

Sartre's existentialism and current neuroscience research

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Introduction

There has been considerable interest in applying current neuroscience research to psychotherapy, or to psychotherapy related topics (Cozzolino, 2002). The motive of many writers seems to be to justify psychotherapy insights by stretching them to fit, however uncomfortably, into contemporary neuroscience. That the fit is uncomfortable is an inevitable consequence of the mental, or psychological, grounding of much of psychotherapy and the brain focus of neuroscience. It is to be expected that phenomenology, and existential theory, might have more direct links because of its focus on being—existence grounded in the body—rather than knowing or understanding. A brief search of the literature suggests that despite their potential promise, few such links have been made (see however, (Wheeler, 2005). It seems important to remedy this situation. Sartre in particular, with his almost obsessive focus on introspective phenomenology, might be expected to have much to say that is relevant to neuroscience, and in this article I consider some of his hypotheses about being and how they are being supported by contemporary functional neuroimaging.

Sartre had a remarkable career. Fêted as a writer, he made contributions to biography, to novel writing, to writing plays, as well as to philosophy. There are some discernible threads in all of his work: an emphasis on disgust, or nausea; a focus on shame (he once said that he was incapable of feeling guilt); his preoccupation with freedom; and an equal preoccupation with the human tendency, which he saw everywhere, to slide and let oneself fall into a part or posture rather than remaining truly free. Reading his work means constantly to set aside what theory tells us that we are experiencing and to rediscover the experience itself. It is a quest for a sought after grail which

eludes Sartre and the reader as the grapes (featured in the Sketch for a Theory of the Emotions) did Tantalus. This quest in the Transcendental Ego and Being and Nothingness is the For-itself. In the Critique of Dialectical Reason, Sartre introduces new ineluctable limits of understanding: 'praxis' and 'totalization'. As in his thinking so in his life: Sartre admitted in a late interview that seducing a woman was more exciting to him than what followed when he had succeeded.

Looking human

Sartre lost most of the vision in his right eye when he was 3. This was associated with the development of a squint, which worsened as he got older. Sometimes a squint can itself be the cause of the loss of sight in one eye as the occipital cortex deals with having two non-overlapping visual images by suppressing one of them. The amblyopic eye whose output is suppressed is still capable of registering an image and this is still used by the brain although it is not accessible to consciousness. I have been unable to find enough information to know whether or not this was the reason for the loss of vision in Sartre's right eye, but it is intriguing for this would be an example of the divergence between being with a right eye that provides visual information and consciousness of being in which only the left visual field is known. Sartre's left eye deteriorated too, as a result of retinal haemorrhage, in the last years of his life.

Many of Sartre's key ideas were based on the act of looking. The Critique of Dialectical Reasoning begins with him looking out of the window at two men working side by side, but oblivious of each other because of an intervening wall. This is the starting point for his concept of the third party, which comes into its own when Sartre formulates the overcoming of seriality in the fused group, described in that book. Even more important, and far more famous, is 'The Look' (chapter IV of part 1 of B and N) described in Being and Nothingness (p. 433 et seq.).

The first 'look' in this chapter is of Sartre looking at a man walking by some benches in a park. But here Sartre is looking at the man, and the man is not looking back. The paradigmatic look, the one that matters to Sartre personally, is the other's looking at him at a moment when he is emotionally susceptible to it. Sartre's suggests that a voyeuristic act provides just such a moment. "...let us imagine that moved by jealousy, curiosity, or vice I have just glued my ear to the door and looked through the keyhole", somewhat unrealistically given the difficulties of both putting one's eye and one's ear to a door, "...But all of a sudden I hear footsteps in the hall. Someone is looking at me... I shudder as a wave of shame sweeps over me" (pp260-277). Curiously throughout the very long passage from which I have taken very small extracts, Sartre does not once go on to consider looking round at the person he supposes to be looking at him. He accepts that, in fact, the footsteps may be of someone who has passed by without seeing the eavesdropper but even if it is a false alarm, Sartre considers that if "...I persevere in it [in looking through the key-hole], I shall feel my heart beat fast, at the slightest creaking of the stairs. Far from disappearing with my first alarm, the Other is present everywhere, below me, above me, in the neighbouring rooms, and I continue to feel profoundly my being- for-others" (p.277).

Sartre summarizes the "meaning of those subjective reactions to the Other's look which are fear (the feeling of being in danger before the Other's freedom), pride, or shame (the feeling of being finally what I am but elsewhere, over there for the Other), the recognition of my slavery (the feeling of the alienation of all my possibilities).

Sartre's interest in shame and in gaze is prescient. Self-conscious emotions like shame and gaze behaviour have become central to the study of what is often now called 'the social brain' (Brothers, 1990). The social brain is constituted by networks of neuronal populations in the brain ('neural networks') which involve the areas of the brain closest to the forehead, that is the most rostral areas of prefrontal cortex. These are the areas of the brain that have developed most highly in primates in general and in hominids in particular. So the social brain seems implicated in some way in what it is

to be human. In that sense, too, Sartre's phenomenology anticipated the latest neuroscience. Our awareness of how we look to other people, and our attempts to modify that, do seem to be key to social development, at least in the early years of life (Frischen et al., 2007).

Sartre's treatment of shame is consistent with more recent psychological treatments, particularly in his emphasis on being unable to hide (Tantam, 1998), but his description of the emotional reorganization of the look is also consistent with the enormous upsurge of research into the amygdala, now considered part of the 'social brain'. This research shows that the amygdala, the organizing centre of anxiety and, possibly, anger responses is activated by direct gaze from another person (Kawashima et al., 1999) . Indeed, Adolphs, one the most prolific researchers in this area, has speculated along the same lines as Sartre, that it is the amygdala's response to gaze which is the basis of our knowledge of other minds (Adolphs, 2006). Sartre says about this, "In experiencing the look, in experiencing myself as an unrevealed object-ness, I experience the inapprehensible subjectivity of the Other directly and with my being." (p.270). Sartre is here also suggesting what 'theory of mind' researchers would now argue, that discovering other people are independent thinkers also means having a simulation of myself as I appear to others: "my unrevealed object-ness" (ibid.).

As the last quote from Sartre demonstrates, he thought that the alarm that we perceive when another's gaze falls on us, is unique to that experience because we perceive it not just as a threat (as it might be if, say, a lion's gaze were to fall on us), but as a judgement. Sartre's discussion of being-for-others follows from this. This, too, is consistent with recent neuroimaging research using positron emission tomography which suggests that direct gaze from another person increases the activity of the medial and superior temporal sulcus and inhibits that of the medial prefrontal cortex (Calder et al., 2002), areas that are both implicated in making judgements of other people's intentions, and indeed of the existence of independent minds in others.

Developmental psychologists have also supported Sartre's view that the gaze of another induces both fear and self-consciousness. But the evidence suggests that Spitz' original dating of stranger anxiety was about right: it develops from about seven months of age. Infants are however responding to mother's gaze much earlier than this. Indeed, infants preferentially look at their caregivers when their care-giver is looking at them from birth (Tantam, 1992), and by three months special gaze processing areas in the brain are beginning to differentiate (Farroni et al., 2002) in normally developing, but possibly not autistic, infants (Merin et al., 2007). Sartre's presentation of the other's gaze as a threat, coupled with its ability to transform the emotions of the person on whom the gaze falls through the irruption of shame or self-consciousness, is supported by neuroscience. But this authoritarian Other (to use Sartre's own word for the totalization of each and all of the others who might look) supervenes on an earlier developmental stage at which the gaze of the other is not just that of a strange other, but of a familiar or significant other, one of whose properties is to feed (Blass & Camp, 2001).

Sartre's Other seems to have the same kind of function as Lacan's 'name of the father'. Perhaps its origins lie in the gaze of his school-master grandfather, Charles Schweitzer, the nearest person to a father that Sartre had for many years. From his treatment of the Look, and the propulsion of the person looked at into the slave position of the Master-Slave dialectic. Sartre goes on to re-theorize the control functions of society, and in the Critique, a theory of social stratification ('seriality') linked with Hegel's Master/ Slave dialectic. In *Being and Nothingness*, he argues from the Look to a particular kind of consciousness, "being for others", and from that to an understanding of how a person may voluntarily give up being a person to become a cog in the wheel of society, to which I will return in the section on magical transformation.

Nausea in the service of the social brain

Disgust

There was not much of a neuroscience of emotion during Sartre's active period as a philosopher. He refers only to the work of psychologists and psycho-analysts in his *Sketch for a theory of Emotions*. It might have surprised him that his focus on *la nausée*, or disgust, should have been of neuroscientific significance. Sartre is the philosopher of disgust as Kierkegaard was of dread, and arguably, they both had the same motive, to make sense of personal experience. Kierkegaard seems to have lived on the edge of an anxiety state for most of his adult life, and if we interpret Sartre's 'nausea' as disgust, Sartre certainly seems to have lived on the edge of self-disgust a lot of the time, as did the main character of *Nausea*, Roquentin,. Sartre refers to "A dull and inescapable nausea which perpetually reveals my body to my consciousness." (p. 338).

Anxiety functions as a signal of threat, mediated by the amygdala which receives input from a wide variety of inputs and then outputs to connected brain structures to produce an anxiety response (Cheng et al., 2006) although not without regulation from higher centres. Conscious reappraisal of threat stimuli alters activity in the prefrontal cortex and can either up- or down-regulate the amygdala and therefore increase or decrease fear responses (Eippert et al., 2007). If it did not, there would be no purpose in the existential injunction to face anxiety.

The amygdala is tuned particularly to distant sensory channels such as vision and hearing, but there is also an evaluator of proximal sensation, which is where disgust, and Sartre's emphasis on it, proves relevant. Disgust is particularly linked to taste, smell, and touch (imagine the touch of cobwebs, or slime). I have suggested in another paper that disgust is one of the bases for judgements about the palatability or unpalatability of what I have called the flavour of emotion (Tantam, 2003).

Young children regularly make disgust appraisals, or at least 'yukkiness' appraisals, and apply these to the attributes of people as well as to tastes and smells. Exposure to stimuli that are rated disgusting consistently activates the insula, which is also activated by nauseating tastes or smells (Wicker et al., 2003). Insular activation occurs, along with amygdalar, activation in anxiety and anxiety related disorders such as PTSD or social phobia, and also after fear conditioning (Etkin & Wager, 2007). Paying attention to another person's facial expression of disgust activates one's own insula (Krolak-Salmon et al., 2003). The latter finding is an instance of the inter-subjectivity, mediated by the look, that Sartre describes in *Being and Nothingness*. The former will be relevant to the later consideration of 'hodological' emotions.

Sartre's idea that disgust emanates from awareness of the body finds an echo in insular studies, too. The right anterior insula is also activated during tasks which require a focus on one's own bodily processing such as counting one's own heartbeat. Interestingly having had more negative past experiences was correlated both with increased insular activation and also with accuracy on the task (Critchley et al., 2004).

Different types of consciousness, and being

Sartre is not an idealist: he believes that things exist before we become aware of them: "...existents appear before consciousness on the foundation of their being", writes Sartre. This is true of human beings, too, who have "...the being of this table, of this package of tobacco, of the lamp, more generally the being of the world which is implied by consciousness" (xxxviii). Consciousness also exists, but "passes beyond the existent... toward the meaning of this being" (xxxix). Consciousness is a kind of intentionality. So we could equally well call it grasp, or apprehension, or capture—or if we wanted to use a sensory and not a motor metaphor, looking at. As a person can only grasp, or look

at, some discrete thing at a time, Sartre therefore agrees with those who have used the imagery of consciousness as a torch which when used in a dark room makes visible only what is in the radius of its illumination. Sartre is interested, like Husserl his mentor, in the other end of the torch beam, too—the hand that is holding the torch as it were—although as it turns out there is hand. He starts out *Being and Nothingness* with two consciousnesses therefore which he calls 'l'Etre pour soi' and l'Etre en soi. In thinking that consciousness can be divided, he again anticipates neuroscience, for example the elegant split brain studies of Sperry and Gazzaniga on the independent functioning of the right and left cortical hemispheres following commissurotomy, although he is also following in the footsteps of Bernheim, Charcot, Freud, and many other hypnotists, who demonstrated that consciousness in hypnotic trance was dissociated from that in wakefulness.

In the *Psychology of the Imagination* (Sartre, 1995), Sartre proposes that we are conscious of the world not by representing elements of it in our minds, or constituting them as ideas or essences as Plato or Husserl thought, but by reaching out to the world itself. It is hard to understand this in relation, for example, to perception. Perception seems a passive process of taking, as if some substance or quality is passing into us from the outside world. Even though representational theory presents considerable problems, for example, in understanding what faculty can enable us to distill this mysterious noumenon, the notion that perception is based on sensation seems inescapable. Yet the involvement of action in visual perception is part of folk psychology—children's drawings, for example, routinely show rays being emitted by the eye rather than taken in by it—and is gaining a place in philosophy (Noe, 2004) and neuroscience (Calvo-Merino et al., 2006). The discovery of canonical neurones in the primate supplementary motor cortex subverts the distinction between action going out from the organism and perception coming in, and supports Sartre's adage in *Being and Nothingness* that 'perception is action'. Particular populations of canonical neurones, located in the ventral part of the macaque supplementary motor cortex, fire when we grasp an object, but also when we see an object. In one study, macaques were presented with objects but trained, when a

light was on, not to reach out for them although on previous occasions they had reached for them, and handled them. The same cells in their premotor cortex, area F5, fired when the objects were viewed but not handled, as when they were handled. Moreover, some monkeys handled the object in one way, in which case a particular cluster of neurones fired, and some another way, in which case different neurones fired. The monkeys who had gripped the object in one way activated the neurones that had fired when they gripped the object that way even when they were just seeing the object.

So for these monkeys just seeing an object meant also knowing how to grip and—we can suppose—also meant preparing for its weight, how to turn it, and so on. Sensation therefore involved the memory of former movements (Calvo-Merino et al., 2006). These studies are based on single neurone recordings and have therefore only been carried out on laboratory animals. There is good evidence, however, that area 6 in the human cortex corresponds to the supplementary motor cortex of other primates, and that it, too, contains canonical neurones. It is these, we can suppose, that link action and perception and make perception an intentional process.

Sartre did not have access to single-neurone recording, but did know about scan paths of gaze and assumed that it was the activity of looking that provided a kind of ‘manipulation’ of objects, B and N p.34, a link between gaze and grasp that turns out to be another prescient speculation (Pierno et al., 2006).

Existentialism as humanism

Sartre’s phenomenology may have been accurate enough to be able to identify fundamental aspects of behaviour that have taken the development of functional neuroimaging to confirm, but in his most famous, or infamous, essay “Existentialism is a humanism” (1956, lecture given in 1946)

he was at pains to establish that a focus on existence, and not essence, was a kind of freedom from the dictates of being.

In order to try to understand how Sartre arrived at his position, I shall try to sketch in a kind of thought experiment, a machine that will enable me to present Sartre's ideas in sync with their possibly associated neuroscience, and to bring out how Sartre used Husserl's phenomenology to develop an account of consciousness that will enable him to escape from the facticity of being, its groundedness in a particular body, in a particular place, and at a particular time.

The self-propelling being machine

Imagine a moving, self-fuelling machine which can navigate its given environment fairly freely. As the machine is in movement, it needs sensors to steer it away from harm. We have already considered two of these: a distal threat sensor and a proximal disgust sensor. The emotional outputs of these sensors set the machine on a particular path (Sartre takes from Kierkegaard the term, 'hodological' for this function of emotion). The sensations of disgust and fear can generalize from their visceral, autonomic roots (the former being parasympathetic and the latter sympathetic) so that almost any experience can have an emotional flavour to which is attached a palatability value (see Tantam, 2003, in which I discuss this in detail). Every experience can be an emoter, i.e. have an emotional flavour, even words (Whissell, 1996). Moral sentiments can be 'off', people can be 'yukky', and their actions, 'disgusting'. So, armed with the equivalent of an insula and an amygdala, and the appropriate distal sensors and effectors, the self-propelled machine can also sense what is to be avoided in the social and moral universe, too. But it will not do so well at dealing with physical hazards.

Dealing with physical hazards requires some kind of pattern recognition method. So let us now presuppose that a more successful machine came along with an added spotlight and a spotter, which gradually replaced the old machine with its 'unintelligent' sensors. This machine would have a rudimentary kind of consciousness.

Consciousness raises continuing problems for both philosophers and neuroscientists. It clearly has some relation to attention, for which the notion of a spotlight does seem a good analogy (Baars.B., 1997). There clearly, too, needs to be the ability to verbally describe what is being attended to. This requires at a minimum only a verbalizing facility with the capacity to identify and name categories: for my self-propelling machine, 'obstacles' and 'traps' would be important things for the spotter to recognize and shout out when the spotlight illuminated them.

Sartre rarely problematizes language itself but treats it as if it is a non-distorting and non-constructive mirror of what it denotes. In fact, one of the criticisms of him by more modern French philosophers is that he fails to account for the social construction of reality. Sartre continues to hold an absolute conception of truth, which Sartre continues to hold in line with his philosophical predecessors although his later idea of 'totalization' suggests that he accepts a person does arrive at a particular grasp of the world and leaves open whether or not this should be grounded in reality. He does not allow for a post-modern concept of narrative truth, or allow for words having the capacity to call something into being simply by naming it.

Sartre does not refer to the spotter that I have posited in a self-propelling machine, but his philosophy is predicated on it. Indeed, Sartre's life-long engagement with literature is a clear indication that he recognized the necessary contribution of language to consciousness. The self-propelling machine analogue of Sartre's ontology cannot therefore do without a spotter function, but it may need some post-Sartrean tweaking to bring it into line with social constructivism.

This might be achieved by some kind of selective attention influenced by linguistic expectation, or by influencing the processing of visual stimuli or 'verbal overshadowing' (Lloyd-Jones et al., 2006). Sartre himself may have suggested a more active, intentional procedure involving a proposition generator and a comparator to test goodness of fit. This would involve propositions about the environment, along with warning statements, being successively generated until one reaches an adequate goodness of fit, and gets passed through for shouting out.

Once we introduce some uncoupling of what the spotter passes on of what the spotlight illuminates (this seems to require an intact superior frontal gyrus to inhibit prepotent responses {Boisgueheneuc F du., 2006 109 /id}), the spotter can play a much more active role in shaping the machine's response to its consciousness. The spotter—or perhaps we should now call this the narrator—will have to draw on memory for recognition of objects and for the knowledge of what commands are appropriately issued when those objects are seen. This memory will be influenced by experience, and will require selection. Vygotsky championed the role of inner speech, or inner narration, as a means of organizing action and this is supported by neuroscience. Inner speaking is associated with activation of the left inferior frontal gyrus, and this area is also active during tasks requiring cognitive control, selecting among competing alternatives, and introspective awareness (Morin & Michaud, 2007). Talking to others has similar links but activates a different, although adjacent, part of the brain, the left dorsolateral prefrontal cortex (Troiani et al., 2006). All of these brain areas are active during verbal 'working memory' (Osaka et al., 2007) tasks which are thought to be essential for executive functions like planning ahead, switching priorities, and focussing attention as well as for consciousness. The lateral prefrontal cortex is also more activated by pleasant as opposed to unpleasant words (Herrington et al., 2005), introducing the possibility of emotional factors participating in discrimination.

Inner speech seems to be linked neuroscientifically with the kinds of choice tasks that Sartre considered to be distinctly human. But we would be wrong to consider him an early narrative philosopher, or one who would consider the core of being—the for-itself—to be co-located with the narrative function. The reason that the narrative function and the for-itself cannot be the same is ontological: the evidence of the narrative function is coming from the actuality of being—the brain in its actual workings—and so relates to the in-itself and cannot therefore pertain to the for-itself. When we say “I... “ we do not know who we are referring to, since ‘I’ is a ‘shifter’ with no fixed denotation, but we do have a feeling that there is some particular being who is issuing the statement. Sartre calls this sense ‘non-positional consciousness’. We could say, on our analogy, that sometimes when the spotlight falls on the machine itself there is a sparkle of reflection that seems to indicate where the light is coming from. But Sartre rejects any confusion of what this sparkle might show up, what the object of this non-positional consciousness might be, and what is moving the spotlight. The agency moving the spotlight is not the same agency that is narrating what the spotlight shows up.

The combination of a spotlight of attention and a narrator are not yet sufficient to fully emulate consciousness. The self-propelling machine endowed with these functions would not have what Nagel terms “what it is like” sense, the feeling, of being conscious (Nagel, T. "What is it like to be a Bat?" In *Philosophical Review* 83: 435-456, 1974.) But it will be enough to be a test-bed for Sartre’s thoughts about consciousness, if we add a couple of operational principles.

Suppose that the way that this improved version of the machine uses the spotlight (i.e. attention) is that it shines ahead and the narrator, shouts out directions to the machine, such as “Turn that way, that looks good”. The narrator is not the pilot or even the steersman. There may not even be one of these. Nor is the narrator the origin of the spotlight. So when the narrator says, “I see trouble ahead. Turn left”, it is not because the narrator has disclosed the trouble—that will be the spotlight—but that the narrator has interpreted what attention has disclosed. So far we have a kind

of automaton, which is not what Sartre was describing. Automata have no freedom, and their behaviour is implicit in their design, something that Sartre inveighed against in the essay on existentialism and humanism. So we have to add two features, unique to Sartre. The first is that the spotlight swings on some kind of gimbal and so whilst it is sometimes pointing forwards (positional consciousness), it can sometimes swing back to illuminate the machine itself well, (non-positional consciousness). The second is a consequence of Sartre's view that intentionality is a fundamental of human being.

The area of illumination of a spotlight is what the spotlight is directed towards, its object, even its objective. It seems appropriate therefore to ask what the relation is between the objective of the spotlight and the direction of travel of the self-propelling machine. Does consciousness provide the goal of human being? Sartre indicates that "man pursues being blindly by hiding from himself the free project which is this pursuit. He makes himself such that he is *waited for* by all the tasks placed along his way. Objects are mute demands, and he is nothing in himself but the passive obedience to these demands". (p.626). The motive of this way of being is to be free from anguish. The machine analogy was that the direction of travel of our hypothesized self-propelling machine would be determined by its sensors, and the avoidance of either fear or disgust. As Sartre indicates this would keep the machine in thrall to its environment, and it would be a simulacrum of an animal, without plans or personal objectives, rather than a human being. The alternative is "the real goal of the pursuit, which is being as a synthetic fusion of the in-itself with the for-itself..." This, Sartre later says, leads to "freedom becoming conscious of itself" (p. 627) although he had earlier dismissed the possibility of this fusion as only being open to a (non-existent) God.

The last pages of *Being and Nothingness* become increasingly difficult to follow, with Sartre promising that he will return to the topic of what it is to be free later, although he never did.

However, I think that one plausible realization of his ideas in the hypothetical machine would be that there was a rule that the machine as a default always turned towards the objective of the spotlight. Since the spotlight itself is freely moving on its gimbal, the machine that freely follows it without distraction from its sensors, would be truly free. Its path, its being through time, would be least influenced by its environment and most by being itself: which is, I think, one possible realization of this statement of “the synthetic fusion of the in-itself with the for-itself” and “Consciousness can always pass beyond the existent, not towards its being, but towards the meaning of this being” (p. xxxix).

Flocks of machines

This account of a humanoid machine is incomplete in one important way. We must suppose that the self-propelling machines do not normally exist in isolation. They are usually to be found in flocks, in groups. Human beings cannot see the contents of each other’s consciousness, but they can see other people’s direction of gaze and use that information to infer what a person is thinking. They are also given other peoples’ accounts of what is going through their own minds. So the humanoid machine that I have posited must be able to see the spotlights of other machines as well as its own, and also to be able, at least sometimes, to hear the shouts of each other’s narrator.

To be fully humanoid, our machines will also have a less readily sensed communication between them, through non-discursive, nonverbal communication. For simplicity, I shall present this as the means by which one machine can alter the emotional flavour of the environment for another. One aspect of this nonverbalized influence is culture. Culture is one of the determining factors of disgust. What is palatable to eat in one culture may be anathema in another. The culture of inter-war Europe, which influenced Sartre, seems to have had a similar effect on other notable writers like

Kafka and Musil in increasing the disgustingness in the flavour of flesh and making flesh seem ugly, distorted, corrupting, or ultimately without meaning.

Each humanoid machine in a flock potentially influences each of the others through nonverbal communication and its effects on the settings of the emotional sensors. So an account of being human does seem incomplete, as Heidegger asserted, without a recognition of *Mitsein*, or being with others, although Sartre seems to reject this in *Being and Nothingness*. He explicitly rejects any link between bodies: "In fact", he writes, "if the fundamental relation of my being to that of the Other were reduced to the relation of my body to the Other's body, it would be a purely external relation...Or if you prefer, the Other exists for me first and I apprehend him in his body subsequently. The Other's body is for me a secondary structure" (p.339). Intersubjectivity can only arise, for Sartre, from consciousness, from the consciousness particularly of the other's gaze. "If the word 'We' is not simply a *flatus vocis*", he writes, "it denotes a concept subsuming an infinite variety of possible experiences. And these experiences appear *a priori* to contradict the experience of my being-as-an-object for the Other and my being-as-an-object for me...The 'we' includes a plurality of subjectivities which recognize one another as subjectivities." (p.413). This plurality can only be arrived at by the mediation of "the Third" (to become the Third Party in the Critique of Practical Reason).

Sartre's analysis of social order does not require any awareness of others as embodied beings either. It is based on shame, a 'self-conscious' emotion as it is now often called, and therefore an emotion that involves consciousness and not just bodily experiencing. He adds terror as an ordering factor in 'pledged groups' in the Critique, and this is another emotion that requires imagination and therefore consciousness. Both emotions are highly relevant to psychotherapy (Tantam, 1998) but many psychotherapists would want an interpersonal theory to begin with bodily interconnectedness, as attachment theory does.

One of Sartre's objections to Mitsein was that it implied the primacy of the group. He writes for example in *Being and Nothingness* that " 'we' is not an inter-subjective consciousness nor a new being which surpasses and encircles its parts as a synthetic whole in the manner of the collective consciousness of the sociologists. The "we" is experienced by a particular consciousness" (p. 414). He also objects to the apparent denial of the struggle of one being with another for scarce resources that he considers basic to society. "The empirical image which may best symbolize Heidegger's intuition of being with is not that of a conflict but rather a crew", he rather disparagingly writes (*B and N* p. 246).

Sartre's greatest difficulty with Mitsein at the time of writing *Being and Nothingness* is that he assumes that Dasein is in some way equivalent to being-for-itself. It is true that Dasein is Heidegger's way, as *être-pour-soi* is Sartre's way, of capturing the transcendent or ontological capacity of 'human being'. But the two ideas are otherwise quite different. Dasein is thrown into the world from the beginning. It has the same facticity that Sartre attributes to being-in-itself and is not at all a consciousness like the for-itself which nihilates being.

Sartre's failure to locate being in a social world seems to me to be his greatest failure. Why he distanced himself from Heidegger and Husserl is unclear. In the years before *Being and Nothingness*, he was less clear cut. In 1937 he writes, for example, "Consciousness and the world are immediately given together : the world, essentially external to consciousness, is essentially related to it" (Sartre, 1970) p. 4). Even in *Being and Nothingness*, there are hints that Sartre still recognized human sympathy at a corporeal level, if only in what must have been one of his most favoured locations, the theatre. "Everyone knows in fact that unavowed embarrassment", he writes, "which grips us in an auditorium half empty and, on the other hand, that enthusiasm which is let loose and is reinforced in a full and enthusiastic hall" (p. 413).

Sartre may have come to occupy his apparently solipsistic position, because whilst he was like Heidegger ostensibly considering the phenomenon of 'being', his special insights were into consciousness and this belongs to the human agent, the for itself, and not to the world which is both, as he writes, external to it and essential to it.

Killing machines

There are some other additional apparatus that one would have to build in for the self-propelling machines to be humanoid when grouped together. Machines would have to be attracted towards each other so that they had to overcome an attachment or bond to deviate in their track away from a related machine. They would require a remotely triggered destruct button, which could emulate the inactivation that marginalization and shaming can produce in a person. And they would require an offensive apparatus.

Sartre alluded to something like a self-destruct button in his frequent references to the shaming effects of the look, and its contribution to the anguish of living, albeit a more conceptual kind of anguish to the anxiety that is picked up by the amygdala sensor. His treatment of the offensive apparatus was mainly reserved for the Critique of Practical Reason, where he discussed the means by which pledged groups maintained their membership, which was through "terror": an anticipation of terror management theory.

Being one of the flock

The look of the other has power because of its capacity to shame (and also, as Sartre points out, the capacity to instill pride, too). It has another potency, which is to reveal things about the person on

whom the gaze falls that may have been previously hidden to them. As we might say in psychotherapy, the awareness of another person's gaze can 'reframe' our experience because we see it through another's eyes. So other people exercise considerable control over me, but I am also potentially in control of them for "everything which may be said of me in my relations with the Other applies to him as well. While I attempt to free myself from the hold of the Other, the Other is trying to free himself from mine; while I seek to enslave the Other, the Other seeks to enslave me" (p. 364).

Multiple consciousness

Sartre frequently has different names for being: being-for-itself, being-in-itself, being-for-others, and so on. I do not think he meant that there were separate beings, but different manners of being. What makes these particular ways of being different is consciousness, and the focus of consciousness. So when one of the self-propelling machines turned its spotlight onto its emotional sensors and took corrective action to prevent or reduce anguish, that would be being-in-itself, because the consciousness of the machine would be directed "in-itself". When the spotlight falls on other surrounding machines and where *their* spotlights were pointing, that would lead to similarly defensive behaviour, but this time defending against the look of the other and its negative consequences.

If the analogy of the self-propelling machine does hold, we can translate this machine model into human being by saying that if the defensive behaviour (avoiding disgust or fear, and avoiding critical looks from others) becomes the dominant influence over human consciousness then the freedom of a being to choose for-itself is lost.

Living in this defensive way is what Sartre calls bad faith. He gives many examples of it throughout *Being and Nothingness*. None of them can be characterized neuroscientifically. The best that one can do with neuroscience is to show unusually increased activation, consistent with anxiety or disgust, in relation to stimuli associated with threat or with social judgement. The structure that seems to be the confluence of this activation is the cingulate cortex (Phan et al., 2005b; Phan et al., 2005a; Phan et al., 2006; Taylor et al., 2004). The cingulate gyrus, in turn, influences attention and therefore the direction of consciousness. It is where categorical and emotional information is blended too, and perhaps where emotional flavours are apprehended (Tantam, ???). Moreover the cingulate is activated during choosing (Bhatt & Camerer, 2005), the condition which, for Sartre represents both freedom and consciousness for-itself.

Magical transformation: the narrator and its feelings

Sartre anticipated Nagel's feeling element of consciousness in the *Sketch for a Theory of Emotions*, where he writes "Emotion is not an accident. It is a mode of existence of consciousness, one of the ways in which it *understands* (in the Heideggerian sense of "Verstehen") its "being-in-the-world".... It has a meaning; it *signifies something for my psychic life*."

Emotion carried for Sartre a considerable risk for consciousness, too, one that we may think he exaggerated. It could "... return of consciousness to the magical attitude, one of the great attitudes which are essential to it, with the appearance of the correlative world, the magical world" (*Sketch*). Emotion may in other words encourage us to re-appraise the world according to what we want of it losing sight of what it is. He gives the example of seeing some grapes that he would like to pick and eat, reaching out to them and finding that they are beyond his grasp, and saying to himself, "they are too green to be good to eat".

In terms of our self-propelling machine model, this is an example of the narrator calling out a partial, and potentially misleading account, of what the spotlight illuminates. The narrator does not call out, “the grapes are too high up” but “the grapes look nasty to eat”. So when Sartre looks again at the grapes and thinks, “they are too green” he also thinks “and so I no longer want them”. But the point of Sartre’s example is that he does *really* still want the grapes: he is only tricking himself into thinking he does not.

In the more general formulation given to magical transformation in *Being and Nothingness*, other narrator errors are described. Most of them involve self-reflective consciousness when the spotlight is turned back on the machine and the narrator mistakes what the spotlight is illuminating with whatever creates the feeling of consciousness—the sense of self or, as Sartre terms it, nonpositional consciousness. So the narrator gives spurious descriptions of what the spotlight illuminates as if there were the causal processes leading to action or perception.

Sartre’s strictures about magical transformation are particularly applicable to neuropsychology with its talk of ‘modules’ or units of the brain with some supposed specialized function. Sartre demonstrated the argument in an extended account of his feelings about Pierre. Pierre in one of his many appearances in *Being and Nothingness*, arouses Sartre’s disgust. Disgust is, of course, an important emotion for Sartre.

Sartre argues that most people will go on from feeling disgust with Pierre, to wondering why Pierre is repugnant, and then resolving this by ‘perceiving’ that they hate Pierre. But this, thinks Sartre is a magical transformation. Our positional consciousness directed at Pierre shows us nothing to cause us disgust, but we experience it. So we look inside ourselves and find that we experience him as disgusting and attribute that to an attitude towards Pierre, a hatred of him. We cannot however fathom why we feel disgust, and our attribution of it to hatred is a way of filling this vacuum with

what we would like to make a cause, although it is really only a spurious, post hoc, justification (although we may be able to elaborate this on the basis of previous experiences of Pierre, or what other people have said about him, and so on).

Sartre is here making two points. Firstly that we are unlikely to be able to find a cause for our disgust because we do not what we are looking for—the for itself will always elude us. Secondly, we are muddling up justifications for feeling disgust—which are propter hoc explanations or mitigations—with causes. We learn to do this early on: in *Words*, Sartre describes childhood as the period of justification.

There may be many reasons that Pierre can evoke disgust in me directly without having to suppose any kind of reason for it. But a neuroscientist might say that Pierre's memory trace in my hippocampus is irreversibly wired up to my insula or a psychoanalyst might say, "that is because there are unconscious reason for the disgust". Sartre would argue against this simply on the grounds that reasons connote agency, and there can be only one agent in any human being. So the unconscious cannot have its own, distinct, agent. But Sartre also argues that to attribute my disgust of Pierre to a hatred of Pierre is a magical transformation. I am changing myself in order to avoid confronting the world as it is. Sartre would argue that this is a regular error that most of us professionals make: "The error (of psychologists) consists in confusing the essential structure of reflective acts with the essential structure of unreflected acts. It is overlooked that two forms of existence are always possible for consciousness. Then, each time the observed consciousnesses are given as unreflected, one superimposes on them a structure, belonging to reflection, which one doggedly alleges to be unconscious".

Anyone who has seen the television demonstrations of Derren Brown will know that people can be subtly influenced by all sorts of means outside their awareness, but will attribute their subsequent actions to good reasons that have no relation to this influence. This rationalization is also one of the sources of amusement in the acts of stage hypnotists. Their volunteers acting on posthypnotic suggestions that the audience have heard will sometimes go to great, and risible, lengths to justify what seem like absurd or embarrassing acts. People with tics, people who ignore a paralysed part of their body, other people who are caused to act or fail to act will attribute these omissions or commissions to 'good reasons' rather than to involuntary causes. I have argued elsewhere that this confusion of propter hoc causes with post hoc reasons is one of the sources of theoretical confusion in our field (Tantam, 2001). There, I argued that reasons can act as causes too, for example in the case of planful actions. Justifications may have causal consequences for the reactions of others which can then redound back on the agent and influence his or her behaviour, too. But most of the reasons we give for our actions are unlikely to have been in our minds before we acted. The evidence for this is simple. The reaction time between, say, hearing a question and answering it, is just too short in most cases for there to have been time for deliberation. We often answer because of our particular tendency to respond positively or negatively, compliantly or disobediently, and it is only after that we justify this to ourselves by fitting our answer to its consequences in the future for us or for others.

Neuroscience has increased our knowledge of the complexity of processing outside consciousness and this has been backed up by ethologists who find that complex cognition that has seemed uniquely human is performed by animals, too. This indirectly supports Sartre's viewpoint by increasing the range of possible non-rational, causal explanations for behaviour. Some neuroscientists have as a result revived epiphenomenalism, arguing that all of our mental

descriptions of action are irrelevancies to the real business of what makes us do one thing rather than another (Wegner, 2002).

So what is swinging the spotlight?

Sartre was not an epiphenomenalist in any way. He did not think that because our accounts of why we act as we do are always flawed, that does not mean that they are either irrelevancies or that we are not rational beings but machines. If we were just beings-in-themselves or even just beings-for-others, epiphenomenalism would have a foothold. Perhaps then Spinoza's comment in his Ethics would turn out to be true: "Men are mistaken in thinking themselves free; their opinion is made up of consciousness of their own actions, and ignorance of the causes by which they are determined. Their idea of freedom, therefore, is simply their ignorance of any cause for their actions" (Spinoza, 1677/1883, Part II, p. 105).

If Spinoza were right, neuroscience and its promise to supply us with an increasing range and complexity of causes for our actions would gradually erode freedom. But Sartre argues that we are not just an in-itself. We are also beings for themselves, *êtres-en-soi*. He considered that it was our for-itself which comes mysteriously surging up (ontogenetically and phylogenetically we might suppose), *sui generis*, and which makes us fully human. This is not a thing, or some uncaused mental spirit or soul. It is the origin of our consciousness, the reactive attitude as Strawson called it (Strawson, 1962), that we take ourselves, and others, to be agents, to have a will, to have freedom and is what distinguishes us as human. This view continues to be the limit of where neuroscience can reach, and human understanding takes over (Levy & Bayne, 2004).

The for-itself “...is in so far as there is in it something of which it is not the foundation—*its presence to the world*” (ibid.p. 79). This slightly circumlocutory turn of phrase refers to the origins of the for-itself in Husserl’s transcendental ego. The for-itself is the point from which a person has a point of view. If understanding or consciousness is a grasp on what we are conscious of, a metaphor that emphasizes Sartre’s commitment to Brentano’s notion of the intentionality of consciousness, the for-itself is what does the grasping. It is non-reflexive in that, and here the metaphor breaks down, we cannot grasp ourselves. So we cannot see the for-itself, even with our inner eye. In fact there is nothing to see: there is no homunculus that is looking out or grasping. There is just a position from which grasp or seeing originates. The for-itself is ‘nothing’ and it is what introduces ‘nothingness’ into the world because it positions our gaze or grasp and by so doing turns our gaze or grasp away from aspects of the world which are thereby made nothing, ‘nihilated’.

The only knowledge that we can have of the for-itself, is its ‘presence’. This we can experience inchoately through our non-positional consciousness, that is our consciousness of ourselves feeling or doing something that is different from our consciousness when watching someone else apparently feeling or doing the same thing. At the cinema, we see the presence of invisible beings by the reactions of other actors and so it is when we reflect on the presence of the for-itself. We see it in its effects. An important corollary of this is that we can know something about the for-itself a moment ago, but we can never know about it now. Nor is there any necessary connection between the for-itself a moment ago and now, for if there were I could know, through prediction, what the for-itself is.

Being does not determine the for-itself any more than the landscape determines the viewpoint from which I am looking at it. Some landscapes draw me in, and I will choose to stand on a particular hill to view them and will do this over and over again. But I am free to look from any other viewpoint if I choose. So it is, Sartre argues, with the for-itself. If God had existed, Sartre argues, and had created the world the way a stationer creates a letter opener, then I would not be free because the world

would only afford me one point of view, just as the letter opener only affords one way of using it. Since the world does not afford only one point of view, then I am free to view it as I please—and that amounts, for Sartre, to the freedom to be, or even more simply, it amounts to me being free.

This seems a rather skimpy deductive argument, but Sartre, I think, meant it as a phenomenological observation. It seems to me that his characterization of the for-itself fits pretty well with what other people would call agency. If we substitute agency for 'for-itself', the claim that we 'observe' or at least we can use eidetic reduction to observe that we are free agents does not seem so far fetched.

Most of us take the view of ourselves that we have a choice, that we are free agents. Moreover we take that view of others, too. In a trial before a judge and jury, the jury is asked to determine guilt. Guilt requires that the action I am accused of (the actus reus) be found to be wrong, but it also requires it *be* an action, and me to be an agent. If I committed the actus reus, but I was asleep or drugged, or someone was forcibly moving my hand, then my behaviour might have resulted in an offence but I could not be held guilty of something that I did involuntarily. This is not about causation. If my defending counsel argues that I was under great emotional stress, or in an impossibly difficult situation, the jury is instructed to set that aside although the judge may later consider in sentencing what caused me to act as I did. Action is not about causation, but about responsibility and however strong the causes of my action might be, however strongly I am provoked for example, the jury must consider that I always had a choice and that causation is irrelevant when agency is considered—so long that is I am conscious and in control of my limbs. This is the view taken by Sartre about the for-itself, also.

Sartre's treatment of the for-itself has several implications for neuroscience. One is that the for-itself is not derived from the in-itself (or vice versa). In fact, it is not caused at all but 'surges up' in an apparently mysterious way. Once again, if we consider agency and not for-itself, this does not seem quite so mysterious. At one point do we start to consider our children as wilful—as having a

will of their own? And where does this will come from? Is it the property of a brain area that comes online, or is it, as seems more likely a consequence of other people perceiving the child differently, as it were in wonderment, at the appearance of this special human property or rather our willingness to confer on our child this property for the first time. “Who would have thought that he would have his own ideas about it? He’s growing up already” we might say, without appreciating the fact that we have drawn the child across a threshold by naming them as wilful.

Not everyone in neuroscience would accept that human being cannot be fully described in terms of states of the human organism. Some people do believe that having more detailed descriptions of brain function will lead to an erosion of free will, and even to the disappearance of the need to judge guilt or innocence but only to rectify abnormal brain functioning (see Morse, 2004, but also Green and Cohen ??? Philosophical Transaction of the Royal Society of London, 2004). However, those who have complete faith in the comprehensiveness of neuroscience theory need to defend themselves against Sartre’s critique of argument as magical transformation. Magical transformation is a reflection of what Sartre considers to be a natural tendency to change reality to fit our expectations if we don’t like the reality we have. One aspect of reality that is particularly disturbing is that other people can sometimes do unexpected, bothersome things. We all try to fill this vacuum with explanation, often involving causal principles like malevolence or envy. Scientists are no exception although their causal principles are more likely to be termed modules, centres, networks, or schemata.

As it turns out, causal explanations of people’s behaviour have limited value in the everyday world. and A better understanding of why people act as they do will not stop us thinking it right to take them as accountable or responsible for their actions.

Keep your gimbal freely swinging: or living insincerely and unseriously

Sartre's idea of human being is consistently that of an intentional being, a being that is pulled towards a goal rather than being pushed by some kind of inner drive. The spotlight of attention can be pulled towards dangers picked up by the signalling affects, disgust and fear or anxiety. A hint of shame will make it swing towards other machines in the flock to pick up any signs of distancing or rejection that will need action, and can keep it there to prevent future shaming. But in both of these situations the freedom of being, that is the range of possible actions or choices that can be made, is limited by the restrictions placed on consciousness. My self-propelling machine, for example, would be dictated by the environment or by the behaviour of other machines in its movements.

Sartre is clear that it is right not to allow one's own being to be stultified in this way, and that can be achieved by reducing the pull of the danger signals. Anxiety and disgust must be tolerated rather than avoided. Shame must not be hidden from or prevented by submissiveness or obedience. The spotlight of attention must be free to swing on its gimbal. That way consciousness will be thrown forwards and the path of the machine will follow it. However, Sartre does not suggest anywhere in *Being and Nothingness* how will might operate. The for-itself cannot be the source of will, because what would give it properties that Sartre says that it cannot have. The in-itself must be where will resides, but Sartre does not locate it although he recognizes its operation. For example, he writes (but not in *Being and Nothingness*) that "I believe that a man can always make something out of what is made of him. This is the limit I would today accord to freedom: the small movement which makes of a totally conditioned social being someone who does not render back completely what his conditioning has given him. Which makes of Genet a poet when he had been rigorously conditioned to be a thief". (*Between Existentialism and Marxism*, 33-34.)

Sartre describes the kind of living that means paying too much attention to the danger signals as living 'sincerely' or 'conscientiously'. He argues that we should not do either. But a precept to live insincerely or without conscience seems a bit unconvincing. Heidegger's injunction to live courageously has more of a ring. Sartre will not follow Heidegger in this partly, I think, because to do so would be to prescribe a way of being which would restrict the choice of others to be who they can be, and partly because the for-itself is nothing, and can have no qualities.

But this seems unsatisfactory. Sartre's continual use of freedom as a value indicates that he cannot do without values, but they are not effectively dealt with in his philosophy, at least in the philosophy of Being and Nothingness (he introduces a value in his much later work, of humanity).

Freedom is an inspiring value. When Sartre describes the irreducible freedom that a human being has to think "A lucid view of the darkest situation is already, in itself, an act of optimism. Indeed, it implies that this situation is thinkable; that is to say, we have not lost our way in it as though in a dark forest, and we can on the contrary detach ourselves from it, at least in mind, and keep it under observation; we can therefore go beyond it and resolve what to do against it, even if our decisions are desperate", ??? (What is literature 289), we are moved. But untempered freedom lapses into libertarianism.

Let me return for the last time to the self-propelling machines. Suppose I could take a god's eye view of them. They would, say, pop out of the ground and start racing off towards a target. Eventually, they would either run out of motive force, crash into another machine, or fall foul of some environmental hazard. Perhaps I may have decided not to intervene, but I would be hard put not to comment and, often times, my comment would be along the lines of, "who would have thought it was that kind of machine" (to burn up in a moment, to stay the distance, to constantly cross the path of other machines, and so on).

This, Sartre argues, how the for-itself is disclosed, in retrospect, through its project. Projects may be renewed. Sartre refers to “These extraordinary and marvellous instants when the prior project collapses into the past in the light of a new project which rises on its ruins and which as yet exists only in outline, in which humiliation, anguish, joy, hope, are delicately blended, in which we let go in order to grasp and grasp in order to let go – these have often appeared to furnish the clearest and most moving image of our freedom”. (476) The ability of the for-itself to surge back into life when its former manifestation in a past project collapses is clearly a virtue for Sartre and one presumes is one characteristic of being that does influence where being fetches up. This cannot be a characteristic of for-itself, though, but of the in-itself—some characteristic, one supposes of the organization and interaction of the elements of the in-itself that are the pre-conditions for the emergence of agency.

So inasmuch as the for-itself is the source of our freedom and is the nub of our humanity, what can finally be said of it? It is grounded in facticity, as we have seen. It can only express itself through being and therefore with all of the constraints that being has in it and placed upon it. Eventually it is disclosed as the otherwise unaccounted for element in the lives we have led. But what of that? How important is it we finally know what kind of person we turned out to be?

It is an empirical fact that dying people turn to thoughts of the life that they have led, to an accounting. Christians and Muslims expect to face a judge as soon as they die, a belief that presumably dates back to Anubis weighing the souls of the dead in Egyptian eschatology. If we define evil, as many do, as someone who acts without cognizance of or interest the opinions of their social group, then a good person is one who does take account of these opinions. So a good person on their deathbed will be influenced by the account that others will place on their life, too.

It does not matter that we may in fact die suddenly without having any opportunity to reflect. We cannot rely on this happening, and it is prudent to anticipate that we will have time to account. The anguish, or joy, that people often experience in death must, I think, be consequences of this accounting and not just of the dying person's physical condition.

What would make a dying person remorseful, or unwilling to give up life? Regret would be one factor. One kind of regret might be that one wasted too much of life in the in-itself or the for-others kind of being. So Sartre is, I think, right about that freeing oneself from that kind of life of sincerity is good. But, as Simone de Beauvoir wrote, there would also be a kind of unresolved tie to others if one had secured one's own freedom at their expense. So reflecting back on a life in which others were made free by one's own freedom would be a source of pleasure, but reflecting back on having made others less free would be, if one were not evil, a source of unease or even pain.

Freedom is directionless, but consciousness has an objective. We cannot say, if we follow Sartre's analysis, that consciousness is directed but, as we have seen, the narrator can play some part in influencing the path that being traverses. Conflict at the end of life between the direction that the narrator would have wished for and the direction taken would clearly be another sort of pain or unease, perhaps coupled with a wish to prolong life to put matters right. So taking a path that is consistent with the beliefs that have been implicit in the life story seems to be one way of increasing the chances of a peaceful end.

The for-itself only becomes discoverable in its entirety at the moment of death because only then is its presence fully knowable. It becomes possible finally at that moment to say, "So that's who I am". Facticity will have influenced the being that I have become of course, including the moral luck that may have given me unusual moral opportunities or perils. So even then a person would rarely be

able to own their being, to say, “that’s what I made of myself”. The freedom with which human beings always grapple, at least according to Sartre, is not just a potential source of disgust or fear. It comes with, or so I have argued, the impossibility of disclaiming responsibility for one’s actions. At the end of life, freedom collapses back into nothingness, and there is no possibility of choosing to make one’s life over. It is always possible to make oneself easy about the past by planning to change it by actions in the future. This is no longer possible when there is no future except in nothingness. I anticipate that a tranquil death would require that at that moment one could look dispassionately and without flinching at the life that one has had and say, “I did the best I could”, with equanimity.

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