Hayek’s Scientism Essay and the Social Aspects of Objectivity and the Mind

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**Abstract:** In his *Scientism and the Study of Society*, Hayek wishes to show the errors to which the moral scientist is led by emulating the methods of the natural sciences. The present paper argues that Hayek’s argument relies on a differentiation between the natural sciences and what he calls “ordinary experience” that is based on an unacceptable appearance-reality distinction and an implausible ontology. An alternative justification for the differentiation is offered by appealing to the manifold goals and social contexts of inquiry. Also, according to Hayek, the moral scientist needs to understand agents’ attitudes, and such understanding is possible because there is a similarity between the mind of the moral scientist and that of the agent. This paper tries to elucidate what Hayek thinks such similarity to be and how it may lead to the understanding of others. It proposes two alternatives: first, understanding as the projection of mental categories from behavioral evidence, and second, by looking forward to Hayek’s *The Sensory Order*, understanding as a functional correspondence between structures in the central nervous system.

**Keywords:** Hayek, Scientism, The Sensory Order, Attitudes

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1.) Introduction

F. A. Hayek’s, (1942, 1943b, 1944) three-part *Scientism and the Study of Society* was part of a wider (aborted) project on what he called *The Abuse and Decline of Reason* (cf. Caldwell, 2010: 3). There are so many interpretations of its arguments that Caldwell (2005: Appendix D) describes it as a Rorschach Test. While some (Burczak, 1994) see it as postmodern, or within the frame of hermeneutics (Madison, 1989, 1991), others describe it as anti-modernist and non-hermeneutic (Caldwell, 1994); while some interpret it as almost positivistic (Lawson, 1997: Chapter 10), others applaud the soundness of some of its ontological commitments (Runde, 2001).

Hayek’s opaqueness has led to doubt, both conceptual and exegetical, out of which springs this extraordinary number of interpretations. But Hayek’s *Scientism* essay is not a barren mismatch of contradictory lines of thought. It is, rather, a long, rich piece, with innovative reflections on topics ranging from the philosophy of science to psychology and the history of ideas, and pregnant with fruitful suggestions that the secondary literature tries to bring to light. It is a singular piece in the history of economic and social thought, and of great importance to Hayek’s oeuvre. As Caldwell (1998: 224) writes, it “contains all the essential elements of [Hayek’s] methodological programme.”

If in detail Hayek’s essay is almost kaleidoscopic, its main argument is clear. Hayek notices that the recognized success of the modern natural sciences has led to an emulation of their methods in other fields, often without due consideration to the specificities of their objects of study. He intends to show why the methods of the natural sciences are inappropriate for moral scientific explanation, and the errors to which their adoption in the moral sciences leads.

For Hayek, natural scientific explanation begins with the observation that people classify as similar what turns out to behave differently in similar circumstances, and *vice-versa* (1942: 83). In her attempt to objectively explain phenomena, the natural scientist must therefore revise ordinary experience. The moral sciences, on the other hand, are concerned with action. Yet, action is related to people’s attitudes, i.e. to what they think, believe, desire, etc. Hence, unlike the natural scientist, the moral scientist
cannot ignore, much less transcend, agents’ subjectivity. But, if ordinary experience is shown by the natural sciences to lack external justification, the moral scientist cannot ascertain agents’ attitudes by studying a reality external to them. The way out of this predicament is for the moral scientist, a being with a mind, to tap what she has in common with the agents she studies.

In the present article I wish to address the cogency of some of Hayek’s arguments, and in so doing to illustrate the fruitfulness of his text as a point of departure for philosophical reflections on the nature of objectivity, subjectivity and intersubjectivity. After summarizing and discussing Hayek’s main argument in section 2, I argue in section 3 that his thesis that ordinary experience lacks external justification hinges on his ignoring the social aspects of inquiry, and on implausible ontological commitments. I find, however, that the distinction he draws between the worldview of science and ordinary experience is sustainable on other grounds. In section 4, I turn to his thesis that moral scientific explanation is possible thanks to the fact that the scientist is similar to the agents she studies. I try to elucidate what this similarity is, and how it affects the understanding of agency. I emphasize the importance of behavioral evidence in the understanding of others, and notice that our attributions of attitudes to others are indeterminate with such evidence. Finally, I argue that the sort of description of mental events and states that interests the moral scientist involves properties related to the social context of interaction, and thus need have no strict relation to the agent’s central nervous system.

2.) **A discussion of Hayek’s main argument: natural vs. moral scientific explanations**

2.1.) **The specificities of moral scientific explanation**

According to Hayek, in the Renaissance (1942: 81) the “ways of thinking” (*ibid.*) of modern natural science began to “fight their way” (*ibid.*) against the established, pre-scientific frames of mind. The latter were often anthropomorphic or animistic, and inquiry was mostly limited to the study of ideas, either those of fellow men, or God’s
Science, he tells us, replaced these ways with an attempt to “get down to ‘objective facts’” (1942: 82).

Although Hayek’s account of the natural sciences begins with these diachronic observations, his argument focuses on how the natural sciences issue from our dissatisfaction with currently existing explanations of phenomena. He writes that the natural sciences “.revise and reconstruct” (1942: 82) both the concepts and the very sense qualities that result from “ordinary experience”, replacing them with a framework “based on consciously established relations between classes of events” (1942: 84). Their goal is to attain general explanations, and the ability to recognize “the particular as an instance of a general rule” (1942: 82).1

He explains that when scientists are dissatisfied with the way existing explanations cover a recalcitrant situation, they recreate prior conceptualizations, change their ways of grouping, classifying and comparing, and revise their beliefs on what there is. They often conclude that what seems different to our immediate senses, like ice and water (1942: 84), may be nothing more than different manifestations of the same underlying substance, or that it makes sense to posit entities, as is the case with waves or electrons (ibid.), whose identification by the senses is indirect, but that enable the explanation of puzzling phenomena, such as why when we flick a switch light bulbs shine, or why we fall back on the floor when we jump.

When Hayek turns to the moral sciences, he writes that they are “concerned with man’s conscious or reflected action” (1942: 88-9). He informs us that it is not the goal of the moral sciences to explain individual action in detail, but rather the “sort of order [which] arises as a result of individual action but without being designed by any individual” (1942: 103).

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1 This goal of arriving at general rules has been interpreted by Runde (2001: 7), in an article otherwise sympathetic to Hayek’s Scientism essay, as a concession to a “positivist” view of science as “being about identifying and establishing event-regularities.” But a striking aspect of the Scientism essay is Hayek’s insouciance about matters of terminological detail. Over a short number of paragraphs he breezily goes from speaking of reclassification of events (1942: 83), to reclassification of objects (1942: 84), reclassification of external stimuli (ibid.), phenomena (ibid.) and reclassification of sense impressions (1942: 89). We should thus be wary of reading into Hayek any precise notion of event.
Hayek (1942: p. 104) offers a famous example of such an order: the spontaneous development of a path through wilderness. Each person trying to get across wishes to follow a route that is safe, fast, and not too tiring. Who wouldn’t? Confronted with virgin bush, the pioneers might have had to think almost each step through, making choices step by step. Their behavior left traces: obstacles removed, foliage cut, stones judiciously placed, and footprints, all offering the comfort of prior human presence. The people coming after the pioneers may have found these traces more or less salient. As they made their own decisions, it is likely that they seized, consciously or not, the improvements of the pioneers’, adding their own traces to those already existing. A few iterations afterwards, all these traces precipitated into a clear path which any walker traversing the wilderness will identify and follow. No one thought the path out, so the path is the result of human action but not of design. It is an unintended consequence of people traversing the wilderness.

In order to explain such unintended orders, Hayek tells us that we must “understand what the acting people mean by their actions” (1942: 94-5 italics supplied). In the example of the path, we could not explain its formation without understanding the plight of the traversers: what they were trying to do in the circumstances they faced. What an agent means by her actions, i.e. her intentions, can, of course, usually be recovered by giving her reasons for acting. According to Hayek, action is “determined by the views and concepts [the agent] possesses (...) [i.e., by] all [the agents] know and believe” (1942: 87). If we interpret Hayek’s “determined by” as conveying “caused by”, as I believe we should (cf. Caldwell, 2005: 245; Cowan & Rizzo, 1996: 276f), Hayek’s emphasis on attitudes of an epistemic kind (to know, to believe) should be enlarged to mental attitudes more broadly construed. Indeed, reasons involve not just what an agent believes (her epistemic attitudes) but also her desires (what Davidson (1963: 3-4) calls “pro attitudes”).

To offer an agent’s reasons for acting is a form of causal explanation. When Hayek writes that the moral sciences do not explain action he could, arguably, be taken to mean that we often do not need to be particularly thorough or detailed in the determination of reasons. Caldwell (2005: 246), for instance, writes that it is

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2 The relation between intentions and reasons has caveats which I will disregard (cf. Davidson, 1973: 79).
explanation of belief formation that Hayek leaves out of the domain of the moral sciences, and Fleetwood (1995: 47) that it is “the question why individual agents perceive the world in the manner they do.” In the example of the path, what reasons individual traversers had for crossing the wilderness, or what was salient to their perception, or what inferential tendencies they pursued, and why, is, in detail, irrelevant. In order to account for the appearance of the path, all we need to ascertain is that there were people who wanted to cross, that they wished to do so in a seemingly efficient manner, and that they had similar judgments as to what were reasonable steps to take. This comes from “our general knowledge of how we and other people behave in the kind of situation in which the successive people find themselves who have to seek their way” (1942: 104).

Indeed, it is not relevant to the account of the appearance of the path whether the people were traversing the wilderness to meet their lovers, to please their king, or to search for gold. But to what detail agents’ reasons have to be ascertained depends on the purposes of our research, and on our questions. If we want to explain not just the appearance of the path but also to account for its shape, we probably have to be more thorough in our understanding of agents’ attitudes: were they trying to go as fast as possible, or erring on the side of safety? It would thus be important to know why the pioneers were traversing the wilderness, not just that they wished to do so. It is misleading to say that the moral sciences do not explain action without taking into consideration the particular questions being addressed.  

2.2.) The logic of agents’ attitudes

From the fact that moral scientific explanations are concerned with action, and therefore with agents’ attitudes, we may derive important logical implications. One is that the truth-value of statements in the moral sciences is frequently unrelated to the

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3 There are passages in the Scientism essay, e.g. (1942: 88-9), where Hayek explicitly refers to explanation of action in the moral sciences. Alternatively, Madison (1989: 66ff) interprets Hayek’s “explain” in the narrow sense of explanation “in physical terms”, in opposition to interpreting the meaning of agents’ doings. Understood this way, Hayek has a verstehen/erklären distinction in mind, and by “explain” means subsuming under laws.
underlying matters of fact. The sentence “it is raining” may be true or false, but it does not explain Jane’s decision to carry an umbrella unless the sentence “Jane believes that it is raining” is true. Clearly, to understand individual action the moral scientist has to ascertain the truth of statements of the second kind, i.e. statements involving the propositional attitudes (to know that, to believe that, to wish that, etc.) Yet, the truth-value of sentences of the form “Jane believes that p” are (logically) independent of the truth-value of p. This logical feature is not, however, unique to the moral sciences. The natural sciences also have to deal with their share of opaqueness. Laws of nature, for instance, support counterfactuals: it is true that if the distance between the Earth and the Moon were half of what it is, then the gravitational force attracting the two planets would be four times what it is. It is not because of the actual truth or falsehood of the antecedent or of the consequent that the conditional is true.

Hayek does not, however, explicitly discuss statements involving propositional attitudes. Instead, he emphasizes that the classification of entities in the moral sciences often takes agents’ attitudes into essential consideration. He notices that important moral scientific terms “are abstractions from all the physical attributes of the things in question and their definitions must run entirely in terms of mental attitudes of men towards the things” (1942: p. 91 italics in the original). Hayek states that “we can choose almost any object of human action” (1942: 89) as an example. Thus, something is not a tool because it is made of a specific material or because it has a certain shape. According to Hayek, something is a tool due to “the use for which it is designed by someone” (1942: 90). He urges that “a definition which is to comprise all instances of the class will not contain any reference to [their] substance, or shape, or other physical attribute” (1942: 90). In other words, Hayek is telling us that physical or structural properties of things are neither necessary nor sufficient for their status as objects of action.

Hayek must not be taken to mean that the structural properties of particular things are irrelevant for concrete moral scientific practice. That there are usually no necessary or sufficient structural properties defining classes of objects of human action need not mean that there are no typical structural properties offering grounds in the

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4 (Cf. Hayek, 1942: 93): “What is relevant in the study of society is not whether these laws of nature are true in any objective sense, but solely whether they are believed and acted upon by the people.”
determination of the likely role of a particular entity. We know, for instance, that oil is usually a primary factor, and that pasteurization is a common technique of production. As Hayek (1943a: 65-66) writes in *The Facts of the Social Sciences*, “as long as I move among my own kind of people, it is probably the physical properties of a bank note or a revolver from which I conclude that they are money or a weapon to the person holding them.”

Although Hayek does not discuss it, it is also easy to show that the abstraction from the structural properties of things is not distinctive of the moral sciences. Many, if not all, the natural sciences employ *functional* notions, i.e. types that cannot be defined by the specific structural properties of their tokens, but by some sort of role, or function in a system or order. Take sunburns: a sunburn is definable as a burn caused by exposure to the sun. It is conceivable that two burns are identical down to the atom, yet one be a sunburn and the other not. Yet ‘sunburn’ is a relevant notion for medical science: sunburns are associated with skin cancer. Besides sunburns, defined by reference to their cause, i.e., to something external to the object, we could give ‘poison’, ‘anxiolytic’ or ‘antipsychotic’, defined by reference to their effects. What seems distinctive about the moral sciences is that the function or role is related to agents’ attitudes.

In the *Scientism* essay, Hayek is concerned to show that the world which the agent “builds up” (1942: 87) is central to the moral sciences in order to argue that from this fact there follows an essential difference from the natural sciences. If, on the one hand, the natural sciences need to revise and reconstruct ordinary concepts and experience to reach general explanations, the moral sciences, on the other hand, could never understand what agents mean by their actions without some grasp of the way they view the world. The reclassification that the natural sciences require is taken by Hayek to mean that agents’ worldviews lack external justification. He writes that “different men perceive different things in a similar manner which does not correspond to any known relation between these things in the external world” (1942: 86 italics supplied), and that any classifications which are “not based on any similarity in the behavior of the objects towards each other must be treated [by the natural scientist] as ‘deceptions’” (1943b: 112).

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5 The example of the sunburn, used in a different context, is Davidson’s (1987).
In section 3 I assess Hayek’s arguments for the lack of external justification of ordinary experience. For the time being, I want to stress that, for Hayek, this lack raises important questions. If people’s views have no external justification to them, then “the question why [things] appear to us in that particular way (...) becomes a genuine problem calling for an answer” (1942: 86). Hayek tries to supply an answer to this problem in his *The Sensory Order*, where he elucidates how the order that we call ‘mind’ can, in principle, arise from the intercourse of the nervous system with its surroundings.

But Hayek also raises the problem of how explanation in the moral sciences is possible. As he notices, until the natural sciences have not “left the slightest unexplained residue in man’s intellectual processes” (1942: 87), how can the moral scientist understand an agent, given that the agent’s worldview is inscrutable to the objective study of external reality? The fact that we can understand and even communicate (1942: 92) with other agents leads Hayek to conclude that people, and thus the moral scientist too, have a sort of privileged access to each other’s minds: the moral scientist can ascertain attitudes because she is like the agents she studies. An important difference in method between the natural and the moral sciences is thus, as he (1942: 87 italics supplied) writes, that in the moral sciences “our mind must remain not only data to be explained but also data on which the explanation of human action (...) must be based.”

2.3.) Summary

In short, in the *Scientism* essay Hayek draws a sharp distinction between the worldview of everyday experience and that of natural science. Since ordinary experience is based on the effects things and events have on a percipient human being, natural science must revise ordinary experience if it is to successfully cover the relations things or events have between themselves. Since the moral sciences deal with agents’ attitudes, the differences between ordinary and scientific worldviews imply that the moral scientist cannot ascertain agents’ attitudes just by studying the way things are, but needs to tap her own ordinary outlook as a fellow human being.

In the next section, I address Hayek’s conception of ordinary experience and the arguments he gives for his claim that it lacks external justification. I will show that
they are based on Hayek’s ignoring the social aspects of inquiry, but that the distinction he draws between the two is robust to the failure of his arguments.

3.) ‘Ordinary experience’ in the Scientism essay

3.1.) Does ‘ordinary experience’ lack external justification?

As I noticed above, that ordinary experience is externally unjustified results from Hayek’s reflections in the natural sciences. In detail, Hayek tells us that natural science revises and replaces not only the concepts formed from ordinary experience but, more importantly, “the very sense qualities which most of us are inclined to regard as the ultimate reality” (1942: 83). Indeed, he goes so far as to write that the second form of reclassification is “the most characteristic procedure of the natural sciences” (1942: 84). Unfortunately, the examples he gives fail to illustrate any replacement of sense qualities, or anything that is characteristic of the natural sciences.

The most detailed example Hayek (1942: 83) gives is that of a tasteless, scentless white powder, which may prove to be any number of substances, depending on how it reacts in several circumstances. But a distinction among several powders based on how we observe each to react is hardly an example of the replacement of sense qualities… All that happens is that those white powders were all believed to be the same until someone was led to conclude, certainly by way of sense impressions involving qualities that are classified the same way they used to, that, say, some powders are good for leavening cakes and the others are not, even though they are all white.6

6 In the second part of the Scientism essay, Hayek writes that “all mental phenomena, sense perceptions and images as well as the more abstract ‘concepts’ and ‘ideas’, must be regarded as acts of classification performed by the brain” (1943b: 111 italics in the original) and that this “must also serve as a justification for what may have seemed the very loose way in which we have throughout, in illustrative enumerations of mental entities, indiscriminately lumped together such concepts as sensation, perceptions, concepts, and ideas” (1943b: 111f italics supplied). No wonder we are hard pressed finding a difference between reclassification of concepts and replacement of sense qualities. But, then, what is so characteristic of science?
What Hayek’s examples show is the possibility that our immediate sense impressions do not lead us to distinguishing between entities that, in different circumstances, are associated with other, also perceptual, effects that might make us revise our earlier judgments, and vice-versa. The lesson is hardly that people, much less science, replace “the system of classification which our sense qualities represent” (1942: 83), but that the system of classification we employ, the characteristics we find salient or the distinctions we make are subject to revision in view of further evidence from our senses. That our immediate impressions and judgments are often misleading is hardly a conclusion exclusive to science.

Moreover, further evidence is hardly the only reason that may lead us to abandon a previously adopted classification. Unsuitability to specific purposes may induce the same thing. Indeed, if a chemist in her lab may be interested in distinguishing between Hayek’s white powders, someone who is using them to teach the word “white” to young children is rather interested that any differences between the powders be ignored. But the other way around is also possible. If the two white powders are sodium bicarbonate (baking soda) and potassium bitartrate (cream of tartar), the ordinary person fighting heartburn is interested in distinguishing between the two, but the chemist who just wants to make an aqueous solution that moderately conducts electricity is not.

3.2.) Relations of similarity: criteria, standards and dimensions

As we have already noticed, throughout the Scientism essay Hayek emphasizes that classification is based on relations of similarity and difference. Hayek (1942: 83 italics supplied) writes, for instance, that “[science] begins with the realization that things which appear to us the same do not always behave in the same manner, and that things which appear different to us sometimes prove in all other respects to behave in the

7 (Cf. Hayek, 1952: 9 italics supplied): “the distinction between different stimuli (...) must be independent of the different effects they have on the organism. This independence can never be complete, since all our knowledge is derived from our sensory experience. But it can be independent in the sense that we can classify the stimuli not according to their direct effects on our senses, but according to the effects which they exercise on other external events, which in turn act as stimuli on our senses.” Still, how do organisms differentiate direct and indirect effects?
same way.” But what are the criteria of sameness being employed? After all, similarity is always dependent on a standard, along dimensions, and partaking of degrees. A red shoe is more similar in color to an orange shirt than to a blue sock, but socks and shoes, unlike shirts, are footwear. Sometimes it makes sense to group a red shoe with an orange shirt, other times with a blue sock. Criteria of similarity adjust to what we are trying to do, to our standpoints, and discursive contexts. It is hardly different in the natural sciences. As noticed above, potassium bitartrate is similar to bicarbonate of soda in that both are often presented as white powders. But they differ in that the first can be used to form an acidic solution whereas the second forms an alkaline solution. Yet they are similar in the sense that when in solution both conduct electricity.

The upshot is that judgments of similarity and difference are based on similarities and differences that matter for some purpose, in some context. Hayek, more than once, goes to the extent of saying that “we have learned that our senses make things appear to us alike or different which prove to be alike or different in none of their relations between themselves, but only in the way in which they affect our senses” (1942: 92 italics supplied). Literally understood, however, the possibility of things being different in absolutely no other respect than their effect on the senses defies credulity: what would make them more than one thing in the first place?

What the systematic testing of science shows is that there are differences or effects that are irrelevant to some science’s particular purposes at a particular time. But this is a warning against ignoring the social and human aspects of the several forms of inquiry. Judgments resulting from ordinary experience make real distinctions too, which are adjusted to ordinary purposes and are also subject to revision as such purposes change or new evidence accrues. The fact that they often are not suitable for what the natural scientist is trying to do in her particular context should hardly lead to the conclusion that they should be treated as delusions, even by the natural scientist, and even less to the conclusion that ordinary experience does not discern relations between things.
3.3.) Hayek’s appearance-reality distinction

Hayek’s distinction between a classification based on the effects of things on each other and a classification based on the effects of things on humans is, perhaps, the most visible and significant part of an undercurrent to the *Scientism* essay, where Hayek makes an appearance-reality distinction. Hayek emphasizes that “‘facts’ are different from ‘appearances’” (1942: 83), he speaks of “‘secondary’ qualities” (1942: 84) and of science’s “emancipation” thereof (*ibid.*) and he mentions “the true nature of the material thing” (1942: 93). He also distinguishes between the “‘objective’ properties of things which manifest themselves in their relations to each other, and the properties merely attributed to them by men” (1942: 92), as though we could ever deal with properties that were not ‘merely’ attributed by men.

I stress that this is an *undercurrent* not only because Hayek employs scare-quotes throughout, but mostly because in the *Scientism* essay he is explicit in affirming that whatever is turned out in the natural sciences must be connected with and somehow the result of the causal interaction between the world and our senses (1942: 84). Indeed, there is no way to know the effects of things on each other that is not based on their, possibly indirect, effects on us, or to get away from appearances or secondary qualities of *some* sort. Moreover, in the *Scientism* essay, especially in the later parts, we also find passages where Hayek seems aware of the importance of accounting for the human aspect of all inquiry, for instance when he writes that “what make[s] a number of individual phenomena facts of one kind are the attributes which we select in order to treat them as members of one class” (1943b: 110 italics supplied).

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8 In *The Sensory Order*, Hayek is more careful: “the contrast with which we are concerned is not between ‘appearance’ and ‘reality’ but between the differences of events in their effects upon each other and the differences in their effects on us. (...) For the purposes of our discussion, at any rate, we shall not be interested in what a thing ‘is’ or ‘really is’ (whatever that may mean), but solely in how a particular object or event differs from other objects or events belonging to the same order or universe of discourse” Hayek (1952: 4). However, in none of his works that I am familiar with, early or late, does Hayek tell us how to individuate these universes of discourse.

9 Madison (1989: p. 174-176) tries to brush the undercurrent aside as the result of Hayek’s problematic “choice of vocabulary”. Fleetwood (1995: Chapter 4), on the other hand, disagrees that it is an undercurrent.
Still, in the absence of this undercurrent there is nothing in the *Scientism* essay to support Hayek’s contrast between the worldview of the agent and what science tells us about the world. It is in fact curious how little Hayek’s account of the method of the natural sciences in the *Scientism* essay seems to characterize science, as opposed to inquiry in general. As Hayek in *The Sensory Order* shows, we do not have a static and well-defined picture of the world. It is undeniable that people learn, forget, change their minds, etc. Where they notice differences, they separate, where they notice similarities, they associate. When their expectations are borne out, they reinforce them; when expectations are frustrated, people revise them: they change the distinctions they find important to make or to blur, they induce along other paths, and often posit new entities. When they are puzzled they may offer bold redefinitions, and may, as science does, hypostatize all sorts of exotic entities in the deepest parts of their ontologies, be they quarks or supernatural activity.\(^\text{10}\).

There are, of course, differences in the purposes, sophistication, contexts and goals that may justify distinctions between *kinds* of inquiry.\(^\text{11}\) But these are differences in the social aspects of inquiry, not in fundamental method or superior truthfulness of their results. As Quine (1969a: 129) puts it, “science (...) differs from common sense only in degree of methodological sophistication.”

### 3.4.) Ontological commitments in the *Scientism* essay

Now, if Hayek’s arguments for the contrast between ordinary experience and the worldview of science should be rejected, the contrast itself can be reinterpreted and upheld from a different, sociological perspective. As noticed, the differences Hayek

\(^{10}\) (Cf. Quine, 1951: 45): “science is a continuation of common sense, and it continues the common-sense expedient of swelling ontology to simplify theory.”

\(^{11}\) Besides methodological criteria, in the *Scientism* essay Hayek also employs sociological criteria when he argues that certain forms of inquiry were identified and recognized as successful, and that such recognition led to their methods being emulated in other fields (1942: 78), or that the natural sciences are “based on a *systematic* testing of the phenomena” (1942: 82 italics supplied). The latter points more to a difference in sophistication and organization than in substance or method in a fundamental sense.
notices between the two are not the result of significant differences in method and much less a matter of external justifiability, but social matters of appropriateness to the purposes and contexts of differently motivated people acting in different communities. We may thus get rid of false dichotomies and keep an important contribution of the *Scientism* essay, viz. the distinction between problems whose (interesting) answers involve an essential appeal to agents’ attitudes, and problems whose answers are couched in “physical terms” (1942: 94).

Here, however, I must notice an important matter of ontology. When Hayek emphasizes reality *external* to people he is implicitly assuming the existence of the sensory being. However, it is hardly tenable that such beings belong to the ontologies required by most theories in the natural sciences. Does an advanced physics or chemistry have the syntactical or semantical resources to define the class of sensory beings, or even to individuate *one* token of such kind of entity? What utility would those entities have in such theories? More generally, when Hayek writes that it is not the structural properties of *things* that give their role in action, he implicitly assumes a prior individuation of said things. But the things that feature in his examples are everyday bodies like hammers or eggs (1942: 94), entities belonging to the ontology of ordinary experience but not to that of most theories in the natural sciences.

Hayek’s point seems to be that we cannot understand the role of (previously individuated) entities in human action by studying *them*, and without taking agents’ (subjective) attitudes involving *them* into account (Cf. 1943b: 109). The properties *in* them may be “alike” whilst their properties *out* of them be unlike: two sticks of butter may be alike down to the atom but differ in that one will be incorporated into a chocolate cake and the other into a carrot cake. However, the properties we identify and find interesting depend on our purposes and, as noticed in section 2, natural science also employs functional notions. Also, what belongs to our ontologies is very much dependent on the theories we are using and, as Quine (1968) shows, underdetermined by the evidence of our senses, all the evidence we have.

My criticism in this section has not indicted but rather reinterpreted Hayek’s distinction between the worldview issuing from the natural sciences and ordinary experience. But, as I show in the next section, Hayek’s tendency to disregard social contexts also plagues his thesis of the similarity of the minds. Moreover, it was not from the contrast itself but from its supposed implication that ordinary experience
lacks external justification that Hayek concluded that the similarity of minds is “a significant datum of experience” and “the starting point in any discussion of human behavior”. But if my arguments in this section are sound, there is no prior objectivity to serve as touchstone for the worldview of other agents. Hayek’s thesis of the similarity of the minds and how to turn it into an understanding of agency is the topic of the next section.

4.) From subjective similarities to intersubjective understanding

4.1.) Understanding as projection of mental categories

I have shown that, for Hayek, even though agents’ worldviews lack external justification, the moral scientist can nevertheless understand action because she has, and knows that she has, much in common with her subjects. But what exactly does Hayek tell us that we all have in common, and how do we turn these commonalities into an understanding of action?

One thing Hayek makes clear is that he believes that all the evidence we use to understand other people is behavioral, i.e. what we observe them “do and say” (1942: 91). According to Hayek, we interpret such evidence “on the analogy of our own mind” (1943b: 139), i.e., to use an expression he employs in The Facts (1943a: 64), by “projecting” onto others “the familiar categories of our own thinking” (1943b: 139). In so doing, we go beyond the immediate evidence. As he writes, “we add” (ibid.) or “supplement” (1943a: 64) “what we perceive with our senses” (1943b: 139). He assures us, however, that this procedure leads to a “satisfactory working explanation of what we observe (…) in the overwhelming number of cases” (1943b: 139).

As an example of what he is thinking, in the Facts Hayek writes that he “shall, from a few observations, be able rapidly to conclude that a man is signaling or hunting, making love to or punishing another person” (1943a: 64). He believes that “we can

\[\text{(Cf. Hayek, 1943b: 109): “it is true, of course, that we know nothing about other people’s minds except through sense perceptions, that is, the observation of physical facts.”}\]
derive from the knowledge of our own mind (…) an (at least in principle) exhaustive classification of all the possible forms of intelligible behavior” (1943a: 67-8 italics in the original). As Hayek can quickly recognize that what someone is doing is a form of hunting or punishing, so the moral scientist is usually capable of typifying particular behaviors and utilize such organization of experience towards her ultimate goal of accounting for unintended consequences (1942: 103).

As noticed in section 2, if a classification of action into broad, abstract types may be sufficient for some purposes, we often wish to be more detailed in our recovery of agents’ reasons for acting. This is true of the moral scientist and of the average person in her everyday interactions. We may not be satisfied with recognizing behavior as punishment until we can understand why punishment is being meted out, or with recognizing that our friend is signaling without understanding what she is trying to convey and why. I think this can be accommodated by Hayek’s thesis that we interpret others on the analogy of our mind if we take Hayek’s analogy in a broad sense, as classification of “types of beliefs or attitudes” (1942: 103). The analogy would enter our accounts of others in the logic it imposes: we look for attitudes of the right kind and with a content that rationalizes what is being done. I can recognize a form of behavior as murder not because my mind operates like that of the murderer in any strict sense, but because I succeed in recovering the murderer’s reasons, i.e. by showing that there is a rational pattern.

As noticed by Hayek, we interact with people by talking with them, observing what they do in public, and then trying to integrate this evidence into coherent frameworks that account for their behavior. Naturally, how we go about integrating the evidence is geared to our purposes. If sometimes we will be satisfied with accounting for someone’s concrete reasons for concrete actions, other times we wish to develop complex theories about a specific agent, and make sense in a unified way of our frequent interactions: we want to identify traits of character, perhaps.

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13 Notice that Hayek cannot at this juncture draw a line between the method of the moral sciences and that of common-sense understanding because he is using the latter to identify the denotation of the types used in the explanation of unintended orders.

14 See (Barry, 1979: 26) for a more critical interpretation of this point.
When we first meet someone we do not start from scratch: we have a few promising general hypotheses about others - ideal types, perhaps - that serve as starting points and are selected based on immediate evidence and context: people’s appearance or accent, the place we are at, our mood, etc. These first unifying hypotheses are what we can come up with right off the bat, and probably include much of what Hayek intended to convey with his projections. With further interaction, we revise and supplement these broad, subconsciously selected, hypotheses and, perhaps, if the agent plays a frequent part in our life’s play, we turn them into a custom-made theory about this person alone. As they are based on our judgments and projections, our theories are bound to have much of us in them.

As Hayek notices, in understanding others we always supplement the available, behavioral evidence. Although Hayek does not elaborate on this, such supplementation involves choice. Choice in selecting starting candidate hypotheses, and choice in the adjustments we make to them. It is a choice because there are always many hypotheses that we could justifiably offer, cumulating in potentially contradictory theories about the agent or action, yet all equally compatible with the evidence available. The explanatory path we follow results from our previous experience as social beings, and bear the sign of our idiosyncrasy and of the social context of interaction. There is no expectation that we can uniquely determine our theories with the behavioral evidence available, or reduce the former to the latter: as Quine (1973: 178) notices, there are “irreducible leaps” in theory building.

More succinctly: “there seem bound to be systematically very different choices, all of which do justice to all dispositions to verbal behavior on the part of all concerned” (Quine, 1969b: 54 italics supplied). This is Quine’s (1964) famous thesis of the “indeterminacy of translation”\(^{15}\). What is important about these observations is that the indeterminacy is not some limitation of our knowledge. Our interaction is intersubjective, and hence public: if all our interaction is based on behavioral evidence,

\(^{15}\) Not to be confused with the Duhem-Quine thesis of the underdetermination of theory by evidence. The indeterminacy of translation is additional to the underdetermination of theory by evidence. The underdetermination thesis tells us, in a nutshell, that several theories may equally fit all our evidence and still imply contradictory sentences, whereas the indeterminacy further tells us that there are many ways of translating one of these theories into some metatheory. For the relation between the two, see (Quine, 1970), for a critique of the Duhem-Quine thesis, see (Quine, 1975).
there is nothing to determine that is not determined by this evidence. One theory that accounts for all the evidence is thus not truer to the facts of the matter than another that does so equally well, no matter how different in their non-empirical implications they may be.

4.2.) Indeterminacy and what we share: the analyticity of the thesis that we have a lot in common

This is a good juncture to discuss the logical status of the content of Hayek’s claims that we have much in common. If Hayek writes that there is an “impossibility of conceiving of an observer who does not possess a human mind and interprets what he sees in terms of the working of his own mind” (1942: 91 italics supplied), and in The Facts that “what we mean when we speak of another mind is that we can connect what we observe because the things we observe fit into the way of our own thinking” (1943a: 66 italics supplied), he also writes that “the fact that men classify external stimuli in a particular way becomes a significant fact of experience which must be the starting point in any discussion of human behavior.” (1942: 92 italics supplied)

In other words, on the one hand, Hayek says that it is inconceivable that there should be a mind radically different from our own, by the very meaning of mind. On the other hand, he tells us that our coming to realize that things have properties different than those we identify after their immediate effect on our sensorial apparatus makes the fact that people classify things in similar ways something we have learned from experience.

Whether he is right or wrong, I think Hayek’s position is not contradictory. Indeed, Quine (1951) has long taught us that whether a truth is analytic or synthetic is a matter of degree. There are statements in our web of beliefs that we are more reluctant to abandon than others: we may redefine notions in order to keep cherished statements true in the face of new evidence, as we choose to throw other beliefs by the board. What used to be ‘constitutive’ may become only synthetic: it may have been constitutive of our notion of ‘mind’ that whatever is a mind must share the same basic structure, but as we learn, so Hayek tells us, that actually the world is not like our senses tell us it is, we redefine mind in a way that their similarity is now an empirical statement about human minds.
Importantly, there is no reason why a diachronic process of theoretical readjustment to new evidence could not be understood synchronically, too: even if it is inconceivable that two minds do not, in general, have similar structures, it could still be an empirical matter to what extent similarity is not equality, how much they need to share for interaction to run efficiently, etc. Moreover, possible theories may differ on how charitable they are in their identifications and how cosmopolitan they are in their attributions of, mind. Hence, if there are explanations of agency that are equally capable of accounting for all the evidence available, each theory may have particular normative implications as it is more or less prone to identifying departures from rationality, or error.

In any event, to count something as a person is to assume that it is reasonable, that it behaves in a way that is understandable by giving reasons. It can hardly be doubted that there are limits to how much error and incoherence we can attribute to another person, or, as Hayek argues, a limit to how different others can seem before we stop counting them as people. What I am urging is that within this acceptable range, differences are, to an extent, on the eye of the interpreter. There are no hard and fast lines as to what will be counted as a person or as something else (cf. Rorty, 1972, p. 659).

4.3.) Why what happens inside our brain matters little: the quest for a prior standard of similarity

There is, however, an alternative current in the Scientism essay and coetaneous works as to what we have in common that must be addressed. According to Hayek, more than analogies with our mind, there is a “mental structure” we have in common (1942: 87), and our concepts (1942: 97), “knowledge and beliefs” (1942: 92) are similarly structured. If these suggestions could, perhaps, be incorporated into the interpretation I have been exploring, I believe that there is an alternative worth discussing. Hayek writes, for instance, that “to recognize something as mind is to recognize it as something similar to our own mind, and the possibility of recognizing mind is limited to what is similar to our own mind.” (1943b: 139 italics supplied) There is thus an
indication that for Hayek there is a relation of similarity prior to and that explains our intersubjective interaction.

Perhaps the alternative I am looking into may be phrased by saying that what people have in common involves a “homeomorphism” (1942: 86) between the minds’ structures and also, possibly, a correspondence between the categories or attitudes in each brain. This reading is encouraged by The Sensory Order, where, as noticed in 2.3., Hayek expands the view of the mind he offers in the Scientism essay that “all mental phenomena (...) must be regarded as acts of classification performed by the brain” (1943b: 111 italics in the original; Cf. 1952: 16) in order to, in Caldwell’s (1994: p. 309) words, “provide a physiological foundation for subjectivism.”

In order to explain cognition at any given moment, Hayek introduces two notions, that of the map, and that of the model. The map is the semi-permanent (1952: 114-5) system of classification of impulses, whereas the model is the transient effect which the present situation is producing on the central nervous system. Hayek writes that the map results from each individual’s causal history with the environment (e.g. 1952: 108), which is obviously unique (1952: 110). Nevertheless, he urges that “the different maps which will thus be formed in different brains will be determined by factors which are sufficiently similar to make those maps also similar to each other.” (1952: 110 italics supplied) To summarize, according to this reading, what we have in common is a similar central nervous system, resulting from our similar histories, that classifies impulses in a similar way.

Section 3 has, however, taught us that we should be wary of any talk of similarity or associated notions, like “homeomorphism”, without being given contexts and standards. Since it is not Hayek’s purpose in The Sensory Order to elucidate how we could go about understanding other people, we should not fault him for not giving any standard that is relevant to anyone but the neuro-psychologist. However, in this work, Hayek makes occasional remarks on the nature of communication. He writes that when someone successfully communicates with somebody else, the “symbols” (1952: 135) used, when perceived by his interlocutors, will “occupy in their mental order a position analogous to that which they occupy in his own; and which, in consequence, will have for those other persons a meaning similar to that which it possesses for him” (1952: 135 italics supplied, see also Chapter 5, section 7 and 1943b: 110). Successful communication seems to be explained by there being a corresponding placement of
shared events in each mind’s order, perhaps made possible by the structural similarity that results from similar histories.

I wish to highlight two theses from this excursus through *The Sensory Order*. First, since Hayek indicates that communication is a consequence of shared events occupying “analogous positions” in the present mental order, this reinforces the point that he must believe that there is some relation of similarity over (subjective) mental positions that is logically prior to, and accounts for, intersubjective agreement. Second, the account and definition of mind found in *The Sensory Order* implies that we cannot have differences in the mental order that are not associated with *some* difference in the central nervous system of the subjects. In other words, it is not possible for two people to be anatomically identical, yet be in different mental states (1952: 110). The picture that emerges is that of a subject, with a mind dependent on interactions with the environment but independent of other minds, of a relation of similarity over mental states that is solely dependent on the subjects’ present anatomy, and of intersubjective agreement as a particular correspondence between similar subjective mental placements of shared inputs.

But what is this prior standard of similarity? Hayek never spells it out, but if it is to throw any light on how people in general, and the moral scientist in particular, use mental notions and determine attitudes in their endeavors to understand action, it must reproduce the discrimination made by the manifold public standards that are employed in the understanding of action.

There are good reasons to believe no such prior standard is possible. Not only would such a standard be based on evidence that is not available in the public world out of which our attributions of attitudes and intersubjective understanding arises, but also the rules of inference and of normative self-extrapolation have no equivalent in our understanding of brain structures. Hayek notices, and well, that we interpret others on the analogy of our own mind, but no such tendency enters our theorizing about the central nervous system. In a Wittgensteinian jargon, we are looking at two very different language games. As we may have two bushes with the exact same overall shape without there being any discernible pattern of similarity or “homeomorphism” at the level of the (topological) placement of individual twigs and branches, our unique
brains may yet cumulate in what are, for our theories and judgments based on public evidence and self-projecting tendencies, equal attitudes. The upshot is that if the descriptions we utilize to identify types of mental phenomena, and, in particular, to individuate and characterize the propositional attitudes, are based on the intercourse occurring in the public, intersubjective world outside an individual’s head, then there is no expectation, pace Hayek, that we can determine an agent’s attitudes and explain intersubjective understanding by appealing to what goes on inside her head. It is rather the other way around: if we conclude that two people are of one mind, then we may, perhaps, say that their neuronal order is similar, homeomorphic, etc.

Now, it is important to realize that nothing I have said invalidates the interest of Hayek’s neuro-psychological discussion of the mind in The Sensory Order for the purposes of the psychologist. Moreover, I believe Donald Davidson (e.g. in Davidson, 1987) to have successfully argued that because our descriptions and individuations of mental states and events for the purpose of intersubjective interaction go by way of what is external to the brain, it does not follow that our concrete mental states and events are not identical with physical states and events, only that they need not be identical with states and events in the brain. Thus, our describing mental states and events in ways that suit our intersubjective purposes and that are not reducible to similarities and differences based on neuronal events and states however complex, does not invalidate that any particular mental event or state is not complex physical, sometimes neuronal, process. It only shows that the similarities and differences in question are geared to contexts and purposes that are not those of the neuroscientist.

16 The simile of the bush is Quine’s (1964). Hilary Putnam’s (1975a: 223ff) famous Twin Earth thought-experiment helps to illustrate our point. Putnam asks us to imagine a planet he calls Twin Earth, which is exactly like Earth with one exception: where on Earth we have \( H_2O \), on Twin Earth we have a complex compound that is yet, except for advanced experimental tests, indistinguishable from \( H_2O \) and whose molecular formula we abbreviate as XYZ. Take Jane here on Earth and her Doppelgänger on Twin Earth. Both know nothing about Chemistry, or about the existence of each other. Yet, it is plausible to think that when Jane says “I want water” we take her to want \( H_2O \), whereas if her Doppelgänger utters the same words, we take her to want XYZ. No difference inside their bodies exists that accounts for the difference.
Indeed, what my criticism in this section destroys is the hope that we will find in the concept of mind discussed in *The Sensory Order* much that will be of service for the intersubjective notion of mind that is central to the moral sciences. This indicts Hayek the moral scientist (not the psychologist) insofar as he is interpreted as finding the similarity that is relevant for understanding action as a homeomorphism of structures individuated without explicit appeal to a social context.

5.) Conclusion

In this article I explored Hayek’s arguments for distinguishing ordinary experience from the worldview of science. I showed that the distinction may work for some purposes, but that it cannot, as Hayek tried to do, be sustained on differences in method or justifiability. I also discussed Hayek’s thesis that people have similar minds, and tried to elucidate how we go about understanding each other, concluding that any notion of mind of interest to the student of action cannot ignore the intersubjective world outside agents’ central nervous system.

A problem I diagnosed with Hayek’s thought within the decade of the publishing of the *Scientism* essay is his neglect of the social context of inquiry, and the social conditions of objectivity and truth (with occasional exceptions, as in Hayek, 1944: 153). In the *Scientism* essay this is best seen in his ignoring the contexts and purposes of inquiry and the reasonableness of several similarity scales. In *The Sensory Order* it is, arguably, more obvious as Hayek tries to describe the development of the individual mind without ever discussing its interaction with other minds but only with a normatively amorphous environment. If this might be acceptable to the neuro-psychologist, it is not for the moral scientist. Hayek reads as though a mind could have the notion of objectivity without being member of a community of fellow creatures, without being able to triangulate, to go to some metatheory where it can discuss its theories in some language. His arguments are thus weakened by a sharp distinction between subjectivism and objectivism, whereas it is more fruitful to think of both as emerging together, in an intersubjective, social, world (Cf. Davidson, 1995).

One of the purposes of this article was also to illustrate the fruitfulness of Hayek’s *Scientism* essay. I believe only a mind like Hayek’s could follow so many conflicting
lines of thought and not be paralyzed with perplexities or leave the reader at an intellectual cul-de-sac. The faults I found are often the result of exploring his suggestions further than he did. This is what it means to climb up the shoulders of an intellectual giant.

6.) References


