

## Conceptibility and possibility

Situations built by imagination and, even more so, mental experiments can be of considerable help if they are used to support intuition to ideally take oneself beyond the phenomena and situations that can be concretely observed. Their role should be to stimulate imagination, projecting into new situations the experiences and knowledge gained in the past, so as to encourage the emergence of new perspectives or problems not yet detected. Above all, imaginary experiments should reduce the risk of a purely intellectual consideration of the theses that we propose to support, thanks to the involvement of our direct experiences, bearers of non-explicit "knowledge" at the level of thought (1). However, it should be taken for granted that the conclusions reached by this way are to be used as cues, as ideas to be explored in depth: as hypotheses in need of empirical confirmation. It has happened instead that, in the reflections of some authors dealing with philosophy of mind, mental experiments have become a completely different thing, taking on the connotation of real evidence by which to sustain one's own positions or "to demonstrate" the unsustainability of rival positions (2). These authors seem to completely escape the obvious consideration that ideally extending the properties of what we know to fields of phenomena that in some ways are still unknown to us represents in any case a highly risky operation.

The fact that we can represent certain situations or events is not a reliable indicator of their possibility in the real world. In fact, we can imagine without any particular difficulty a ghost passing through the walls of an old castle, as well as time-travels or the instantaneous transfer of a body from one galaxy to another (themes, the latter two, dear to science fiction writers). But this ability to imagine, to represent hypothetical realities, is in no case a proof of their concrete feasibility. It may be that in the distant future time travel and the transmission of matter over great distances will become a reality. This, however, bears no relation to the fact that someone today is able to imagine this possibility and even to give a very plausible description of it.

Every time we project our knowledge and conceptual categories into new worlds, we take a risk: that the new domain of phenomena is characterized by properties different from those which, on the basis of our experience, we are inclined to attribute to it. History of science offers us many examples that show how misleading our imagination can be when it turns in unexplored directions. It can only be conditioned by our past experiences and the knowledge we have gained up to that moment.

In pre-Galileian (Aristotelian) physics, for example, the idea of uniform motion (which lasts indefinitely over time without the application of any force) seemed completely inconceivable. In fact, ordinary experience suggested that, in order for a body to persevere in its movement, it is necessary to continue to exert an adequate force on it. The notion of *inertia* was missing and above all the observational experience of a body moving freely outside the conditions of friction and gravitational force inevitably present on Earth.

The Aristotelian conception also found the idea of the "corruptibility of heavens" unacceptable. No one could have imagined that there were spots on the surface of the Sun: it was something inconceivable. When they were actually discovered by Galileo, the reliability of his observations was strongly questioned. The incorruptibility of heavens was such a deep-rooted

principle that it could not compete with the results obtained with an instrument - the telescope - which, at the time, offered little guarantee of truthfulness, since no established optical theory yet existed.

Coming to more recent times, quantum mechanics is as far away as we can conceive from our ordinary experience and classical physical theories. Projecting the knowledge and concepts existing at the end of the 19th century, no one would have been able to hypothesize the existence of infinitesimal particles characterized by properties and behaviours radically different from those of common physical bodies. When Rutherford proposed his atomic model similar to a miniature solar system, no one could have imagined that the electrons orbits don't follow the ordinary laws of planetary motion. In the same way, no one could have conceived the idea of quantum *superposition*, for which a particle can be in more than one state at the same time, or that of *non-locality* which seems to establish a sort of bond between two particles born together, for which, certain events that happen to one of them, instantly affect the other, regardless their distance.

The behaviors of quantum world phenomena are completely counterintuitive, in the sense that their characteristics are not predictable by reference to our ordinary experience, and indeed they often appear to be at odds with our expectations. For this reason, physicists working with quantum systems are now forced to rely almost entirely on mathematics to advance their research (3). The inadequacy of our intuitions to foreshadow events and properties at the quantum level shows with great evidence that conceivability is not something absolute and independent from our direct experience and cognitive models considered valid at a given moment. Intuition can give us highly plausible answers on types of phenomena or situations already sufficiently explored, but it is scarcely reliable when we ask it for indications or suggestions on realities far from our experience and the reference systems we have.

The use of imaginary experiments as evidence in favour of certain theses was, after all, is implicitly contested by Kant with his demonstration of the impossibility of a *priori knowledge*, i. e. knowledge acquired by the intellect without referring to empirical facts. According to Kant, the intellect can only prove the falsity of certain theses on the basis of logical inconsistencies that appear within them, while it can never prove their truth.

To seek support for one's theses by relying on imaginary experiments, referring to them as if they had actually been carried out and *had been successful*, is to pass off a simple hypothesis, without empirical confirmation, as a fact. This leads to justifying a specific position not on the basis of observed facts, but by what, according to our expectations, is supposed to happen. However, this prediction has no basis other than the conviction in the validity of the arguments that are being tried to prove. (4)

Sandro Nannini observes that, in many cases, imaginary experiments serve only to make explicit what was already contained in the initial assumptions. In fact, if we were faced with a "little green man", without a brain, who expresses himself correctly in our language and who shows that he possesses scientific knowledge equal or even superior to ours, we would assume that he is endowed with a mind. However, Nannini concludes, "the conceivability of this situation only proves that our concept of mind is independent from the concept of brain; it only proves that, in the wake of a Christian and Cartesian tradition, we conceive the soul as separable from the body and therefore it seems logically possible that there are intelligent beings without neurons". (5)

The imaginary situations taken into consideration in the previous pages, although in their diversity, are made strong by the absolute impossibility of any empirical verification. Only the experiment of the psychologist Mary, proposed by Frank Jackson, shows some legitimacy, because, even if not concretely realized, it still refers to our direct experience – first-person experience – which makes us accessible, on every occasion, a world incomparably richer, from a cognitive point

of view, than any description based on language. However, the conclusions Jackson draws from it, although quite plausible, are completely ineffective towards those who don't recognize a significant difference between experience and information. Dennett's criticism of Jackson is instead highly dogmatic because it takes for granted the validity of the functionalistic conception (against which Jackson's experiment is directed), for which every capacity of mind is punctually reproducible by an appropriate hardware/software system. It can be said that Dennett merely postulates what he should instead demonstrate. Moreover, by placing the possibility of empirically proving the validity of his theses beyond all imaginable limits, he is safe from any possible factual denial.

As for the possibility of talking virtually with Einstein, or with any other person passed over, simply by reconstructing in every detail the neural connections of their brains, it is such a deterministic view that not even the most irreducible supporters of the mind-computer analogy take it seriously today. However, it is indicative of the level of absurdity that an intelligent mind can reach if it embraces a certain worldview and lets itself be carried away by it without seeking confirmation in the concrete world of facts.

Searle's Chinese room experiment should demonstrate the fundamental difference between artificial intelligence and the way human mind operates. But it assumes, on the basis of conceivability alone, that a system that doesn't understand can obtain the same results of a system (or an individual) that instead acts on the basis of understanding. In this way it is taken for granted that comprehension constitutes an epiphenomenal characteristic, without any effect on behaviour, thus denying the possibility that this faculty is able to offer some kind of adaptive advantage.

Daniel Dennett criticizes Searle by observing that a system which understands uses a large number of predefined rules: therefore the system that includes rules must be assimilated to a much larger system to which an ability to understand can be attributed. Obviously there's no way to test this statement, but Dennett uses it with ease to refute the opposing argument, equally unprovable.

Chalmers uses the notion of zombies "to prove" that possession of consciousness has no influence on behavior. Consciousness, although linked to the functioning of brain, would therefore place itself beyond the physical plane. But, there is no evidence that a being without consciousness is able to behave like one who is endowed with it, so as to be indistinguishable from the latter. The idea of zombies is therefore to be considered as a completely inconsistent idea, supported exclusively by the questionable thesis that what is imaginable can somehow be considered as possible. To quote Sandro Nannini again, "the existence of zombies today appears intuitively possible, because the current concept of consciousness (or mind) incorporated in ordinary language is of Christian and Cartesian origin: and therefore it is prejudicially favourable to the mind-body dualism. Thinking of a body structurally and functionally identical to ours and yet devoid of consciousness is only possible for those who prejudicially conceive mind in Cartesian terms as something to which only thought is essential and which can therefore be united, but never identified, with something corporeal". (6)

Using imaginary experiments to support one's thesis, rather than as an artifice to explore new possibilities, is revealed in the light of the cases just analyzed as an inevitable source of arbitrary and often largely implausible assumptions. This is especially true when we move away from the field of established knowledge and ordinary references. The phenomena concerning mind are undoubtedly very familiar to us if considered from the point of view of our subjective experience; however, they appear very problematic and in any case far from easy to understand when we try to frame them in the ordinary scientific paradigms. We must therefore be extremely cautious when we use the suggestions offered by our intuition to build explanatory models of the phenomena that affect our subjectivity. In any case, it is necessary to keep the caution to consider

them as simple hypotheses, which need to be confirmed empirically before they can be taken seriously.

The increasingly unscrupulous use of mental experiments, with the proliferation of imaginary objects and situations, in which reference is made with great ease to "inverted qualia", "absent qualia", "brains in the tub", "twin earths", can be seen as a very significant indicator of the widespread degeneration that characterizes the current philosophical debate on mind. This debate has widened immeasurably, gradually extending to a multitude of accessory questions, from which new problems and new concepts inevitably originate, not infrequently fuelled by hypotheses that have never been verified on an empirical level.

Philosophical reflection, drawing increasingly from within itself the problems to be considered relevant, thus progressively moves away from the original context of the mind reality, replacing it with a fictitious reality tailored to its own explanatory models. We aren't yet faced with a new Scholasticism, but it is something that is beginning to resemble it in a worrying way.

## NOTES

(The titles of the works cited and the page numbers refer to the Italian edition)

- (1) Marco Buzzoni, *Esperimento ed esperimento mentale*, Franco Angeli, Milano, 2004, pp. 238-240.
- (2) Di Francesco opportunely underlines that deriving ontological considerations (what is possible) on epistemological bases (what we are able to imagine) constitutes a typical philosophical error (Michele Di Francesco, *La coscienza*, Laterza, Roma-Bari, 2000, p. 65).
- (3) Amir Aczel, *Entanglement. Il più grande mistero della fisica*, Raffaello Cortina, Milano, 2004, p. XIV.
- (4) Pierre Duhem, *La teoria fisica: il suo oggetto e la sua struttura*, Il Mulino, Bologna, 1978, p. 227.
- (5) Sandro Nannini, *L'anima e il corpo. Un'introduzione storica alla filosofia della mente*, Laterza, Roma-Bari, 2002, pp. 141-2. Even more explicit is Marco Salucci, when he observes that "conceiving cerebral states separated by mental states is equivalent to conceiving dualism". (Marco Salucci (ed.), *La teoria dell'identità. Alle origini della filosofia della mente*, Le Monnier, Firenze, 2005, p. 44).
- (6) Sandro Nannini, *Op. cit.*, pp. 155-6.

[from Astro Calisi, *Oltre gli orizzonti del conosciuto...*, pp. 164-170 – English translation by the author].