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Christine Filonow
Macalester College

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Consciousness and the Language of the Natural Method

CHRISTINE FILONOW

The prospect of a Unified Theory of Consciousness is admittedly very seductive and intriguing. The possible ramifications of having this sort of functional theory at our intellectual disposal is far too incredible to conceive of completely. This unified theory is the holy grail of philosophy of mind. We must be careful, however, not to get ahead of ourselves, or to become too entranced with the idea to notice the obstacles in the way achieving this holy grail. The only way to fully theorize consciousness is through integrating disciplinary fields of empirical research with those that offer conceptual constraints. This integrated approach has been formally proposed by Owen Flanagan as the Natural Method, and is already beginning to be put into practice by scientists and psychologists alike. This idea of overlapping and consolidating ideas about mental phenomenon by allowing theories from each academic domain to correct and inform theories from every other domain is becoming increasingly accepted as the most valuable and progressive approach to understanding the human mind/brain.

The following discussion defends the necessity of the Natural Method as the most promising means for achieving a unified theory of consciousness while also focusing on implications of employing this method. These implications are perhaps not immediately obvious, but, as I will demonstrate, will become instantly problematic for the transfer of knowledge and information between disciplines. The main implication is this: Each academic domain has instilled its own 'language' or set of terms that are understood

almost exclusively by other people in the field, and this 'language' will result in a barrier for application of the natural method. It is not my intention to make this paper an excursion into the subtleties of philosophy of language. I only wish to show that in order for the natural method to work as it is originally intended—that is, as clarifying ideas and not confounding them—it will be imperative to develop a set of naturalistic terms to designate specific ideas, phenomena, structures, and systems that can be used interchangeably and without misinterpretation between disciplines.

Either all researchers involved in the process of integrating disciplines will be responsible for learning the 'language' or vocabulary of other disciplines, or one specific 'language' will have to serve as the fundamental vocabulary for all disciplines. All researchers must become fluent in this language or else run the risk of failing to communicate ideas properly. This implies further that the natural method is a scientific endeavor with the ultimate goal of creating natural kind terms for mental phenomena, especially 'consciousness,' and describing mental processes in a scientific way. This assumption is made from the observation that ". . . the sciences on the one hand aim for clarity, economy, and the absence of ambiguity in their conceptual apparatus . . ." (Wilkes, 13). This clarity is what promotes the pursuit of a *unified* theory of consciousness.

How and Why the Natural Method Works

Owen Flanagan designed his natural method around a trend that has begun to take hold of the academic communities interested in mind and consciousness. Within the natural framework, consciousness and cognition are thought to be phenomena of the brain, and not processes of a nonphysical substance that interacts with our biological system. It is generally accepted today that mental phenomena are systematically dependent on neurobiological phenomena, and therefore the idea of dualism is rendered implausible (Churchland). This shift to physicalism opens an entirely new set of problems. These problems concern, for one, the relations

between experimental psychology and neuroscience, and the best research strategies for understanding cognitive and conscious phenomena and for achieving compatible results. These 'new' difficulties may seem difficult to approach at first, but may prove to be less so when considering the solid basis that biological science gives theory to stand on.

As investigations into mental phenomena continue, it becomes apparent that typically the separate disciplines have particular methods for exploring particular questions. Furthermore, it is generally accepted that specialized academic domains deal with only a specific 'level' of mental life. As Flanagan suggests, this sort of separation is not encouraging for discovering a functional and crossdisciplinary theory. Biological, or scientific, theory is unifying because it lends the existence of an actual physical basis to assist in the description of mental phenomena.

Frustrating confusion ensues when one tries to depend too heavily on contributions to a theory about consciousness that originate from a single discipline. Not only does an accurate approach to consciousness need to start with giving equal respect to different types of analysis (Flanagan), but also with equal *application* of those analyses. If a comprehensive theory of the brain does emerge, says Churchland, it will involve establishing a successive chain of explanations, from the lowest to the highest. Neuroscientists will have to be responsible for determining the brain-side of conscious states, while the functional-causal role will be left to a general psychological account (Flanagan).

In this new view, a reciprocal relationship emerges between lower levels and upper levels, where bottom-up processing is also dependent on top-down processing and vice-versa. Inclusion of both types of interlevel determinism is necessary in order to obtain a complete picture of (causal) reality. However, our approach must also leave room for the phenomenology of subjective experience until we have the scientific evidence to abandon it (Sperry).

From this approach, it might be useful to begin by describing and placing boundaries on the 'levels' of mental

life, and to determine the limitations of each discipline. Neuroscience cannot immediately delve into the structures and networks that give rise to the subjective point of view, so we will assume that for the time being, a concept such as this is out of the domain. We will, however, pay it its due, since many believe that, from a first-personal point of view, consciousness only has *phenomenal aspects* (Flanagan, Natsoulas). Exploration of phenomenology must then be assessed from a different 'level,' and we will take this level to be (also for the present time) in philosophy and linguistics.

Phenomenology, however, does not work alone, because alone it gives no basis upon which to formulate theory. We can accept this, however, while still acknowledging that, contrariwise, our theories mean next to nothing without it. Phenomenology can act as a guide, and this is its function within the natural method. Participants' introspective reports during experimental situations need to be reformulated by the researchers so as to be construed as a source of data. This data can then be related to other empirical observations, thereby helping investigators to draw inferences and parallels about the subject's psychological processing (Nelson, 1996).

The value of the natural method is best summarized by Flanagan himself:

Deploying the natural method, blending and coordinating the resources of phenomenology, psychology, cognitive science, neuroscience, evolutionary biology and cultural anthropology on each mental-state type while attending to what, if any role, conscious states play in the overall functioning of the system in question is the only way, as far as I can see, to build a theory of consciousness. One consequence of this approach, of course, is that we will be building a science of the mind and finding the place of consciousness in it; not the other way around (Flanagan, 1115).

The natural method, then, serves a double function. It is simultaneously a method designed by a philosopher to provide direction for empirical research, and a process by which philosophers can find their concepts *actualized*, where possible theories are empirically confirmed in our world. This method can, however, only serve these intended functions if the disciplines involved are able to coherently integrate their methods and ideas. Successful integration of this kind will depend on the ability of hypothesis generated in one field to be useful and meaningful in another.

Natural Kind Terms and the Confusion of Consciousness

What is so problematic about consciousness? Why do we need science to discuss this concept? The most prominent obstacle one encounters when attempting to conceptualize consciousness is the fact that my consciousness is different from yours. I cannot 'get into' your mind and have the same experiences or sensations that you do. The only way we can compare what we consider to be consciousness, or any other psychological state or sensation, is through communication. Since semantics are something we naturally take for granted, we tend to think that our personal 'language' will work for discussing and describing any topic. The problem with communicating about consciousness through phenomenological reports is that my perspective skews my language, especially the meaning I attach to certain words. I cannot be completely objective about the conscious state I am in the middle of being. It follows quite naturally that my experience with consciousness will also obscure my belief of what it could be like for you.

The problem, put simply, is that no one knows exactly what consciousness is, or if it is anything at all. It is a common usage term put into practice every day to describe a whole array of subtleties or even brute differences in our mental life. It is invoked by scientists, academics, and laymen alike to designate 'something' which we all believe we understand about ourselves and each other. But this understanding is perhaps

misleading and more illusory that we would like to admit. Put under close scrutiny, the clear comprehension of consciousness dissolves and 'consciousness' becomes more a way of categorizing a heterogeneous array of mental states (Flanagan, Wilkes).

What we have in the way of 'consciousness,' then, is just a word with many different semantic functions. This might not matter at all to us, except for the persistent belief that consciousness is a valuable concept in our culture today, and many believe that the psychological and brain sciences (not to mention philosophy of mind) will never be complete or entirely coherent without it. As Kathleen Wilkes puts it:

Language differences of this sort become significant only when the terms in question are (purportedly) those that pick out phenomena that are central to our experience, our forms of life, the way we see and understand the world and our place in it. If 'consciousness' is as central and unavoidable as many seem to suggest, it is then at least *prima facie* interesting that other languages, and English before the seventeenth century, appear to lack the term, or anything that corresponds more than roughly with it: in other words, that what strikes some of us so forcefully, as being so 'obvious,' seems to have left little impression on others (Wilkes, 170).

It is true that the academic and scientific interest in consciousness has waxed and waned, and that our current interest has mainly become noticeable only in the last decade. The suggestion from this quote, however, is that perhaps 'consciousness' is a concept unnecessary to our understanding of psychology or neuroscience. Wilkes is both correct and unjustified in this supposition.

In her further discussion, Wilkes claims there are *at least* four distinguishable kinds of ascription of consciousness. The results of this diverse understanding are that consciousness does nothing for the promotion of systematic study because

"classification in terms of consciousness or its absence is simply too crude to cope with all this diversity. Profitable research into these and other phenomena will require a theoretical classification determined along different, and probably more fine-grained, principles" (Wilkes, 185).

The main problem here is that the words 'conscious' or 'consciousness' are terribly convoluted with other words and other phenomena. I do not, however, think this means the phenomena under consideration, however many we may consider to be 'conscious,' are any less valuable to our study of mind simply because the label for them is rapidly becoming insufficient. On the contrary, I feel this is an indication of progress. As our knowledge of the subtleties of mental and brain processes grows, the phenomena themselves will become more complicated and interconnected. We will simply need to develop better, more carefully construed terms to distinguish the aspects of, for instance, the four separate modes of 'conscious' that Wilkes describes.

Because of this progress, I do not believe that "scientific research . . . can manage best if it ignores the notion of consciousness" (Wilkes, 192). Strangely enough, I disagree with Wilkes for the same reason that she claims this. That is from the fact that "'consciousness' does not pick out a natural kind, does not refer to the sort of thing that has a 'nature' appropriate for scientific study, or which can constitute a 'join' into which nature is to be carved by the sciences" (ibid.).

My claim is a slightly different one. I rather think that 'consciousness' is a term for a concept that is already doing its work for the natural method. It is sparking a large amount of debate for philosophers and other researchers, inspiring research to determine its status as a natural kind. If, as seems to be happening, it does not qualify as such, what we are left with is not a void where a phenomena once stood; instead, we are introduced to a vast array of concepts once compacted under the term 'conscious,' each inevitably to be pursued separately. This is the scientific process by which natural kind terms are determined and decided upon. 'Consciousness' is serving its purpose well.

The real problem is not that consciousness is not currently a natural kind, but that the natural method demands the usage of many different non-natural kind terms to promote the study of consciousness. While discussing consciousness, philosophers and psychologists (scientists too) have the tendency to believe that all of their readers share in their particular phenomenology of consciousness, and therefore, will share in the same understanding of the word. Furthermore, many of these researchers create many other words or phrases to support their view of what consciousness is (see Natsoulas, below). This problem particularly concerns philosophers and psychologists, because not only do they function with a vocabulary specific to their academic domain, but these terms are usually highly esoteric and subjective. I profess that clarification of specific phenomena relevant to study by the natural method will come from attribution of mental states to a scientific vocabulary. This will provide a definite foundation for explanation of terms.

For a topic as abstract as consciousness, the language in which we communicate demands precision. Richard Carlson (1992) believes that many cognitive psychologists hesitate to discuss consciousness for fear of getting lost in the terminological uncertainty and debate that appears to surround the topic. Since one of the goals of the natural method is to discourage this sort of mistrust in 'consciousness' and to promote its study through many different fields, it will not suffice to have each discipline discuss it in their own private terms.

The Foundation of Scientific Natural Kind Terms for the Natural Method

The preceding section dealt with the immanent problems associated with depending on ambiguous terms to describe and communicate about mental events, in particular 'consciousness.' My next effort will be to demonstrate in what way the natural method is a scientific endeavor with the ultimate goal of developing natural kind terms for

psychological-brain processes. I believe that scientific terms provide a undeniable clarity that is imperative to the progress of the natural method. That is, once understood, these terms hold meanings that are unlikely to be misinterpreted across disciplines. Natural kinds by definition have this semantic function. This is not to say that psychological terms will not continue to have a common sense usage, but, rather, that when these psychological processes are discussed and investigated, there will be a minimum chance of the actual phenomena under consideration becoming obscured or mistaken for another phenomena.

There is both a positive and negative side to what I am suggesting. The positive implications should be clear enough. We will benefit from being able to communicate across disciplines without the importance of our topics being diminished. The downside may be that the investigators working in hitherto non-scientific domains (at least in the sense that the bulk of scientific language is not generally used within the discipline) will necessarily have to educate themselves in this terminology. This is especially relevant to the natural method in the sense that as we accept that all psychological processes are systematically dependent on brain processes, the neural structures and systems that give rise to these processes have a precise set of terms to designate them. It is no longer acceptable for a philosopher to discuss the implications of a neurological patient's phenomenology while skipping over the neuroscience. In order for the natural method to work (and it can work), everyone involved needs to be serious about what this method entails.

Two examples of the way in which disciplinary language can effect the presentation and coherence of an argument are presented below. Both examples attempt to combine ideas from separate disciplines, both have different objectives, and both introduce new terms in order to lend support to their argument. One succeeds, the other does not, and the deciding factor is the use of scientific terms and processes contained within the natural method.

A recent attempt to use the natural method to construct a theory of psychological processes is provided by Antonio Damasio in his book, *Descartes' Error*. The hypothesis generated in this work should demonstrate two things. First, the use of scientific natural kinds is generally the most helpful in describing and supporting the existence of a particular phenomenon. Second, these terms are not helpful at all if the reader is not versed in them. A summarized version of Damasio's 'somatic-marker' hypothesis will exemplify these two points.

Appealing to examples of several neurological patients with similar deficits of mental capacity, Damasio explains the neural basis for these types of deficits and the possible influence of emotion on the reasoning process. From the diverse and plentiful production of mental images that represent the consequences of a decision, we are aided in the process of choosing 'good' options over 'bad' ones by the help of 'somatic markers.' 'Somatic markers' are body states that 'mark' an image and give it incentive to be prioritized or discarded based on the sensation had by the organism. This provides an increase in the accuracy and efficiency of the decision process.

What gives this argument its powerful persuasive capacity is its precise scientific terminology and its scientific conceptual constraints. His term 'somatic-marker' is clearly defined and difficult to misunderstand. This is because all of his terms are either natural kind or contain natural kinds in the bulk of their defining concepts. 'Somatic,' for example, is described by Damasio as "being used in the most general sense (that which pertains to the body) and . . . include[s] both visceral and nonvisceral sensation when . . . refer[ing] to somatic markers" (Damasio, 173).

Throughout his defense, Damasio is careful not to stray too much from basic scientific principles, such as the notion of 'evolutionary advantageous.' He confines his discussion of phenomena to its relevance to these concepts, whose constraints are maintained by terms with precise natural kind or otherwise scientific definitions accepted upon consensus.

Such is the manner in which he supports his idea for the motivation a organism receives from somatic markers:

The neural basis for the internal preference system consists of mostly innate regulatory dispositions, posed to ensure survival of the organism. Achieving survival coincides with the ultimate reduction of unpleasant body states and the attaining of homeostatic ones, i.e., functionally balanced biological states. The internal preference system is inherently biased to avoid pain, seek potential pleasure, and is probably pretuned for achieving these goals in social situations (Damasio, 179).

All concepts and terms in this paragraphs are those that belong in a scientific/naturalistic framework. By relating his hypothesis to an almost unanimously accepted conceptual term, that of survival, his argument gains a persuasive force that easily crosses disciplinary boundaries. Scientific ideas, concepts, and terms have infiltrated our culture to such an extent (especially the academic community) that by grounding his argument in this way, Damasio qualifies his idea simply by the terms he uses.

This is not to say that this manner of argument is flawless. As demonstrated by the following quote, if the reader is not educated in the more technical terms, he or she might feel alienated by the specifics and develop the tendency to skip over this scientific support:

. . . the prefrontal cortices are ideally suited for participation in reasoning and deciding . . . They are directly connected to every avenue of motor and chemical response available to the brain. The dorsolateral and upper medial sectors can activate the premotor cortices and, from there, bring on-line the so-called primary motor cortex (M1), the supplementary motor area (M2), and the third motor area (M3). The subcortical motor machinery of the

basal ganglia is equally accessible to the prefrontal cortices. . . . The ventromedial prefrontal cortices send signals to autonomic nervous system effectors and can promote chemical responses associated with emotion, out of the hypothalamus and brain stem (Damasio, 183).

The paragraph given here is extremely important for achieving a complete understanding of Damasio's defense of his hypothesis. The position and connections of certain neural structures in relation to the prefrontal cortices cause Damasio's hypothesis of how emotions and reason interact to mimic patterns of this design. However, one must already have a working knowledge of neuroscience to accept this. Clearly, this is an example of how particular ideas are transmitted between the experts of a certain field, to the exclusion of people versed in another (perhaps philosophical, perhaps psychological) vocabulary. However, as I will and have argued, this vocabulary is the most promising out of all involved in the natural method, because many of its terms are natural kinds, and designate objects or concepts that cannot be designated any other way.

Perhaps an alternative example will help elucidate my point. A contrary theory that does not rely to any notable extent on natural kind terms or scientific concepts is the 1992 essay by Thomas Natsoulas entitled "Is Consciousness What Psychologists Actually Examine?" I chose this essay to illustrate two further points. One is that when theory from a single discipline is confounded with highly *subjective* terminology, it results in something too semantically frustrating to deeply consider. This is quite unfortunate, for the underlying ideas contained therein may be quite worthwhile. In this discussion, Natsoulas, a psychologist, discusses the place of consciousness in cognitive psychology using the thesis presented originally by Anthony J. Marcel in 1988. Natsoulas favors the proposition that consciousness is a substantial part of what psychologists have been examining all along. He contends, however, that in order to think Marcel's thesis valid,

we must first have an understanding of how Marcel perceives consciousness.

I will not discuss in depth this definition of consciousness, however, for this applies directly to my own thesis—without a common language as a basis, namely the objective natural kind terminology, there can be no clear understanding of the thesis. A *partial* list of terms introduced by Natsoulas is mentioned in commentary on Carlson's 1992 article. These terms include *phenomenal experience, direct acquaintance, reflexive consciousness, inner (nonperceptual) awareness in the direct-acquaintance manner, immediate awareness, apprehending phenomenal effects*, etc. Marcel and Natsoulas stand by the thesis that a substantial part of the data of psychology is phenomenal experience—that is, given as introspective report. What Natsoulas is saying (through Marcel) is that psychological processes occur through consciousness, and especially are expressed that way.

This is an interesting thesis, but it lacks empirical value because Natsoulas depends too heavily on approaching the discussion of consciousness from a verbal psychological perspective. Too little of his argument is backed by straightforward scientific terminology and concepts. Because of this, the argument lacks conviction. As Bernard Baars, another of his critics, describes, "[Natsoulas has developed] a specialized conceptual vocabulary so subtle and puzzling . . . that it simply exceeds my grasp, though I have spent a fair number of hours trying to understand it. This is regrettable, because Natsoulas is surely one of the most thoughtful people in the field, and his ideas may fail to communicate to many readers who would like to understand them" (Baars, 591).

This is not a isolated event. Many discussions about consciousness and other mental states fall prey to this terminological uncertainty. What is important about both the preceding examples is that they demonstrate the difference between a specialized vocabulary grounded in the biological sciences, and one grounded in psychology or philosophy. I do not believe we would find commentary on *Descartes' Error* claiming that Damasio used far too many scientific words to

be understood. This is simply because most people accept that scientific terms and concepts are precise designators of something *real*. The overriding message of this discussion is that Damasio's hypothesis aids in the progress of the natural method, because researchers are able to *do something more* with the hypothesis Damasio provides. It is explained in such a way that makes it transferable and testable. We can do nothing more with Natsoulas' idea. The real implications of his hypothesis are hidden in his terminology.

The natural method is a scientific process and, if done correctly, will result in the development of naturalistic terms to describe mental events. This is the ultimate goal of the natural method, as an *unified theory* of anything, but in particular consciousness, will depend on a more universal understanding of the elements contained in the theory and the purpose and projection of that theory. The trend observed in the preceding examples is that there is a greater tendency to accept scientific terms as support for an argument. The natural method must necessarily progress towards this 'language' as the basis for communicating ideas or lose the coherence of its project in the process.

It is not my intention to snub the methods or vocabularies of non-scientific disciplines. I fully grant them the right to continue the production and usage of their particular 'language' if it is suitable and functional for their purposes. I merely want to show that if we really plan to undertake the projects suggested by the natural method, we must decide on the most effective and efficient way to proceed. Scientific terms are the least ambiguous of all our current options. I suggest that in order for the natural method to produce a unified theory of consciousness, all further attempts at integrating ideas from different disciplines should be grounded in naturalistic terms. I understand this will take time and effort from all researchers involved in the natural method. But because 'consciousness' is such a notoriously ambiguous concept, we must do something to prevent this 'heterogeneous array of mentalstate types' from eluding us again.

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