, *Poetics*, 334-330 BC). This function is above all fulfilled by the so-called fictional stories. They deal with recounting events that could happen in our world (for example riding a horse) but also those that cannot happen (such as riding a hippogriff). In both cases, however, this type of story introduces worlds that, although fictional, can help us understand the events that happen in everyday life. In this sense, as we said previously (see 3.1.), in recounting the past we also recount what are supposed to have been the facts and not just the facts, that is, we reconstruct a possible narrative version of them

3.4. Telling the future

Thanks to discoveries about the role played by the hippocampus, it has been shown how past, future and possibility are very closely linked categories of the mind. (Schacter and Addis 2009) Therefore, stories do not only address the past or a timeless dimension as in fictional stories, but are built, also on the basis of memories of the past, to face the future both in a purely imaginative way and by making realistic predictions and programs (perspective function of stories).

3.5. Formulating hypotheses, building theories

From what has been said so far, it can be understood that one of the functions of stories is to formulate hypotheses especially when obsolete, new and incongruent events arise to which the narrator is interested in providing an explanation. The creation of a hypothesis-story is a true cognitive strategy intimately linked to the functioning of the narrator's memory and imagination. When a hypothetical story is verified, and therefore turns out to be correct, it is very similar to a story-theory. Some stories function to move from the level of the single, specific event being told to the creation of more general norms and explanatory principles of events. (Schank 1990)

3.6. Understanding yourself and others

Some stories are specifically aimed at understanding oneself or others by developing a representation that is as plausible as possible. Narrating is a fundamental strategy for understanding oneself within a broader and more uninterrupted narrative dialogue with others. But precisely the nature of this dialogue puts the narrator in the position of also being a narrator and therefore of understanding the stories of others. Those who work in a helping profession (psychotherapist, or other) need to possess the ability to exercise both of these functions

3.7. Autobiographical self

The different stories a person tells in their life tend to come together into larger autobiographical stories. The modern notion of the autobiographical Self serves as a central concept in these processes and shows how the Self transforms through the narration of itself to others. (Bruner 1990) Habermas and Bluck (2000) developed the notion of Life Story Schema that includes not only retrieval and reconstruction of particular episodes (autobiographical remembering) but also how individuals represent, interpret, feel, and think about whole life periods and finally their entire life story (autobiographical reasoning). The life story schema draws on important memories of life events, but goes beyond that by linking events temporally and interpretively into a story of one's life. In doing so, it binds self and memory: this schematic representation of one's life events over time connects the present self with the personal and unique story and changing contexts of the individual. The life story schema provides an individualized, flexible story of the self that preserves self-continuity across roles and motivates future actions and goals.

4. Narrating as a transformative process

At this point the time has come to focus on the effects that telling stories can have on the narrator. We have already seen how self-understanding and the construction of a narrative self are important functions performed by narrating. I would now like to better show how and why storytelling is a profoundly transformative act. To do this, it is necessary to distinguish an internal language from an external language, the former directed towards oneself and the latter towards others.

Following Vygotsky's theory, internal language is formed as an internalization of external (or social) language. In this process it functions as a language for the Self (or self-centered). Gradually

intertwining with non verbal thought, language for the Self will help inner thought become increasingly verbalized (even if silently or subvocally) and subsequently increasingly externalized, becoming a more rational social language, enriched by the contributions offered by thought. This is, in a nutshell, the transition from inner to outer language. When it is external language must confront the other's intention and interest (as we will see better later). When it is internal, language takes place in forms that only the subject knows because it is deeply implicit and syncretic. But what happens when you tell your story?

4.1. Preparation

The act of telling is preceded more or less consciously by a sort of preparation. The narrators still often do not know exactly what they want to say. They may be aware of the theme, of the general concept, but very often they have no idea of the words they will use (Edelman and Tononi 2000). This puts the speakers in a position to be able to discover something they did not know they were thinking or didn't really think.

According to Brainerd and Reyna (2004), memories can be present within memory in a gist format (a very synthetic format, a sort of juice or narrow semantics of the memory or concept to be expressed) or/and verbatim (a more detailed form sometimes including the vocal expressions themselves). When people want to narrate an event that happened, especially if it has never been told before, they must to some extent pre-construct the path with which the events unfolded. If the event has already been recounted and they have a proven script, they will in any case have to orient themselves towards a new perspective, that of directing what they have in mind towards that specific interlocutor and according to a specific communicative purpose.

4.2. Vocalization

Subsequently, to become external language, memories or thoughts must acquire a physical vocal dimension through the emission of the voice, which involves air from the lungs, larynx, vocal cords and the entire resonator apparatus. If the brain not only produced thoughts but also activated the rib cage and the complex phonatory system, it could not begin the process that transforms thought into words, thus creating new thinking.

4.3. Language

When the voice becomes a language, the third transformation takes place. In taking the verb form, thought splits into two levels (Chomsky 1966; De Saussure 1967).

The first is represented by the phonetic part: the sounds of words. These constitute signifiers, that is, the material part of language. The transformation of the voice into language imposes on thought the iron law of linearity. Phonemes and words must be pronounced one after the other. When is inside the head, thought moves in parallel, and multiple thoughts can unfold simultaneously; when they need to be uttered, they must transform serially. This loss of freedom that one encounters when speaking then turns into a major advantage because, once linearized, thought follows the rules of the linguistic community to which the speakers belong and it is precisely by respecting these rules that they make understandable their speaking.

The second level of language is represented by the cognitive aspect. Words refer to meanings. These meanings are bound by the rules of language and the cultural environment of the narrator and in turn refer to a referent, the object being spoken of.

4.4. The narrative

Once the word has been given voice, it can be articulated in narrative form, carrying out the functions I described above. When our thoughts take the form of a story, they are addressed to someone and cannot be without a need to be heard and interested. Here then is a further transformation. When you think, you think for yourself, when you tell, you turn to another person. In this case we must adapt our thoughts to a dialogue, make ourselves heard (i.e. be interesting) and make ourselves understood (i.e. say plausible things), and the person in front of us, as well as the way in which he/she will listen to us, will profoundly influence our story, pushing us, if we want to be successful, to modulate our words and respect certain conversational rules (Grice 1975).

Thanks to these transformations, thinking becomes more understandable for others because thoughts transformed into words become part of a common language, usually our native language, but also for themselves, because when we tell it is natural to compare the thoughts we had in our heads “before”, with the words we used “after”. And it's only from this comparison that we realize whether we've said what we meant or not. In some cases, we even discover that our thoughts, once we enter the new world of words, lose the original meaning they seemed to have: what was implicit now becomes more explicit, and new aspects emerge that we ourselves were unaware of. What we thought no longer convinces us: thought that has become language has transformed and we ourselves who look at it are transformed because we can see this transformed thought with new eyes (Smorti 2020).

4.5. Internalization of the story

Once a story has been told it can be remembered and, in this way, internalized according to a gist and/or verbatim format. What is

internalized is not only what the narrator told but the same experience of relating to the narrator. At this point that internalized story can be reused and the telling of the story will not be identical to the one done the first time when that particular experience had not yet been told. These changes and thus the transformative power of storytelling on thought can be captured if we ask people to tell the same memory more than once. A long tradition of research has long demonstrated this (Bartlett 1932; Pannebaker 1997; McLean, Pasupathi and Pals 2007; Smorti 2020)

Pannebaker, for example, by asking university students to subsequently write the same story about a dramatic event that had happened to them 2 or 3 days later, discovered that not only did the stories become more coherent and linguistically balanced due to the number of expressions indicating positive and negative emotions, but their mental and physical conditions underwent a change (blood tests, skin conductance, doctor visits, etc.). Smorti (2020), who asked psychiatric patients to tell their life story several times, found that their story brought out a greater coherence and awareness that was completely absent in the first narrative.

5. Problems, risks and warnings in using stories

The functions I have described in relation to stories and the transformations brought about by the narrative process show to what extent and in what way telling stories is important for thinking and in life in general. When it comes to sharing knowledge and points of view by stating something that goes beyond $a=a$, when faced with a problem we have to imagine alternative solutions and predict events, when we have to rebuild our lives and make sense of them, we always have to use stories (even if not only). We always have to use stories produced with an external language, addressed to others, or internal, with a language for oneself, that is, reflecting and thinking in the form

of a story. Not only that, but we have a vast archive of stories (in summary or full-text form) that have been adapted over time because, as we have seen, the use of a story – through its telling, its evocation in the mind, its application to solving a problem, and the reactions of others – makes the narrative part of an ongoing dialogue not merely between speaker and listener but between narrators, and this brings to mind the idea that stories are co-narrated rather than simply narrated.

That said, it is necessary to highlight the risk that occurs when, talking about storytelling or narratives, they are considered activities that are always beneficial to the person. Of course, this would be false, and not only because, as we all know, fake news exists, as well as toxic stories capable of poisoning individuals, groups, and entire populations, but also because of certain dangers that, in my opinion, can creep into the very phenomenon of storytelling, into the processes of autobiographical reconstruction.

People grow and age by believing in the stories they tell themselves and others, but these stories can bring completely false, misleading visions of their lives, theories that serve to protect them from pain with no other positive value than anesthetic. In a two-way relationship for example, and I'm also thinking of psychotherapeutic relationships as well as those between parents and children, or between married couples, countless types of stories are told, some of which can have a positive effect on the growth of one or both partners, while others can be destructive. It is therefore necessary to highlight some of the internal dangers of the narrative process and those transformations that it sets in motion.

There is no shortage of voices that are dissonant with respect to what has been called the "autobiographical turn", voices that I would summarize in one point: the autobiographical illusion (see for example: Stawson 2004; Taleb 2007). It consists in the belief that we can always

explain everything simply by turning back and reconstructing a causal chain, thus forgetting two principles of existence that both systems theory and clinical psychopathology have highlighted: that of equifinality and that of multifinality. In an open system, such as the human one, the same outcome can be reached through a variety of paths (equifinality). On the other hand, the same path can lead to different outcomes (multifinality).

Voltaire himself in "Candide" (Voltaire 1755) almost three centuries ago laughed at this determinism which today we would call "a la Sliding doors" of the type that "if it had not happened A, B would not have happened and therefore C therefore the present where today I am (Z) would be different.

The problem is therefore to guard against the ease that stories have in finding a plausible and perhaps pleasant reconstruction of events. Knowledge processes always involve the use of analogies, metaphors, and the creation of possible worlds that lead to phases of hypothesis and verification. What seems important is both having the courage to formulate even risky hypotheses and having the patience and humility to control them and perhaps go back and reformulate new ones that can learn from the errors, that take into account the implausibility of the previously formulated hypothesis. This involves knowing how to remain, albeit temporarily, in a state of unsaturation and living with inconsistencies in a world that seems full of questions that often require immediate answers. In such cases, providing a definitive one immediately risks making things even more difficult as well as dangerous. When there is insufficient evidence to reach a conclusion, it is perhaps more prudent to remain in a state of waiting.

The Greeks had therefore formulated the concept of epoché or suspension of assent, subsequently first Keats (1817) then Bion (1967), a great poet and a great psychoanalyst spoke of "negative capacity" understood as the ability to live in uncertainty, in mystery, in

doubt without the impatience to chase facts and reason enduring not knowing (which Bion defined as function -K). Whether we call it negative capacity, epochè, or suspension of assent, these mental states allow us to draw a difference between magic and knowledge by creating that thin edge that, without rejecting the most leaping ideas, prevents us from immediately deciding whether they are magical signatures or scientific hypotheses.

But these skills are, like all other skills, something that develops over the course of a lifetime. This is why stories, in their allure and in being indispensable tools for survival, also lead us to reflect on an essential question: like all tools, it is not enough to possess them, but it is necessary to learn how to use them, and this is also what, in my opinion, human education should focus on.

6. Conclusions

In this work I have tried to delve deeper, according to a Vygotskian and Brunerian approach, into the theme of narration and stories from the point of view of their usefulness for human survival. After some preliminary definitions, I focused on the functions performed by stories in thought processes and subsequently on the transformations brought about by narrative acts on memory, the self, and language.

One conclusion that can be reached after this analysis is that there is a substantial difference between autobiographical memory and autobiographical narrative. The first concerns the possibility of recalling, in a more or less incomplete, synthetic or detailed way (gist, verbatim) the events that occurred to the subject, is directed towards oneself and allows a sort of reflection on the past expressed according to a language directed towards oneself. The second, however, concerns a person's account of his own life events to others. As such it must be carried out according to a "social" modality such as to make it understandable and interesting for the listener. This diversification

between the two languages, the internal one of memory and the external one of stories, becomes less clear-cut over time because with sociocognitive development and the possibility of speaking a specific language and narrating stories, they internalize and put themselves at the service of memory and thought. In this way, it is possible to silently tell oneself a story in a more articulated, syntactically more structured way, and thought and memory can use language and the properties of stories to organize themselves according to a linguistic plan, not just an imaginative, schematic, or sensorial one. Similarly, when memory and thought become externalized, they become part of narratives, taking on the characteristics of a social language. They must therefore take on a different form to comply with the rules of storytelling; for example, the narrative can no longer be a tangled web of different lines of reasoning, nor a repetition of the same pattern, but must adopt the structure of an external language, drawing on rhetoric or deductive logic where necessary, and identifying the causes of events, the consequences, the main and secondary characters, the intentions, the problems and the solutions. In short, over time we learn to use stories to think and to use the thought to tell stories

A second conclusion to be drawn from this analysis, closely combined with the previous one, concerns the effects that telling has on oneself. How people influence each other through telling stories is quite well known. Feelings of sympathy or aversion may arise, alliances may form, conflicts may arise. It's also very clear that, in most cases, in everyday conversations people tell each other stories as if they were pulling out little pieces of a Lego to connect together. Ultimately, it results in a process of co-construction of stories, rather than simply storytelling and listening. And that's precisely why when A tells a story to B, the story B tells A immediately afterward influences his/her subsequent narratives. In this sense, telling a story to another provides feedback on the effects that story had. They may suggest different

reflections and points of view. Limits of that story or the way it was told may emerge by encouraging the narrator to tell it differently on other occasions.

That said, I believe that to this dialogic and co-constructive activity in the narrative we must add a cognitive activity that the narrators carry out towards themselves. And this is precisely by virtue of the transformative processes of narrating. They force us to transform thought into voice, that is, into materiality that is subject to physical laws and then into phonemes and words that become cognitive signifiers. Therefore, when speaking, cultural and cognitive tools related to language and processes of signification are used, but these tools are also subject to physical laws, so much so that some signifiers refer to different meanings because their sound is more similar to a physical phenomenon (see *onomatopoeia*, *phonoesthesia*). Making words appear in a linear order, a before and after, forces a transformation: that thought, that memory now are something else entirely. And they become even more different if we think about the transformations they undergo when subjected to the rules of language, stories, and, as mentioned before, the reactions of others. This, then, is at the heart of the problem, in my opinion, of storytelling. Self-awareness is slowly achieved through the narration of stories to others which, once internalized and constituted in memory, becomes a tool for looking within and reflecting. When some stories cannot be told because one is afraid, ashamed of the judgment of others, or even of an oppressive social regime, it is as if parts of oneself remain dry, in the shadows, almost forgotten.

And that's why, despite all the caveats with which I concluded paragraph 5, storytelling is a powerful tool for learning, cognitive development, and self-awareness.

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