

HAS NEUROETHICS KILLED MORAL PHILOSOPHY? ON PAUL CHURCHLAND'S NEUROBEHAVIORISM

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Abstract

Paul Churchland has been arguing for more than a decade that both ethical knowledge and ethical behavior are practical not normative matters. Ethics has to do with a prototypical know-how that children acquire during the process of socialization, a know-how that is structured in the brain in the form of neural networks. Thus moral philosophy seems to be useless, at least in its normative dimension. I contrast Churchland's views with those of Andy Clark, and argue that Churchland's refusal of normative moral philosophy has to do with his individualistic view of human beings, whereas Clark accepts both practical and normative ethics because he stresses the importance of the collaborative and interactive aspects of human existence in social contexts.

Keywords

Neurobehaviorism, ethical know-how, moral prototype, normative ethics

The extraordinary development of the neurosciences especially over the last two decades has been interpreted by Paul Churchland as a confirmation of his theses about the practical and neural vs. theoretical and rational character of ethics. Churchland's views exclude any kind of normative argument in moral philosophy. Thus, moral behavior is not learned by children through the learning of moral rules to be followed, but rather through the acquisition of a set of prototypes whose structure is neither normative nor propositional but rather neural, a neural network. These prototypes correspond to a *know-how* to be automatically activated, and to a corresponding moral behavior to be automatically displayed in specific social situations. We could summarize this view in the following way: "Don't ask why you ought to do something. Just do it". The adult, like the child, needs an ethical *know-how*, not an ethical *know why*. Prototypes as rooted in neural networks in the brain need to be learned through imitation by everybody in the early years,

otherwise, it will be difficult to display an acceptable moral behavior later in adulthood. Neurally implemented prototypes command moral behavior. According to Paul Churchland, "Social and moral cognition, social and moral behavior are no less activities of the brain, than is any other kind of cognition and behavior" (1996, 92). In classical behaviorism, a specific social stimulus produces a specific response or behavior, but now that stimulus alone is not enough to produce the corresponding behavior, it has to be associated with a neural prototype. This is why I call Churchland's position 'neurobehaviorism'.

I will argue that this position is an oversimplification of reality: firstly, because it overemphasizes the role of neural-based prototypes and of practical examples in the moral formation of children, and in the normative dialogue on ethics among adults, considering that it is useless to teach anybody any rules to be followed; secondly, because it excludes any rational argumentation both in the discussion of moral behavior and in one's change of moral prototypes that guide one's moral behavior. I find Paul Churchland's views on paradigm shift particularly unacceptable as it will be apparent later on.

1. SOME MAIN POINTS IN CHURCHLAND'S VIEWS

Paul Churchland has been putting forward his views especially since *A Neurocomputational Perspective. The Nature of the Mind and the Structure of Science* (1989). In 1995 he developed these views in *The Engine of Reason, the Seat of the Soul: A Philosophical Journey into the Brain*. In 1996 he included a slightly modified chapter of *The Engine* ('The neural representation of the social world') in the proceedings of a conference on mind and morals. In 1998 he published "Toward a cognitive neurobiology of the moral virtues", a rather puzzling text since he seems to hold in it some contradictory views. More recently, in 2000 he has discussed these matters with Andy Clark in *Moral Epistemology Naturalized*. In what follows I will mention these main texts.

1.1-Neither moral cognition nor moral behavior are acquired by learning moral rules

Churchland believes that since the brain does not process information according to any system of propositions rules, moral knowledge acquisition is not at its very roots propositional in nature and does not consist in learning how to follow moral rules. As he puts it: "It may be that a normal's human capacity for moral perception, cognition, deliberation, and action, has rather less to do with rules, whether internal or external, than is commonly supposed." His views on a non neural and non normative ethics are better understood if we make an analogy with the non normative way of learning a language: "our knowledge of a language may well be embodied in a hierarchy of prototypes for verbal sequences that admit of varied instances and indefinitely many combinations, rather than in a set of specific rules-to-be-followed" (1995, 143)

Now, one can argue that the fact that children learn a language having no knowledge of rules-to-be-followed does not mean that there are no such rules. There are indeed such rules, both linguistic and moral, and at least some of them may and indeed need to be learned or just refined when children go to school. Paul Churchland agrees that although children do not learn a language through grammatical rules, they may learn them later in life, but then they will not be learning anything radically new. "It may be that the main function of such rules resides in the social business of describing and refining our linguistic skills." (1995, 143-144). This being the case for the learning of linguistic skills in general, what about the learning of moral skills? On this issue, Churchland criticizes western normative ethical tradition:

"Let us address our ability to recognize cruelty and kindness, avarice and generosity, treachery and honor, mendacity and honesty, the cowardly way out and the right thing to do. Here, once again, the intellectual tradition of Western moral philosophy is focused on rules, on specific laws or principles. These are supposed to govern one's behavior, to the extent that one's behavior is

moral at all. And the discussion has always centered on which rules are the truly valid, correct or binding rules." (1995, 144).

Churchland's views on ethics do not have to do only with the non normative character of the acquisition of moral knowledge and skills. It has also to do with the very possibility of moral language to conceptually express all ethical knowledge and influence moral behavior, since in ethical issues we seem to be able to know much more than we can conceptually express:

"One's ability to recognize instances of cruelty, patience, meanness, and courage, for instance, far outstrips one's capacity for verbal definition of those notions. One's diffuse expectations of their likely consequences similarly exceeds any verbal formulas that one could offer or construct, and those expectations are much the more penetrating because of it. All told, moral cognition would seem to display the same profile or signature that in other domains indicates the activity of a well-tuned neural network underlying the whole process." (1995, 146).

Thus Churchland's argument assumes that our practical knowledge far outruns our theoretical capacity of expressing, let alone of justifying, it. This may well be true in some cases, but it does not imply that in no other cases moral rules guide moral understanding. To argue the opposite way would amount to fall into the fallacy of taking the part for the whole.

Churchland bases his views on another assumption, mentioned already earlier, that in every possible domain not only human moral knowledge but also human moral behavior is merely the result of brain activity. And he continues: "We need to confront this fact, squarely and forthrightly, if we are ever to understand our own moral natures." And he concludes in a rather dramatic tune: "We need to confront it if we are ever to deal both effectively and humanely with our too-frequent social pathologies. (1996, 92)" Churchland is well aware that his proposal is very different from the traditional one: "This portrait of the moral person as one who has acquired a certain family of perceptual and behavioural skills contrasts sharply with the more traditional accounts that pictured a moral person as one who has agreed to follow a certain set of rules." (1996, 106)

Having criticized the Western ethical tradition, Churchland puts forward his own alternative views:

"What is the alternative to a rule-based account of our moral capacity? The alternative is a hierarchy of learned prototypes for both moral perception and moral behavior, prototypes embodied in the well-tuned configuration of a neural network's synaptic weights. We may find here a more fruitful path to understanding the nature of *moral learning, moral insight, moral disagreements, moral failings, moral pathologies, and moral growth* at the level of entire societies" (1995, 144).

He thus believes that ethics is learned perceptually rather than conceptually or normatively. But do we really need to oppose the two learning processes? For Churchland the two modalities of learning seem to correspond to two incommensurable traditions. But, as a matter of fact, they don't. I'll come back to this point later on.

1.2-On the (im)possibility of a dialogue on moral issues

Churchland believes that a dialogue on moral issues is possible and desirable, and he says he does not intend "to minimize the importance of that ongoing moral conversation" (1995, 144), although he does not explain what is the real significance of such a conversation. Saying, as he does, that such a conversation "is an essential part of mankind's collective cognitive adventure" (1995, 144) is not very illuminating! It is true that Churchland does not ignore that real people live in social environments and interact with each other. But what is the nature of this interaction as to moral argumentation on ethical issues, especially on moral rules? Churchland seems to argue that such an interactive dialogue is not relevant either for the ethical formation of people or even for the changes that occur in people's moral cognition and behavior. Such changes do not occur as a consequence of moral normative argumentation. Dialogue is not enough. But what

kind of dialogue is it possible to maintain? How can people supporting contradictory moral prototypes dialogue?

Churchland acknowledged in *The Neurocomputational Perspective* that “situations will occasionally be ambiguous. One and the same situation can activate distinct prototypes in distinct observers. What seems a case of unprovoked cruelty to one child can seem a case of just retribution to another.” In this case, moral argumentation is needed. “Moral argument then consists in trying to reduce the exaggerated salience of certain features of the situation, and to enhance the salience of certain others, in order to change which prototype get activated.” (1989, 300). But how does one recognize an ‘exaggerated salience’? Once again, Churchland does not say a word on criteria of prototype evaluation.

In *The Engine of Reason* Churchland repeats basically the same view. As he puts it:

“moral disagreement will be less a matter of interpersonal conflict over what “moral rules” to follow, and more a matter of interpersonal divergence as to what moral prototype best characterizes the situation at issue; more a matter, that is, of divergences over what kind of case we are confronting in the first place. Moral argument and moral persuasion, on this view, will most typically be a matter of trying to make salient this, that, or the other feature of the problematic situation, in hopes of winning one’s opponent’s assent to the local appropriateness of one general moral prototype over another” (1995, 147)

I must say I find Churchland’s proposal rather vague. He sometimes talks of “moral argument” and “moral persuasion”, but apparently he is not talking of rational argumentation. The main difficulty I find in his position is this: on the basis of which criteria will one succeed to convince an adversary of the appropriateness of one’s prototype? What is the role of rational and normative argumentation in situations such as the dispute over abortion, an example which Churchland himself mentions? As he puts it:

“A genuinely moral example about the nature of moral disagreement can be found in the current issue over a woman’s right to abort a first trimester pregnancy without legal impediment. One side of the debate considers the status of the early foetus and invokes the moral prototype of a Person, albeit a very tiny and incomplete person, a person who is defenceless for that very reason. The other side of the debate addresses the same situation and invokes the prototype of a tiny and possibly unwelcome Growth, as yet no more a person than a cyst or a cluster of one’s own skin cells.” (1995, 147)

In Kuhnian terms, we are confronted with two incommensurable paradigms. Churchland himself believes that prototypes are very similar to paradigms, and he quotes Thomas Kuhn to support some of his own views. The problem of choosing between incommensurable paradigms will be dealt with shortly. We are now considering the related problem of dialogue among supporters of both paradigms. Can they dialogue? Kuhn’s answer is not always clear but he tends to deny that possibility. Churchland, however, seems to find no special problem in such a dialogue. Continuing to develop his thoughts on the dialogue on abortion he argues:

The first prototype bids us bring to bear all the presumptive rights of protection due to any person, especially one that is young and defenceless. The second prototype bids us leave the woman to deal with the tiny growth as she sees fit, depending on the value it may or may not currently have for her own long-term plans as an independently rightful human. Moral argument, in this case as elsewhere, typically consists in urging accuracy or the poverty of the prototypes at issue as portrayals of the situation at hand.” (1995, 147).

I must say I continue to have some difficulty to understand the meaning of Churchland’s last sentence. On the basis of which criteria are supporters of the two prototypes supposed to dialogue? What does ‘urging accuracy’ mean? Of what kind of accuracy is he talking about?

1.3-On paradigm shift

A further problem with Churchland's views has to do with paradigm shift. People often change their views on death penalty, abortion, euthanasia, etc. How is this change possible? How does it happen? What is the process of prototype change? Thomas Kuhn considered incommensurability between scientific paradigms as the central problem in philosophy of science. He tried harder to overcome it, but it seems that each time he tried, the situation got worse, that is, less clear, especially as to the role of rational argumentation and deliberation that leads to paradigm shift. Churchland follows Thomas Kuhn's gestaltic views, and says that prototype change happens in the same way of paradigm change. Kuhn seems to imply that objective and logical reasoning plays no role whatsoever in the change of paradigms by scientists. Usually, paradigm change occurs in a scientist's mind so quickly that he does not even know how it happened. One cannot rationally justify such a change. Kuhn has even used the concept of "religious conversion" to characterize the process of a scientist's paradigm change. For this reason he has been accused of both irrationalism and relativism. Although he has always claimed he was neither an irrationalist nor a relativist, he has never been able to explain his views clearly and convincingly. Dilemmas in the moral domain are for Churchland similar not only to dilemmas in science but also to perception in general, as in the well know old/young woman gestalt perceptual dilemma. Thus, Churchland argues, "moral perception will occasionally be capable of the same cognitive reversals" (1995, 146). I find it hard to believe that people's change of moral perception is just an experience that corresponds to an automatic and non deliberate act. Usually people explain the reasons that justify their own change of mind, and ask others to justify their changes too.

Churchland explains further how such cognitive reversal can be triggered. Some additional information seem to help changing an ambiguous perceptual image or moral situation into something that can be reduced to what is already known. As he puts it: "one's first moral reaction to a novel social situation is simply moral confusion, but where a little background knowledge or collateral information suddenly resolves that confusion into an example of something familiar, into an unexpected instance of some familiar moral prototype" (1995, 146). A complete reduction by analogy of a new situation to a previous familiar would not allow any sort of progress, or, in Kuhn's terms, of revolutions, not only in science but also in the moral domain. I find Churchland's perspective unacceptably conservative.

Sometimes Churchland believes that prototype change is a matter of insight, and that people with such an sight will be able to guide those who do not have it in the process of solving a moral dilemma or in a paradigm change. In this case, prototype change presupposes that the solution of a prototypical dilemma and the eventual option for one of the competing prototypes is easily done by anyone who has an "unusually penetrating moral insight" (1995, 146). I must say I find Churchland's words rather obscure. What does 'penetrating' and 'moral insight' mean? He tries to explain it in the following terms:

"People with unusually penetrating moral insight will be those who can see a problematic moral situation in more than one way, and who can evaluate the relative accuracy and relevance of those competing interpretations. Such people will be those with an unusual moral imagination, and a critical capacity to match. The former virtue will require a rich library of moral prototypes from which to draw, and especial skills in the recurrent manipulation of one's moral perception. The latter virtue will require a keen eye for local divergences from any presumptive prototype, and a willingness to take them seriously as grounds for finding some alternative understanding." (1995, 146).

I find Churchland's explanation extremely vague. Once again, as noted earlier, he appears to presuppose that we know the criteria that allows us to decide which one of the competing prototypes has more 'accuracy and relevance'. But what do these concepts mean? Accuracy and relevant in relation to what? What does the expression 'especial skills in the recurrent manipulation of

one's moral perception' mean? What kind of skills is he mentioning? How does one manipulate his moral perception? What does all this mean? Where is the place of rational argumentation in this process? Is it all a matter of imagination and intuition? It is hard to believe that even "people with an unusually moral insight" will be able to choose among competing prototypes without some rational and normative argumentation. Strangely enough, Churchland believes that people with such an unusually penetrating moral insight "will by definition be rare, although all of us have some moral imagination, and all of us some capacity for criticism" (1995, 147). Again, I find Churchland's words rather obscure. Why are such people rare "by definition"? What can we, who do not belong to that restricted group of rare people, do with our "some" moral imagination and capacity for criticism? What kind of criticism is Churchland talking about?

Finally, can a moral prototype enter into a process of corruption? Churchland believes that this is possible, but he also thinks that, once again, such a corruption can be avoided by those who have a "reliable moral perception":

"People with reliable moral perception will be those who can protect their moral perception from the predation of self-deception and the corruptions of self-service. And, let us add, from the predations of group thinking and the corruptions of fanaticism, which involves a rapacious disrespect for the moral cognition of others" (1995, 146).

I find this explanation, once again, rather vague. What exactly does Churchland mean by "the predation of self-corruption", "the corruptions of self-service", etc? This is far from clear and indeed open to disagreement. Why can't we rationally solve the problems raised by disagreements over moral prototypes? Note that so far Churchland has argued that prototype criticism and change involves collateral information, imagination, intuition and perception. But criticism has to do with rational argumentation and not only with these elements.

1.4- Some critical remarks

Paul Churchland's views on this matter have provoked contrasting reactions. Andy Clark disagrees with him in very clear terms, as when Churchland opposes the practical and the propositional ways of learning ethics. As he puts it:

"I shall argue that such bald opposition is a mistake: a distortion of the complex nature of moral reason and one that obscures the real source of much human moral expertise. For human moral expertise is made possible only by the potent complementarity between two distinct types of cognitive resource (or 'mind-tool', Dennett 1996, ch. 5). One is, indeed, the broadly pattern-based, skill learning capacity that we share with other animal and artificial neural networks. But the other is, precisely, the very special modes of learning, collaboration and reason made available by the tools, of words, rules, and linguistic exchange." (2000a, 269).

I will deal later on with the debate Churchland-Clark.

The main problem I find in Churchland's neurobehaviorist assumption is not that all knowledge involves brain activity, but that all knowledge and behavior is a simple result of brain activity. In my view ethics is not only about facts but also, and mainly, about values and moral decisions, which although having a corresponding brain activity, are not fully determined by it alone but also by normative arguments that are a part of the interpersonal dialogue and which have themselves an influence upon brain activity. Brain activity makes moral evaluations and decisions possible, but ultimately do not fully explain them. Clearly, Paul Churchland is making here a serious confusion between correlation and causation. The fact that there is a correlation between brain activity and moral reasoning and behavior does not necessarily mean that it is brain activity that causes all moral behavior.

I believe Antonio Damasio has a more balanced view on this matter as he argued during a recent conference on neuroethics:

“I am not reducing ethics to a simple matter of evolution, or of gene transmission or expression, or of brain structures alone. As conscious, intelligent, and creative creatures inhabiting a cultural environment, we humans have been able to shape the rules of ethics, shape their codification into law, and shape the application of the law into what we call justice. And we continue to do so. In fact, one purpose of conferences like this is to discuss ways in which we may shape the rules of ethics in keeping with the new problems posed by advances in science and technology. So ethics is not just about evolution, even if I am suggesting that it starts with evolution. And it is not just about the brain. Culture does the rest, and the rest may be most of it.” (2002, 16)

On the other hand, Damasio's views on brain activity appears rather incompatible with Churchland's views. As he puts it:

“Elucidating the biological mechanisms underlying ethics does not mean that those mechanisms, or their disfunction, ensure certain behaviors. There certainly are determinants of behavior that come from our evolutionary biology – from the way our brains get set, and from the ways they get set both by genes and by the culture in which we develop – but there is still a degree of freedom that allows an individual to intervene. As far as I can see, there is free will – though not for all behaviors, and not for all conditions, and sometimes not to the full extent in any condition.” (2002, 16).

At first sight, Damasio's views seem to be in line with Churchland's views as when the latter mentioned the importance of recent developments in the neurosciences and the consequences of such developments for our understanding of ethics. He argued in fact that:

“What we are contemplating here is no imperialistic takeover of the moral by the neural. Rather, we should anticipate a mutual flowering of both our high-level conceptions in the domain of moral knowledge and our lower-level conceptions in the domain of normal and pathological neurology. For each level has much to teach the other...” (2001, 77).

But then he seems to quickly change his mind and argue in the opposite direction:

“we are about to contemplate a systematic and unified account sketched in neural-network terms, of the following phenomena: moral knowledge, moral learning, moral perception, moral ambiguity, moral conflict, moral argument, moral virtues, moral character, moral pathology, moral correction, moral diversity, moral progress, moral realism and moral unification” (2001, 78).

I find Churchland's text rather intriguing and difficult to understand. There seems to be some ambiguity in it as to the central issue of the relation between brain activity and moral behavior.

As a matter of fact, prototypes, independently of their neural basis, do not contradict the existence of moral argumentation in general or of moral rules in particular. Prototypes are often propositionally expressed as moral rules, such as ‘do not kill’, ‘do not lie’. As James Sterba argues: “Why should we have to choose between thinking about moral problems in terms of either recognizing the appropriate prototypes or applying the appropriate rules? Why couldn't it be both?” (1996, 252).

On the other hand, some moral rules may indeed lead to changes in moral prototypes. Thus for example, the end of slavery has not been brought about when everybody acquired the anti-slavery moral prototype. The prototype of a community free from slavery was, and still is, imposed by society, although Churchland wrongly argues that “the common picture of the Moral Agent as one who has acquiesced in a set of explicit rules imposed from the outside – from God, perhaps, or from Society – is dubious in the extreme” (1995, 149). The moral rule that forbids anyone to enslave a person is the basis of many juridical laws that is reinforced by Society. It helps both communities and individuals to understand that slavery is bad and to avoid it. And what is said about slavery can be applied to many other moral practices.

That slavery is bad is not a matter of much dispute. But there are other cases where the situation may not be so clear. As Virginia Held puts it:

“One common explanation for the one Churchland considers has to do with the replacement of feudalism by capitalism. But such explanations do not tell us whether the replacement of one

moral paradigm by another or one socio-economic system by another was or would be morally justified. Only an ethics that is not a branch of cognitive science can even aspire to do so.” (1996, 77).

I have already mentioned that Churchland's critics have been arguing that prototypes, whatever their neural basis may be, do not contradict the existence of moral argumentation in general and of moral rules in particular. This is also the essence of a recent debate between Churchland and Clark. I want to show that Paul Churchland's views are a sort of neurobehaviorism that has little or no support whatsoever in real life, and that moral argumentation is at the very core of moral philosophy.

2. THE CHURCHLAND-CLARK DEBATE

Andy Clark has been disagreeing for years on Churchland's stand on the role of propositional language in moral philosophy. Clark developed his points in “Connectionism, moral cognition and collaborative problem solving” (1996a) and in “Dealing in? futures: Folk Psychology and the role of representations in cognitive science”. (1996b) In these two texts Clark argues that although he is basically in agreement with Churchland in many points, he considers however that propositional language plays a much more important role in moral philosophy than Churchland is ready to accept.

“The realization that individual moral know-how may resist expression in the form of any set of summary moral rules and principles is important. But it has mistakenly (or so I shall argue) led some writers to marginalize the role of such summary linguistic expressions in our moral life. It is this correlative marginalization that I now set out to resist.” (Clark 1996a, 115)

Clark focuses his argumentation on a point that I consider to be the main weak point in Churchland's theses, that is on the importance of the community within which one interacts with the others. Of course, Churchland does not ignore that there is such an interaction. It is the kind of interaction that separates the two authors. Clark argues in fact that “missing so far from the discussion is any proper appreciation of the special role of language and summary moral maxims within a cooperative moral community.” (1996, 120-121) He stresses the communitarian dimension of life, whereas Churchland stresses the individual dimension. This fact may help us to understand why moral argumentation, a communitarian practice, is not a central issue for Churchland. But it is precisely the role of language as a cooperative tool that, according to Clark, cannot be overlooked:

“The successful use of language as a medium of moral cooperation thus requires, it seems, an additional and special kind of knowing how – one not previously recognized in connectionist theorizing. It concerns knowing how to use language so as to convey to others what they need to know to facilitate mutual perspective taking and collaborative problem solving. The true moral expert is often highly proficient at enabling cooperative moral debate”. (1996, 123).

Thus Clark argues in favour of a complementarity between the typically individual connectionist perspective and the typically communitarian perspective

More recently, the two authors have exchanged some thoughts on the same matter in a sharper way. Although Clark is basically in agreement with Churchland's views, there are still a couple of points of disagreement between the two. One of Clark's recent papers has a significant title: “Word and action: reconciling rules and know-how in moral cognition” (2000a, 267). Thinking clearly on people such as Churchland, Clark summarizes his views in the following terms:

“Recent work in cognitive science highlights the importance of exemplar-based know-how in supporting human expertise. Influenced by this model, certain accounts of moral knowledge now stress exemplar-based, non-sentential know-how at the expense of rule-and-principle based accounts. I shall argue, however, that moral thought and reason cannot be understood by reference to either of these roles alone. Moral cognition – like other forms of ‘advanced ‘ cognition – depends crucially on the subtle interplay and interaction of multiple factors and forces and

especially (or so I argue) on the use of linguistic tools and formulations and more biologically basic forms of thought and reason.” (2000a, 267).

He thus argues for a clear cognitive complementarity between moral rules and moral know-how.

In his reply to Clark, Churchland agrees on the relevance of language as he believes Clark understands the issue. As he puts it:

“Our *de facto* moral cognition involves a complex and evolving interplay between, on the one hand, the *nondiscursive* cognitive mechanisms of the biological brain, and, on the other, the often highly discursive extra-personal ‘scaffolding’ that structures the social world in which our brains are normally situated, a world that has been, to a larger extent, created by our own moral and political activity. That interplay extends the reach and elevates the quality of the original nondiscursive cognition, and thus any adequate account of moral cognition must address both of these contributing dimensions. An account that focuses only on brain mechanisms will be missing something vital.” (2000, 291).

It seems to me that Churchland is conceding here much more than before, arguing that language “lies in the extra-personal public space of drawn diagrams, written arithmetic calculations, spoken and printed arguments...” (2000, 293). The point Churchland finds important to stress in this externalist view, as he calls it, is that it has nothing to do with any form of internalist introspection of traditional moral philosophy. Moreover, Churchland sees in this linguistic extra-cortical and social representation a sort of scaffolding that allows the possibility of accumulating human experience and of leading both to scientific and to moral progress. Churchland’s words could make us believe that his debate with Clark had come to a complete agreement and thus to an end. But that did not happen!

Clark answered Churchland’s paper stressing not only the points of agreement but mainly those of disagreement, which are basically two.

“First, we disagree on the precise role of all the external scaffolding and moral infrastructure. As Professor Churchland has it, the role of the scaffolding is largely to offload, preserve, stockpile and share our collective moral wisdom and experience. And moral wisdom itself is conceived as a kind of know-how concerning the successful navigation of social space, a type of know-how we thus share with many other social animals...” (2000b, 308).

Against Churchland, Clark believes, as Antonio Damasio does, that human ethical know-how is specific to humankind, it is not shared with any other animals. The human ways of moral action, so Clark argues,

“are marked, for example, by the requirement to provide reasons for our actions, and to be able to address the important question of the acceptability, or otherwise, of our own underlying needs, desires and goals. They are marked also, I argued, by an essential commitment to collaborative moral endeavour: to finding routes through moral space that accommodate multiple perspectives and points of view.” (2000b, 309).

The second point of Clark’s disagreement is about the notion of moral progress.

“For Professor Churchland progress consists in greater collective success at the negotiation of increasingly complex social spaces. I claim, by contrast.... that moral progress consists primarily in increased collective sensitivity to the needs, reasons and desires of others... For we make moral progress, I want to claim, only by swimming better in a sea of other’s needs and reasons, not by simply swimming better in a social sea.” (2000b, 310).

Clark’ contrast between his own and Churchland’s views on what it means to ‘swim’ or ‘navigate’ in the social sea, can be more clearly seen if we take into account what Churchland wrote in *A Neurocomputational Perspective* on the child’s process of learning ethical know-how: “What the child is learning in this process is the *structure of social space and how best to navigate one’s way through it*” (1989, 300).

I fully agree with Clark. The quality of human relationships makes human ethics specific to humans, and such relationships are centered on the other more than on oneself. We are talking

about more than a mere biological empathy, we talk about love, and moral progress has to be progress in love, in truly human love, otherwise, no progress in moral know-how will be of real and distinctive advantage for mankind. Churchland's analysis of the moral formation of the person is essentially individualistic and self-centered whereas Clark's perspective stresses much more the cooperative dialogue that happens in social interactions and that plays also an important role in moral formation.

3. CONCLUSION

There is in Churchland's views on what 'causes' moral knowledge and behavior some ambiguity. Most of the times he stresses the non propositional basis of ethical cognition and behavior, and I believe this is based on his concern to attack traditional moral philosophy where rational and normative argumentation plays a decisive role. He relies heavily on the neurocomputational model of the human mind, a point where he and Clark seem to be in clear disagreement. On the other hand, he sometimes appear to be very close to Clark as he acknowledges that there is indeed an interplay between the individual (prototypical and nondiscursive) level of ethical knowledge and behavior, and the social, discursive level. But taking his views as a whole, Churchland stresses much less the importance of the social dimension of one's life. We find here a basic point of disagreement between Churchland and Clark on what is a moral human being. Churchland stresses the individual model of a person whereas Clark stresses the dialogical or relational model. The fact that ethics is for Paul Churchland an individual's issue allows him to establish a correlation between ethical knowledge and behavior from the one side, and brain activation, from the other side. However, if we consider the relational nature of ethics, then it becomes much more difficult to establish such a correlation since as Kuhn himself puts it "groups don't have minds"! (2000, 103) Thus Churchland's views rely on a previous choice about the brainy nature of ethics. Such views make sense only if ethics is basically seen as an individual matter. Otherwise, they make little sense, if any at all. The fact that there is disagreement on this matter shows that Churchland's views are far from convincing.

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