## Chapter 6 Conclusion: How Can We Build a Theory of Imagining



The purpose of this book is to elaborate a theory of imaginative processes as higher mental function in a cultural psychological perspective. In the previous chapters, I have discussed several theories, developed in different epochs and domains, which provide a number of definitions and features of imaginative activity. The world imagination derives from the Latin word *imago* that holds several meanings (image, imitation, likeness, statue, representation, ancestral image, ghost, apparition, semblance, appearance, shadow, echo, conception, thought, reminder, depiction). All these ancestral meanings are still somehow feeding into the current definitions of imagination. Carl Gustav Jung (1959) directly used the original Latin term *imago*:

to qualify a fact of experience as psychic and to suspend judgment with regard to its possible reference to any state of affairs in the so-called objective world, physical or metaphysical. (Heisig 1976, p. 91)

The idea of Jung was that of a psychological truth somehow overimposed to a real truth, with the imaginary production of a phantasmatic scheme (see the Aristotelian concept of *phantasma* as a product of imagination in Chap. 4) that becomes a guiding pattern in our interpretation of the Other. The epistemic function of imagination is still present, as the imago becomes an a priori in our experience of the Otherness including for instance the divinity (Heisig 1976), but it is still projected onto the opposition between the realm of reality and that of imagination.

The epistemic value of imagination is recognized as well by those definitions that consider imaginative power as a form of exploration, anticipation, or simulation. In everyday life and in scientific work, people guess, try to foresee different courses of future events, make hypotheses, and make plans. All these productions imply the capability of combining already existing elements and form new synthesis with the addition of new elements that cannot be necessarily inferred directly. However, they say that the products of imaginative work must be assessed *against* reality. Moreover, as Lapoujade (1988) noted, imaginative work is also setting the edges of reality, marking the horizon of experience and at the same time signaling

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the possibility of its overcoming, expanding the range of possibilities. As in the case of Hume's blue in Chap. 2 or in the example of the thought experiment, imaginative work makes visible what is not yet experienceable.

Together with the expansive function, imaginative work can also play an inhibitory function (Tateo 2017) of personal and social control (Fig. 6.1).

To a large extent, the inhibitory function of imaginative activity is well known in any religion. Figure 6.1 is an example of a very common religious genre in Christianity: the memento mori (remember you are going to die). The painting represents the classical theme of the death and the youth. The young pretty and happy girl on the left side is holding a flower, the symbol of beauty and life but also of caducity. The dead half on the right is holding an arrow symbol of the inevitability and sudden way in which death can strike in the midst of the flourishing of life. The cartouche at the top of the figure says: "*Remember, O Man, Look who you are/How unequal Dead and Alive are.*" Since the Middle Ages, the memento mori figures



Fig. 6.1 Wall painting from the South Germany school, author unknown, eighteenth century, https://commons.wikimedia.org/wiki/File:Tot\_und\_lebendig.jpg

were widespread in churches, private and public places of gathering, cemeteries, etc. Their function was to constantly remind people of the fugacity of life and the necessity of living in preparation of God's judgment. One can hardly imagine nowadays the condition of a person living his/her entire life surrounded by these images of his/her own death, precisely because the contemporary Western societies are exorcising the idea of one's own death while producing images of war and catastrophes happening to the *Others* (Tateo 2019). Yet, the proliferation and internalization of memento mori could produce two exactly opposite but complementary responses. It was a powerful inhibitory mechanism of "sinful" conducts, or it could produce a strong encouragement to enjoy life exactly because of its ephemeral nature. Thus, the cultural artifact worked as mediational tool in the imaginative work to regulate real-life conduct. In other words, also reality must be assessed *against* imagination, both in its promoter and inhibitory function.

The current theories of imagination thus capture different aspects of this polymorphic and complex feature of human psyche. However, they fall short when they try to integrate imaginative activity with the other higher mental functions. The discussion makes it clear that it is necessary to go beyond the current definitions and to claim that the experience of the world without imagining would be impossible. Without imaginative activity, our world would be flattened on the here and now as that of a fly (von Uexküll 2013). Every individual weaves a web of relations with the properties of the surrounding things, which constitutes its world (Umwelt). This is the space of selected and secure perceived features in which the individual can manage to build effective responses. It is the realm of known paths of experiencing and action which is the result of personal elaborations. The limits of this web of relations mark what von Uexküll (2013) calls the borders between the Umwelt and the environment ( $Umgebung^1$ ). The ordering power of the individual is exerted on a selected part of the universe of discourse. What is outside the perception/action field constitutes a realm of uncertainty and danger, though still part of the environment. The peculiarity of the human beings is to constantly strive to explore the Umgebung, and incorporate it into the Umwelt through a transformative (and sometimes destructive) meaningful conduct. As I have discussed in Chap. 5 (see Fig. 5.3), humans do experience and know their world through a culturally mediated complementarity between imaginative and non-imaginative activity. The Umwelt is constructed from the subjective perspective of the individual, rich in both imaginative and nonimaginative overlapping features: in this sense, every personal world is "magic" (von Uexküll 2013). A very common experience, at home, is for instance to suddenly perceive a shadow or a sound in the peripheral perceptual areas. One has the feeling that some "being" has just run to hide behind a corner. One becomes aware of a sort of presence, although no visible trace is there. Of course, this is a trick of our perception, but after that, we keep a sense of uneasiness and alertness when we

<sup>&</sup>lt;sup>1</sup>The term comes from the verb "geben" (to give) and the prefix "um." It literally means what is "given," outside the borders of the actively constructed world of the individual. It is what escapes the person, and at the same time what is there not because of the person. According to von Uexküll (2013), the surroundings are the opposite of the optimal Umwelt of the organism.

enter that room. von Uexküll (2013) calls this feature of the Umwelt, filled with exceptional subjective experience, *magic environments*, and says that this kind of phenomena is common also in other animals, which suddenly begin to react against invisible presences in their *Umwelt*. Many sanctuaries posses this special feature, which is however a product of the culturally mediated subjective construction of the experience.

In Fig. 6.2, I try to summarize these features so far discussed, and to formulate my theoretical proposal about imagining and knowing. In Chap. 5, I used the term *universe of discourse*, to underline how in human *Unwelt* knowing is a web of symbolic relationships, of talking about and doing things with the world.

Thus, I define the production of new knowledge as the *complementary work of imaginative and non-imaginative activity, focusing on elements that go beyond the current limits of the universe of discourse.* People make sense of their *Umwelt* through the work of all psychic functions (thinking, imagining, remembering, feeling, and communicating), but when it reaches the limits of the personal bubble, on the edge of *Umgebung*, the hierarchy of functions changes and the role of imaginative work becomes even more important. Imaginative work is thus a crucial element in the emerging of novelty and in a qualitative breakthrough of the previous organization of the person/environment relationship.

One can create new knowledge, or a different understanding, about something which is already part of the universe of discourse (e.g., a new use of an existing tool or concept, like in the *ready-made* art). Moreover, new knowledge can emerge from the exploration of the *Umgebung* borders, or from the imaginative creation and overcoming of those borders (like in the case of the creation of an artificial limit to be overcome: e.g., a sport record or a status symbol). Imaginative incorporation of the environment and its borders creates non-imaginative self-regulation. The role of

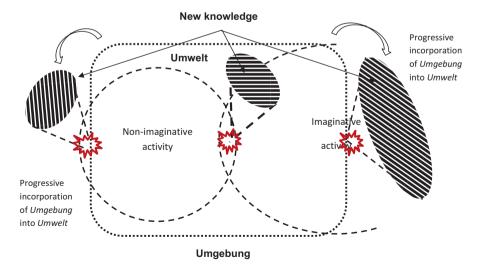


Fig. 6.2 Meaning-making and the imaginative/non-imaginative complementarity

imaginative work in human development is thus not only to explore the unknown, but also to produce the unknown as a driving force to be explored. It is not a matter of being "real" or "imagined." This opposition makes no sense in a theory of complementarity between imaginative and non-imaginative modes of knowing. The point is that the meaning-making process in human experience is always a complementary work of the two modalities that operate in the universe of discourse. Imagining is a higher mental function which is not building an alternative to reality; it is a fundamental process in the construction of human *Umwelt*. If the imaginative processes play such a crucial epistemic role, the next consequential question is this: Where do they come from? How are they ontogenetically formed in human beings?

## Sociogenesis of Imagining

In the psychoanalytic approach, imagination is understood as the primary form of experiencing the world. The infant is a self-hallucinating creature, who lives his/her first days into a world based on the pleasure principle, in which imagination is the most direct way to feel satisfaction. In adult life, imagination will be used to satisfy personal desires, and to compensate an unsatisfactory reality: only the unsatisfied person imagines (Freud 1911).

For Piaget (1959), imagination is the subjective assimilation of reality to the egocentric satisfaction of the individual's ego. Only at a later developmental stage, facing the inadequacy of cognitive structures to the understanding of the reaction of the others and of the world, the child develops the capability of decentering itself from the egocentric perception and accepts the existence of multiple perspectives (Kohler 2018).

All the theories of human development link imagination to the ontogenetic process of acquisition of symbolic capability. This is why imagining is considered as a by-product of the development of symbolic processes. In the current understanding of human development there is a consensus about the fact that imagination in children is related to social processes, such as empathy and intersubjectivity (Papastathopoulos and Kugiumutzakis 2007; Toren 2012). In reality, we still do not know at what point in development the imaginative processes emerge. Vygotsky believed that imagination "does not develop all at once, but very slowly and gradually evolves from more elementary and simpler forms into more complex ones" (Vygotsky 2004, p. 12).

There is a general consensus about the fact that imagination derives from sensomotory schemes of exploration that develop first into imitation (Piaget 1959), then internal persistent imitation (Baldwin 1894), and then joint participation to activities (Vygotsky 2004). However, many of the criticisms to the understanding of imagination development address the fact that it is considered as an internal and individual activity, in which the external influences can only provide the raw material on which imagination operates (Papastathopoulos and Kugiumutzakis 2007; Vygotsky 2004). Vygotsky (2004) claimed that the relationship between the individual and the context plays a crucial role in the development of imagination:

We have seen that imagination depends on experience, and a child's experience forms and grows gradually, and, in its profound individuality, is different from that of an adult. The child's relationship to his environment, which, through its complexity or simplicity, traditions, and influences stimulates and directs the process of creation, is very different from the adult's. The interests of the child and the adult also differ, and it is thus easy to understand why a child's imagination functions differently from an adult's. (Vygotsky 2004, p. 31)

Apparently, we have a paradox here: If imaginative processes are a higher mental function that develops sociogenetically, through the progressive internalization of the individual participation to collective activities, how can it also be one of the child's first modes of experiencing, and a tool for the construction of the *Umwelt*? What comes first, the imaginative capability or the experience that develops such a capability?

Of course, this is only an apparent paradox. If one adopts the idea that imaginative and non-imaginative modes of experiencing are complementary in the construction of the personal world, and that they both develop through progressive internalization of social interactions, it is possible to conclude that they mutually feed into each other from the very early stages of development. This is the crucial point and at the same time the dark zone of the studies on the sociogenesis of imaginative processes. We do not know enough about the micro-genetic processes through which, day by day, persons construct their imaginative and non-imaginative ways of experiencing as epistemic tools. One should probably look at those microinteractions in early development, during which adults prompt and suggest imaginative work to the children, much earlier than the symbolic play and the "as-if" interactions. Moreover, we do not know how the imaginative processes feed into the elaboration of non-imaginative processes. Vygotsky (2004) talks about the mutual feeding of reproductive and creative imagination, resulting in a real-life product:

The imagination's drive to be embodied, this is the real basis and motive force of creation. Every product of the imagination, stemming from reality, attempts to complete a full circle and to be embodied in reality. A product of the imagination, which has arisen in response to our drive and inspiration, shows a tendency to be embodied in real life. The imagination, by virtue of the strength of the impulses it contains, tends to become creative, that is, to actively transform whatever it has been directed at. (Vygotsky 2004, p. 41)

In Chap. 4, we have seen how this feature of imaginative activity is fundamental for any form of scientific thinking, but also in other collective activities, such as religion. It links the capability to externalize symbolic meanings that in return guides our own psychic experience. From collective activities, one internalizes meanings that feed into the genesis of imaginative processes, which in return externalizes meanings that become able to produce effects into the world. When a parent begins a sentence with "imagine that X," he/she is producing a micro-event that leads to the internalization of different meanings of the verb "to imagine." A complete micro-genetic analysis of this process is still missing. The studies on imagining have mainly focused on the product of imaginative activity at a later age.

## **Educating Imagining**

Why in the very end do we need to strengthen imaginative processes in science? After all, in the market economy knowledge is a commodity. It is thus subject to the laws of the creation of new needs in order to satisfy them with new products. Hence there is the push on creativity, innovation, groundbreaking, and breathtaking new discoveries in the academic work. On the other hand, the focus on evidence-based forms of science and technology reduces the space of imagining in science (Tateo 2014).

The point is that imaginative power in science is really needed nowadays. The myth of *Hippocrene* points to a very important element: the relationship between the Muses and Pegasus is the symbol of the unity of the different forms of human knowledge. Even though each of the Muses presides to one of the branches of human creation, they act as sisters and they all let inspiration from the spring of imagination. All the global problems that the Planet is facing in relation to human activities (e.g., fossil fuels, climate change, migrations, neoliberalist exploitation of resources) need innovative solutions (Bird et al. 2016). Human beings are instead stuck in the repetition of old solutions and acquired habits that inform world policies. Both scientists and decision-makers need a deep bathing into Hippocrene, in order to overcome the so-called science-practice, research-implementation, research-practice or knowing-doing gap (Bertuol-Garcia et al. 2018, p. 1033). Moreover, we can think of the myth of *Hippocrene* as the symbolism of an ecosystem on the top of the Mount Helicon. The Muses, the Hippocrene, and Pegasus have established a sort of coexistence in which natural resources, imaginative power, and different branches of knowledge prosper in harmony.

As I have tried to argue through the examples from the history of discoveries, imaginative work can become abductive evidence, able to orient whole fields of research toward new directions, as in the case of Moseley or Hawking. Imagining cannot be assessed against an a-historical ideal of progress in science. Like language and other higher mental functions, imagining is historically situated (Tateo 2015; Zittoun and Gillespie 2015) but not necessarily progressive. One cannot say that imagining in the past was *less developed* than today, as one cannot say that one language is less developed than another. Hence, there is the importance of using a source of knowledge like the myths to gain insight into problems.

A research program to explore the epistemic value of imaginative processes in science must be necessarily integrated by a pedagogical program. The first question is of course the following: Can imagination be taught? The answer is naturally negative. If imaginative processes are higher mental functions like language, problemsolving, and reflection, they cannot be transmitted, but can be *educated*. A pedagogy of imagination, based on research, should include the study of:

- · Its historical and cultural forms
- · Its ontogenesis and sociogenesis
- · Its culturally situated practices and tools in sciences

- Its relation with other higher mental functions (e.g., memory, reflection, problemsolving) and with non-imaginative processes
- · Its cognitive, affective, and ethical dimensions

If philosophy began with surprise, imagination leads us beyond the surprise, toward the *intentional production of surprise*, based on abductive forms of inference. The epistemic value of imaginative activity is exactly the potentiality for exploring new portions of the universe of discourse that have not yet been empirically reached. This is also the reason for imagination to be the first target of tyrants, markets, and orthodoxy. Hegemony needs to be evidence based, and needs to rely on the solid grounds of the best of possible worlds and on the reproductive imagination, as in advertisement and propaganda. Any systematic attempt to intentionally produce alternative worlds, to use the generative and productive imagination, and to play the "as-if" games (Vaihinger 2014) is looked with suspicious anxiety.

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