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Representation, Intentionality, and Consciousness

1. Introduction

A quick and superficial look at recent literature in neuroscience provides the following titles: «Neural encoding : The brain's representation of space» (O'Flanagan Ruadhan A. & Stevens Charles F. 2005); «Brain representation of object-centered space in monkeys and humans» (Olson 2003),»; «Brain representation of active and passive movements» (Weiller, Juptner, Fellows, et al. 1996); «Language and the Brain: Representation and Processing (Foundations of Neuropsychology)» (Shapiro, Grodzinsky & Swinney 2006); «Is the brain representation of hunger normal in the Prader-Willi syndrome?» (Del Parigi, Chen & Reiman 2007); «A Neural Representation of Categorization. Uncertainty in the Human Brain» (Grinband, Hirsch & Ferrera 2006). In celebrated textbooks for neuroscience one can find assertions such as: «Emotions [...] are represented in certain areas of the cerebrum [...], in the amygdala, in the hypothalamus and in the brain stem» (Schmidt, Lang & Thews 1936/2005: 248); «[...] the brain constructs an internal representation of external physical events [...] » (Kandel, Schwartz & Jessell 1995: 368); «the surface of the body is represented piece by piece on the somatic cortex, so that an «homunculus», a small human being, is represented on it» (Thompson 2001: 267; translated from the German version). And even the following question is admitted: «How is knowledge [of the surrounding world] represented in the brain?» (Kandel, Schwartz & Jessell 1995: 631).¹

It is certainly legitimate to wonder whether one and the same notion of representation is at work in these different contexts. Can the notion of a brain representing knowledge be the same as the notion of a brain representing emotions, or language, movement, bodily surface, hunger, physical events, or space? These qualms notwithstanding, the claim that *some* notion of representation is at the very core of the contemporary sciences of the brain should be, if anything is, uncontroversial. Indeed, we are led to think that the brain, or parts of brains, or processes taking place within the brain, represent objects, properties, states of affairs or events located outside, or even inside,

¹ I should like to thank Michael Sollberger for bringing my attention to some of these quotations.

the brain. Representation is supposed to play a crucial role in the explanation of the interaction between systems controlled by a brain and their environment.

A number of questions have been raised with respect to this general view. It is legitimate to wonder, for instance, whether the notion of representation used in this context refers to a specific property of the brain or whether it refers to a feature common to all information carrying systems. A tree's losing its leaves counts, under proper circumstances, as carrying the information that it is autumn. Does the tree *represent* autumn? We do not seem to assume, for instance, that the tree represents autumn in order to *explain* the fact that it loses its leaves. This stands in contrast to the genuine explanatory role the notion of representation appears to play in the explanation of the fact that the child looks for her cat. It appears that we need to assume that the child represents the cat as a cat (as opposed to a dog, say) in order to understand the child's behaviour. How should the brain's representational properties be understood? Are they genuinely explanatory with respect to the subject's behaviour?

If talk of the brain as representing something comes as a naturalist echo of the traditional conception of a representational mind, the idea of representational properties attributed to parts of the brain is not always backed by corresponding intuitions. Where it is perfectly acceptable to maintain that John sees (visually represents) the flower, it is much less obvious that we have any intuition at all about what it would mean for John's visual cortex to see (visually represent) the flower. Maybe to see is not the same as to represent visually. The intuitive basis for the application of the notion of representation seems to vanish, however, as one moves from one context to the other.

Once the representational model is established, its application tends to become pervasive. It has been applied to the brain itself, for instance, thus introducing the idea of the brain monitoring its own processes and states. Where the represented states of the brain are themselves representational, the idea of the brain possessing metarepresentational capacities has emerged. Metarepresentation, the representation of representation, has been used, for instance, in order to explain the nature of phenomenal consciousness. Phenomenal conscious states would be represented representational states.² It may be asked, at this point, how a state that is not conscious can be made conscious by the simple fact of being represented.³ After all, a tree doesn't become

² See Carruthers 2005 and Gennaro 2004 for recent work on this matter.

³ Related worries about metarepresentational theories are presented in Soldati 2007.

conscious by the fact of being represented by me (or by some part of my brain).

Considerable amount of conceptual effort has been invested into a proper elaboration of a precise and philosophically acceptable notion of representation. In what follows we shall neither dwell into the details of the theory of representation,⁴ nor engage in a detailed discussion of the metarepresentational conception of consciousness. We shall take those elements of the representationalist framework that we need in order to be able to state our case.

The issue to be raised here concerns the relation between the theory of representation and its historical and philosophical ancestor, the phenomenological theory of intentionality. Indeed, representation is often introduced as a naturalised version of the phenomenological notion of intentionality. The question to be asked in this paper is whether such a naturalisation has already succeeded or whether the prospects of success are reasonably good. An argument will be presented that casts doubt over such expectations. It will be suggested that a crucial aspect of the classical theory of intentionality, related to the normative dimension of intentionality, resists against its representationalist reduction. It will appear that this aspect is connected to the relation between representation and consciousness. Contrary to mainstream antireductionist arguments, however, the problem will not be located at what is traditionally called the level of *phenomenal* or *qualitative* consciousness.⁵ And contrary to several recent phenomenologically inspired critiques of representationalism, the issue to be raised is not motivated by an antinaturalist agenda. The issue at stake concerns, as the original phenomenologists would have put it, a problem of description: representationalist reductionism fails to do justice to some crucial descriptive features of intentionality.

The paper presents six sections after the present one. In the next section (section two) we shall briefly rehearse some main features of the phenomenological theory of intentionality. We shall confront it in section three with more recent non-phenomenological theories of intentionality with respect to the relation between intentionality and consciousness. In order to set the stage of the debate, we shall then, in section four, introduce and motivate one specific notion of representation. Section five will shortly present a classical argument from normativity against representationalism, and section six will introduce an alternative version of the argument dealing with the

⁴ Some details were provided in Soldati 1996b.

⁵ Questions on these issues are related to what is often called «the hard problem» of consciousness (see Chalmers 1995).

relation between normativity and consciousness. Some conclusions will be drawn in section seven.

2. *Intentionality*

The phenomenological theory of intentionality comprises *at least* the following seven claims. First, psychic phenomena are *intentional* in so far as they are directed onto something. They possess an intentional object. In seeing we see something, in judging we judge something and in imagining we imagine something. Second, intentional acts, psychic phenomena endowed with intentionality, possess conditions of correctness. Judgements can be true or false, perceptual experiences can be veridical or falsidical (by being either illusionary or hallucinatory), emotions can be appropriate or inappropriate. Third, the correctness of an intentional act typically depends on its content and on the way the world is.⁶ The judgement expressed by the utterance <snow is white> is true if, and only if, it expresses the proposition that snow is white and snow is in fact white. Fourth, there are basically two types of mistakes intentional acts can fall prey to. Either the object of the act does not exist, or it does not possess the property it is presented as having. Fifth, there are different intentional modes or qualities: something can be judged, feared, wondered or imagined. Sixth, intentional acts stand in epistemic relations to each other by virtue of their content: a judgement can be fulfilled (verified) by a perception, a judgement can contradict another. Seventh, there is a strict connection between intentionality and consciousness, such that intentional acts are all conscious.

The above set of claims suffices alone to generate most of the issues the phenomenological theory of intentionality has dealt and still deals with. Indeed, the theory of intentionality still constitutes the background for several innovative research programs. So, for instance,

⁶ I shall not, in what follows, insist on the distinction between content and object of an intentional act. The distinction, first introduced by Twardowski 1894, plays a crucial role in the development of the phenomenological theory of intentionality, but it is not crucial for the issues at stake in this article. All that counts is that when we deal with the intentional features of an act we deal with features that are relevant for the correctness conditions of the act. A certain thought about the morning star might be about the same object and yet have a different content than a certain thought about the evening star, but whatever the difference between these two thoughts might be, it concerns an intentional feature only if it is relevant for the correctness conditions of the thought. In our case, for instance, the content may be considered to play a role in the determination of the object. A more detailed discussion of some issues related to the phenomenological distinction between content and object can be found in Soldati 1996a.

there has been, and still is, a lively discussion concerning the ontological status of the intentional object, in thought and perception.⁷ The issue as to whether emotions can properly be characterised as possessing correctness conditions is at the core of several philosophical disputes. The difference between the content of perception and belief is discussed within the phenomenological tradition, just as much as in many other prominent traditions.

3. *Intentionality and Consciousness*

One issue is particularly relevant to our present context. It concerns the relation between intentionality and consciousness. The founders of phenomenology, Franz Brentano and Edmund Husserl, both thought that intentional acts are all conscious.⁸ Furthermore, they thought that the content of those acts is consciously experienced. This means that they thought that we consciously experience not only the difference between, say, believing that it rains and hoping that it rains, but also the difference between seeing a red tomato and seeing a yellow banana. They further thought that the distinction of content can be experienced not only in perception, but also in thought. We do not only consciously experience the difference between seeing a red tomato and seeing a yellow banana, we also experience the difference between believing that it rains and believing that two and two is four.

This doctrine has been attacked for several reasons.⁹ One prominent reason is methodological. It concerns the first personal perspective that is intrinsic to the phenomenological approach. Phenomenological intentionality is supposed to be a consciously experienced property of mental acts: the subject *experiences* perception as directed onto an object (typically external, or *transcendent*, as Husserl used to say)¹⁰. Now, something that can only be experienced in the first person cannot be the object of public scientific enquiry. The phenomenological study of intentionality, it is concluded, falls short from constituting an objective science. It is rather a discipline that generalises first personal findings. In this sense it is on a par with folk psychology, the unsystematic and often contradictory assembly of everyday psychological observations.

⁷ For one among many other interesting, but not always as self-contained, recent discussions, see: Smith 2002.

⁸ Brentano's converse claim, that all consciousness is intentional, has not obtained unshared support among phenomenologists. More about this point below.

⁹ Some of them are discussed in Soldati 2005.

¹⁰ This point is similar, albeit not entirely identical to the now fashionable claim that experiences are transparent (see Martin 2002 for a recent discussion of this claim).

This is not the place to discuss this prominent objection.¹¹ It is a striking fact, however, that a number of prominent philosophers who do not explicitly stand in the phenomenological tradition, have defended a view of intentionality that does not present this kind of relation to conscious experience. Gilbert Harman, for instance, writes:

«Needing something is an intentional phenomenon. The grass in my lawn can need water even though it is not going to get any and even if there is no water to give it.» (Harman 1999, 602).

The very idea of attributing an intentional phenomenon to grass is indeed incompatible with the phenomenological point of view. Grass not having any mental life, it cannot have any experience, and a fortiori any intentional experience.

It would be wrong to suppose that the idea of severing the connection between intentionality and consciousness appears only on the agenda of the committed naturalist. John Searle, known for his defence of intentionality and for his distinction between mind and brain, states quite explicitly:

«... many intentional states are not conscious, e.g., I have many beliefs that I am not thinking about at present and I may never have thought of.» (Searle 1983, 2)

Searle's point rests on another assumption phenomenologists did not take for granted. It is the assumption that psychological dispositions, such as dispositional beliefs, are intentional just as much as mental experiences such as perceptions and acts of judgement are. Intentionality being a feature of conscious experiences, states that are not consciously experienced cannot be genuinely intentional from the phenomenological point of view. If dispositional beliefs are to be attributed any intentionality at all, than this would be done by virtue of their relation to an occurring judgement. I may never have consciously considered the thought that it rained in Fribourg on the 1st of March 2007. But for me to acquire that dispositional belief I need to have been judging either on the 1st of March 2007, in Fribourg – that <it rains today>, or one day later, that <it rained yesterday>, etc. In such cases, the dispositional belief inherits its intentional object from the occurring judgement.¹²

¹¹ See Soldati 2007 for considerations concerning some aspects of this methodological objection.

¹² Notice that the notion of <inheritance> used in this context is fairly strong. It involves the idea that the dispositional state depends on the occurring judgement both for its existence and for its intentional properties. This is stronger than the kind of dependence Kriegel 2008 establishes between conscious intentional states and unconscious representations. On his view, unconscious representations have intentionality by virtue of an interpretational relation to conscious states. They thus

Searle appears to have other examples in mind, however, when he speaks of beliefs he has «never thought of». Clearly, many of our actions can be described as influenced by some sort of dispositional belief. I probably would not walk into my university if I did not «believe» that it is not a mere hologram, although I never consciously thought about it. But what about me, if not my occurring behaviour, makes it true that I am in that sort of dispositional state? Surely, my action of walking into the university involves one or more conscious experiences having the university (or parts of it), and not a hologram, as their intentional object. But is there any *intentional categorical* basis for the sort of cognitive dispositions we are looking at?

One may wish to compare this kind of dispositional belief with other mental states often related to an occurring intentional experience, such as expectations. When I see a ripe banana, I probably expect, maybe even hope, that it will taste sweet. I may not have any thought about me possessing that sort of expectation or hope. Yet the expectation is intentional. Is it dispositional? Is the fulfilment of an expectation a case of a disposition being actualised? And are expectations not conscious just because I do not think of them?

Husserl himself notoriously introduced the notion of the «horizon» in order to deal with this sort of issue. This is certainly not the place to go into further details with respect to Husserl's complex and rich view on this matter. The remarks so far should suffice to show that a notion of intentionality that applies to more than just conscious experiences is not as obvious as the quotations above appear to suggest.

The question, however, of which feature is responsible for the intimate connection phenomenologists see between intentionality and consciousness, still remains. What is so wrong about the idea that grass could be in an intentional state? With this question in mind, then, let us now look at a notion of representation that does not possess any such relation to consciousness.

4. Representation

The notion of representation we are looking at is a notion that is used in the context of naturalistic reductionism. Such a context may be described as involving the following line of thought. First, consciousness can be reduced to intentionality in the following sense: whatever makes an experience conscious can be accounted for in terms of the experience's intentional features, features that characterise the

depend on conscious states with respect to their intentional property, but not with respect to their existence.

content of the experience (either by virtue of what the experience is about or by virtue of the experience itself being the object of intentional act or state). Second, intentionality can be reduced to representation in the following sense: whatever constitutes the intentional features of a mental state can be reduced to its representational features. Finally, and crucially, representation is a natural phenomenon that can be studied from an objective point of view with methods common to all empirical sciences. Consciousness, it is thus concluded, is a natural phenomenon that can be studied along with any other natural phenomenon.

A few comments about this line of thought should suffice in the present context. Those who think that consciousness is a matter related to the material basis of a representation may not be attracted by the first assumption. The thought that any process located in the brain, or in certain distinguished parts of the brain, is *ipso facto* conscious, might naturally lead to reject the idea that content, be it representational or intentional, plays any role with respect to consciousness. Such a perspective, although not unheard of, would be simplistic. We certainly have an intuitive notion of consciousness that is not identical to the notion of a process, taking place in a certain region of the brain.¹³ The question we are addressing, the question of the relation between intentionality, representation and consciousness, concerns that intuitive notion (or an appropriate precisification of that notion). Naturalistic representationalism is a relevant position in this respect because it attempts to do justice to some crucial aspects of that notion. It is often motivated by the desire to *explain* the relation between consciousness and its material basis. A position that does not acknowledge the need for such an explanation and does not even attempt to do justice to our intuitive notion of consciousness cannot be considered as an alternative to the phenomenological point of view: it simply does not deal with the data phenomenologists were interested in.¹⁴

Where the fathers of phenomenology thought that intentionality is intimately related to consciousness, they did not all share the claim that all consciousness is intentional. Indeed, the idea of non-intentional consciousness has become very prominent in later phenomenology.¹⁵ The first assumption would thus be disputed among phenomenologists. But

¹³ Some of the issue raised by this point can be found in recent discussion of the explanatory gap argument, an argument that goes back to Levine 1983 (more on the debate in Block, Flanagan & Güzeldere 1997).

¹⁴ This is not to concede that a study of consciousness could simply do without taking into consideration the phenomenological perspective on consciousness. More on this point at the end of this paper.

¹⁵ One can find it in Husserl's later writings, in Heidegger and in Merleau-Ponty (notice Sartre's opposition to it, however).

we shall not have to insist on this point in order to tackle the question at stake. Our enquiry does not concern so much the nature of non-intentional consciousness, as the relation between conscious intentional acts and representation. Let us then simply grant this first assumption for the sake of the argument.

We should also grant the third premise, the premise that representation is a natural phenomenon. If this were not the case, naturalistic representationalism would be doomed to failure from its very inception and could not be considered as an alternative to the phenomenological approach. If an objection against this premise can be raised, then it should not be at issue in our present enquiry. The target in our argument is not the claim that intentionality is a natural phenomenon. We are rather arguing against the claim that intentionality is a natural phenomenon *by virtue of* being reducible to representation. By rejecting this latter claim many options remain open, among them an alternative naturalistic strategy, or a transcendental approach on which intentional consciousness would be neither a natural, nor non-natural phenomenon, but a condition on our understanding of the world.¹⁶

For a representational theory to provide a reductive basis of intentionality, it has to be able to offer a solution to at least some central issues the theory of intentionality was conceived to deal with. One such issue concerns the constitutive possibility of error. Consider a notion of representation inspired by the way a photograph represents a scene in the world. One first suggestion would be that the picture represents the most similar scene that was causally responsible for its production. So, although the photographer's pressing the button plays a decisive causal role in the production of the picture of a tree, the picture does not represent the photographer pressing the button because of lack of similarity. And if there are two qualitatively indistinguishable scenes in the world the picture is similar to, the picture represents only the scene that was causally responsible for its production. So, one might think, the photograph offers a model for a viable notion of representation. As such it has indeed attracted many philosophers in the past. And yet it is an utterly unsatisfying substitute for intentionality.

To see the point, simply consider a picture produced by some malfunctioning of the camera. Suppose the picture was produced in a moment the camera's diaphragm was closed. Suppose the picture shows a flying horse. Intuitively, the picture represents something that does not exist, and something to which the camera did not stand in any causal relation to. The definition above, however, tells us that the

¹⁶ A view along such lines has famously been presented in Husserl 1913.

picture represents the most similar cause of its production. Since there is no flying horse that was causally responsible for its production, the picture does not represent any flying horse. Indeed, since there are no flying horses at all, *no* picture can represent any flying horse at all.

There is no need to go into further details in order to recognise where the problems lie. First of all, the analysis gives us a surprising result for what we normally take pictures to represent. When we look at a picture that shows a flying horse, we *see* (a conscious intentional experience) a flying horse through or *in* the picture. If the picture does not represent a flying horse, then our ability to use the picture as a pictorial representation of a (non existing) flying horse does not rely on the picture's representational properties. Paradoxically, this appears to speak for the view that seeing a picture as a picture of a flying horse presupposes the intentional consciousness of a flying horse. We do not see a flying horse in the picture because the picture represents a flying horse (it does not!), but the picture represents a flying horse *for us* because we are able to intentionally think of, or imagine seeing, a flying horse. As a result, intentionality would not be derived from representation, but, on the contrary, representation would rest on intentionality.¹⁷

This problem, of course, is rooted in the well-known fact that photographic representation conceived in the way we did above does not admit of error. There is no possibility of photographic *misrepresentation*.¹⁸ This kind of error, however, is constitutive for intentionality. Photographic representation, then, is no viable route for the representationalist reduction of intentionality.

The best way to circumvent this difficulty has proven to rely on a dynamic conception of representation. Something represents something by virtue of its genesis. More precisely, Dretske and some other authors¹⁹ have suggested that the notion of representation ought to be understood in the light of an evolutionary acquired function to indicate. Indication is basically a relation that can be reduced to a homomorphic correlation: for any state S of system One there is a state Z of system Two such that whenever system One is in state S, system Two is in state Z. The more states of system Two system One is able to indicate, the greater will be its representational power. A fine visual system will distinguish a shape with fifty-one sides from a shape with fifty-two. Less powerful systems will just tell apart round from square objects.

¹⁷ Husserl proposed an original and influential analysis of pictorial representation in Husserl 1980. For the more recent debate see for instance Hopkins 1998 and Shier 1986.

¹⁸ This problem was readily recognised by a defender of naturalised representation: Dretske 1986.

¹⁹ See Dretske 1981, Dretske 1988 and Millikan 1984.

The basic idea is now to insert this indication relation into an evolutionary setting. State S of system One will *represent* any state Y of system Two, when system One, or some of its ancestors, obtains an evolutionary advantage related to Y from indicating Z-states. S-states thus acquire the (evolutionary) *function* to indicate Z-states. An example may help.²⁰ A frog's visual system, suppose, is tuned in order to indicate the presence of small roundish black spots in its vicinity. The frog's system uses this correlation in order to guide the behaviour of its tongue – it catches whatever small roundish black object finds itself in the vicinity. You toss a small black metal sphere in the vicinity and the frog will eat it. You project such a sphere on a screen and the frog's tongue will try to catch it. The presence of this correlation between states of the frog's internal system and events in his surroundings has endowed the frog with an evolutionary advantage. Among the things the frog is lead to catch there are mosquitoes, food for the frog. The indication system was thus selected because of its adaptive power. So, although *indicating* small roundish black spots in its vicinity (Z), the frog's visual system (S) actually *represents* food in mosquito shape (Y).

Now we can see how this new approach deals with misrepresentation. When the dog catches the black metal sphere, for instance, it misrepresents the sphere *as* food. And this may actually happen even if for some reason there were no mosquitoes around at all. Indication functions acquired by evolution may remain in place even when they are doomed to misrepresent, as long as they did generate an adaptive advantage in the past and do not generate any particular harm in the present.

On this view, whatever system capable of producing adaptive indication functions can earn the capacity to represent. As far as those functions do not presuppose consciousness, representation remains independent from consciousness. The emergence of consciousness, one should expect to hear, will be explained in similar terms: as a consequence of some adaptive function to represent.²¹

There are doubts about the soundness of this last move in the representational account of consciousness. But let us for the moment suppose that the account does succeed in providing a solution for the problem of misrepresentation. There are still other facets of the original notion of intentionality the new concept of representation should be able to deal with. One such feature concerns the normative relations holding between intentional states by virtue of their content.

²⁰ The example is from Dretske 1981: 34 ff.

²¹ Attempts in this direction can be found in Dretske 1993 and Tye 2000.

5. *The normativity argument*

There are various examples of how intentional states stand in normative relations to each other. Relations of epistemic justification are of this kind. In an argument, the premises justify the conclusion by virtue of the logical relations holding between their contents. Most of our beliefs about our immediate, every day environment are justified by perception. We typically expect our emotional reactions to follow our judgements of value – moral, aesthetic or other. Normative relations hold in the domain of practical reason too. Desires and beliefs, for instance, are typically said to provide not only motivational force, but also rational grounds for our actions.

A classical objection to naturalistic representationalism starts from the fact that normative relations are constitutive for intentionality in order to suggest the following argument. Normative relations between intentional states hold by virtue of their content. Content, however, is causally inert. Conclusion: normative relations cannot be reduced to causal relations. Since only causal relations are supposed to be admitted in the naturalistic framework, normative relations are taken to be incompatible with naturalism.

The second premise is generally inspired by the classical conception of propositions as abstract entities constituting the content of mental states.²² Where this conception is rejected and where content is shown to be causally efficacious, or to supervene on causally efficacious properties, advocates of the normativity argument move to the claim that relations that hold by virtue of content cannot be generalised in a corresponding nomological form. Causal efficacy of content can be found at best at the level of state tokens, not at the level of types. The new conclusion, then, is that normative relations cannot be reduced to causal laws.²³ One prominent idea, here, is that relations between states that hold in virtue of their content are independent from their contingent causal implementation. There is not one specific causal law whose satisfaction would guarantee application of the relevant norm. This being so, the adaptive function postulated above would have to emerge *ad hoc*, without any underlying causal regularity. This, it is supposed, is not acceptable in a naturalistic framework.

This argument, or some variant of it, has been much discussed in recent literature.²⁴ I shall not dwell on it any more. For our purpose, it suffices to notice that it rests on the idea that there is something wrong

²² For this classical notion of proposition see Cartwright 1962.

²³ This view is rooted in Davidson 1970.

²⁴ An overview of the original debate about mental causation can be found in Heil & Mele 1993.

with the representational reduction of intentional *content*. As such, the argument does not establish any relation to consciousness. Further arguments would be needed in order to establish that consciousness is associated to the satisfaction of norms. A direct argument for this latter claim is however available independently from the question as to whether normative relations can be couched in nomological terms. This is the argument we shall finally deal with.

There is a simple distinction one needs to make when speaking about normative requirements. Something can simply possess properties that satisfy certain normative requirements. This does not mean that it has acquired those properties *in order* to satisfy the normative requirements. When you drive on the right hand side of a Swiss street, you satisfy local traffic rules. Your behaviour is blameless. But this does not mean that you drive on the right hand side because you intend to respect the Swiss traffic rules. In fact, you might be doing it just by chance. Being used to South-African circulation rules, you actually tend to drive on the left hand side. You may even not have realised that there are different traffic rules in Switzerland. Your behaviour is blameless alright, but certainly not good enough to earn real merit. You are not praiseworthy for having followed the Swiss traffic rules. Another, more substantial normative requirement must be fulfilled in order to earn that sort of merit.

In our context the relevant distinction may be formulated with the help of the two following requirements. One might first require that intentional states satisfy norms that apply to their content (let us call this the *weak* normativity requirement). And one might secondly require that the intentional states were formed with the aim at satisfying those very norms (*strong* normativity requirement). An intentional state may be said to satisfy the norm of truth, for instance, by the simple fact that its content endows it with truth-conditions and that those truth-conditions obtain in the relevant circumstances. Analogously, an intentional state may be said to satisfy the norm of validity, because it stands in the right logical relation to other states. A system of intentional states that satisfies requirements of this kind may be considered as blameless with respect to the norms of truth and validity.²⁵ But this does not imply that the norms themselves play any role in moving the system to satisfy those requirements. If the norms do not play any such role, then the system cannot earn any merit for its blameless functioning.

²⁵ There obviously are many more norms to take into consideration, and some of them, for instance moral norms, possess features of their own, that would need much more detailed consideration.

A system of intentional states, a system of beliefs, desires, perceptions, emotions and actions, is a system that is submitted not only to the weak, but also to the strong normativity requirement. For a subject to have the right belief, it is not enough that it satisfies its correctness conditions: it must have been formed with the aim at doing so. Sheer luck is not enough.

Scepticism about this classical claim stems from at least two sources. One might first suggest that correct hard-wiring of a subject's cognitive and practical behaviour would suffice. One might secondly submit that the sort of cognitive and practical behaviour for which the subject is expected to earn merit presupposes a variety of voluntariness the subject's behaviour cannot be credited with.

Both objections would need in depth discussion. We shall have to limit ourselves to some general remarks. Suppose evolution has not only determined the representational content of a system's mental states, it has also hard-wired those states in order to respect the sort of norms mentioned above. Respecting those norms, let us assume, provides an adaptive advantage to the system under consideration in its specific environment. Could one not legitimately claim, under such circumstances, that the system's mental states are formed with the aim at satisfying those norms? The aim is so to say hard-wired into the nature of the representational system.

There are at least two problems with this proposal. First, it misunderstands the nature of the aim set by the strong normativity requirement. To say that in order to fulfil the strong normativity requirement intellectual states ought to aim at truth and validity, for instance, is different from saying that they ought to aim at whatever would be coextensive with those values. Even if evolution hard-wires an organism to generate only true beliefs, that does not mean that the organism's cognitive system is thus guided by the aim of reaching truth (rather than simply evolutionary advantage). This is so, because truth, just as much logical validity, is not reducible to evolutionary adaptation or to any other prudential target.²⁶ To echo a well-known pronouncement from Husserl's *Prolegomena*: the domains of truth and logical validity do not depend on the evolutionary advantage a species may gain from behaving in their conformity.²⁷ Indeed, it is logically possible (and probably factually true in a number of cases) for a belief to be false and yet produce an adaptive advantage. Behaving in conformity to the norms of truth and validity for evolutionary reasons

²⁶ For this point see Burge 2003: 510. Although going in a different direction, one will find here a number of points of contact with Burge's way of thinking about representation.

²⁷ See Husserl 1900.

is thus far from providing fulfilment of the strong normative requirement that stems from them.

The second problem is related to the fact that the possibility of error is a constitutive trait of any behaviour guided by strong norms just as much as the possibility of misrepresentation is a constitutive trait of any form of representation. For a subject's action to be guided by a norm (a rule, as it is often said in such a context) it must be possible for it to be considered as erroneous with respect to that very norm.²⁸ Suppose, now, that a subject's cognitive and conative systems have been hard-wired by evolution in order to produce behaviour that satisfies the relevant intellectual and practical norms. How should one describe a particular situation where the subject's behaviour does not correspond to those norms? Could the subject's action be described as erroneous? The behaviour cannot be said to be incorrect with respect to an acquired disposition. For whatever behaviour, we must assume that there is an underlying disposition causing it.²⁹ Instead of saying that the subject's behaviour does not correspond to the intended disposition, one might say that it is produced by the wrong disposition. But this would not be the correct rendering of the possibility of error we were looking for. To say that a particular action is the incorrect application of a norm is not to say that that it is the application of the wrong norm. It is the first, not the second form of error that is constitutive for the satisfaction of strong normativity.

The second objection mentioned above rests on the assumption that at least some of the mental acts that are supposedly submitted to the strong normativity requirement are not open to voluntary control. In face of a certain kind of evidence, for instance, one cannot choose what to believe.³⁰ If this is so, it is argued, then one cannot be credited with the merit of believing what one does. One cannot be credited with aiming at something if one is not free to choose not to aim at it.

The current debate over this issue is not settled. For our context it should suffice to notice that one does not need to be free to act against the application of a norm, for one to be guided by the norm. So, for instance, given that the tomato in front of me appears red to me, and that I have no reason to doubt the reliability of my senses, and that I am aware of all this, I may not be free to decide to believe that it is yellow. If I were to accept such a proposition under the given

²⁸ See Kripke 1982: 24. I have presented my version of Kripke's famous argument in Soldati 2001.

²⁹ Notice that it won't do to just mention circumstances that hinder the proper manifestation of the disposition. For, the nature of a disposition cannot be determined without making reference to the circumstances of its manifestation.

³⁰ The idea has been found for instance in Williams 1973. For a more recent discussion see Ginet 2001.

circumstances, it might not be in the sense of taking it to be true. This does not imply, however, that when I do believe that it is red, I am not doing it in part because I am guided by the aim of believing the truth.

6. *Normativity and Consciousness*

What is the relation between the satisfaction of the strong normativity requirement and consciousness? One might take it to be obvious. Does one not need to be conscious in order to have one's behaviour be guided by a norm? Does it make any sense to say of an organism that has no consciousness that it follows a rule?

As obvious as the answers to those questions may appear, the idea of an intimate connection between normativity and consciousness has not been particularly popular among philosophers during the last decades. This may be due in part to the fact that the discussion has been concentrated more on issues related to the satisfaction of the weak normativity requirement by mental states having representational content, than on problems related to the satisfaction of the strong normativity requirement by the activity of subject's involved in intellectual and practical projects. Furthermore, many philosophers with an antinaturalist agenda have concentrated on the supposed irreducibility of phenomenal consciousness, rather than on the issue of normativity.³¹ This has not always been so. It is a striking fact that the founder of phenomenology, Edmund Husserl, presented his famous attack against naturalism by assuming a strong connection between normativity and consciousness. He does not appear to have recognised any special need to argue in favour of this connection. Rather: by defending the irreducibility of normative relations he seems to take himself to be defending the irreducibility of consciousness.³²

A suitable philosophical analysis of the relation between consciousness and normativity would obviously lie outside the scope of this paper. Let me then finish by mentioning one line of argument that goes in the intended direction. Strong normativity, we saw, implies that the subject's behaviour is guided by a norm. Hard-wired satisfaction of a norm does not suffice. What we need is that the subject's behaviour be *led* by the norm in such a way, for instance, that there is a possibility of error. It appears that the most appropriate

³¹ Phenomenal consciousness is often understood in relation to sensory qualities. Notice, however, that the well-known notion of 'what-it-is-like' appears to be broader than the notion of sensorial qualia.

³² This, of course, is not to deny that they were also interested in phenomenal sensorial consciousness.

notion to be applied in this context is that of motivation. The subject is motivated to act intellectually and practically in a certain way by the norm. If, for instance, the norm for belief is that it should aim at truth, then the subject forming a belief is motivated by that normative endeavour. In face of a certain kind of evidence, one is motivated to believe whatever is more likely to be the case. The question, as to whether it is the norms itself (‹one's belief should aim at the truth›), or the desire to satisfy that norm (‹I want to believe the truth›), that psychologically plays a motivational role, may be left open for the moment. What counts in our context is that satisfaction of the strong normativity argument presupposes motivation and that the sort of motivation we are considering appears to apply only where there is consciousness. More precisely, there is a sense in which being motivated means to be conscious. One can be pushed by causes and maybe even by reasons one is not conscious of, but one cannot be motivated by unconscious reasons. It is not as if consciousness would have to be added to motivation. To stand in a motivational relation to reasons is to be conscious. It is the sort of consciousness that makes subjects intentionally directed onto the world.

7. *Conclusions*

Intentional consciousness is the general notion we use in order to describe our way of understanding the world and ourselves. Intentional consciousness is not just a matter of being in mental states that have a certain phenomenal character. Nor is it just a matter of being in states that represent the world, either photographically or through an acquired indication function. Phenomenal quality and representation may be associated to intentional consciousness, and they may under certain circumstances even be necessary conditions for its emergence. But intentional consciousness is more than that. It is the sort of consciousness that allows us to attain rational command over our intellectual understanding of the world, our affective responses to it, and our interactions with it. Without this sensitivity to the normative dimension of our life, we would experience our feelings, beliefs, emotions and actions as happening to us, without them making any sense to us. The fact that situations of this kind are indeed experienced as disruptions of our personality, should makes us aware of the fact that there is more to our consciousness than just representation and sensory qualia.

There are widespread and discouraging misunderstandings over the import of recent research in the sciences of the brain. One is confronted with results that have an impressive impact on the therapeutic

treatment of a great number of diseases of the brain. But it is hard to see why these advances in medical therapy should provide *as such* any means for a better understanding of our experiential, intellectual and practical relation to the world. How could the fact that we come to know which parts of the brain are active when we perceive music help us to establish whether we are *right* in judging that music is valuable for our life and for our understanding of the world? The illusion that any help in this respect might come from those quarters may have one of its origins in the confusion between representation and intentionality.

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