On Sellars' Attempt to Build a Synoptic Image of the World

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Abstract

In the first part of the paper, I discuss three possible ways to achieve some unity between Sellars' manifest and scientific image of the world. The plurality of scientific methods that I am advocating is compatible with the fact that all empirical sciences strive for beliefs based on the normative concepts of evidence, explanatory power, and experimental accuracy. Such methods provide different means to reach the common purpose of justification. In the second part of the paper, I criticize Sellars' definition of the manifest image in terms of a suddenly (!) acquired conceptual framework, thanks to which we are able to *evaluate* our beliefs by using standards and norms of correctness and appropriateness. Finally, I criticize his antireductionist approach to the problem of the relation between the two images.

Keywords: Manifest Image, Scientific Image, Specialization, Unification

1. What does Sellars' distinction between the manifest and the scientific images amount to?

In the last four centuries, the history of ideas has been characterized by a progressive separation from philosophy of disciplines that before were regarded as its object. Logic, physics, chemistry, geology, biology, medicine, psychology, linguistics, economics, politics, and sociology are just some examples of disciplines that, in the more or less recent past, have become independent of philosophy as it had been systematized, for instance, by Aristotle.

Even though, in its axiomatic form, mathematics was fully developed since the time of Euclid, it is not an exception to this rule, since at that time it was not detached from philosophy, in the sense that ancient philosophers gave to their object of study. The role that geometry played in Plato's philosophy (think of the regular solids in Plato's Timeus as the basic components of the universe) is just an example of this fact. Also, disciplines that are not primarily concerned with the descriptive and explanatory tasks of the natural and social sciences but rather with values

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(esthetics, ethics), have undergone a process of specialization. Literary critics usually limit their cultural production to literature, and the same holds for cinema, performing and visual arts critics. The reader should keep in mind that in what follows, I will restrict my attention to the empirical sciences, including the natural and social sciences.

It is perhaps superfluous to recall that even within the single sciences there is a constant process of fragmentation. Restricting our attention to physics will suffice. Cosmologists, galactologists, planetologists, bio-astronomers, solid state physicists, experts in chaos or statistical mechanics, biophysicists, (to name just a few) speak a different jargon and, to a significant extent, do not understand each other when they go deeply into their hyperspecialized fields.

Among various reasons for this ongoing process of specialization, one of the most important is given by the fact that, within a given scientific paradigm, the solution of a single problem opens the fields to many others. Kuhn's notion of "puzzle solving" as characteristic of paradigmatic science is a vivid illustration of this fact. The branching off of a new subdiscipline from the trunk of the 'mother discipline' is mostly caused by the activity of young scientists, who devote their carrier to the new field with the hope of publishing many original papers along a path that has not been trodden before. This increases their chances of getting a job and receiving research grants: a necessary condition for these facts being the novelty of the research and the number of published papers: "publish or perish".

As a consequence of this phenomenon, the number of new scientific journals has been constantly growing. According to de Solla Price: "by the early 1960ies there were more than 10.000.00 published scientific papers. And the number of publications was doubling every fifteen years" (quoted in Wray 2005: 153). Due to our epistemic limitations, the greater the number of papers published within a given subfield S, the smaller the number of scientists publishing in a different subfield S' that can master the literature in the former field.

Another dramatic illustration of the different ways in which scientific observations were performed in the 17th century and today, consider the experiments carried out in Geneva for discovering the Higgs' boson. The use of these accelerators as a source of knowledge implies the collaboration of thousands of physicists, mathematicians, engineers, and scientists that are experts in other fields. As such, these experiments are not even comparable to those carried out in 1672 by Newton alone in his laboratory when, by using some prisms, he managed to show the composed nature of white light (Newton 1998). Sociologists and historians of science often point out that the kind of cooperation typical of Geneva was first introduced in the Big Science project of construing the atomic bomb in Los Alamos.

How should we judge this fragmentation of our scientific knowledge from a philosophical viewpoint? There is a positive side to it that has been stressed by Kuhn: "although it has become customary, and is surely proper, to deplore the widening gulf that separates the professional scientist from his colleagues in other fields, too little attention is paid to the essential relationship between that gulf and the mechanisms intrinsic to scientific advance." (Kuhn 1962: 53). The same phenomenon is happening in philosophy: the division is not just among the philosophy of science, philosophy of language, moral philosophy, epistemology, philosophy of art, or political philosophy but, within the philosophy of science, there is a division between the philosophy of logic, of mathematics, of physics, biology, neuropsychology, and the social sciences, like economics. In addition, even by concentrating our attention just *on the philosophy of physics*, we find specialization

and fragmentation: philosophy of classical mechanics, philosophy of space and time, philosophy of non-relativistic quantum mechanics, philosophy of quantum field theory especially in its algebraic approach, philosophy of cosmology and philosophy of quantum gravity.

How should philosophers with their synoptic vocation of "unifiers" react to this ongoing process of specialization that involves all disciplines? It should be granted that given the *undeniable facts* reported above, the ideal represented by the Greek philosophers possessing universal knowledge today cannot be reached. In the remainder of the paper, I will briefly discuss three prospects that might be developed by philosophers to vindicate their traditional role of "unifiers" of science and even more ambitiously, of the scientific image and the scientific image in Sellars' sense (Sellars 1963): (1) attempts to reach universal and systematic knowledge; (2) stressing the uniqueness of the method of science (3) attempting to fuse the descriptive and normative components of scientific knowledge. The satisfaction of at least one of these conditions is a precondition to attempting to reconcile or "join together" the two images.

The first strategy is doomed to fail. The reason for this conclusion is two-fold. Some of the greatest philosophers of the first half of last century, Bertrand Russell and even more Ernst Cassirer, managed to cover in an original way most branches of science, human culture, and history of philosophy included. But as we saw, in the last 70 years, when Russell and Cassirer approximately stopped to be productive, our empirical and philosophical knowledge has kept on growing faster and faster in an exponential way. The second reason is a consequence of the first. To summarize in a single notion the whole of human culture – as, for instance, "man is an *animal symbolicum*" defended in Cassirer's monumental *Philosophy of the Symbolic Forms* (Cassirer 1923, 1925, 1929) – presents today many conceptual difficulties. Despite the momentous achievement to write non-superficially and originally on the *Naturwissenschaften* and the *Geisteswissenschaften,* the functions of symbols – signs that stand for something else in more or less conventional ways – in natural and human sciences are different. Mathematical models standing for physical phenomena, for instance, employ "symbolic" equations whose function is not just that of predicting the future course of events but, according to the realist philosopher of science, also of describing the inner structure of a reality that is independent of our mind. Natural languages do not serve only descriptive purposes, but they are instrumental to express emotions, convey prayers, orders, etc. The element that unifies the scientific worldview with contemporary human culture according to Cassirer is *"genetic"* and signifies a transition or a development from the *expressive* meaning typical of the arts to the *representative* meaning typical of ordinary language and science. In its generalizing attempt, this reconstruction is as fascinating as it is too schematic. Already in Plato's philosophy, which makes abundant use of myths, there is the explicit awareness that mythical language can have a rhetorical and evocative force but does not help us to achieve rigorous knowledge. The fact that in Plato's philosophy the two kinds of "symbolic knowledge" are used seems a counterexample to Cassirer's fascinating, Hegelian-style, generalizations.

As to this second strategy, it must be admitted that all scientific hypotheses across both the natural and the social science share a commitment to *norms* that guide our search for knowledge. Knowledge is an end in itself and is based on the formulation of hypotheses or theories that must be *justified* (an epistemic norm) by empirical evidence. In its generality, *this* characterization is correct but raises two objections. First, the normative notions of *evidence or confirmation*, which are

clearly decisive for all empirical sciences (social sciences included), are treated in different ways in different methodological approaches to science.

Even within physics, the most solid of all empirical sciences, it is not clear whether there is just *one* method through which hypotheses are submitted to the tribunal of data. Adopting a conventionalist interpretation of key scientific concepts (say, the notion of force) is different from interpreting them from an empirical standpoint. According to Popper, the concept of evidence and confirmation has *no* role to play in science, at least to the extent that these notions require some form of inductivism. Notoriously, for him, science ought to look not for verifications or confirmations but only for falsifications, which can be arrived at by *deducing* assertions about observations from conjectural hypotheses. Therefore, according to Popper, we should look for theories that are more informative and *less probable* and therefore riskier and more exposed to falsifications. In general, the hypothetical-deductive method (HD) adopted today by the vast majority of scientists and by many philosophers active in the last century (Hempel among them) neglects the fact that our data often *underdetermine* the hypotheses: there may be more than one theory (even an infinite number of unconceived ones)[1] that is compatible with all known observations. This view, which is a consequence of the so-called Duhem-Quine holistic theory of confirmation, implies that the same evidence can be derived from another theory that is incompatible with the original one and obtainable by changing some of the assumptions of the theory. The underdetermination of theories need not last for long, but the HD method, without supplementary requirements (say the prediction of new phenomena) is an instance of the fallacy of affirming the consequent. Is the HD model of confirmation a good method to *believe* in a given hypothesis on the basis of its confirmations?

On the other hand, inductive methods based on Bayes' theorem aim for the opposite end: we should look for hypotheses that are more probable (posterior probabilities) because they are better supported by the evidence than the priors. Unfortunately, Bayesians have not succeeded so far to provide a numerical evaluation of the degree of belief (credence) that we ought to have in a scientific hypothesis.

A third currently fashionable methodological trend involves the so-called "Data science".[2] By using very powerful computers, the claim is that new regularities, correlations and predictions[3] can be found through the extremely fast elaboration of billions of terabytes of informational data. Unfortunately, the Big Data method of arriving at new hypotheses had already been criticized by Hempel almost 60 years ago, with the label "restricted inductivist conception of scientific research" (Hempel 1966: Ch. 2): the language in which data are formulated does not contain the language of the hypotheses. Consequently, the latter, even in the form of empirical correlations – Einstein made the same point about scientific theories – are not *deducible* by data because the former must be presupposed to "tell the machines" which correlations might be worth finding and therefore relevant for the purpose at

1 Stanford (2006).

2 "Data science is an interdisciplinary field that uses scientific methods, processes, algorithms and systems to extract or extrapolate knowledge and insights from noisy, structured and unstructured data, and apply knowledge from data across a broad range of application domains" in Data science. (2022, November 7). In *Wikipedia*. https://en.wikipedia.org/wiki/Data_science.

3 Dhar (2013).

hand. But many statisticians and scientists today insist that the revolution brought about by "big data science" is generating a new way of doing science, that is, *a new scientific method*.

Against Popper's falsificationism, Kuhn (1962) stressed that the progress of science was made possible by the fact that scientists working within a paradigm did *not critically* question its main tenets. According to Kuhn, "the method" of science changes from the intra-paradigmatic task of "puzzle solving" to the inter-paradigmatic need to explore new revolutionary ideas during the paradigm shifts. According to Kuhn, therefore, there is no unique method for doing science.

As a consequence of the sociological turn of the Edinburg school (Barnes, Bloor, Shapin), relativism became rampant, and the "method" of acquiring evidence was regarded as being thoroughly (if not completely) determined by political and economic interests. According to Latour, "science is politics with other means" (quoted in Oreskes, 2019: 92). The view defended by many sociologists of science that the epistemically-oriented methodology of science should be replaced with one exclusively ruled by non-epistemic values is rather implausible. However, after the seminal work of Fleck ([1935], 1979) and Kuhn (1962), the crucial importance of the social aspect of the genesis and confirmation of scientific beliefs is a permanent conquest of the sociology of science. The claim that individual scientists test their hypotheses independently of very complex social interactions with the communities to which they belong is simply false.

Moreover, as an additional argument in favor of the plurality of scientific methods consider that in biology and the social sciences, rigorous, strict laws typically are not available, and they are replaced by *ceteris paribus* regularities full of exceptions, which however can be used to justify the application of the notion of *causation*. For this reason, as Weber insisted, the social and historical sciences are objective (Weber 1949). In biology, however, unlike physics and the social sciences, *mechanisms* play a much more important role.[4]

In conclusion, the pluralities of scientific methods that I am advocating here are compatible with the fact that all empirical sciences strive for beliefs based on the normative concept of *evidence, explanatory power, and experimental accuracy* (see below). My view is rather that such methods provide *different means and therefore methods* to reach the common purpose of justification (Laudan 1978).

Moreover, just by taking the example of the last century's greatest physicist and assuming that the epistemology of science is part and parcel of the "methodology of science", we ought to remember Einstein's confession that he was "an epistemological opportunist". Evidence for the sincerity of this autobiographical revelation is his move from the operationalism of special relativity (1905) to the later conviction that one could understand the structure of the world by pure mathematical thought.

I conclude the section with the following quotation, which summarizes clearly what I have defended in this part of the paper:

> "There is now broad agreement among historians, philosophers, sociologists, and anthropologists of science that there is no (singular) scientific method, and that scientific practice consists of communities of people, making decisions for reasons that are both empirical and social, using diverse methods. " (Oreskes 2019: 108)

4 See for example Machamer, Darden, Craver (2000).

2.Sellars's attempt to find a unificatory role for philosophy

The third strategy that I will discuss is defended by Sellars in his *Philosophy and the Scientific Image of Man* (Sellars 1963: 1-41) but creates difficulties for the possibility of reconciling the two images. This article, as it often happens in philosophy, is one of the most quoted in the contemporary philosophical literature, but its presence in the bibliography of a paper does not always correspond to a careful reading of the text, which is what I will try to achieve here. As we know, Sellars gave philosophy the *task of fusing the normative aspect of the manifest image and the descriptive scientific image of man*: "two whole ways to seeing the sum of the things in the world…and attempting to bring them together in a 'stereoscopic' view" (p.19). He concludes that there is no conflict between the former and the latter, given that the conceptual framework of the manifest image should not be *reconciled* with the scientific image of man but rather *joined* to it (1963: 41). The crucial questions at this point are:

Q_1. What does this "joining together" mean?
Q_2. How can it be achieved?

To try to answer these interrogatives, we should start from the beginning of the paper: "The aim of philosophy, abstractly formulated, is to understand how things hang together, in the broadest possible sense of the term." (1963: 1). There is a sense in which this "broadest possible sense of the term", or aspiration to universality, is explained by the fact that what is characteristic of philosophy is to have no special subject matter except that of understanding the place of the various perspectives offered by the individual sciences (the trees) in the general landscape of human culture (the forest). Or more ambitiously, but with a naturalistic twist, to understand the place of human beings in the universe independently of the existence of a unique scientific method except for the fact that each method is a possibly different way to pursue the aim of justified knowledge.

Let me begin by noticing that from the title of the essay, Sellars' use of the metaphor of sight is essential. First, there is an explicit reference to Plato's Republic[5], where we read that "the dialectical mind is the synoptical", where the "synoptical man" is capable to look at all Ideas all at once. Relatedly, we are presented with the metaphor of stereoscopic vision, which is very important. We know that if we look at the *same* landscape or object from two different spatial perspectives, the small distance between our eyes is sufficient for our brain to produce the perception of depth by adding a third dimension to the flat visual field. To be aware of the phenomenon, it is sufficient to look at an object, raise one's index in front of one's nose, close one eye and then open the other: the object is projected onto a different background. Analogously to our brain, the essential task of philosophy is to join the scientific and the manifest image of a man in a single picture by providing depth to our global image of the world. The visual metaphors are very "vivid", but they still do not explain what joining the manifest with the scientific image amounts to.

5 "…and here lies the greatest proof, I said, of the fact that a mind is dialectic or not: since the synoptic is dialectic, that which is not synoptic, is not. Plato, *Republic* 537c(Thanks to Riccardo Chiaradonna for referring me to the precise passage of the dialogue.)

To try to answer this question, I venture to claim that the keyword "image" has three different senses, all evocative of visual meanings. First and foremost, it is the outcome of a process of *idealization*. As in Max Weber's methodology of the social sciences, these two images have to be understood as ideal types (*Idealtypen)*, that is, as *idealized* models thanks to which we can understand in a clearer way the essential features of *real* social phenomena (Weber 1949: 90).[6] Given their idealized nature, they are the product of the imagination (the second sense of image). Thirdly, "image" stands for a projection, a perspective, and for our problem this seems to me the most important sense of the term. Different projections of a *single* object on a wall exist but have a derivative status, like different shadows projected by one and the same object. If we reduce the two possible images or projections to the manifest and the scientific ones, the last two visual metaphors suggest that there is a *unique* natural world that we describe in *two* different ways. In this sense, Sellars is a naturalist, despite the closeness of his philosophy to Kant's.

3. The defining characteristics of the manifest image

The main problem posed by Q_1 and Q_2 above is that it is not at all clear what the manifest image really is. In a general sense, Sellars claims that human beings became what they are by thinking of themselves in terms of the manifest image. But this does not still tell us what the manifest image is and in the literature this notion is used in many ways. Here I will assume that the manifest image is definitory of human beings regarded as *persons*. Following Sellars, Esfeld (2020) even proposed to regard persons as an ontological category *per se*, in addition to an ontology of point particles identified by changing spatial distances among them.

In a somewhat confusing way, Sellars characterizes the manifest image and therefore the notion of person in terms of a suddenly (!) acquired conceptual framework, thanks to which we are able to *evaluate* our beliefs by using standards and norms of correctness and appropriateness. Among these, we should count the norms discussed above and concerning the different scientific methods used to reach the aim of justified knowledge.

On the one hand, the claim that the passage from a pre-conceptual stage to a conceptual one has been *discontinuous*, as he claims, needs more empirical argument. At least, it seems to be in conflict with a gradualist evolutionary account of the development of our cognitive capacities, which, even if not excluding the existence of some discontinuity ("punctuated equilibrium" in the sense of Gould 2007), cannot without additional empirical evidence be characterized in terms of "irreducibly new *leaps*". (p.4).

On the other, however, a reasonable reply to this objection is that only humans (persons) have language, which is indispensable to knowledge, and knowledge is a normative term implying *justifications* and *reasons* to believe.[7] To the extent that we cannot ascribe knowledge in this sense to animals or infants, so the argument goes, there is *now* a discontinuity between them and human beings, independently of how the cognitive difference between the former and the latter emerged from an evolutionary or historical viewpoint. Sellars can grant that most animals have an expressive type of language, even if not propositional, and that know some features of the world around them, given that perceptions, as empiricists have always

6 Sellars quotes Weber (Sellars 1963: 39) without explaining the notion of ideal type.

7 I thank one of the anonymous referees for having raised this objection.

claimed, are *a* reliable channel to gather knowledge. This is certainly true for those representatives of the animal kingdom who can have mental states of some kind. Babies think even if they don't speak, and he would be certainly correct if he were implicitly claiming that language is a late acquisition of our cognitive makeup.

Notice, however, that this raises very complex epistemological and empirical questions. Could we say that a prey is "justified" in some weak sense of justification to run away from its predator by the *perceptual belief* guiding its action, despite the fact that the former is plausibly unaware of having the belief and the fact that the belief has no propositional content? According to Sellars, the truth of our beliefs, which are guides to our actions, in the vast majority of cases is justified by our perceptions. Could one say that an alpha male chimpanzee's perception of a confronting younger rival justifies the corresponding belief that he wants to challenge his dominating role? Sellars regards perceptions as a kind of non-inferential knowledge, but "the subject must *know* that her perceptual belief is reliable"… This imposes a reflexivity requirement on knowledge and… an ability to use "perceptual sentences in perceptual contexts."(de Vries 2021). The relationship of science with our perceptions is much more complex and Sellars' "myth of the given" (Sellars 1956) could correspond to the claim that the theory "precedes" the data, in the sense that (i) the latter do not suffice to deduce the former and that (ii) without the former the process of gathering data would be utterly blind.

On the one hand, a possible reply to these discontinuity claims could be based on paleontology. The difference between us and our ancestors is not so dramatic as he has it and, in any case, it should be more robustly argued for. This is not irrelevant to his characterization of the manifest image as constituted essentially by *persons* in their relationship with the scientific image. Presumably, there cannot have been a single short period of time during which the transformation from non-persons to persons occurred. For instance, altruism and cooperation, regarded as norms of group behavior, favour its survival and the possibility to *explain* the ethical and epistemic norms guiding the behavior of persons in terms of our evolutionary past is open, despite the fact that norms are not derivable by facts and that a diachronic reconstruction does not justify the norms.

On the other hand, however, Sellars might reply that the evaluation of any theory that is part of the scientific image – paleoanthropology included – *presupposes* epistemic virtues (norms) that are characteristic of conceptual thought as he presents it. One may think of Kuhn's accuracy, consistency, scope, simplicity, and fruitfulness[8] as epistemic virtues that cannot be explained away by scientific theories since the correctness of the latter presupposes the former. And yet, it is possible to assume a reductionist, scientific stance not only to explain the passage from the preconceptual to the conceptual thought – as he concedes –but the normative dimension of the epistemic virtues could also be explained within a pragmatist framework: using hypotheses that rely on these epistemic virtues is *more successful* and truth conducive than adopting those that don't. Sellars must be open to this approach since if norms guiding persons' intellectual and ethical behavior were irreducible to facts, the "joining together" of the two images that he is wishing for would become more difficult.

Another important characteristic of the manifest image – the reader will have certainly concluded by herself that this notion has a *multifaceted feature* – is that it has been the traditional, essential object of philosophy. In this sense, he reduces the

8 Kuhn (1977: 221).

history of philosophy to the study of the normative dimension of thought, but if this is referred to as the study of the notion of 'person', it seems an overstatement. The reason for this is his claim that "man is that being which conceives of itself in terms of the manifest image" (p. 18). Given the normative aspect of our thought, the claim advanced above that the manifest image is prior to the scientific image seems correct, since the latter could not wholly replace the former without giving up its own foundations (see the above paragraphs).

A different way to formulate this claim consists in replacing (incorrectly from Sellars' viewpoint but plausibly from mine) the meaning of the term "manifest image" with the one associated with "common sense" and in recalling the paradox once noted by Russell: *science originates from common sense but ends up discovering that common sense is false*! In an analogous way, Erwin Schrödinger explains the relation between the senses and the intellect – the world of the senses being part of the manifest image – by referring to the atomistic view of Democritus expressed in this passage: "ostensibly there is color, ostensibly sweetness, ostensibly bitterness, actually only atoms and the void; to which the senses retort: 'Poor intellect, do you hope to defeat us while from us you borrow your evidence? Your victory is your defeat" (Schrödinger1966: 32).

This quotation expresses briefly and precisely Sellars' position about the role of the manifest image vis a vis the scientific one. I claim that the reason why, in his view, there cannot be a conflict between the two images is that the latter *is epistemically based on the former*. This fact eliminates those philosophical claims that try to explain away the normative dimension of our thought and deny the existence of ordinary, macroscopic objects in favor of microscopic entities. On the other hand, however, the assumption that science reduces to a recipe for successful prediction is also false: both images are real and one cannot prevail over the other. It follows that the objects of the manifest image cannot just be appearances.

This seems a plausible – mainly epistemic way – to justify Sellars' answer to the two questions above: there is no conflict but only a juxtaposition of the two images. The stereoscopic, synoptic vision presupposes the non-eliminability of the manifest image in favour of the scientific one. Conversely, since Sellars is a realist about the so-called theoretical entities, the scientific image does not consist just of instrumental calculations. Consequently, the manifest image is the only existing one.

There are two additional related arguments that Sellars uses to defend his response to my Q_1 and Q_2 above. The first is controversial and is based on the alleged difference between the homogeneity of the secondary qualities like a color and the non-homogeneity of the feature of the nervous systems. Here he refers explicitly to Eddington's famous example of the two tables, one of which is made of a void in which scattered electrons move in a probabilistic way and the other is the solid, familiar table on which we have lunch (see Eddington 1928). The argument is that while the brown color of a table is conserved by all of its parts, the same does not apply to our nervous system, where groups of neurons do not have as their fundamental building blocks groups of neurons but single neurons: "color expanses in the manifest world consist in regions that are themselves color expanses, and these consist in their turn in other regions that are themselves color expanses, and *so on* (my emphasis); whereas the state of a group of neurons …. has ultimate regions states that are not group of neurons, but rather states of a single neuron" (p. 35).

However, it should be evident that if we zoom in more and more in the microstructure of the table and reach the molecular level, the property of being colored is lost. Sellars is probably presupposing that the languages with which we

refer to the table are constituted by irreducible concepts and categories. However, once we grant that the two languages refer to the same physical entity, why shouldn't the respective descriptions have the same reference picked out in different ways or Fregean senses? Sellars does not consider this possibility. Hempel gave a convincing explanation of the problem of the "two tables" (Hempel 1966). We can *explain* its solidity in terms of the electromagnetic forces holding its atoms together, its color in terms of the physical property of its surface, and its weight in terms of the weight of the atoms that compose it. Analogously, we can explain the temperature and the pressure of a gas in terms of the mean velocity of the molecules that compose it, but this does not imply that the properties 'temperature' or 'pressure' of a gas do not exist. And even if we went reductionist about temperature and mean molecular velocity the former property would still exist, since heat *is* mean molecular motion. It could be argued that quantum particles have no identity and therefore that we have two distinct descriptions that might refer to two distinct levels of reality: while we can individuate a table within the manifest image, we cannot individuate a table by referring to atoms or its subatomic constituents, due to the well-known problem with the indistinguishability of quantum particles (French and Krause (2006)).

The final, third argument in favor of a non-reductionist approach to the two images has been recently stressed by Esfeld (2020) and consists in claiming that only a normative view of a person can rescue our free will and the notion of responsibility, both based on real choices among different courses of action. This is the famous possibility of alternative possibilities often discussed in free will debates, according to which men must be regarded as beings "who could have done what, in point of fact, they did not do" (p. 38). In my opinion, this is the most important, often misunderstood answer to the question above, an answer which is indebted to an author that influenced Sellars more than anybody else, namely Immanuel Kant. Unfortunately, I have no space to discuss this extremely difficult and widely discussed issue.

Conclusion

The unclear, multiple definitions of Sellars' manifest image have generated a vast secondary literature that tried to respond to the challenge of clarifying Sellars' distinction between the two images by focusing only on one of its aspects. Here I tried to distinguish different senses of the concept of "manifest image" by focusing on the problem of reduction and I concluded that none of his antireductionistic arguments holds water.[9]

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