

Just an Illusion? Imagination as Higher Mental Function

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Abstract

Imagination is a fundamental psychological higher function that elaborates meaning by linguistic and iconic signs, related to memory, fantasy and intelligence, playing a crucial role in scientific thinking, art, and societal change as well as in education and promotion of wellbeing. Contrary to the traditional understanding in psychology and philosophy, imagination is not in opposition with rational thinking and reality, it is rather a specific form of adaptation and pre-adaptation to environment through a self-regulatory process by production and elaboration of meaning. Imagination is also fundamental to guide the future oriented behavior both at individual and collective levels. Human action is based on an imaginative reconstruction of the past in function of an imagined future. Rethinking imagination in psychological sciences requires a different look at the relationship between mind and the environment. In this article such a perspective is elaborated after a short outline of the history of the notion of imagination.

Keywords: Imagination; Cultural psychology; Meaning-making; Non-existing objects

Introduction

As technology enables us more and more, we become increasingly only limited by our imagination and by the memory of our past glories and mistakes. Nevertheless, when saying “use your imagination”, “it’s just your imagination” or “you just imagined that”, we draw a distinction between rationality, reality and imagining. What if our psychological knowledge about imagining and its relation with other processes, like memory, was constrained by some misleading assumption? Thus, what is the role of imaginative processes in learning, economic and social activities, therapy, scientific and artistic work, social change? Does imagination mean just detachment from reality or is it a more basic psychological function? How can we appreciate imaginative processes to improve the quality of life? Psychology has in the past tended to view imagination as an intellectual process of representing and operating on unreal objects in front of the mind’s eye. This has, unfortunately, lead to a neglect of the emotional, social, cultural and contextual dimensions of imagination. To some extent, psychological sciences still strive for a “material” origin of human action, that is for grounding it in neuro-biological or unconscious mechanisms (mirror neurons, drives, needs, etc.). But what if the origin of action was also imaginative, pre-adaptive and affective?

In one of my previous theoretical works, I defined imagination as “a fundamental higher psychological function that is devoted to the manipulation of complex wholes of iconic and linguistic signs” [1]. Meaning-making processes elaborate complexes of signs always in both linguistic and iconic modes. This is what Peirce called “the material qualities of the sign” [2]. Similarly, Vološinov argued that “consciousness itself can arise and become a visible fact only in the material embodiment of signs” [3]. For instance, in the calligraphic traditions of Islamic or Japanese culture, this relationship between iconic and linguistic content of sign complexes is clearly visible and determines the affective content of the meaning-making process. “The human reception of the shift from text to figure, and from figure to text, is affective: in Islamic art, it is the sense of that infinite potential within the word that gives rise to something else” [4].

This fundamental twofold nature of signs’ complexes allows the complementary construction, and elaboration of ideation and reification, internalization and externalization, abstraction and concretization. In this sense, the relationship between psychological

phenomena and material phenomena is to be considered neither an opposition nor a representation, rather “through imagination, we build things acting as they were abstractions, and build abstractions acting as they were real things” [1].

In the following sections I will try to argue the fundamental role of imaginative processes in the construction of the relationship with the world, starting from 3 theoretical theses that I will use as general hypotheses:

1. The first these states that imagination is a fundamental psychological higher function that elaborates meaning by linguistic and iconic signs. In this sense, it is distinct from fantasy, imagery and simulation, being the basic function underlying them. Imagination is related to memory and problem solving, playing a crucial role in scientific thinking, art, and societal change as well as in education and promotion of wellbeing.
2. The second these states that imagination is not in opposition with rational thinking and reality, it is rather a specific form of adaptation and pre-adaptation to environment through a self-regulatory process by production and elaboration of meaning. Imagination is also fundamental to guide the future oriented behavior both at individual and collective levels. Human action is based on an imaginative reconstruction of the past in function of an imagined future.
3. The third these states that human beings establish first of all an affective relationship with the world (objects and persons), and through imagination they treat concrete and real things as they were abstract and treat non-existing objects and abstract concepts as they were concrete things. This requires an innovative methodology to study imagination as a complex

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phenomenon that cannot rely only on laboratory experiments or on language-based methods such as interviews.

The combination of the three theses leads to the formulation of some research questions that need to be addressed by psychology both theoretically and empirically: Can imagination be understood as a basic psychological function with its own logic? How does it work in different contexts? Which is the relationship of imagination with other higher mental processes? How to develop a methodology to study imagination through complex products of human activity? And what is the role of imagination in the epistemology of scientific work, with a special focus on psychological sciences? Before presenting my theoretical proposal, I will briefly explore the history of the notion of imagination in the next section.

Imagination: A Neglected Faculty

Human beings can orientate their behavior according to an imaginary past in function of an imagined future. All the types of apparently irrational actions, like killing or being killed for an idea or a flag are still puzzling psychology. The fatherland, Santa Claus, the invisible hand of the market, Paradise and Hell, are all entities that we and our fellow humans firmly believe without requiring further proof [1].

Despite its pervasive presence in everyday life, imagination has been often considered a secondary feature of human mind, somewhat midway between sense and intellect, subordinated to the process of rational and logical thinking [1,5,6]. The study of imagination has traditionally been based on Aristotle's idea of imagination as a faculty which produces, stores, and recalls images in a variety of cognitive activities, including memory and those which motivate and guide action: "The soul never thinks without a mental image [*phantasma*]" (*De Anima*). Since that, many scholars have extensively investigated the role of imagination (e.g., Augustine, Vico, Descartes, Kant, Goethe, Dilthey, Freud, Sartre, Husserl, just to mention few, for a discussion of their ideas on imagination [1,5]), often overlapping it with fantasy. Moreover, the link to other mental processes has been long discussed: remembering has been taken to be an 'imaginative reconstruction' [7] and imagination has been often considered as "springing up of reminiscences." We might ask how these two higher mental symbolic functions work and what part do social cultural factors play in them?

Since Plato and Aristotle, imagination is understood as something in between reality outside and mental life. Going from the external world to the inner mental life, imagination is located beyond senses: it is an attenuated *phantasma* of the sensation that lasts after the object has impresses his footprint on the mind. As attenuated form of sensation, the *phantasma* is not able to trigger the same full sensation of the real object, but rather becomes a diminished sensory experience [8]. Another form of imagination works when going from the inner mental work to the external reality; it becomes a form of action. Imagination is the form of preparation to action in which organisms has an alteration of his normal states and experiences an appetite for something. It is a kind of warming up (that Aristotle calls *phantasia aisteiké*) that the organism goes through to prepare action. This duality has been preserved for centuries in philosophy and psychology [1], leading to disregard the role of imagination and overlapping it with fantasy.

Nevertheless, some advancements have been done with respect to the relationship between rationality and imagination [5,6]. Imagination has also been acknowledged to play a relevant role in science [9]. However, while imaginative thinking has been discussed in the context

of discovery and creative thinking (e.g., the role of imagination in the development of theories like Einstein's relativity, or the relationship between theory development and Pierce's abduction), fewer studies have taken into account its relevance in the context of justification. Even those studies that have tried to link imagination to everyday activities (e.g., in school), understood it as an alternative to rationality and an individual property, like intelligence, that can never be totally absent but can be possessed by the person with individual differences in magnitude. In fact, there are some projects, especially in the United States, that are trying to develop a measure of imagination on the model of IQ.

In the last 20 years, psychology and philosophy of mind have started reconsidering imaginative processes [10-15]. Neuropsychology is recently appreciating the adaptive role of imagination and its relation with memory [16-18]. Three centuries ago, Descartes had already located the center of common sense and imagination in the pineal gland in the back of the brain [19]. Recent studies in neuropsychology [20] have supported the hypothesis that the hippocampus and associated cortical structures, normally related to memory processes, "are active when people envision future" [20], suggesting the strict relationship between memory and imagination.

An interesting proposal is to understand imagination as "one modality of apprehending the real, or a specific mode of experiencing" [14], developing it in the sense of meaningful scenario-types that implies also the introduction of the different points of view or positions of the observer and the dimension of action. Yet psychology still knows little about the actual role of psychological imaginative processes in mundane human activities. Though the recently proposed views on imagination in cultural psychology, as gap-filling [12] or as expansion of experience [10,14] are situating imagination in the relationship between the person and the socio-cultural dimensions of action, a specific theory about the affective, social, cultural and contextual dimensions of imagination is still far from being fully elaborated. In the next section, I start presenting my initial elaboration of such a theory.

The Directionality of The Psyche

Psychology is still largely based on an epistemological model of the mind as a responsive and representational device. In other words, the focus is on how the mind, with its different sub-systems, is able to represent response and adapt to the ever-changing demands of the material and social environment. For this reason, imagination understood as an attenuated form of representing the sensorial data has been understood as a secondary feature of *psyche*, unable to provide a reliable mental model of reality and thus relegated amidst the many "biases" that our limited cognitive functions produce if compared to a normative model of logical thinking. My first these, that imagination is a fundamental psychological higher function that elaborates meaning by linguistic and iconic signs, related to memory, fantasy and intelligence, is questioning the reproductive model of mind arguing in favor of the idea that *psyche* is pre-adaptive, producing and elaborating meanings that anticipate our relationship with the world rather than responding to it [21]. The human existential condition is to manage uncertainty in a future-oriented and goal-directed everyday life. Ordinary questions like "what's next", "so what" and "what if" are constantly guiding human beings toward meaning-making. The previous experience is not just a repository of useful knowledge, but rather an outcome of this future-oriented process. We remember by reconstructing the past in function of an imagined future [7]. Thus, responsivity in psychological processes is a consequence of intentionality and of striving for experience, in

the constant making and re-making of meaningful relationship with people and objects. This idea is reversing the direction of the I-world relationships, no longer are we reacting to it, but we are actively going towards it, constantly anticipating this encounter through production of signs [21].

The idea of the directionality of psychological processes is the base for the second these: imagination is not in opposition with rational thinking and reality, it is rather a specific form of adaptation and pre-adaptation to environment through a self-regulatory process by production and elaboration of meaning. Imagination is also fundamental to guide the future oriented behavior both at individual and collective levels. We do not *encounter* of the world (people or things), we go *towards* it.

When we act upon something or someone (pulling, typing, asking) in the world and the “thing” is opposing to our will (by not-unscrewing, by crashing, by answering “no”), the status of the thing changes. “The crucial role in this transformation is the role of the agent: by acting upon things in nature, these become objects. These objects can resist our actions (stand against us - *Gegen+stand*)¹, or can evade us” [21]. A lot of people have probably experienced this “resistance” every time that their mobile phone or computer crashes and they start “talking” or even “insulting” it. Despite any rational thought, you must admit to start seeing the object as it would oppose a resistance to your will. In this respect, it makes little difference whereas the object in question is an unanimated being or animated thing. Directionality of experiencing makes some features of the object emerging. According to Wittgenstein [22] there is a distinction between the perceptual act of vision (seeing), that could be more or less exact or deceived (e.g. the series of optical illusions widely used in psychology), and the act of will implied in seeing some aspects of an object: “Now I see it as a ... ‘goes with’ I am trying to see it as a ... or ‘I can’t see it as a ... yet’” [22]. To “see-as” is a deliberate establishment of a special relationship with an object (in a general sense) by an agent acting upon it. This relationship signals the “dynamic qualitative nature” [21] of the meaning-making process in relating with the world, so that the purposeful action upon the object and its counter-action form a dynamic whole, including the specific conditions of the encounter that select specific aspects of the object rather than others (Figure 1).

“Seeing-as” is a meaning-making process that transforms altogether the agent, the object and their relationship, at least temporarily.

¹For a more detailed history of the development of the notion of *Gegenstand* from German philosophy [21].

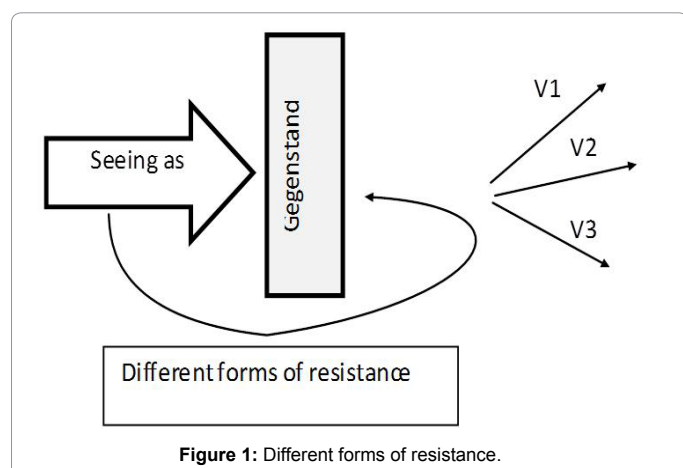


Figure 1: Different forms of resistance.

“Fundamentally, seeing-as involves the possibility of a certain kind of change in the object or illustration a change of aspect” [23]. Nevertheless, we can say that all meaningful relationships are characterized as a complex dance of meaning between “seeing” and “seeing-as”. In terms of semiotic dynamics, the two processes indicated by the double meaning of the verb “to see” in English are part of a future-oriented purposeful process of hierarchical construction of meanings. Contemporary urban life in different cultures is full of events in which we engage in complex negotiations between seeing a person (e.g., a poor-dressed dark-skinned woman), seeing her as something (an immigrant) and deciding how to treat her (helping, rejecting, behaving superficially in polite way, etc.). “X sees Y” means that, given some environmental conditions or temporary defective faculties (e.g., illumination, fog, state of altered consciousness of the agent, etc.), X has a perception that can be more or less accurate of the object Y. “In dark light, I may see a tree as a man, or a black shadow as a cat; in normal conditions, I will be expected to see a table as a table, and not as an elephant, and so on” [23].

“Seeing-as” is probably unavoidable, as necessary as meaning-making itself when human beings engage in a relationship with (or, better, when they travel and dwell) the world. Many scholars (e.g., Kant, James, Baldwin and Freud) provide evidence that we relate in this way with the meaningful aspects of the world that we sometimes call things or people.

Whereas a *Gegenstand* is a person, a pet, a material (or immaterial) object, the person establishes a relationship in which directionality and resistance are complementary phenomena: they appear as soon as an orientation emerges (arrows in Figure 1).

The border between different categories of objects can be blurred though. Sometimes can be hard to decide whether something is alive or not, sometimes we treat pets like human beings or we treat human beings as dehumanized objects. Yet we do not just see things or other beings: we always see them as something under some goal-directed and value-guided conditions. The fixation of desires on a *Gegenstand* (e.g., the mother, the money, a pair of shoes, a divinity, an unreachable star or woman, etc.) allow the object to exert a power, a grip, on us, so that we create the *Gegenstand* that creates us. We can become “slaves” of the meaningful objects we love, own or dwell. By perceptual activity we interrogate the world, by “seeing-as” the world of *Gegenstand* interrogates us in return. “The process of experiencing includes the whole, consisting of lived-by action and counter-action that is contextual inter-action with the world in the form of an experiencing subject and otherness. For analytic purpose we can say that action is a combination of behavior (or its absence, avoiding behavior) and a mental symbolic process associated to it” [24].

Rethinking Imagination: The Non-existing Objects

The notion of “seeing-as” can be related with those of symbolic play, fantasy and imagination, leading to overcome the received view of considering these psychological processes as forms of escape or suspension of reality [1]. They are instead the forms of meaning-making that create meaningful world populated by *Gegenstand*. According to Baldwin [25], children develop meaningful relationships with the objects through:

“The semblant or make-believe use of an object having merely having inner character or fancy as image, whereby it is treated for playful or other personal purposes as having further meaning or reference. The object thus becomes a “scheme”, a Schema, charged with further meaning which it has not as yet been found in its own right” [25].

The child is perfectly aware that a piece of wood is a not but piece of wood, yet the very same child is able to establish a meaningful relationship with that very piece of wood and temporarily see it as something else (a rifle, a sword, etc.) for “playful or other personal purposes”, losing later on any interest for the same piece of wood but keeping the “scheme” for future use. “The result is a never-ending forward-oriented construction cycle where established schemas lead to new created roles for new objects of exploration, while the latter lead to the establishment of ever new schemas” [26].

In human lives there is a very large class of objects that includes non-existing objects people nevertheless relate with as *Gegenstand* (e.g., love, culture, divinity, freedom, atmosphere, mood, the invisible hand of market, Paradise, Hell, Santa Claus, creativity, faith, etc.). Through imaginative processes, we “produce self-regulatory, continuously and hierarchically abstracted and reified signs to promote or inhibit change and resistance to change. Therefore, imagination is a fundamental part of any developmental process” [1]. This kind of objects are the topic of the third these, stating that human beings establish first of all an affective relationship with the world (objects and persons), and through imagination they treat concrete and real things as they were abstract and treat non-existing objects and abstract concepts as they were concrete things.

All the non-existing objects populating everyday life (our fatherland, our guardian angel, our zodiac, our mood, our family's honor, etc.) become *Gegenstand* through the work of imagination: “we build things acting as they were abstractions, and build abstractions acting as they were real things” [1]. These objects dwell in return and orientate our lives, to the extent that one can kill or die for the fatherland, or that our zodiac can resist the achievement of our career goals or our new romantic affair! By getting rid of or by overlooking these phenomena, psychology has failed to understand human psyche in many of its more striking manifestations. Psychological science is still helpless before the capability of people to reach the highest peaks and the deepest abyss of its potentiality. Humans are the only living beings able to produce both art masterpieces and weapons of mass destruction, to make actions of philanthropy and to jeopardize its own offspring through destroying the natural environment, guided by religious, nationalist, family or philosophical sign-systems. To understand the way these frequent phenomena occur in the history of human civilization, we cannot just rely on theories based on the distinction between rational and non-rational thinking, on drives and instincts. If the role of non-existing objects is so adamant in human conduct, we must attribute it to a specific mental function.

My theoretical proposal is to attribute such a role to imagination as “a higher psychological function that enables us to manipulate complex meanings of both linguistic and iconic forms in the process of experiencing” [1]. By “seeing-as” we can continuously jump from the concrete object to the abstract concept in order to produce meaningful relationships. A piece of fabric can be temporarily seen-as a flag of an ideal fatherland for which is ought to fight a war, or a piece of wood can be temporarily seen-as a divinity that can make a “real” miracle. On the other hand, the abstract concept is provided with a body and a matter through imagination. An abstract social value like the honor of the family is actually embodied by the woman's body, or the concept of absolute Good and Evil receive a concrete and scary (or attractive) existence in the forms of the Garden of Delights or the Abyss of Fire.

Humans produce and reproduce signs as actions upon the world in order to make sense and manage uncertainty outside and inside through affective intentionality, expressivity, and creativity [27]. Fairy tales, religious iconography, political propaganda are examples of

products in which imagination is used to promote valued behaviors or inhibit despicable ones, as well as dealing with otherness by promoting the collective identity and differentiation processes. Humans create universal and abstract representations of life starting from very situated individual actions. Such institutionalized representations of the world become traditions, or life forms: the frameworks distanced from the individual, immediate experience within which the meaning of the experiences itself acquires sense in return. The imaginative process thus plays a self-regulative function also toward the ambivalent nature of experience and uncertainty of change.

The twofold nature of complexes of signs in imaginative thinking becomes a self-regulatory system, which orientates experience and identity construction. For instance, once the flag is related to the national identity, becoming a *Gegenstand*, it creates a system of conventional logic in which both the statements “I am part of that nation THEREFORE I will die or kill for the flag” and “I will die or kill for the flag THEREFORE I am part of that nation” become equally true. Another example of self-regulative function through imaginative work is very frequent in religious phenomena (Figure 2). An example is common trope in European Christianity of the “Memento mori” (Latin ‘remember (that you have) to die’), a religious theory and practice of reflection on mortality, focused on the vanity and the transient nature of all earthly life and pursuits [28]. It developed as a widespread art theme, especially during the 16th and 17th Centuries, through sometimes very complex systems of iconography, like for instance the Danse Macabre and the Triumph of Death themes.

What kind of overwhelming experience Pieter Bruegel the Elder's (1526/1530–1569) painting could raise in 16th Century observers, in the context of Counter-Reformation, European wars and the great plague? This iconic representation of death and caducity was acting as promoter for ‘ought’ behaviors and inhibitor of sin in view of a differed, fearful event of damnation. This effect is produced through the interplay between the individual and collective imagination and memory, during a continuous shift between abstraction from concrete images that represent concepts and reification of ideas into embodied iconographic signs. This signs complex would exert self and social regulation on the basis of imaginative processes [29].

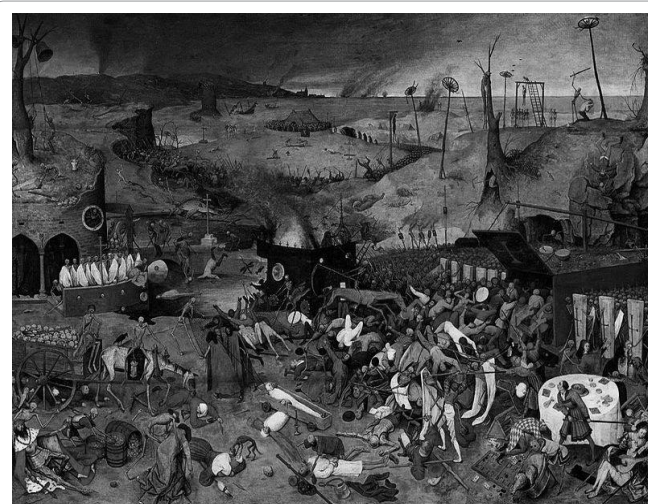


Image source under public license, retrieved 29 October 2015 from http://commons.wikimedia.org/wiki/File:Pieter_Bruegel_the_Elder_-_The_Triumph_of_Death_-_WGA3389.jpg

Figure 2: The Triumph of Death, c. 1562, Prado Museum, Madrid.

How to Study Imagination: Methodological Suggestions

Once we bring to the front a class of psychological phenomena that deal with non-existing objects we need new methodologies able to deal with the ethical, aesthetic and affective relationship with the world implied in the notion of *Gegenstand*. This goal cannot be achieved through reductionist approaches (both physiological and linguistic) but requires the study of complexes of signs and products of human activity.

Such a methodological framework must include a multidimensional view of cultural-personal processes. First, one must consider the nature of the subject (person, social group, community, institution) and its functional extension (how it establishes ties with environment). If we understand the subject as “immersed” in the environment, we take for granted the responsive nature of establishing such ties. Of course, it is impossible for an open system to not relate to its environment. Nevertheless, the selective ways of establishing these ties (e.g., what the subject strives or ignores) are the relevant information about the subject understood as a pre-adaptive system.

Second, the nature of the environment (structured, quasi-structured, random, etc.) must be accounted in order to understand the kind of constraints and affordances.

Third, the expectations - encoded both into the psyche and the environment - of different “social others” that are expected to orient the subject-environment relations. These can include the immediate actions and the forms of resistance of the *Gegenstand* (both persons and objects) as they form social suggestions embedded in the material culture, spaces, practices and social representations.

Finally, we must account for the interaction between the future-goal-orientations of the subject, dealing with oneself, with the structure of the environment and the social guidance [21]. New reflexive orientations are re-appreciating research methods that have been neglected, such as introspection [30], autoethnography [31], diffusionism [32] and phenomenology [33]. These can represent a starting point to develop new methods for accounting for the socio-cultural and individual dimensions of imagination as well as for the imaginative logic.

Conclusion

I have tried to argue that imaginative processes are a fundamental part of the psyche. Though neglected for a long time by psychological sciences, imagination is at work in all forms of human experiencing. The main obstacle to the understanding of imagination is represented by the established opposition with rationality and the received view of imagination as a form of attenuated sensation. To overcome this unfruitful conception, it is first necessary to adopt a different perspective on the way mind relates to the world through the future-oriented, goal-directed and value-guided processes of meaning-making. The problem of the correspondence between mental processes and reality is difficult to afford if we remain trapped in an oppositional or a representational views. For this sake, I have briefly outlined the current approach of cultural psychology in his semiotic dynamics perspective [21], in which the ideas of directionality, pre-adaptation and *Gegenstand* provide an interesting grounding for a new look at imaginative processes. Aquinas' famous claim: “Nihil est in intellectu quod non prius in sensu” could be reversed, by the light of the argument I have presented, in “Nihil est in intellectu quod non prius in imaginatio”. Imaginative processes produce the conditions for both experiencing and acting upon the world as well as the self-regulative semiotic tools that guide meaning-making of uncertainty. Human beings experience meaningful others

and objects in function of their future-oriented and goal-directed systems of meaning rather than just producing meaning as a response to the demands of the environment. This is the reason for imaginative processes to play a crucial role in human problem solving, as a source of comparison, suggestions, guidance but also resistance and, finally, self-regulation [1].

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