In his numerous works, John Searle has well documented the difficulties in contemporary philosophy of mind, often historically tracing them to our modern philosophy forebears.¹ The intractable problems of substance dualism and the dogged insistence on either a dualism or an eliminative reductionism/materialism, has determined the discourse of philosophy of mind. Searle’s contribution to the debate points out the inherent difficulties in the existing vocabulary and methodologies, while, simultaneously, offering a positive programmatic that avoids the interactionist problems of dualism, and also endorsing a distinction between body and mind. His “biological naturalism” reports to maintain an ontological distinction—one celebrating the 1st person, personal, subjective, qualitative unity of consciousness, as well as describing the causal determination and spatial extension/location of cognition —while at the same time endorsing a causal reduction of the mind to microphysical explanations (neuronal/neurobiological activity at this point in development).²

In order to explain the ontological distinction and maintain a causal reduction, Searle proposes a variety of research methodologies, all of which demand finding a neuronal correlate of consciousness (NCC), whether of an individual conscious state (the building-block approach) or the whole conscious field of qualitative, unified subjectivity (unified-field approach).³ The former would isolate a particular experience e.g. the color red, the sound of middle C, and, by use of fMRI scans, determine the particular NCC for the qualitative experience. “The idea of the building block approach is this: if we could figure out exactly how the brain causes even one building block, say the perception of red, then we might use that knowledge to crack the whole problem of consciousness.”⁴ The latter, however, does not seek particular experiences and look for an NCC. Rather, it attempts to answer questions of how the brain can “produce the whole conscious field in the first place… what we need to understand is how the brain produces this conscious field and the field exists in the brain.”⁵ This “hard problem” of consciousness is one for which Searle provides no answer, and for which ongoing research offers a promissory note. Searle, himself, endorses the unified-field approach, but offers little in the way of guiding research.

What I propose for this paper is not to provide an answer to the “hard problem” of consciousness as Searle elaborates it, but to argue for an alternative research program that can redirect ongoing research. It will not eliminate the need for research in cognitive science, but it may prove useful in offering an emendation for the paradigm through which this research is conducted. To do so, I would like to take a few cues from the history of philosophy, notably Kant’s concern with a unified field of consciousness and the possibility of human experience/cognition in general. As a brief sketch, I will employ arguments about space and time, the generation of categories through

¹ Particularly, to Descartes to whom Searle ascribes nearly three-hundred years of systematic difficulties because of his dualism.
³ Serle (2004). P.151
⁴ Ibid.
⁵ Searle (2004). P. 154
which experience is possible and the imagination. After exploring an “embodied” approach to Kant’s philosophy, I will then demonstrate the connection of this historical tradition to the contemporary work of Shaun Gallagher and his distinction between body schema and body image. In short, by demonstrating an “embodied” notion of pure concepts and their generation by the imagination through the use of space and time, and their illustration in motility and proprioception through the use of body schema and body image, I hope to offer insight into a potentially promising research area, the imagination.

A. Kant’s Tacit Embodiment

i. Kant’s unified project

Kant’s understanding of consciousness is typified as a non-empirical, that is, transcendental, methodological inquiry, and his conclusions represent a philosophy that accounts for consciousness, but one that does so in an a priori manner, devoid of content rich material from the world of the senses. According to standard, traditional, interpretations, Kant delimits human knowledge by employing arguments that make little use of empirical data or bodily influences. His transcendental methodology argues for universal, necessary requirements for the reported 1st person, personal experiences we report as knowledge, and such requirements cannot be met through empirical means. In order to explain the contents and functions of consciousness, Kant differentiates between the material of the senses and the forms through which this material, both sensible and intelligible, is filtered in the process of making judgments. And, while this interpretive strategy remains faithful to Kant, it underestimates a deeper understanding of the sources for and justification of the basic conceptual building blocks of human cognition/consciousness, the categories.

The space Kant dedicates to elaborating the sources for and justification of the basic conceptual building blocks of cognition is entitled the Transcendental Analytic, in particular the Transcendental Deduction—by Kant’s own admission, the section that entailed the greatest effort. What we find in this section is an elaboration of the conditions necessary for consciousness of anything “in general”. In the opening sections of the Analytic Kant presents, almost Athena-like, a complete table of pure concepts by means of which any cognition is possible. After which Kant presents his argument(s) for their legitimacy, in his words, their objective validity and reality. Much commentary has been spent decrying the success of Kant’s deduction. Regardless of his explicit purpose and the success or failure of such measures, what Kant does achieve is providing transcendental argumentation for the very phenomenon that Searle wishes to retain in his “biological naturalism”, namely a single, unified conscious field. Kant argues that a transcendental unity of apperception is required in order for cognition of any object to obtain. In other words, there must be a unifying “self” that is operant in the cognition of

---

6 In this regard, Kant acknowledges the seriousness of Hume’s skepticism, taking it quite seriously, and admits that knowledge arrived at through empirical employment only obtains probability, and even in the cases of the laws of empirical sciences only a high degree of probability.

7 A99

8 Most traditional interpretations, even the generous ones, deem Kant’s deductions a failure. His explicit purpose is to demonstrate the objective validity of the categories, and Kant himself doesn’t discuss this topic much. Rather, he argues for the nature of consciousness and for process of synthesis.

9 Searle himself notes the relevance and importance of Kant’s achievement cf. Searle (2004) p.136
any object (or unified field,\textsuperscript{10} for that matter). This first person, personal, qualitative, subjective condition required for experience (judgment in Kant’s vocabulary) is the sine qua of consciousness and self-consciousness. In Searlean research paradigms, if one could discover the NCC for the transcendental unity of apperception, the hard problem would be solved. (Such an approach is not only implausible, but impossible in Kant’s schema because of the impossibility of representing it; all representation would be merely empirical apperception.) Searching for such an NCC seems rather much like looking for a needle in a haystack, or, worse, looking for something that cannot be represented as any representation would not be the actual unity behind any given representation. Instead, I propose that rather than looking for the NCC of the transcendental unity of apperception, one might look to other a priori features to, which find the same universality and necessity to them, and, as representable, might fit into either of Searle’s research paradigms.

What is vexing to most readers of Kant is the source of the categories themselves. Kant answers this question in his argument for the requirement of the transcendental unity of apperception, but he does little more work to explain the source of the categories and/or how he arrived at his list. It is precisely this explanation, however, that I believe illustrates Kant’s embodied cognition. In combination with the transcendental unity of apperception (using it the primary example, not dissimilar from the way Descartes utilizes the cogito as his archetype for certainty) and a new deduction of the categories, I think a new way of understanding Kant as well as the Searlean claim for causal microstructures of the mind is available. Of course, this new deduction and the elements it employs does not provide the clear neurological microstructures to explain the causal mechanisms at work, nor the NCC for any given conscious experience. It may, however, provide a guide for conceptual primitives, how they arise and what one might look for in an NCC.

If a deduction of the categories, a search about their origins, is to be found in Kant, it must be sought from a different section than the transcendental deduction. In the Analytic of Concepts and the Clue to the Discovery of all Pure Concepts of the Understanding we find an abbreviated attempt by Kant to attempt a metaphysical deduction of the categories. Opposed to the transcendental deduction, which reports to demonstrate the conditions for the possibility of cognition, in the metaphysical deduction Kant purports to show the origins of the table of logical judgments and consequently the categories as well.

A new metaphysical deduction is in order to assist Kant in satisfying the \textit{quaestio jure} with which he concerns himself at the heart of the \textit{Critique of Pure Reason}. This new deduction is intended to present a supplementary to Kant’s own, by addressing the origins of the categories themselves. Kant does provide an answer to this question, citing the transcendental unity of apperception as the necessary origin of any cognition. But this sense of origin does not provide his reader with a satisfying deduction of the categories. What Kant’s critics have pointed out is the need for a more explicit description of the transcendental table of judgments and its connection to the table of categories. It is now to this task I wish to turn.

\textsuperscript{10} Kant concerns himself with this very issue in his three-fold analysis of apprehension in intuition, reproduction in imagination and recognition in a concept, and his eventual conclusion on the transcendental power of imagination operative in all three ec-stases of temporal navigation. CF A99-A110
Before beginning this new deduction, one must be reminded again of the distinction between sensibility and understanding. Kant claims that the division between the two is that “[c]oncepts are based upon the spontaneity of thought, sensible intuitions on the receptivity of impressions.”

According to Kant, the realm of the understanding is concepts and thinking (judgment), that of sensibility is receptivity and intuitions. By this juxtaposition, Kant delineates the understanding as an active faculty and sensibility as passive. This is of primary importance in tracing the origin of both the tables of judgments and the categories, for with these transcendental tables Kant is dealing here not with empirical judgments or objects (although we will find them in connection with empirical objects) but with a priori modes of thinking, the modes and concepts that are necessary for rational beings. Kant is dealing exclusively with the forms of thinking, the forms by which thinking occurs and the rules that thinking obeys. It is my contention, and Kant’s I believe, that the table of logical judgments leads directly to the table of categories through the delineation of rules of judgment through an exhaustive account of a priori intuition.

As the transcendental table of logical judgments is the product of the logical employment of the understanding, a brief examination of Kant’s logic will prove insightful regarding the origins of such a table. Kant’s own words are helpful:

General logic… abstracts from all content of knowledge, that is, from all relation of knowledge to the objects and considers only the logical form in relation of any knowledge to other knowledge, that is, it treats of the form of thought in general.

The domain of logic, as Kant formulates it, is the form of thinking—the ways by which we order information and concepts. Kant, in his thoroughness, allows for two applications of this logic, as it is employed with empirical objects but also removed from empirical content, that is, in pure thought. In this discussion, Kant excludes logic as it is applied to empirical objects in order to ensure empirical skeptics that the judgments and concepts he provides are not mere abstractions from experience. According to Kant, pure, or general, logic has nothing to do with empirical objects. The application of general logic can only follow upon having demonstrated the a priority of the rules of thinking. According to Kant, the rules of thought with which we are dealing should “contain solely the rules of the pure thought of an object.” Furthermore, a pure logic which determines “the origin, the scope and the objective validity of such knowledge [of the pure understanding], would have to be called transcendental logic.” This pure, transcendental logic “concerns itself with the laws of the understanding and reason.” By separating this transcendental logic from general logic, Kant can emphasize the rules that govern thinking itself and maintain that the list he provides remains free from any empirical content. The laws will thus be universal, as they pertain to no particular objects of experience. Rather, they will govern how objects of experience can be judged. The transcendental table of logical judgments concerns itself with the rules by which the

---

11 A68/B93.
12 A55/B80.
13 A55/B80.
14 A57/B82.
15 Ibid.
understanding orders its concepts, and thus will govern how an object can make an appearance at all. At this point, it is clear what the table of logical judgment concerns, but the question of its origins is not so.

The origin of the table, I would like to suggest, is the interplay of the imagination with the forms of pure intuition. This seemingly odd declaration is the final product of exposing presuppositions about judgments themselves and the requirements Kant holds to maintain their transcendental status. As transcendental logic is not empirical, no experiential content, that is, no objects of empirical experience can be permitted. As this is Kant’s position, about what then is such a logic forming laws? In order of his analysis, Kant has not even admitted the pure concepts of the understanding, thus they cannot be the content of transcendental logic. Yet, Kant has permitted the pure forms of intuitions as the content of meditation. As pure intuitions are merely the form of sensibility, devoid of particular content, they meet the requirement of general logic, that is, they are abstract and not of particular objects. It now remains to be seen how he can employ the forms of sensibility in a transcendental logic.

Following Kant, there are two forms of pure intuition, space and time. Time, as the form of inner sense, manifests itself in the form of simultaneity and succession. Space, as the form of outer sense, manifests itself in terms of proximal location, position. Understanding space and time in this abstract, formal, sense, the imagination employs these universal, formal “concepts” in a discursive manner. That this is merely formal thought allows Kant to maintain that any logical determinations employing these “concepts” will be able to provide a table of judgments, one that regulates all judgments generally, but in its first formulation as purely transcendental. The table of logical judgments is the product of an exhaustive projection of the pure forms of intuition by a power well used but little documented in the history of philosophy, imaginative variation.\(^\text{16}\) Using the power of imagination, the possible permutations of space and time can be elaborated as follows:

1) one ‘object’ in one place at one time; local identity and temporal simultaneity
2) one ‘object’ in one place at two different times; local identity and temporal succession
3) one ‘object’ in two different places at one time; local proximity and temporal simultaneity*
4) one ‘object’ in two different places at two different times; local proximity and temporal succession
5) two ‘objects’ in one place at one time; local identity and temporal simultaneity*
6) two ‘objects’ in one place at two different times; local identity and temporal succession
7) two ‘objects’ in two different places at one time; local proximity and temporal simultaneity

\(^{16}\) An interesting and important question is whether such imagining is extra-conceptual, prediscursive, and the presentation that enables discursivity or whether such a presentation is already discursive. As it is given here I wish to leave the question open, certainly the elaboration is provided in conceptual apparatus, but this need not imply the elaboration is already under the conceptual constraint of the categories. It is Angelica Nuzzo’s claim that such imagining is precisely prediscursive and embodied. Cf. Nuzzo (2008) (2013).
8) two ‘objects’ in two different places at two different times; local proximity and temporal succession\textsuperscript{17}

The imagination, working with the pure intuitions of space and time, devoid of any content,\textsuperscript{18} generates these permutations to create this list of possible scenarios. Furthermore, this task can be done repeatedly and the same list of eight will be produced—these are the only possible combinations of two variables with two possibilities—any further elaboration will fall under one of these headings. The list is exhaustive of the possible permutations of the concepts of space and time. Thus imagination will enforce a rule in ascribing any permutation to one of the above listed; that is, the imagination will synthesize any further elaboration into one of the already listed possibilities.\textsuperscript{19} Hence, this table can be considered complete. This list of possibilities of the combinations of space and time, is not yet the transcendental table of logical judgments Kant provides. But with further exploration of the imagination’s use of this list, the table of judgments can be derived.\textsuperscript{20}

Stipulating one ‘object’ as the entirety of the domain and imagining one ‘object’ in one place at one time yields the judgments; universal, affirmative, categorical and assertoric—this one ‘object’ is, it is all that exists in the domain, for all things in the domain it holds. Stipulating two ‘objects’ in a domain and imagining two ‘objects’ in one place at one time yields the judgments; universal, negative, categorical and apodeictic—for all things in the domain, it is necessary that two ‘objects’ cannot occupy the same space. Stipulating two ‘objects’ in a domain and imagining two ‘objects’ in two places at one time yields the judgments; particular, hypothetical, disjunctive, affirmative, assertoric and apodeictic—it is, and is necessarily so, if two, individual ‘objects’ occupy two separate spaces at the same time, they bear some relation to each other in proximal location. As separate and distinct objects in the domain, one must attend to one or the other. Moreover, Kant insists that provided we have the first two judgments in any heading, we can deduce the third, hence all the judgments he lists may obtain from this simple list.

The transcendental table of logical judgments is hereby shown to be drawn directly from the power of imagination and its variations on pure intuitions. What is of special significance here is

\textsuperscript{17} logical impossibilities

The list could continue indefinitely, but the fundamental relationships of objects to one another and the judgments to be drawn do not increase. Hence the addition of further ‘objects’ will not increase the possible judgments to be determined.

\textsuperscript{18} It is important here to note that Kant never prohibits “material for the concepts of the understanding.” Rather, he cites a specific kind of material, a “manifold of a priori sensibility, presented by the transcendental aesthetic” as the proper content for pure concepts. He suggests that “in the absence of this material the concepts would be without any content, therefore entirely empty.” A77/B102.

\textsuperscript{19} The understanding will recognize by the content of the imaginative permutation that it is a reproduction of a former, original permutation.

\textsuperscript{20} In his exegesis of the transcendental table of categories, Kant suggests that we also rely upon “general logical concepts” and the “technical distinctions ordinarily recognized by logicians.” A71/B96. I interpret this to mean that we rely upon the general forms of syllogisms including the AEIO propositions of Aristotelian logic i.e. universal, particular, affirmative and negative propositions. Schwyzser and Longuenesse argue for the necessity of this more formalized system, but without realizing the source for the basic propositions of the syllogistic system. Cf. Schwyzser p.12. Reinhard Brandt, in his work The Table of Judgments, suggests Kant also presupposes other logical principles; the principle of non-contradiction, the principle of sufficient reason and the law of excluded middle. Cf. Brandt, p. 96. What I am attempting to demonstrate is the origin for these additional principles, at least for identity and excluded middle.
that, while administering the permutations of imaginative play, the imagination itself is producing the possible forms of judgments. This productive function of the imagination is creating the rule by which all syntheses must operate; every act of judgment, that is, all conjoining—whether empirical or transcendental—must operate according to the specified rule of synthesis that the productive imagination lays out in this earliest enterprise of joining pure intuitions of space and time.21 Also of signal importance here is “material” with which the imagination has to work. As forms of intuition, space and time are “concepts”, in Kant’s vocabulary. But, importantly, they are elements of sensibility, the bodily half of Kant’s two stems of knowledge. The completeness of the permutations and the corresponding rules allow for all possible forms of synthesis, that is, all judgments.

By undergoing this labored analysis of the content of logical judgments, I hope to have shown the direct deduction of the table of judgments from the only possible content available at this point in Kant’s analysis, the pure intuitions, by means of the imagination. Additionally, I have shown how Kant can maintain that all knowledge does begin with experience, the experience of thinking through pure intuitions, but it does not necessarily arise from experience. The fundamental judgments by which we judge experience begins with a bodily “experience” of the pure forms of intuition, but arises through the productive imagination’s use of them. Knowledge, logical and pure at this stage, does begin with experience, the activity and exercise of the imagination, but its origin is elsewhere—in the power of the imagination to synthesize experience in such a way that provides the rules for the understanding. In Kant’s words, this originative synthesis occurs simultaneously at the levels of “apprehension of representations as modifications of the mind in intuition, their reproduction in imagination and recognition in a concept.”22 Kant here suggests, as we have seen, that the above permutations require the immediate apprehension of pure intuitions, variability and reproduction of these intuitions according to the play of reproductive imagination, and are codified, conceptualized, as an exhaustive list of possible judgments. The judgments, as immediate acts of joining, are thus the first employment of such rules, and the enumeration of a table of judgments provides Kant occasion to demonstrate just such synthesizing.

While the transcendental table of logical judgments affords the opportunity to see the employment of the imagination in an originary way, the content of such judgments does not yield any scientific knowledge—it does not directly relate us to the world of possible (empirical) experience; it only creates a barren world of syllogistic rules. The next step in Kant’s illustration of cognition, the categories, does not provide us with the rich world of possible experience either, but it does provide us with the fundamental categories employed by the imagination23 to create the venue for possible application of concepts with empirical intuitions. Little further work needs be done to show the deduction of the table of categories from the table of judgments. Like the judgments, the categories employ the manifold of pure intuition and the imagination to synthesize this manifold. But, unlike the judgments, which employ general logical concepts, the categories are available by use of the judgments themselves. Again, the statement from

21 Another important note here, one that Kant makes explicit in the A-deduction, is that whenever we have multiple ‘objects’ in the domain or multiple times, the syntheses of apprehension and, more specifically, reproduction are at work according to the principles Kant lays out only later in 1st Critique.
22 A97.
23 Through the schematism.
A97/B105 provides us with insight into how categories may be formed by the power of the imagination; Kant writes:

The same function which gives unity to the representations in a judgment also gives unity to the mere synthesis of various representations in an intuition, and this unity, in its most general expression, we entitle the pure concepts of understanding. The same understanding, through the same operations by which in concepts, by means of analytical unity, it produced the logical form of judgment, also introduces a transcendental content into its representation, by means of the synthetic unity of the manifold of intuition in general. On this account we are entitled to call these representations pure concepts of the understanding…”

Unlike the acts of judging by which we enact syntheses, the categories are representations of these syntheses, representations of the logical judgments. Kant claims a “given category is the corresponding logical function, conceived now as ranging over whatever might be presented as an object of thought.” By representing the act of judging as categories, the understanding provides itself with the conceptual architecture by means of which it can begin to evaluate possible experience. Following Kant’s suggestion, the activity creating the categories is, once again, left to the power of the imagination.

Analogously to the imaginative variation involved in deducing the judgments, the categories can be deduced by following the imaginative variations of the possible permutations of space and time listed above. Imagining one ‘object’ in one place at one time in conjunction with imagining two ‘objects’ in one place at one time yields the category of unity—two objects cannot occupy the same space at the same time, unless they are one; imagining two ‘objects’ in two places at one time yields the category of plurality; imagining one object, whether in two places or one, at two different times yields the category of inherence and subsistence, provided we represent them as identical ‘objects’; imagining two ‘objects’ in two places at one time yields the category of community, etc. According to this account, the categories are a combination of the pure intuitions and judgments brought to representation by the power of the imagination. The categories are thus deduced from the table of judgments according to the same activity by which the table of judgments was deduced, the productive power of imagination. Such a deduction adds the missing exegesis that permits Kant to answer the quaestio jure he sets out as the question to answer regarding the legitimacy of the categories. The right by which Kant can claim objective validity is the exhaustive account of the forms of intuition and the complementary judgments determined. That this exercise is pure a priori satisfies Kant’s prerequisite that such a deduction is not merely the exercise of empirical concept acquisition, but neither is it solely a rational logico-discursive presentation. By employing formal judgment and forms of intuitions, Kant can claim the a priority, universality, necessity and exhaustiveness required to affirm objective validity of the categories. The categories can thus be seen as the necessary rules by which human cognition obtains.

Important here, and the drive behind this lengthy explanation of Kant’s categories is to highlight two often overlooked components in determining the basis for consciousness simpliciter, the

24 A79/B105.
25 Schwyzer, p. 17.
bodily component, albeit a formal bodily component, the forms of space and time, in combination with the imagination. The proper domain of the imagination remains a contentious issue in Kantian scholarship. Imagination’s use in the deduction above is not a bodily activity, and yet what it achieves is a remarkably bodily understanding of objects generally. One finds a similar illustration of the notion of primitive concepts employed in motility and objects in general in Lakoff and Johnson’s “basic level categories”. The difference, however, is that these Kantian categories are not derived from empirical experience, but, rather, from the structure of embodiment. In this way, Kant can still insist upon the universality and necessity, and hence commonality of the basic architecture of consciousness, and still connect it to fundamental activities of the body. It is this connectivity that permits a form of “embodiment” but one that retains the Kantian spirit, which avoids an autobiographical and cultural relativism of our basic understanding of the world.

B. Imagination in our Embodied Experience

The preceding section establishes a basic cognitive architecture of human consciousness, even attempting to explain the mechanism(s) by means of which we arrive at these fundamental concepts i.e. the imagination. The imagination, what it entails and NCCs, if available, present a promising programmatic for research into Searle’s answer to the hard question. What is missing, however, is a further refinement and understanding of what the imagination is and how it operates in our conscious experience. Simply mapping the NCC of imaginative activities offers a potential way to understand the unity of consciousness. Yet, if one takes Kant’s fundamental formulation of imagination, the power of synthesis, it remains unclear as to just what researchers will look for. With Shaun Gallagher’s refinement of imagination in its employment of proprioception and motility, a further delineation into what a potential research program will seek is available.

In 1945 Merleau-Ponty addressed the possibility of this embodied approach to consciousness we are exploring by illustrating the primacy of embodiment in perception and the subsequent consciousness that is inherently dependent upon a perceiving body. Drawing on the works of Henry Head and Paul Schilder, Merleau-Ponty introduces the schema corporel in order to emphasize the fundamentality of perception in our orientations. Problematically translated as body-image, the schema corporel, Merleau-Ponty maintains, is not merely the compendium of our bodily experience, but is, rather, “the anchoring of the active body.”

Formerly considered the residue of habitual cenesthesia and the associations of ideas that emerge through childhood in proportion to tactile, kinaesthetic and articular developments, body image was traditionally defined as the product of bodily activity. Merleau-Ponty inverts the traditional understanding of body image by arguing that a “total awareness of my posture in the intersensory world” as “an attitude towards a certain existing or possible task” must be at work, if only at a pre-reflective level, in order for activity to obtain. That is, Merleau-Ponty suggests that there must be a sense of personal identity and an awareness of who and what one is in order for one to accomplish any activity, part of this including knowing where one’s body begins and

---

ends and what one may accomplish with one’s body. The “zero point” of our orientation to the world and our projects within it is presented as a unified whole that is characterized by both having and doing. I have and am the unified position from which I see the world and my interaction within it and execute my tasks accordingly from such a position. Moreover, this zero point is not a mosaic of parts, but is, originally, presented in activity as a unified body through which I achieve my projects (the Searlean and Kantian unity of consciousness, prior to any evaluation). Phenomenologically, I experience myself as a unified whole acting in the intersensory world to achieve my activities. Furthermore, my identification with this anchor point is a de facto possession, ownership, and agency of this starting point for activity. That such an orientation point is not the disembodied Cartesian ego is evident from the inclusion of the elemental bodily orientation in the activities to be achieved. Moreover, it is not merely a bodily position that provides the zero point of orientation, but also the interactive element of sensorimotor activities that require both tacit and explicit intentionality—just what this position is is not to be reduced to mere physiology. The body-subject is neither a Cartesian consciousness nor an aggregate of bodily parts, but, rather, the holistic, embodied zero-point from which and through which all activities are perceived and executed. The schema corporel, the primacy of embodiment in perception and consciousness, offers an explanation that includes personal identity in terms of both the ownership and agency that phenomenological accounts report while satisfying the empirical demands for inclusion of the body in the constitution of consciousness by demonstrating the role the body plays in anchoring ourselves in the world.

While Merleau-Ponty provides an initial formulation of schema corporeal that can provide and account for the body’s role in perception and consciousness, it is not without its problems. One glaring ambiguity in M-P’s account is a lack of clarity about the “awareness” that is operative in the body-subject’s understanding and awareness of the schema corporel. To clarify, Shaun Gallagher (2005a) distinguishes two different types of awareness, one employed in a pre-reflective “use” of the body, the body schema, and another, the body image that operates at a reflective-representational level, one more properly called awareness. As Gallagher notes: “body image and body schema refer to two different but closely related systems” and while “a distinction between body image and body schema will not be adequate to explain all aspects of embodiment, we nonetheless need to draw some clear line of demarcation between these concepts in order to begin to resolve certain problems and to see our way clearly into the ambiguity of embodied experience.”

The body schema, according to Gallagher, “is a system of sensory-motor capacities that function without awareness or the necessity of perceptual monitoring.” Body schema primarily relates to the prerequisites and constraints involved in motor movement and posture. In addition, Gallagher notes that body schema is operative in all movements and often operates best when the intentional object of perception is something other than one’s own body. When navigating rocks

---

29 That this orientation point cannot be explained by biological essentialism stems from the holism maintained as an explanans for mosaicism; that is, a holistic position from which to evaluate the parts is necessary for a mosaic understanding of our body—precisely Kant’s argument for a transcendental unity of apperception.


31 Ibid. Citing Head, Gallagher also notes that body schema may be employed in the plural to refer to “a collection of motor programs or motor habits that individually may be defined by a specific movement or posture.” Different activities employ different schemata in order to achieve their various goals e.g. the movement of hand to mouth vs the balance and movement utilized in walking.
across a stream, for example, the execution is often hampered by an explicit awareness of the position of one’s feet, location of one’s arms, or burden of the weight one is carrying. Successful negotiation of the stream is more easily accomplished if one attends to the rocks, water and potential obstacles. The body schema found at this pre-noetic level enables one to traverse a stream by allowing one to attend to the obstacles rather than the obstacles and our own bodies. The body schema is informed by proprioception and vision, but is not identical with or reducible to an awareness of one’s limb position through either means. The spatiality and movement found in this pre-reflective body schema is not the amalgamation of proprioception or vision, but, rather, the embodied understanding of the whole of one’s person and the parameters and constraints of embodiment as such. Under the level of explicit awareness, one finds that one is capable of enacting certain motor movements without deliberate attention to the activities e.g. reaching for a glass of water, navigating your way through your home at night without the lights on. At work at the schematic level is a pre-noetic awareness, attention and perception of oneself and one’s environment and an understanding of one’s relation to potentially intentional objects. If one so chooses, one can consciously attend to the glass one wants to drink from, but, doing so is not required. How these basic motor movements are possible within the complex environments within which we find ourselves is made possible by extending the schema corporel of Merleau-Ponty to a pre-reflective, immediate awareness enabled by our tacit bodily perceptions.

However effective our pre-reflective experiences may be to coordinate simple motor functions, I also find myself attending to my body, or parts of it, and being conscious of it throughout various intentional states. To account for this explicit level of awareness, Gallagher continues his clarification of M-P’s schema corporel by delimiting the body image. Unlike body schema, body image “consists of a system of perceptions, attitudes or beliefs pertaining to one’s own body.” Prima facie, body image can be understood as the explicit representation and awareness of one’s body that can include simple conscious monitoring of body parts during movement, but can also extend to beliefs and attitudes about the body, such as an image of a ‘fat body,’ a ‘physically fit body,’ or even a body or part of a body that seems to not belong the rest of the ‘whole body.’ Thus, body image is distinguished from schema insofar as the former allows for felt disunity between conscious subject and his or her body (Kant’s empirical self).

Yet another way to separate the two phenomenologically is to consider the element of automaticity and everydayness with which the schema is operative as opposed to the body image, the latter of which is not a constant feature of normal everyday experience. If I am skilled at rowing for example, I need not explicitly think about where my hands are in relation to each other, the timing and pressure of my legs, lateral balance, the ninety degree twist of my wrists as the oars leave the water and so forth. Indeed, it can be said that in most cases of skilled athletic motor action, body image serves little to no purpose. The body schema takes over and movement is seamless, or ‘imageless,’ as it were. However, for the untrained rower, it is precisely the conscious monitoring of the body that allows him to synchronize the motions of arms, legs and balance in the scull. To be sure, in most instances of normal movement through the world, such as walking, sitting, even gesturing while talking, we are all like expert athletes, effortlessly guided by our body schemas, or as Gallagher has elsewhere referred to such ease of action, our

---

“active embodiment.” Nevertheless, the body image comes in handy when learning a new skill, or simply when engaging in reflection about one’s body or its parts for whatever reason.

C. Conclusion

The distinction between body schema and body image provides a demarcating line between explicit awareness and the tacit activities required for activity in the world. One cue we can take from the distinction is to document what/how body images are at work in our daily lives. In doing so, an archeology into the schema(s) by which we guide our lives in becomes available. By beginning with the explicit representation of ourselves to ourselves via images, further steps are enabled to delve deeper into the role of imagination, and syntheses, at a pre-reflective level. Following this, even further understanding about synthesis in general, a synthesis required to have a both a unity of apperception from which we orient ourselves to ourselves and the world, but also to the conceptual architecture we employ in doing so.

Since representational body image is the form employed to present our bodies explicitly to our consciousness, and, in doing so, synthesizes the parts and activities into a unified picture, it makes sense to look to the imaginative activity of doing so to help discover the primordial activity of synthesis required to enable a unity of consciousness in the first place. Importantly, in Gallagher’s depiction, one can potentially analyze what occurs neuronally at the body schema level in order to shed light on the basic process of syntheses to begin with. Furthermore, such neurological explorations on the imagination itself will shed light on not merely a bodily orientation/activity of ourselves in the world, but, also, the basic cognitive architecture by which we organize our world (ourselves and other objects). By shifting the neuronal research to the activity of the imagination not only will we find an explanation for how manifold fields of perception are brought together in our empirical experience, but also a potentially fruitful way of understanding the neuronal correlate of consciousness. In such a way, one employs a synthesis of a building-block approach as well as a unified-field approach. Neurological research into proprioception and motility serve as the particular instance of perceptual experience. But rather than it simply being one amongst many different types of conscious experience, which will then elicit another demand for explanation as to how the particular experience is connected to consciousness as a whole, by focusing on the role of imagination in proprioception further connections are available about the role the imagination plays in all conscious organization of our world, i.e. through concepts. As a unified field of consciousness, the cognitive architecture we employ represent one further layer, the penultimate layer, to a solution to the hard problem.

33 The most useful means to date are by documenting the failure/breakdown of the body image in basic sensorimotor functions e.g. Ian Waterman. If body image is what we employ to form usually explicit representations of our bodies or parts of them, then it makes sense to begin to think of most ‘body dysphorias’ as occurring at the imagistic level. For one, dysphoria refers to a felt unheimlichkeit or not-being-at-home-with one’s body or parts of it, and hence, such representational phenomenology does not occur at the pre-reflective body-schematic level. We can thus understand a pathology such as somatoparaphrenia in terms of detaching what one takes to be his or her actual body from a seemingly foreign limb, the mereology of which is made possible by forming images of ‘my body’ versus ‘the world,’ ‘other bodies,’ and so forth. This mereology of part versus whole and mine versus not-mine, however, makes sense only in terms of an initial pre-reflective unity, one exemplified in body-schematic action. Distancing myself from parts or all of my body requires first that I have a sense of what counts as ‘me’ in the first place, and as we want to argue, this occurs most primordially at the level of the schema.
Lastly, as the case has been made, the imagination is the sine qua non of a unity of consciousness; by determining the microstructures at the empirical level, connecting them with the same activity at the a priori conceptual level, and eventually with consciousness as a whole, a clear research paradigm, with both origins and explanatory power, can begin. Searle’s “biological naturalism” thus can have both direction and force, a vector for research.

Works Cited


Lakoff, George and Mark Johnson *Philosophy in the Flesh* (New York: Basic Books) 1999


