Realism and Self-Awareness
Might they be connected?

Uwe Saint-Mont
Abstract

Abstract. For centuries philosophers have wondered why it is so difficult to found realistic positions in epistemology: although nobody in everyday life would deny the existence of an outside world, in theory it is very difficult to grasp it. Since the days of Kant this has been called the “scandal of philosophy”. On first sight, this enigma doesn't seem to be related to the fundamental problem of self-awareness, investigated by the cognitive sciences and the philosophy of mind. Nevertheless, contemporary philosophy is looking for connections.

We will argue that both problems are linked tightly, for a clear-cut distinction between reality “out there” and a subject observing the world could be the crucial element of both riddles. If, according to a recent theory, self-awareness essentially means drawing a (cognitive) line between oneself and the rest of the world, its “philosophical shadow” is the unbridgeable gap between observer and reality in epistemology, and realism’s shaky foundations are an inevitable consequence of our personal awareness.
Realism in figures

According to the Stanford Encyclopaedia of Philosophy [MA05] “The nature and plausibility of realism is one of the most hotly debated issues […] in contemporary philosophy.” A multitude of philosophical positions have been debated over the centuries. Thus it is quite surprising that no consensus has emerged, neither among philosophers in general, nor among the subgroup of realists. At least, the following definition of realism should be acceptable to all parties [MA05]: “There are two general aspects to realism, illustrated by looking at realism about the everyday world of macroscopic objects and their properties. First, there is a claim about existence. Tables, rocks, the moon, and so on, all exist […] The second aspect of realism about the everyday world of macroscopic objects and their properties concerns independence. The fact that the moon exists and is spherical is independent of anything anyone happens to say or think about the matter.”

Presumably, the discussion’s starting point was naïve realism [Na06], which “holds that the view of the world that we derive from our senses is to be taken at face value: there are objects out there in the world and those objects have the properties that they appear to us to have […] Most people, until they start thinking philosophically, are naïve realists.” Obviously, that is a very daring position: it takes existence and independence for granted, and moreover claims that we observe the properties of the objects just the way they are, i.e., the properties of objects in the world can be perceived without obstacle. We may express this in the following figure:

![Diagram A1: World and Self]

Naïve realism has been thoroughly discredited. Any critical perspective immediately casts doubt on the independence condition, and the mere existence of the external world. It is well known that despite our impressive everyday experience, we cannot even prove that there is something “out there”, a fact Kant called the scandal of philosophy.

If we therefore assume that there is an external world, the question arises how and how much it influences our perceptions, thoughts and beliefs. “Critical realism [Cr07] is the theory that some of our sense-data (for example, those of primary qualities) can and do accurately represent external objects, properties, and events, while other of our sense-data (for example, those of secondary qualities and perceptual illusions) do not accurately represent any external objects, properties, and events. In short, critical realism refers to any position that maintains that there exists an objectively knowable, mind-independent reality, whilst acknowledging the roles
of perception and cognition.” Thus there is a more or less transparent *veil of perception* (attributed to Locke), expressed in the following figure:

(A2) ![Diagram](image1)

A prominent example is Thomas Reid’s [RT83] direct realism, “the view that the immediate (direct) objects of perception are external objects, qualities, and events. Thus when we perceive something, what we directly perceive, the immediate object of perception, is in the external world, not in the mind.” Kant, who located his famous *Thing in Itself* outside of our mental world, seems to be close to such a position.

More pessimistic points of view are indirect realism and representationalism, both claiming that we are directly aware only of *internal representations* of the external world [Di08]. Phenomenalism [Ph08], “the view that physical objects do not exist as things in themselves but only as perceptual phenomena or sensory stimuli” is a famous variant of this school of thought. In all these cases the independence assumption is relaxed, thus the world becomes affiliated to or even “internalized” right into the observer:

(A3) ![Diagram](image2)

Many eminent philosophers pursued some kind of sceptical inquiry and the more consistent they were, the closer they came to solipsism. Descartes’ dreams and Berkeley’s “To be is to be perceived or to perceive” are only a stone’s throw away from solipsism [So06], when “the universe is entirely a creation of one’s own mind”:

(A4) ![Diagram](image3)

All sceptical, rational, empiricist’ etc. positions are located “somewhere in between” the two extremes of naïve realism and solipsism, respectively. Historically, philosophical positions have shifted permanently between the two extremes.
Moreover, critical thinking seems to lead down an inclined plane with solipsism at its low end. With the very first critical step away from naïve realism we are starting down a “slippery slope”: As many of our thoughts are based on an external world, our arguments become fuzzy, if we give up or just doubt that basic assumption. In order to do justice to our experience and our rational doubts, one has to stop somewhere between naïve realism and strange solipsism in order to opine a reasonable, realistic point of view. Nevertheless, realistic positions – although prevailing - rather look like an odd compromise between two totally unconvincing extremes, than really strong positions in themselves. They either lack critical consequence or empirical value.

A theory of self-awareness
The evolutionary perspective has promoted the understanding of an immense number of biological phenomena. [SU01] follows this line of thought closely in order to erect a theory of awareness. In a few lines it says the following. (However, the reader is strongly advised to consult [SU01] for further details.)

Information processing. The most important property of (animal) nervous systems is that they process information. The incoming information, the input of the system, stems from the outside world, which in one way or another has to be transformed into reasonable motor actions, that is, behavioural responses.

Representation. In order to do so, the brain needs to represent relevant parts of the external world, it has to develop a model of the world, which must be based on the sensory input, if it is to be of any value to the individual. Moreover, there has to be a program, itself based on the internal representation of the real world, which draws conclusions about what has to be done. In other words, this program has to decide what measures need to be taken in order to act appropriately and to survive.

Circularity. The model of the world has to contain a representation of the animal's physical body. On the one hand it is this body which is receiving external information, on the other hand it is also this body which is taking action in the real world. For the individual, everything takes place around this centre. Therefore, things start to become circular here: there is the (motor program of the) individual acting in the real world, causing some change there, which subsequently - within hours, minutes, or seconds - may have some noticeable consequence for the individual.

Self-Perception. If action and perception are closely related, e.g., if the animal’s (own) body is acting and - almost at the same time - the animal perceives that the body (located in the centre of action, and being of paramount importance) is in movement, it is a small step to assume that the animal “notices” itself. That is, the
program taking action not only learns to steer the body it is responsible for, in higher developed animals it should also observe that there is something special about this body; that a distinction should be made between oneself (that is, the body in which the program is located) and the rest of the world.

**Language.** The crucial innovation in humans is an effective, omnipresent language. With the naming of objects, the verbal description of facts and the narrative planning of actions, a second, language-based internal representation (i.e. model) of the real world evolves. Although the verbal model is strongly connected with the first (mainly visual) representation of the world, especially via concepts, the individual has two distinct ways to realize things. Typically, two representations of one and the same fact are available – an image and a name.

**Self-Awareness.** In particular, perception and language yield two distinct representations of the subject. There is a nonverbal and a verbal description of oneself available: the image of the body – which already has an accentuated position - and its (specific) name. When the motor program combines the verbal description and the “corresponding” nonverbal image into one crucial entity, the being creates a concept of itself (or its self, respectively) and thus becomes self-conscious, i.e., fully aware of its position in the world. Identifying the body’s name with the body’s image yields the self: a unit in the middle of everything, yet distinctively different from anything else in the world, and being of paramount importance.

In other words: Self-awareness emerges when we learn to draw a clear-cut cognitive line between us and the rest of the (perceived) world. It is this permanent, stable distinction which, according to [SU01], constitutes personal awareness. We are self-conscious beings, aware of our individuality, because of a stable contrast between a world “out there” and ourselves (or “our selves”, respectively):

(B1)

![Self | World](image)

Reversing the path of evolution, one is able to contemplate about the basic “cognitive organization” of animals. First, without the help of a sophisticated language, higher developed animals are not able to differentiate effectively between themselves and reality. In their perception, a self-image (in its literally sense) should be accentuated. However, it is not strictly and permanently separated from other objects. Thus, without strict independence, we have schematically:
Second, the more primitive the cognitive processes become, the fainter the noticeable difference between body-related perceptions and actions on the one hand, and “the rest of the world” on the other hand. Blurring the difference between the self-image and all other items of the perceived world is tantamount to giving up the former as the major player in the (cognitive) world:

Third, without hardly any (higher, reflexive) cognitive processes, the animal is not able to detect any remarkable difference between the outside world and itself. That is, the subject becomes some part of the whole scenario perceived and *ceases to exist* as a cognitively distinct object:

In particular, body-related information is no longer treated differently than any other sensory input. What is finally left is a survival machine [DR76] equipped with a fixed motor program.

Reading (B1)-(B4) from bottom to top, we obtain the evolution of self-awareness told in [SU01].
Connecting the problems
According to M. Williams [WM06] “The problem of the relation between ‘mind and world’ is perhaps the central problem of modern philosophy, and certainly the matrix within which questions about ‘realism’ emerge most clearly.” The above reasoning gives us the opportunity to compare both problems directly.

To this end, compare figures (B1) and (A1). Indeed, they are identical, and only differ with respect to their accentuation. (B1) splits “all there is” in two independent and equitable parts. In the derivation of the last section, we had to emphasis the split, for it defines self-awareness. (A1) also differentiates between a subject and the world and puts them on an equal footing. Even more important, exactly as in (B1) the divide is only there to distinguish the two entities in question sharply. It has no properties in itself, for naïve realism doesn’t bother about properties or restrictions of our perception. One might even say that we are self-conscious because of an “incarnated” (naive) realism which strictly separates us from the rest (of the world).

In figures (A1) – (A4) we followed the slippery slope mentioned earlier. Finally, the basic setting “World + Self + Distinction” collapses into an omnipotent self. The self “conquers” the world, because every object becomes mind-dependent, massively affiliated with the self and thus subject to arbitrary manipulation. One could also speak of a singularity, because all that is left is “a point” - called the self.

Figures (A1) – (A4) could also be summarized as follows: a rational (and consistent) subject expands the line distinguishing itself (its self) from the outside. Its very first sceptical step gives way to more and more rigorous doubts, finally leading to solipsism. That way, the subject readily “destroys” the way things have been organized. However, without the basic and strict distinction between the world and a self, not only its thoughts are in confusion. The subject itself, defined by a clear-cut and stable distinction loses its foundation, leaving us in serious doubt about ourselves. (All that is left is a dreamer.) In other words: although solipsism is straightforward for a critical mind, it is neither compatible with realism nor with awareness: there is nothing (or no thing, respectively) left to be aware of if the self abolishes external objects. Without an external reality, its position blurs, all becomes fuzzy, the clarity of awareness gets lost, and the self dissolves in vague dreams.

Given the theory developed in [SU01] is in principle correct, we have the following fundamental connection: the core problems of self-awareness, and epistemology (i.e. the convincing foundation of realism) coincide, for they are based on exactly the same structure. On the one hand we are aware of ourselves, because we are cognitively constructed as realists (fig. B1). On the other hand, every realistic position needs to distinguish thoroughly between an observer (a subject or self) and a world being perceived (figures A1-A3, in particular fig. A1). The basic setting “World + Self
"Distinction" may be expressed as a stable contrast between us and the rest of the world. Equivalently, one may state an existence condition for the self and the world, respectively, and combine the two with the help of an independence condition. Yet without the evolutionary perspective, it is very difficult to defend such a position on purely philosophical or scientific grounds.

Starting with physiology or even biochemistry, it is straightforward to deny that there is anything special about consciousness. This leads to a coherent (third person) perspective strongly advocated by some contemporary scientists. However, simply ignoring the first person, i.e. the fact of self-awareness, yields a grossly distorted picture of our personal situation. Therefore it should not be surprising, that the "pure" third person perspective can be overthrown in a situation, where self-awareness does play a crucial role. This has been achieved recently in the classical problem of free will [SU07].

Starting with epistemology offers the advantage of arriving almost inevitably at the basic distinction between "outside" and "inside", i.e. at the fundamental (cognitive) line, which defines ourselves (or our self, more precisely). This corresponds to a realistic point of view in philosophy. However, it is not at all clear where to draw the line exactly. As a consequence there are many philosophical positions around, and it is difficult to reach a conclusion: the more sceptical we are the more we undermine "the world" and as a consequence our selves. Our evolutionary heritage present in our everyday experience draws us towards the "naïve" pole, our sceptical mind however, tears us in the opposite direction. Historically, this has led to a sequence of theories constantly fluctuating between two extremes. For exactly the same reason, however, realistic positions have been predominant – they correspond to our incarnated view of the world.

The borderline between "outside" and "inside" needs to be drawn for the sake of self-awareness. Yet it doesn’t really matter where it is drawn exactly. At the end of the day that’s just a personal "psycho-philosophical" problem. This fact explains why scientists and sciences not bothering much about philosophical issues could make tremendous progress within the framework of (almost) naïve realism. If the above problem had been "in the field", i.e. within the domain of empirical science, the fundamental philosophical ignorance would have been the reason for major drawbacks. However, that hasn’t happened. Even in quantum mechanics, where epistemic issues surfaced some decades ago, the philosophical discussion has been rather circumstantial.

Yet another way to interpret the above situation is to say that it is possible to use the exceedingly difficult problem of defending realism against strong philosophical criticism to catch awareness. The epistemic problem is not dissolvable, because it is
the core of ours’ being self-conscious. Turning the table, however, the epistemic paradox becomes a definition of personal awareness, and the epistemic problems are just the intellectual price we have to pay for our conscious existence. In other words, realism may be interpreted as the “epistemic echo” of self-awareness.

Ironically, although naïve realism (A1) is thoroughly discredited, it provides the crucial link (B1) between the two problems, defines - via self-awareness - the culmination of biological evolution (B4) - (B1), and has also served as the starting point of critical philosophical thinking, consistently leading from (A1) to (A4). Finally, the whole story told by (B4) - (B1) - (A1) - (A4), i. e. the combination of both developments, is the history of our subjectivity - its biological evolution and cultural sophistication - in a nutshell.
Bibliography


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8. [Ph08] Wikipedia, English edition (14. Jul. 2008). Phenomenalism. URL = <http://en.wikipedia.org/wiki/Phenomenalism>. "In epistemology and the philosophy of perception, phenomenalism is the view that physical objects do not exist as things in themselves but only as perceptual phenomena or sensory stimuli (e.g. redness, hardness, softness, sweetness, etc.) situated in time and in space. In particular, phenomenalism reduces talk about physical objects in the external world to talk about bundles.
of sense-data.”


“A metaphysical belief that the universe is entirely the creation of one's own mind. Thus, in a sense, the belief that nothing 'exists' outside of one's own mind.”