Psychological and Phenomenological Perspectives on the Hard Problem of

Consciousness

by

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis,

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Abstract

In reexamining the hard problem of consciousness through the history of the concept of mind, I argue that psychologists, cognitive scientists, and analytic philosophers of mind should return to the first-person perspective or "what it is like", to uncover its existential-phenomenological structure. Classical phenomenology which describes the structure of first-personal consciousness provides insight into the intrinsic quality of conscious experience. However, this insight into experience as a phenomenon for the subject is problematic for psychological explanation. Phenomenal "qualia" are seen as extra-mental entities not necessary for explaining the nature of consciousness. There appears to be nothing left to explain about consciousness after considering evolutionary and computational paradigms in psychology. On this view, mind is thoroughly and completely a system of complex causal mechanisms.

In response, I examine criticism of Husserl's phenomenology that resulted from increasing skepticism of introspective methods throughout the history of psychology. Namely, that phenomenological analysis must equate to a Cartesian, solipsistic, and ultimately limited analysis. Heidegger's existential-phenomenological interpretation of consciousness addresses concerns about introspective methods. I show that Heidegger's examination of the self-representing nature of consciousness serves to destructure the mechanistic attitude we have developed toward mind. In doing so, one may provide an answer to the hard problem – "what it is like" to be a conscious human being - eluded by mechanistic explanations. While Heidegger's account is only one possible interpretation of the human experience, the mechanistic understanding can then also be seen as only one interpretation among many of what properly explains human conscious experience.

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Chapter 1: Introduction

The contemporary form of the mind-body problem is the hard problem of consciousness. It states that even after we have given a fully mechanistic explanation of mind in terms of psychological function there is still the further question: why is there "something it is like" to experience these mental states? David Chalmers has called attention to the intrinsic quality of conscious experience in asking what constitutes consciousness apart from its mechanistic explanation (Chalmers, 1996). Chalmers' effort to preserve first-personal *phenomenal* consciousness should be reexamined through the methods of classical phenomenology. I aim to provide an answer to the hard problem, which calls for a qualitative investigation of consciousness.

I argue that psychologists, cognitive scientists, and analytic philosophers of mind should reexamine the first-personal experience or "what it is like", to uncover its existential-phenomenological structure. In particular, classical phenomenology as a philosophical discipline, which describes the structure of first-personal consciousness, provides insight into the intrinsic quality of experience. I account for criticism of phenomenology that resulted from developments in psychology and how Heidegger's existential interpretation of consciousness addresses concerns about introspective phenomenology.

To start, in chapter 2, I outline the conceptual history of consciousness, from the mind-body problem to the development of scientific psychology. Movement toward scientific methods in psychology, and away from philosophical introspection, distanced philosophically insightful perspectives on mind and consciousness from the same claim of legitimacy attributed to behavioural and functional paradigms. The relationship

between conscious mind and bodily function seems far less perplexing with current psychological knowledge on brain and behavior. As such, proposed solutions, and in some cases, the hard problem itself, appear trivial in comparison to mechanistic explanations of mind and consciousness.

In chapter 3, I describe the hard problem of consciousness and how current mechanistic descriptions in psychology claim to explain qualitative experience. While qualitative experience can be explained through social evolutionary origins, and analogized with computational systems, the qualitative experience itself is still left for explication – why is there something it is like to have these mental states distinct from a causal description of their physical mechanisms?

I look to answer this question in chapter 4, through the methods of phenomenology. Heidegger's existential form of phenomenological analysis is an important development of the Husserlian study of consciousness. We are brought back to a description of things as they are experienced in the world, without a presupposed psychological understanding of experience. I examine psychological criticism of Husserl's phenomenology in terms of introspective validity and the social evolutionary origins of meaning for experience. I then explicate Heidegger's insight into qualitative experience through the significance of time and self-interpretation. Heidegger addresses these issues in positing a temporal structure of the human being, which fundamentally relates itself to the meanings of a particular historical upbringing. As such, I provide a phenomenological account of consciousness as a self-interpretive temporal process.

Chapter 2: Mind and Body from Philosophy to Psychology

With our current state of psychology it seems that we should simply say *there is no problem at all.* Just as the world can be understood through physics, what can possibly be known about mind is said to be known through brain and behavior. It was psychology's job to justify knowledge about mind and consciousness in a thoroughgoing scientific framework. The mind-body problem is no problem for the modern functionalist or reductionist. However, we will eventually see why qualitative experience is not fully described by functional and reductive explanations.

In this chapter, I will outline a number of positions on what mind is and how it can be explained. This will extend from Descartes and Kant on the mind-body problem, to the development of evolutionary and computational approaches on brain and behaviour. The major narrative behind this history of mind is how developments in scientific psychology divided introspective phenomenology from legitimate claim to knowledge about mind. Despite classical phenomenology being characterized by its investigation of consciousness, Darwin's theory of evolution would form the major basis for understanding mind as an entity.

Ontological positions on mind and body

Like many mysterious entities that were eventually explained, what we call the mind is simply its mechanistic description. Consider lightning as an analogous natural phenomenon that was eventually explained in the language of science. Early humans may have looked in wonder at the occurrence of a sudden flash then fading from the sky, but lightning is now known to be the result of electric discharge. This functional explanation

of lightning can be reduced to an understanding of the separation and buildup of current in clouds. Separation, buildup, and discharge can then be reduced to an atomic description of these functions as well. Lightning as an event in nature can be explained with knowledge of its causal mechanisms.

Mind and consciousness can be described in the same way - as a system of complex causal occurrences. The idea that mental life could be reduced to the level of mechanistic explanation is called *reductive materialism* or *mind-brain identity theory* (Kim, 1999). It states that causal relations among mental states can be suitably described and translated into physical explanations, ultimately reducible to the neural firing of the brain. Any kind of mental state, like happiness, pain, belief, or desire, can be suitably explained by a corresponding physical state in the brain. For example, we might simply say that the mental state of pain is equivalent to the physical event of C-fibres firing. Indeed, neural firing representing these mental states can be simulated through computational manipulations of mental representations (Thagard & Stewart, 2014).

On the other hand, *functionalism* is the doctrine that mind and matter represent functional relations between the organism and its environmental inputs and outputs (Putnam, 1988; 2014). This mechanistic description of mental states is represented through a perceive-think-act cycle. For example, what we call pain, is not necessarily C-fibres firing in the brain, but rather the function that mental state performs in the organism's environmental context. This might involve the perception of sensations that cause the mental state of pain, and the resulting action to move away. Mental states are conceptualized as sensory inputs and behavioural outputs where cognition is a functional relation to the environment.

The advantage of functionalism over reductive materialism is that it does not claim one-to-one correspondence between mental states and causal events. Rather, there may be multiple realizations of particular mental states in different causal events (and vice-versa). This possibility, where different patterns of causal events involving brain and behavior may occur to instantiate the same type of mental state is called *multiple realizability* (Putnam, 1988). This means that pain in general may be instantiated by events other than C-fibres firing, and C-fibres firing may signify more than one kind of mental state like pain. Different realizations of the mental state of pain are due to interactions between sensory inputs and environmental context. The possibility of a number of different kinds of sensory interactions corresponds to a plurality of firing patterns in the brain, and resultantly different behavioural responses.

Finally, there are the eliminative materialists. Like the reductive materialists, the Eliminativists think that the mind just is the brain. However, unlike the functionalists and reductive materialists, they do not accept the possibility of translating mental states into causal events. Instead, they wish to eliminate folk conceptions of mental states like belief, desire, intention, etc. and strictly replace them with causal events. They posit a completely new language of mental life based on neuroscientific terminology (Churchland, 1981). Not only is the mind a compound of causal mechanisms, but these mechanisms determine the language we use to refer to the mind and its mental phenomena. While an extreme position to take, a deferral of meaning to mechanism in describing consciousness has seemingly already taken effect.

Before these positions existed, the relationship between mind and body can be traced to Plato, who posited that the world was represented through immaterial Forms

(Plato, trans. 1997). According to this view, the material world we apprehended with the senses was conceptualized through another plane of reality, the Forms or Ideas. Any physical particular of a universal concept like "tree", "dog", or "human being" is categorized by the subject through a representation taken from the realm of Ideas (Plato, trans. 1997, 100e). The imperfect objects of the material world are said to "participate" in the universal and perfect nature of the Forms. Grasping their nature required an immaterial mind (*de anima,* or soul) that could free itself from the physical body in thought (Plato, trans. 1997, 65b-67b). Through apprehension, the mind represented reality by calling upon the changeless, eternal ideas that allow us to cognize a changing, ephemeral material world (Plato, trans. 1997). Material body and immaterial mind related to the world through the Forms.

Descartes drew a critical mind-body distinction in the Meditations through his skeptical method (Descartes, 1641/1986).[1] In discerning that which he could not doubt with clear and distinct certainty, Descartes found that the external world did not hold up to his scrutiny (Descartes, 1641/1986). What was extended in space and time, like the bodies or physical objects surrounding him, could actually be hallucinations caused by an evil demon or worse yet, God himself (Descartes, 1641/1986). But what could not be doubted to exist was the thing that was being deceived, the thinker who thought these thoughts. While the perception of an extended hand or foot could be doubted, a mere illusion, the mind that perceives deceptive objects would remain. Descartes claimed the existence of two defining ontological substances: the extended material body and the

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[1] "Critical" in terms of method, but also philosophical history. The scholastics before him did not take a non-dogmatic approach to knowledge. Descartes attempted to lay down a new foundation by first questioning whether claims to knowledge were valid in the first place.

immaterial soul that God made and loved. The worry of reality as deceptive illusion could be consoled in the idea of an all knowing and loving God who guaranteed the validity of clear and distinct ideas (Descartes, 1641/1986).

In Kant, we find an inheritance of the same problem that befell Plato and Descartes: what was the relation between the subject who consciously perceives and the perceived material objects? Kant's transcendental philosophy is analogous to the Forms, which are, in a Kantian sense, a condition for the possibility of conceptualizing the world (Kant, 1781/2007). Without apprehending the Forms, one cannot conceptualize reality. Kant's transcendental doctrine is carried out in a similar fashion, as an investigation of the conditions for the possibility of having an experience.

In Kant as in Descartes, we also find the irreducible unity of consciousness, the *cogito*, "I think", or as Kant dubs it, the *transcendental unity of apperception* (Kant, 1781/2007, A119). In the paralogisms, Kant asserts that this "I think" represents what we might call a soul (Kant, 1781/2007, A344/B402). Though as "paralogism" suggests, we cannot prove that this thing we call a soul actually exists. It is a bare representation, or appearance, like the external world (Kant, 1781/2007, A381-A382).

For Kant, our experience of the external world is constructed by the mind as an appearance (1781/2007, A19). We can be sure that there are objects in the world, for we encounter resistance when they are touched or manipulated. But the independent nature of these objects, apart from the subject, characterizes things-in-themselves, or the object behind the appearances.

The object behind appearances was called the *Noumenon,* while the world as presented through appearances, *Phenomena* (Kant, 1781/2007, A249). The world of

appearances is constructed by the mind through basic forms of intuition like causality, space, and time (Kant, 1781/2007). In a debt to David Hume, Kant explains that we are only ever exposed to the constant conjunction of objects affecting one another by the dictates of space and time (Kant, 1781/2007, A107). Space and time are not actually things "out there" but intuitions supplied by the mind to construct sensible objects; they are conditions for the possibility of having an experience. These "forms of intuition" are the limiting conditions for our knowledge of the world, which is synthesized into a whole by a presupposed unity of consciousness (Kant, 1781/2007, A107). According to Kant, without this unity, appearances would be a disorganized manifold of sensations. Kant acknowledged that how the mind furnishes reality in order to make sense of it leaves us open to the skeptical question: what are objects when there is no mind to provide the conditions for their possibility?

The third reality needed to rejoin mind and material body was no longer the Forms, but the thing-in-itself; the subject-independent essence of the object before it is cognized. But rather than coming to know the Forms, Kant held that we could never know the thing-in-itself (Kant, 1781/2007). This included the synthetic unity that can think of appearances as thing-in-itself. The mind cannot be considered as a real Cartesian substance, but rather a representation of the barest kind; the "I think" is a condition needed for the conscious unity of experience (Kant, 1781/2007).

Through Kant and Descartes' examination of the relationship between mind, body, and the world, we can come to understand the theoretical basis these positions find in the contemporary mind-body debate. In terms of preliminary labels, Descartes' view is called *substance dualism,* in that he posits a fundamental ontological substance of the

mind, separate from the physical. On the other hand, Kant's distinction that mind confers conditions on experience through the possibility of existing as such, is called *idealism*. Kant's brand of idealism can be regarded as a rather modest kind in comparison to Plato's metaphysics, or the subjective idealism encapsulated in Berkeley's, *esse est percipi*. But both Berkeley and Kant assert that what we might call physical reality is actually a construction of the mind: for Berkeley, in God's mind; for Kant, in each human consciousness.

Origins of scientific psychology

Darwin had a profound impact on how we understand the mind. The privileged position of human consciousness was rebuked with the discovery of our common evolutionary descent from the animal kingdom. We developed through the same dictates of survival, reproduction, and fitness over millions of years. Basic sensory input and behavioural output could be used to systematically understand human thought and the production of behaviour.

Following Darwin, the mind was increasingly more defined by implicit mechanisms. Consciousness is constantly the victim of evolutionarily programmed processes, occurring far below our introspective awareness. Freud especially knew this: "But the third and most irritating insult is flung at the human mania of greatness by present-day psychological research, which wants to prove to the "I" that it is not even master in its own home, but is dependent upon the most scanty information concerning all that goes on unconsciously in its psychic life." (Freud, 1920, pg. 247). If the mind was

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consciousness, then consciousness was really a manifestation of hidden desires in thought, action, and association.

Modern psychological research points directly at this hidden machinery and says, "this is all we are". The revelation is that mind is *nothing but* causal mechanisms. Through the methods of psychology and neuroscience, it is finally revealed, "You, your joys and your sorrows…are nothing but a pack of neurons" (Tononi, 2012, pg. 23). What explains consciousness, and what we more generally call the mind, are scientifically precise causal relationships.

Mental philosophy begins with mind over matter, firstly in Cartesian substance dualism, and then Kant's transcendental idealism. Alongside these views, there were obvious examples of early modern materialists like John Locke, Francis Bacon, and John Stuart Mill. Bacon most notably wanted all of nature reduced to empirical science (Cornforth, 1955). Yet it was 300 years later this paradigm would translate to the nature of mind. While still a young discipline in this regard, scientific psychology's historical fork from mental philosophy distanced our understanding of the mind from dualism and idealism.[2]

It is commonplace in the history of psychology to note when the first psychological lab opened - 1879 at the University of Leipzig by Wilhelm Wundt. Many say it was because Wundt finally joined the questions of philosophy with the methods of physiology that he should be regarded as the founder of psychology (Benjamin, 2007;

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[2] This is not to discount the many instances one could further cite as precipitating the eventual rise of scientific psychology. For example, W.V.O. Quine's "Epistemology Naturalized" offers the same solution to a grounding of knowledge about reality. Gilbert Ryle's "Concept of Mind" is famously regarded as the "final nail" in the Cartesian coffin. If Ryle was a nail, early psychologists were the planks.

Goodwin, 2010). But the science of mind started before Wundt with the psychophysics of

Gustav Fechner. His insights were thoroughly motivated by the mind-body problem, as

he notes the day of October 22, 1850 when he made a crucial discovery: it was possible

to measure the relationship between physical and psychological worlds (Benjamin, 2007).

Psychophysics was based on the principle that one could measure the relationship

between stimuli in the external world (physical events) and the person's perception of

those stimuli (psychological events) (Fechner, 1860/1966). Before rejecting the existence

of a mental realm, the science of mind first took dualism as a methodological starting

point. His book, *Elements of Psychophysics* (1860) became well regarded by almost all

early German psychologists, including Wundt.

Wundt's introspective methodology was based on presenting highly trained

observers (usually graduate students) with stimuli and asking them to report their

experiences (Galotti, Fernandes, Fugelsang, & Stolz, 2010). Through the presentation of

physical phenomena, Wundt attempted to measure their relationship to the mental, in the

psychophysical spirit of Fechner.

His psychology aimed to establish a science of mind to discover the laws and

principles explaining our immediate conscious experience. He posited that any conscious

thought or perception resulted from a combination of sensations that could be categorized

in terms of mode, quality, intensity, and duration. The raw materials of consciousness

were assumed to be sensory and thus "below" the level of meaning in sensory experience

(Galotti et al, 2010).

Wundt's best student, Edward Titchener, had christened their methods

"structuralism", which sought to uncover the elements of mind through the introspective

analysis of consciousness: "We shall therefore take mind and consciousness to mean the same thing. But as we have the two different words, and it is convenient to make some distinction between them, we shall speak of mind when we mean the sum-total of mental processes occurring in the life-time of an individual, and we shall speak of consciousness when we mean the sum-total of mental processes occurring now, at any given 'present' time. Consciousness will thus be a section, a division, of the mind-stream…" (Titchener, 1909, pg. 18-19). By the time of Titchener's death in 1927, he had amassed a "periodic table" of the mind, consisting of over 30,000 elements including distinctness, quality, intensity, etc. (Goodwin, 2010).

The success of experimental introspection would be short-lived. Laboratory studies would continue, but structuralism was viewed as rather closed-minded in its reliance on introspection. Not only did Darwin's work set the stage for the first iteration of functionalist perspectives, introspective techniques appeared to lack a non-circular justification.

Titchener attempted to establish a proper introspective method by standardizing the process. He instructed his research participants before conducting his studies, dismissing those who could not introspect "properly". Yet there was no way to confirm that his was the correct way of introspecting (Galotti et al, 2010).

Wundt and Titchener's structuralism in Germany is often contrasted to William James's functionalism in America (Galotti et al, 2010). Like Wundt, James was also heavily interested in conscious experience and the development of a scientific study of mind. But unlike Wundt, a prolific researcher who carried out and supervised hundreds of

experiments, James carried out little research but wrote on psychological findings and their relevance to everyday life (Galotti et al, 2010).

Understanding the evolutionary utility of consciousness motivated the functionalist program: What was consciousness for? Rather than asking what the elementary units of consciousness are, functionalists ask why the mind works the way it does. At this time, functionalism heavily overlapped with the views of pragmatists William James and John Dewey.

James remarked on the influence Darwin would have on the study of mind: "The theory of evolution is beginning to do very good service by its reduction of all mentality to [a] type of reflex action. Cognition, in this view, is but a fleeting moment, a cross-section at a certain point, of what in its totality is a motor phenomenon. In the lower forms of life no one will pretend that cognition is anything more than a guide to appropriate action." (James, 1897, pg. 18). John Dewey's concept of the *reflex arc* (sensing, thinking, acting) marks the starting point of the functional view in psychology (Benjamin, 2007).

Contra Titchener's dependence on introspection, the functionalists opposed the structuralists. In 1906, a student of James and Dewey, James Rowland Angell, would become the president of the American Psychological Association. Angell was considered the chief spokesperson for functionalism, even using his presidential address to attack structuralism and outline the merits of his view (Benjamin, 2007). This was reflected in Angell's tenets of functionalism: a) functionalism studies mental operations not mental elements, b) it seeks to identify the fundamental utilities of consciousness, and c)

functionalism is a psychophysical psychology (Benjamin, 2007). For Angell, mind and body are joined through functional goal-directed action.

Investigating the use and function of consciousness would be seen in comparative psychology. For example, in Edward Thorndike's puzzle-box experiments with cats, and Ivan Pavlov's conditioning experiments with dogs (Benjamin, 2007; Hatfield, 2002). Each used stimulus-response relationships to investigate learning, memory, and association versus introspective awareness in sensation and perception. These studies would add credence to the evolutionary perspective on animals, humans, and their explanatory origins. Early Darwinian functionalism would cast doubt on introspective justification for knowledge about the structures of mind and consciousness.

In the 1920's-30's, while Freud called popular attention to unconscious mechanisms, both German and American psychologists had two respectively well-established, yet conflicting views: gestaltism, and an heir of functionalist tenets, behaviourism (Benjamin, 2007). For these psychologists, Freud's unfalsifiable, introspectively justified theories were regarded in similar terms as the pop-psychology of phrenology, spiritualism, and mesmerism that came before them (Benjamin, 2007).

Indeed, mind as mechanism was reflected through the historical influence of functionalism: its shadow over structuralism and it's branching into behaviourism. The behaviourists were more extreme in their reduction of mind to behaviour than the early functionalists. As a doctrine, behaviourism is broadly divided into two different parts: 1) Methodological and 2) Analytical.

Methodological behaviourism states that psychology is the science of behavior, not the mind. Adherents sought to do away with reference to mental states altogether in

an effort to finally make psychology worthy of being called a natural science. In 1913, the founder of behaviourism, John Watson, lectured at Colombia University on what would be called the Behaviourist Manifesto: "I do not wish unduly to criticize psychology. It has failed signally, I believe, during its fifty-odd years of existence as an experimental discipline to make its place in the world as an undisputed natural science" (1913/1994, pg. 249). He went on, "The time seems to have come when psychology must discard all reference to consciousness; when it need no longer delude itself into thinking that it is making mental states the object of observation" (Watson, 1913/1994, pg. 249).

Watson's methodological behaviourism can be seen as analogous to eliminative materialism. Just as the eliminativists want to rid psychology of mental terminology, so did the methodological behaviourists. For example, Clark Hull wanted to exclude all mentalistic descriptions and explanations from the study of behavior (Hatfield, 2002). Like Watson, he also thought that the best explanations in psychology would come in neurophysiological terms (Hatfield, 2002; Benjamin, 2007). Behaviourists do not translate mental states into behaviour, they eliminate and replace with terminology describing brain and behaviour.

On the other hand, analytical behaviourists like Edward Tolman resemble reductive materialism. Analytical behaviourism states that in theory development, if mental terms are used, they can and should be translated into behavioural terms, rather than omitted. Tolman thought that mentalistic terms could be used as long as they were translated as intervening variables for behaviour (Hatfield, 2002). He posited intervening psychological representations to explain response tendencies in behaviour. Just as the analytical behaviourists translate mental states into behavioural response tendencies,

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reductive materialists translate mental states into neural mechanisms. They do not eliminate - they translate.

The other well-known behaviourist, B.F. Skinner, differed from both Hull and Tolman. He rejected mental terms that could not be translated into neutral behavioural explanations (Hatfield, 2002). However, unlike Hull and Tolman, Skinner did not think behavioural descriptions of mental phenomena could be translated with neurophysiology. Skinner thought that only some mental phenomena could be translated, the rest eliminated (Hatfield, 2002).

Two important philosophical views sprouted from the evolution of functionalism into behaviourism: those of Gilbert Ryle and Ludwig Wittgenstein. Ryle thought that reference to mental terms was a "category mistake" in that mental states were referring to dispositions for behavior, not discrete states (Ryle, 1949). Wittgenstein's private language argument stated that a language private to the subject is inconceivable (1953, para. 243-261). This includes a language describing one's private conscious experience. Reference to private mental life only makes sense in its relation to social behavior, as all meaning comes from its use in a public language game (Wittgenstein, 1953, para. 241, para. 300).

Developments in psychology made introspective reference to mental states obsolete, and with it, reference to "what it is like". According to David Chalmers, the key change at this point in history is that in transitioning from an emphasis on the study of introspective sensation and perception to learning and behavior, psychology's reference to mental states was only ever construed in relation to behaviour (Chalmers, 1996, pg.12). Talk about psychology as phenomenology transitioned to psychology as talk

about dispositions to behavior. The conclusions that behaviourists, functionalists, and even neo-Freudians had in mind were thoroughly based on mechanistic cause and effect, independent of phenomenal concepts.

The mistrust of early Darwinian functionalists toward introspective methods would be reflected in the behaviourists and their feud with gestaltism. In still relying on a form of introspection, gestaltism was viewed by the behaviorists in the same light as structuralism. However, gestalt psychologists were also opposed to Titchener's structuralism (Benjamin, 2007; Goodwin, 2010). Gestaltism claimed that the "whole was greater than its parts" meaning that what was conceptualized from the first-person perspective was more important to understanding the mind, than reductive analysis into structural parts. This included reduction to behaviour (Benjamin, 2007).

Gestaltism was thoroughly phenomenological in its reliance on the way things appeared to the subject (Benjamin, 2007). It claimed to account for the way subjects impart meaning in perception by recognizing qualities in the whole of experience that cannot be studied in its parts. One such example was the "phi" phenomenon where an object would be seen as moving continuously in space and time when really it was only the appearing and disappearing of the image one was seeing (Benjamin, 2007). They argued that experience itself was the only thing worth knowing, and that it could be studied exactly as it occurred (Kohler, 1929). As such, gestalt psychology studied experience in its meaningful units from the first-person perspective.

But non-phenomenal psychology continued to develop with the turn from behaviourism to cognitive psychology. The response to behaviourism by these later functionalists was still only a translation of mental states as causal dispositions to

behavior: "The move from behaviourism to computational cognitive science for the most part preserved this orthodoxy. This move brought back a role for internal states, which could even be called "mental" states, but there was nothing particularly phenomenal about them. These states were admissible precisely on the grounds of their relevance in the explanation of behavior…It was meant as an analysis of all mental concepts. In particular, they argued that the notions of experience, sensation, consciousness, and so on, could be analyzed in this fashion." (Chalmers, 1996, pg. 12).

In the 1950s, after psychologists took seriously the notion of mental representations, functionalism gained new ground in the computational analogy. Indeed, the notion that there was anything other than mind as machine was summarized by Alan Turing: "In considering the functions of the mind or the brain we find certain operations which we can explain in purely mechanical terms. This we say does not correspond to the real mind: it is a sort of skin that we must strip off to find the real mind. But then in what remains we find a further skin to be stripped off, and so on. Proceeding in this way, do we ever come to the real mind, or do we eventually come to the skin which has nothing in it? In the latter case, the whole mind is mechanical" (Turing, 1950, pg. 454-455).

In his paper, "Computing Machinery and Intelligence", Turing introduced the computational analogy, proposing we should avoid a kind of anthropocentrism in our use of the term "think" (1950). Presumably, "think" most directly refers to our human activity, where it might occasionally be attributed to other living beings. But can machines think? Turing was interested in teasing apart this difference in use because perhaps there was no difference at all. Especially in considering how the computer can perform many of the same tasks as a human being.

Today's contemporary form of functionalism resembles analytical behaviourism and reductive materialism. After early Darwinian functionalism, and the rise of behaviourism, developments in computing made it possible to investigate the inner workings of the mind by understanding it analogously to a computational-representational system (Galotti et al, 2010). In examining mental representations as computational mechanisms, functionalism accounts for the mind and body.

Husserl's phenomenology

What happened to the phenomenal concept of mind? The study of phenomenology would continue with Edmund Husserl, who along with Wundt, Freud, and gestalt psychologists, traced their intellectual roots to a common mentor, Franz Brentano. Brentano was concerned with the intentionality or inherent "aboutness" of consciousness. Object directionality or the way things were represented as a whole in consciousness originates with Brentano's Act Theory of Consciousness (Benjamin, 2007). Brentano's concept of intentionality was considered the *mark of the mental*, pointing toward the inherent representational ability of human consciousness (Brentano, 1874/2009). This early version of psychology called for a larger unit of analysis, the eventual underlying principle of gestaltism. For example, in the study of vision, Brentano argued that one should focus on the act of seeing itself, rather than what was seen (Benjamin, 2007).

But while Freud, Wundt, and gestalt psychologists actively tried to join introspective methods to psychology, Edmund Husserl would follow more directly from Descartes and Kant. Husserl took advantage of Kant's transcendental distinction such that

objects were regarded not as things in themselves, but as appearances presented to, or intended by, consciousness. All consciousness is a consciousness of something, where I am aware that my thought is directed toward some object. In this analysis of the structure of experience, Husserl is paying particular attention to experience that can be characterized as being "conscious of something". Each act of consciousness possesses a Brentanian "object-directedness" or intentionality.

Husserl resembled Kant as his mode of inquiry was not of this or that form of knowledge, but of the possibility of knowledge in the first place. We must first "bracket" anything beyond our immediate conscious experience. If we can only be sure about appearances as a phenomenon, then we should bracket whether there is anything other than the phenomenon and investigate it as it appears. We should inspect the passing conscious appearances presented to us. The task of phenomenology was to elucidate the core questions concerning the nature of reality, including the relation between body and mind, by attempting to start with a presuppositionless methodology (Zahavi, 2003).

Most importantly, phenomenology's basic tool suspends the natural attitude we have in our everyday encounter of the world by bracketing its presupposed validity. In doing so, we attempt to understand reality as we encounter it, without any presuppositions about what we are encountering. To describe what Husserl means by the everyday attitude, I turn to an explication by phenomenologist, Richard Holmes:

> I find myself in this particular world surrounded by objects, animate and inanimate, all of which I take to be real existents among others. In all my dealings with this world I live in the natural attitude, that is, I accept unquestioningly the world and its objects as existing. To be sure, this acceptance is rarely, if ever,

explicitly formulated or considered, but it is a general presupposition that supports

my dealings with the world and is the target of the phenomenological reduction

(1995).

The phenomenological reduction initiates a study of consciousness that

presupposes no metaphysical stance on the nature of experience as such. It does not

explain this or that consciousness as the product of brain function, evolution, unconscious

mechanism, or soul-substance. Rather, it examines the act of consciousness, as intended.

By initiating this study of conscious appearances, the natural attitude is "suspended" or

"bracketed" in such a way that it is "set out of action" (Holmes, 1995).

"Recall the piece of wax Descartes describes in Meditation II: Fresh from the hive

it still has the sweetness of the honey it contains, and the odour of the flowers" (Holmes,

1995, pg. 6). As Descartes goes on, he describes a number of qualities of the wax: its

colour, figure, and size are apparent, where the wax is hard, cold, easily handled, and

when struck with the finger, it emits a sound. If taken to a fire, "what remains of its taste

is exhaled, the smell evaporates, the colour alters, the figure is destroyed, the size

increases, it becomes liquid" (Holmes, 1995, pg. 6). Descartes asks, "Does the same wax

remain after this change?" (Holmes, 1995, pg. 6).

Holmes remarks that Descartes' concern with the piece of wax comes from an

apparent dualism between what appears and what is: "Or, to put this dualism in terms of a

problem…I have access only to what appears, and that like an onion when I peel off all

the experienced or experience-able layers of an object I am left with nothing" (1995, pg.

6). Juxtaposed to Turing's analogy, which serves to imply that mind is nothing but

mechanism, mind is rather consciously accessible layers of experience.

By analyzing conscious experience as it occurs, appearances are not just representations, but integral parts of consciousness as a whole. The nature of consciousness is revealed in as much as we pay close attention to how appearances manifest themselves to us (Zahavi, 2003). No longer is the reality of conscious experience hidden behind the appearances, rather, it emerges through its unfolding as a phenomenon (Zahavi, 2003).

Psychology versus phenomenology

Gestaltism and structuralism would carry their experimental work to cognitive psychology in the study of perception, sensation, and memory (Galotti et al, 2010; Goodwin, 2010). On the other hand, explicit mention of the phenomenology of consciousness, or the first-person perspective, would be associated with awareness of intrinsic qualities of experience, or qualia. The concept of experiential qualia is treated by cognitive science as a functional disposition to behavior (Block, 2002/2007b), or an empirically reducible representation (Harman, 1990). The synthesis of functional-representational perspectives can be seen through the computational analogy of brain and behavior.

Functionalism sits firmly as a bridge between the study of behavior and the study of mental processes. By conceptualizing mental processing like a computer, operating through basic inputs, symbolic manipulation, and behavioural outputs, we can understand the organism in its natural environment, including its evolutionary origins. Behavior and mental life are produced by the physiological underpinnings of brain, body, and context.

Chalmers' distinction between the phenomenal and the psychological forms an important basis here, situating the current debate on mind and body within the history of psychology and philosophy. Much of the history of mind marks movement toward psychological forms of explanation, while the phenomenal is relegated to philosophical speculation in its reliance on introspection. On the psychological concept of mind, conscious experience is characterized by what it does – what is its *function*? On the phenomenal concept of mind, conscious experience is characterized by the way it feels.

Explaining, "what it is like", the raw feeling, or the first-personal qualities of experience is difficult. Chalmers refers to qualia as the distinctive first-person phenomenon that a person experiences. This can include conscious states like pain or emotion but also the very fact that there is something like consciousness that provides one with emotions, mental states, and experience in general.

Ned Block acknowledges that the concept of "phenomenal consciousness" cannot be defined in a noncircular way: "Phenomenal consciousness is experience; what makes a state phenomenally conscious is that there is something 'it is like', that is, an experience of that conscious state. However, this is not considered an embarrassment, as a history of reductive definitions in philosophy should not expect one to provide a reductive definition. The best one can do for phenomenal consciousness is simply *point* to the phenomenon. Nonetheless, it is important to point properly." (Block, 2002/2007a, pg. 275).

Reference to first-personal mental states as a form of study by the subject in their own right is precisely the problem. The contrasting use of the onion analogy by Turing and Holmes reflects the difference in phenomenal versus psychological perspectives on

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mind. For Turing, mind is composed of layers of functional mechanisms. For Holmes, mind encompasses layers of descriptive quality. Mind and body may be united through function, but there is still the experience of this unity to explain. The phenomenological perspective provides a structural analysis of consciousness conceived as a whole, greater than its mechanistic parts.

Husserl's phenomenology aimed to describe the character of this self-reflecting consciousness. But his methodology was lost to the development of post-Darwinian functionalism and behaviourism. The behaviorists' denial of consciousness altogether would not last after the rise of computational theories of cognitive representation, but the dominant construal of mentality in reference to behaviour remained. For Husserl, the experience itself appears to us with a far more primordial understanding of the relationship between mind, body, and world – one more foundational and pre-theoretical than the use of these concepts.

Heidegger would eventually take up this task in his own phenomenological investigation. But because of the same methodological differences with modern psychology, his inquiry would be separated from the new debate in philosophy of mind. Instead, experiential consciousness or the "what-it-is-like" of our experience would be discussed in the Hard Problem. Having discussed the historical divide between phenomenology and psychology, we can now discuss how this methodological divide arises in understanding the concept of consciousness.

Chapter 3: The Hard Problem of Consciousness

The hard problem distinguishes phenomenal from psychological concepts of consciousness. I will move through a number of philosophical arguments used to demonstrate this distinction, and then describe how psychology attempts to explain the experiential quality of consciousness through function. The two approaches I discuss, the computational analogy and the evolutionary approach, explain the emergence of consciousness through simulations of neural mechanisms, and the social evolutionary development of distinctly human collective intentionality. However, they still do not fully describe the distinctive what-it-is-likeness of consciousness itself.

The hard problem states that even if we could explain and correlate all the functional mechanisms about the mind, there would still be the further question: why is there something it is like to experience these mental states?

Chalmers posited the Hard Problem of Consciousness in a paper, "Facing Up to the Problem of Consciousness" (1995), and in a book, "The Conscious Mind: In search for a fundamental theory" (1996). For Chalmers, accounting for mental events and their correlated brain states are "easy problems" while explaining why these brain states should ever give rise to experiential mental events, the "hard problem". The hard problem is not solved by merely understanding the dynamics of functional and structural processes in the brain, but by accounting for why there should be anything it is like to carry out functions and processes as a subject (Chalmers, 1996). Chalmers states that a reductionist paradigm aiming to explain the emergence of consciousness through physical phenomena would be impossible: "Given any account of the physical processes purported to underlie

consciousness, there will always be a further question: why are these processes accompanied by conscious experience?" (Chalmers, 1996, pg. 94).

Apart from the physical phenomena that underlie or appear to be causally efficacious in producing conscious experience, Chalmers argues for the existence of epiphenomenal qualia. Asserting the existence of epiphenomenal qualia differs from substance dualism in that no "supernatural" metaphysical substance is posited to explain what consciousness is. Rather, consciousness includes experiential properties of sensations, feelings, perceptions, thoughts, desires, etc. – there is something it is like to have these experiences. The core of Chalmers' argument is that consciousness does not logically entail or "supervene" as a consequent to existent physical causal events. Two of Chalmers' most notable arguments are the possibility of philosophical zombies and the knowledge argument (Chalmers, 1996).

The first argument posits an entity whose functional make-up is identical to humans, but lacks conscious experience. While the empirical possibility of this sort of zombie is impossible, it is still coherent insofar as it lacks logical contradiction (Chalmers, 1996). Chalmers finds indirect support for its conceivability in the "China Brain" thought experiment posited by Ned Block:

> Suppose we convert the government of China to functionalism, and we convince its officials to realize a human mind for an hour. We provide each of the billion people in China with a specially designed two-way radio that connects them in the appropriate way to other persons and to [an] artificial body …The system of a billion people communicating with one another plus satellites plays the role of an external "brain" connected to the artificial body by radio (Block, 1978/2007).

Here we assume that China Brain would have the same functional organization as an embodied brain, and may even realize consciousness despite being composed of Chinese citizens (Chalmers, 1996). However, Chalmers is not concerned with whether such a system would *in fact* be conscious, but that it is also conceivable that such a system would *not* be conscious, much like a zombie. From this there is no more a conceptual entailment from biochemistry to consciousness than there is from "silicon or Chinese homunculi" (Chalmers, 1996, pg. 86). If China Brain is conceivably not conscious, then a non-conscious zombie twin is also conceivable. In other words, a functionally equivalent entity like a computational robot. As such, consciousness does not logically entail from physical constituents. *There are facts about consciousness that are not automatically entailed from mechanistic explanations.*

Chalmers shows this possibility for independent knowledge about consciousness from the first-person perspective by citing Thomas Nagel's, "What is it like to be a bat?" (1974). Like humans, the mechanisms explaining bat consciousness do not entail phenomenological knowledge about what it is like to be a bat. Given that the physical facts about a bat are independent of the qualitative facts, Chalmers states that facts about experiential consciousness do not supersede from the physical facts about consciousness (1996). There are facts that exist separately from the physical mechanisms. As such, there is knowledge about phenomenal consciousness that exists independently of mechanistic knowledge about consciousness.

The knowledge argument, originating with Frank Jackson, posits the existence of epiphenomenal qualia through the thought experiment, Mary the Neuroscientist (1982). Mary is a brilliant neuroscientist who, for whatever reason, is forced to live her whole life

in a black and white room, investigating the world through a black and white television monitor (Jackson, 1982). She specializes in the neurophysiology of vision and acquires all the physical knowledge there is to obtain about what happens when we see ripe tomatoes or the blue sky, what entails using the terms "red" or "blue", etc. This involves exact wavelength calculations, knowing the mechanisms of retina stimulation, and even the vocal chord contractions and "expulsion of air" that result in uttering, "the sky is blue". Once Mary is released from the room, into a fully coloured world, does she gain any new knowledge (Jackson, 1982)?

Proponents of phenomenal knowledge would maintain that Mary does learn something new, namely what it is like, for example, to have the experience of the blueness of the sky or the redness of a tomato. Despite knowing all the physical facts about blueness or redness, Mary still learns something new. She learns a fact about what it is like to experience those physical facts. As such, all the physical facts do not entail phenomenal facts.

The Hard Problem is put in a very concise form by Ned Block, who groups the major dispute about the nature of consciousness between two perspectives:

1) Deflationism about consciousness, in which a priori or at least armchair analyses of consciousness (or at least armchair-sufficient conditions) are given in nonphenomenal terms, most prominently in terms of representation, thought, or function

2) Phenomenal realism, which consists in the denial of deflationism plus the claim that consciousness, is something real. Phenomenal realism is metaphysical realism about consciousness and thus allows the possibility that

there may be facts about the distribution of consciousness that are not

accessible to us even though the relevant functional, cognitive, and

representational facts are accessible. Phenomenal realism is based one's first-

person grasp of consciousness while allowing that first person cognition about

one's own conscious states can be incomplete and mistaken (Block, 2007b,

pg. 398).

The Hard Problem states that even if we provided a completely mechanistic

explanation of consciousness as an emergent phenomenon, there would still be a further

question – why is there something it is like to have these conscious states? Let's take a

look at how the functional paradigm attempts to explain qualitative experience.

Two doctrines of consciousness

One may combine empirical developments in scientific psychology to form more

comprehensive functional theories of consciousness. Through cognitive science one aims

to explain the same relational processes between mind and body that Kant, Descartes, and

early psychologists encountered. Theoretical paradigms that emerged in the study of

mind and body are used to establish a relation that ultimately depends on reality itself.

Representing, thinking, and acting in the environment depend on the ability to perceive

and conceptualize reality. The mind is intimately related to how we consciously

experience the world through our body. Of course, the physical explanation of this

relation does not posit soul-like substances or transcendental conditions on the physical.

Rather, cognitive science aims to combine developments in a variety of scientific

disciplines like psychology, neuroscience, evolutionary anthropology, and artificial
intelligence.

A. The Computational Analogy

This approach emerged out of the cognitive revolution and associated
developments in computing. I will discuss a computational theory of consciousness,
Semantic Pointer Competition (SPC) (Thagard & Stewart, 2014). SPC theory utilizes
computation to mimic the mechanisms of brain function. As such, it may be seen as a
hybrid theory of functionalism and reductive materialism. Brain function is considered
part of a perceive-think-act cycle dependent on functional relations between sensory
inputs, informational processing as computations performed on representations, and
behavioural outputs. Ultimately, these structural representations and functional processes
are reducible to neural mechanisms.

SPC theory is closely related to the Computational-Representational
Understanding of Mind (CRUM). As stated in *Mind: An Introduction to Cognitive
Science:* "Here is the central hypothesis of cognitive science: Thinking can best be
understood in terms of representational structures in the mind and computational
procedures that operate on those structures" (Thagard, 2005, pg. 10). Computational
procedures refer to mathematically precise neural mechanisms that manipulate and
transform different kinds of mental representations.

On SPC, consciousness results from three neural mechanisms: "representation by
firing patterns in neural populations, binding of representations into more complex

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representations called semantic pointers, and competition among semantic pointers to capture the most important aspects of an organism's state" (Thagard & Stewart, 2014).

All mental phenomena can be reduced to the compression, recursive binding, and convolution of symbol-like representations called Semantic Pointers. These are mathematical processes represented by a Neural-Engineering Framework (NEF) developed by Chris Eliasmith and Anderson (2003, as cited in Thagard & Stewart, 2014). These mathematical processes are used to simulate the firing, representation, binding, and competition of neural populations as semantic pointers. Qualitative experiences are a result of different neural representations that get bound into a Semantic Pointer (Thagard & Stewart, 2014).

Semantic Pointers are special kinds of neural representations. They are the bindings of different patterns of neural firing that give rise to mental representations: "Roughly speaking, semantic pointers are neurally instantiated, symbol-like representations that can be transformed in numerous ways to yield further representations that function to support cognitive processes like categorization, inference, and language use" (Blouw, Solodkin, Thagard, Eliasmith, 2015, pg. 2). Mental representations are built from sensorimotor concepts that are bound together by a mathematical process called convolution. Finally, Semantic Pointers that outcompete others are those mental representations that are conscious to the subject.

Mental representations are similar to the sensory images of the world that Descartes doubted, and the Kantian appearances that the mind constructed to represent reality. Indeed, they represent our everyday experience through the unity of consciousness. Whereas Descartes posited the soul, and Kant, the transcendental self,

CRUM states that the building blocks of mind, in ascending order of complexity, sensorimotor concepts, images, rules, and emotions combine to give rise to other complex mental representations like the idea of consciousness and the self (Thagard, 2014). These representations can be thought of as neural mechanisms explained through computational analogies.

Concepts are considered "the basic representational entities that comprise our knowledge of the world" (Blouw et al, 2015, pg. 2). Semantic Pointers explain how concepts can be formed through the binding of neural populations. Concepts like "Dog", "Tree", or "Black" can be thought of as groups of Semantic Pointers mostly composed of compressed sensorimotor information, but also verbal and emotional representations. Neural populations that fire to represent these concepts are capable of being bound together to form more complex representations (Blouw et al, 2015).

Circular convolution binds concepts together through patterns of neural firing that transform these concepts into a new representation (Thagard & Stewart, 2014). When we combine concepts, we get more complex mental representations from different neural populations engaged together in convolution. For example, sensory representations of touch, taste, smell, sight, and hearing may be combined with emotional representations of love, fear, desire, or even verbal representations describing them.

Each concept that is used to build a mental representation occurs through a pattern of neural firing. So if we wanted to represent the verbal representation DOG, a population of neurons will fire indicating DOG. Through the neural simulator, NENGO, populations of neurons can be defined in terms of what they represent, and connections between

neural populations can be formed in terms of computations performed on synaptic connections (Thagard & Stewart, 2014).

We can now bind this VERBAL concept, DOG, as it is represented by a pattern of firing neurons, to another concept, BLACK, which is represented by a sensory group of neurons firing. NENGO can take multiple concepts and bind them together to create semantic pointers.

Convolution as a binding mechanism is distinguished from synchrony where representations are not simply added together by firing together. We cannot capture the combination of each neural population, DOG and BLACK, by simply creating an additive representation (Thagard & Stewart, 2014). Rather, we need a pattern that reflects a unique combination but also allows each representation to be distinguishable from the other after they are bound. In other words, their combined form must be capable of being unpacked to reveal each other.

If the verbal system represents DOG and the sensory system represents BLACK then the bound semantic pointer will be VERBAL*DOG + SENSORY*BLACK where * denotes the process of convolution. Through convolution, if given the unique pattern and one of the original Semantic Pointers, the other original Semantic pointer can be recovered (Thagard & Stewart, 2014).

The final mechanism, competition, is what allows mental representations to break into the threshold of consciousness. There are thousands of mental representations being formed unconsciously, allowing for only certain patterns of neural firing to reach a threshold of activation sufficient for conscious awareness (Thagard & Stewart, 2014).

In the case of VERBAL*DOG, we want this concept to be positively associated with SENSORY*DOG (since they tend to occur together), but negatively associated with SENSORY*CAT. The connection strengths for these neurons are simulated using NEF and a function that enhances and suppresses patterns in competition (Thagard & Stewart, 2014).

Semantic Pointers can also explain more complex qualitative experiences. For example, the experience of pain is explained as a result of sensory inputs that cause the binding of mental representations of negative emotion, bodily location, self, and even the verbal representation, "I have a pain in my toe" (Thagard & Stewart, 2014, pg. 77). Perceptual experiences like taste, touch, sound, smell, proprioception, temperature, and bladder fullness result from different Semantic Pointers and their respective sensory inputs. These perceptual experiences, especially in imagination and dreaming, are not always the direct result of perception because the brain can store neural patterns and reactivate them in memory (Thagard & Stewart, 2014).

Emotions are important mental representations that involve sensory inputs, especially for bodily awareness, but also a cognitive appraisal of these bodily states. This appraisal is in terms of goal acquisition like survival and reproduction (Thagard & Stewart, 2014; Thagard & Aubie, 2008). Specific conscious emotions are the result of particular patterns of neural firing and binding that allow one to differentiate among various emotional experiences.

Semantic Pointer theory also examines why we can experience differences in particular emotional experiences. Why are there differences in *what it is like* to experience the same kind of emotion eg. in pain, in love, in the desert (Thagard &

Stewart, 2014)? Based on the three main mechanisms of consciousness, representation, binding, and competition, different sensory inputs will result in different binding patterns and further particular mental representations that outcompete other representations.

B. The Evolutionary Approach

The evolutionary approach builds on the classic Darwinian functionalist tradition. By utilizing the perceive-think-act cycle, evolutionary psychologist, Michael Tomasello, has posited the rough evolutionary origins and progression of human thinking in general (Tomasello, 2014).

What is notable about Tomasello's approach is his reliance on the concept of *intentionality*, Franz Brentano's mark of the mental. For Tomasello, intentionality is a common occurrence among apes and humans. But what makes for a truly human consciousness is a kind of *shared intentionality.* In other words, the distinct way in which human consciousness directs itself toward and represents the world by means of social cooperation and communication. Intentionality becomes *collective.*

The shared intentionality hypothesis states that simple type-2 thinking processes are common to many animals, including close evolutionary cousins, the great apes (Tomasello, 2014). Tomasello cites and describes various experiments with apes to demonstrate the use of three basic thinking processes:

1) Logical *representation* to oneself "offline"

2) Simulating and making causal, intentional, or logical *inferences* based on these representations

3) *Self-monitoring* and evaluating how these experiences might lead to specific

behavioural outcomes (through cognitive and behavioural self-monitoring)

These are key components of rational/reflective thinking but the distinctive

feature of human thought lies in the social conventionalization of these processes. As

such, distinctly human thinking involving language and culture are derived from these

processes (Tomasello, 2014).

Individual intentionality

The three basic thinking processes afford the organism flexible decision-making

through 1) behavioural control and 2) the ability to represent and make inferences. These

processes function much like a feedback control system, complete with goal-directed

action already built in. It is only once the organism has developed a foundation of thought

and action accrued to basic goals, that simple stimulus-response associations complexify

into today's cognition (Tomasello, 2014).

As the world becomes less predictable, organisms evolve cognitive and decision-

making processes that enable the individual to react to novel situations. The individual

must have some understanding of the causal and intentional relations, which affords an

appropriate response (Tomasello, 2014).

A competent organism operates with reference to values and goals, awareness of

relevant causal and intentional properties of the situation, and chooses and acts in order to

fulfill that goal or value. This is reminiscent of the belief-desire model of rational action:

"a goal/desire coupled with an epistemic connection to the world (e.g. a belief based on

an understanding of the causal or intentional structure of the situation) creates an

intention to act" (Tomasello, 2014, pg. 9). For a self-regulated, goal-directed organism, thinking is imagining the possibilities of action before actually acting - "offline simulation" (Tomasello, 2014, pg. 9). In other words, trying to predict and act accordingly.

Origins of human thought in general

In delineating our historical development as a species, Tomasello marks two key steps in our evolution: the development of pre-linguistic symbolic communication, and the development of fully objective-reflective-normative thinking. Respectively, these are *joint intentionality* and *collective intentionality.*

For Tomasello, joint intentionality marks a new type of cooperative communication based on natural gestures of pointing and pantomiming (2014, pg. 5). The use of gestures allows for pairs of individuals to better coordinate their efforts with a joint goal in mind. Essentially, before there were groups of individuals communicating linguistically, there were pairs of individuals who devised communicative gestures for collaborative hunting and gathering.

These new forms of communication evolved through a novel type of small-scale collaboration in human foraging. Exactly when this happened in human evolution is hard to pinpoint, but Tomasello hypothesizes that it began soon after the emergence of the genus *Homo* about 2 million years ago (2014). It is speculated that there was a great expansion of terrestrial monkeys who started to outcompete humans for sustenance, usually fruits and other vegetation (Tomasello, 2014). As such, humans needed a new foraging niche to survive.

At first this niche may have been in the form of scavenging meat, requiring groups of individuals to scare off animals that initially made the kill. But this small-scale scavenging is said to have eventually culminated in more collaborative hunting and gathering of plant foods and large game (Tomasello, 2014). This culmination would have occurred about 400,000 years ago with the common ancestor to Neanderthals and humans, *Homo heidelbergensis.* This is a time when both population and brain size were expanding rapidly (Gowlet et al., 2012, as cited in Tomasello, 2014).

As such, human life changed dramatically, where individuals could no longer attain daily nutrition alone. Instead, they needed to develop the skills and motivation for interdependent collaboration. This resulted in selective pressure for cooperative individuals. Humans began making evaluative judgements about partners, such that dominance or deception was selected against. Early humans started to develop a special concern for evaluating others and how others were evaluating them (Tomasello, 2014). Early humans' behavioural *self-monitoring* would become *second-personal* rather than solely first-personal.

As well, humans started a kind of *recursive mind reading* in order to coordinate their intentions. For a gesture to mean something to a partner, individuals must be thinking about what their partner is thinking, and what their partner is thinking about them thinking about them, etc. Individuals make *recursive inferences* about their partner's mental states and their own. Essentially, gestures would be developed with a concern for what the other was thinking about their thinking about their thinking about them, and so on. This early form of *theory of mind* allowed for the coordination of individual intentionality through gestures (Tomasello, 2014).

But this recursive mind reading does not lead to an infinite regress of individuals thinking about their partner's thinking about their thinking about them, etc. (Tomasello, 2014). For gestures to be mutually understood through recursive inferences about mental states, some common ground between partners is needed. Partners need to represent the situation's goal from both perspectives. Essentially, symbolic representation through gesture is *perspectival*. A telling example of how simple pointing might have evolved, has us imagine two early humans attempting to obtain honey from a beehive hanging high from a tree branch (Tomasello, 2014). One partner sees the other struggling to reach the beehive, while the struggling partner sees a nearby stick. In representing the situation from both perspectives, the struggling individual may simply point to the stick. Given that both individuals represent the same goal from different perspectives, the other individual might realize through recursive inference and second-personal self-monitoring that their partner wants the stick (Tomasello, 2014). Pointing only means something if both perspectives are considered with respect to the goal.

These three features of human thinking, representation, inference, and self-monitoring, are key cognitive processes that lead to fully collective intentionality (Tomasello, 2014). At this early stage, all three are solely *second-personal,* meaning that they are intended for a partner who shares the same common ground found in a particular foraging or hunting situation. But as human populations began growing in size, they started competing with other large groups of humans as well. Eventually this competition resulted in large-scale conventionalization of symbolic gestures, the impetus for spoken language.

This marks the evolution of collective intentionality from joint intentionality. During this historical second step, perspectival representation develops not only for a partner or a few other individuals, but for an entire civilization. Representation becomes fully *objective,* where individuals represent situations from the entire group's point of view with a culturally contingent system of symbolic representation. As well, recursive inferences about others and the self become deeply self-reflective; other's culturally enmeshed opinions begin to define the self interdependently. Finally, behavioural self-monitoring develops from the second-personal stage to the fully *normative* stage. Monitoring my behaviour is juxtaposed not only to a partner, but with respect to reasoned opinions of a particular society. Given full social conventionalization of human thinking, collective intentionality not only defines groups of individuals – it defines the social nature of human thinking. Tomasello calls this fully human collective intentionality – objective-reflective-normative thinking (2014).

The background set of meanings needed for self-understanding is provided by the social world, seen through two key stages of evolutionary development. Social communication in survival situations allowed us to accomplish more complex goal-directed behaviour, firstly through joint intentions toward a shared goal. Perception and cognition continued to complexify with adaptation in precarious goal-directed situations. Finally, symbolic communicative gestures diversified into collectively understood verbal representations. The collective use of imagistic and verbal symbols to describe situations and accomplish goals marks the first instances of human language and culture (Tomasello, 2014).

The world as conceptualized through these representations can then be reduced to functional computational mechanisms. Together, Tomasello and Thagard's approaches provide a mechanistic account of the mind. We can explain the use of mental representations and even the origins of self-reflective representation across evolutionary history. But we may still ask about this self-reflective experience. There is still something to say about what it is like *to be* functionally operative in the world as a self-reflective language-using being; the fact that I can describe this experience at all.

In the language of psychology, the mechanistic understanding of experience is at any time presupposed. Meaning and experience stand under the functional construal of mental states in reference to behaviour, stemming from historical developments in psychology. As such, major reductive and functional movements have critically impacted how we foundationally understand the meaning of human experience. But as self-reflexive beings, we have the capacity to further question the meaning of conscious experience, as it appears to us, and without presupposing its meaning in reference to behaviour.

We each actively adopt the meanings of our world in a way more basic than the theoretical paradigm of perception, thought, and action. There is something it is like for each of us to be consciously engaged in the world. Understanding this primordial unity where mind, body, and social world are dialectically joined to each other requires the phenomenological reduction. By suspending our natural mechanistic attitude we can examine experience as encountered. We can thus return to the way our meaningful experience is already occurring in the world, operating in a pre-theoretical fashion.

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Through phenomenology, we can return to the things themselves and their basic

significance to us, as opposed to their mechanistic description.

However, this does not mean that any phenomenological reduction will provide us

with the correct intrinsic qualities of consciousness. In the next section, criticism of

Husserl's original phenomenological reduction will be examined, along with Heidegger's

solution to the limits of the introspective subject.

Chapter 4: The Existential Project for Phenomenology

We can now attempt to provide an answer to the hard problem of consciousness through phenomenological methods. I first account for criticism of Husserl's phenomenology as an introspective method, and then how Heidegger's existential phenomenology addresses these concerns. Centrally, Heidegger describes how time, meaning, and self-interpretation within a personal history are fundamental structures of the human experience. Self-representation in time, as consciousness from beginning to end, identifies the self within the meanings of one's culturally embedded upbringing. Through Heidegger's temporal description of consciousness, the mechanistic meaning imposed by the history of psychology can be destructured.

While Heidegger provides only one possible phenomenological interpretation among many of the human being, the psychological understanding is also seen in his investigation as only one interpretation the human being adopts in describing conscious experience.

Phenomenology and the existential gestalt

In the science of mind, consciousness is explained by causal mechanisms. The computational analogy and the evolutionary approach provide an account of human experience all within a material universe. But the human being is capable of expressing a world that takes place within the bounds of human existence itself. We can accept the facts of consciousness and its emergent mechanisms, but we also try to understand our particular human experience. One suspends a solely mechanistic interpretation of consciousness and returns to the experience itself.

From the first-person perspective, we begin by describing how consciousness unfolds in time. We might think about episodes in our past, as they affect who we are now, or project ourselves to the future, where we predict how past and present may come together. The meaning given to this first-person autobiography as a whole in time, starts with me, so it is *mine;* I must own up to it.

In positing a secondary phenomenal ontology to the physical, the Hard Problem provides the contemporary route for exploring this idea.[3] "Phenomenology" represents a minor history of the mind that was cultivated within, yet held in opposition to, the major narrative of psychology. Phenomenology interprets human experience by understanding its experiential layers, rather than its causal mechanisms. It attempts to express in its own language the meanings ascribed in human experience as experienced from the first-person perspective. It presupposes nothing beyond the phenomenon of consciousness.

A terminological debate of whether there actually *is* a so-called phenomenal realm is also suspended for the sake of examining what consciousness itself entails. If we are to decide whether all my hopes, dreams, fears, beliefs, emotions, and desires are fully described by mechanistic explanations, we should also examine whether consciousness as we experience it, as it contains emergent personal experiences for the subject, entails something greater than its mechanistic parts. We can explain how consciousness arises in the world, but understanding its first-personal phenomenology should be carried out.

The missing ingredient of the Hard Problem is an understanding that despite our best theories, which can be generalized to all human beings, we are self-reflexive beings who interpret the meaning of their own experience. After we turn from the natural

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[3] For example, see L.A. Paul's *Transformative Experience (2014)*

attitude to make sense of our experience as we encounter it, we want to know why it occurs as we find it – "why there is something; why we are *as* we are, dying and dead; why we believe in transcendent beings which are physical, or otherwise inclined" (Holmes, 1995, pg. 8). The fact that phenomenology exists, where consciousness turns toward itself to understand the world, says something more fundamental about the nature of consciousness.

Phenomenology acknowledges that I can abstract the concept of existence within my particular stream of experience. Given one's upbringing and psychological history, it asserts that I have my own dealings with the world. Husserl was right to claim the slogan of phenomenology - 'back to the things themselves!' – for the method provides a description of a particular way of encountering objects in the world; a style or way of being. It is a conscious examination of one's intersection with reality, in all its details and ambiguities as they are prejudicially drawn. One turns away from the mechanism of emergence, instead focusing on the unfolding of one's history. For once I am conscious of an upbringing, demarcating my beginning and end, my experience is infected by the possibilities of interpretation. What do I think about this thing I call life, in all its finitude? It will end, yet I go on with a meaningful understanding of the world as I live it.

Phenomenologist Richard Holmes provides a good explication of this existential stream of thought as it arises through the phenomenological reduction: "We naturally accept the "real" world as existing independent of our consciousness of it, as consistent and constant, as peopled by others like ourselves, and all of us as finite. But we can and do ask "why", wonder about our wonder, and so take a radical critical stance which is a break with the natural attitude" (Holmes, 1995, pg. 9).

Recall that Titchener's original structural distinction between mind and consciousness was temporal. Consciousness was only a section of the larger mind-stream where mind referred to all conscious states within the life-time of an individual (1909). What follows as the individual suspends the natural attitude is the wonder of existence itself, in realizing its eventual ending, and its meaning as a whole: "Witness my wonder about my own death – I who am aware of the limit of my possibilities sees himself delimited as possibly no longer aware of his ongoing life. To note this limit and reflect on why this is so, and how it affects, or infects, the rest of my existence, requires a turning to an attitude of reflection which is no longer situated in the natural attitude wherein what takes place is straightforwardly accepted" (Holmes, 1995, pg. 9).

The phenomenological reduction plays an integral part in existential thought in directing our attention to the whole of existence. The wonder of existence allows us to realize how individual consciousness passing from beginning to end composes the world in a way disconnected from the way we conceptualize the passing of others and other objects: "This can be seen as I mourn the death of another person. I can see it as any other passing away or change in my world – the snow for skiing melts, spring flowers fade, and there is no more food on my plate – but I can and do experience, and possibly reflect on, the vision, or its lack, of a future world in which I am not (snow, flowers, and food without me), and thereby turn to a wonder about why this is so and, perhaps, how I should deal with my own death"(Holmes, 1995, pg. 10).

Existence unfolds in time through an awareness of one's being, and the being of things in general, so we turn to understand the meaning of being: "What happens at this stage of wonder is the realization that this objectivity, my own death, has to be assessed

as it has come to be constituted in and through my conscious processes. More generally, whatever sense any objectivity, any thing, event, and so forth has for me comes by way of these conscious processes and must be explicated" (Holmes, 1995, pg. 10).

In this constituting fashion, we achieve a "transcendental turn", or an explication of one's sense of the world which transcends the natural attitude: "What happens, I would submit, as we wonder about death is a shift of focus from our experience, as what is experienced as in the world…to an attitude of one who is not "in" the world…To make this break is the natural outcome of wonder, which leads to radical wonder, whose goal is the explication of all objectivities as they have been and can be constituted" (Holmes, 1995, pg.10).

If we take consciousness as the act itself, of intentionally experiencing the world, we should provide some description of its existence as such. One of the simplest distinctions is to say that there is a beginning and an end.

If there is an end to this experience and we are motivated to provide an explanation of this coherent whole, then what kind of teleology is built within the conscious timeline that defines life and death? Understanding this teleology requires an account of conscious experience as it exists in time.

Heidegger undertakes such an investigation, but first we must address the major criticism against introspection coming from scientific psychology. In order to speak about this existential timeline, and decide what this conscious experience means to us in the end, we must see beyond a strictly psychological paradigm.

A common critique of Husserl's methodology

Husserl marks a major division from the science of psychology. Instead of mental states being construed as functional dispositions to behavior, the quality of their conscious appearance is examined. Like Descartes, Husserl reestablished the centrality of the human subject in its conscious apprehension of the world. Husserl wanted to describe our experiences from the first-person perspective (Zahavi, 2003).

Husserl was concerned with the question of what it means to be conscious (Zahavi, 2003). This does not refer to an analysis of the empirical conditions for humans to be conscious, but rather the transcendental conditions through an analysis of what consciousness as such implies (Zahavi, 2003). By seizing experiential certainty, the phenomenological reduction claims to provide the basis for knowledge.

Indeed, unlike the sciences, it asks what makes any sort of knowledge possible in the first place. Husserl's methodology was transcendental in its investigation of conscious appearances, as well as these appearances' role in elucidating the conditions for the possibility of having an experience. But it also broke away from Kant's original inability to solve the problem of how the mind can know objects outside it (Eagleton, 2003). In claiming that what is given in pure perception is the very essence of things, Husserl sought to overcome this skepticism.

The greatest criticism of Husserl's original phenomenological method is its close association to Cartesian introspection. It claims to know reality through a *limited* first-person perspective. Husserl's phenomenological reduction is often considered solipsistic:

The phenomenological reduction seems to "restrict the field of research…to the phenomenologizing individual's own consciousness and phenomena. If the

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purpose of the intentional-constitutive analysis is to investigate the world's givenness for me, how should it then ever be capable of disclosing the world's givenness for another subject?...If one is meaningfully to speak of a foreign subject, of an Other, it is evident that we are dealing with something that cannot be reduced to its mere givenness for me (Zahavi, 2003, pg. 109).

The mistrust of introspective methods that started with Descartes, and carried on to the structuralists and gestaltists continues to influence critics of phenomenology. In reducing the world to a single consciousness, Husserl appears to disregard experience's inherent social nature:

Husserl speaks of a purely private or internal sphere of experience; but such a sphere is in fact a fiction, since all experience involves language and language is ineradicably social. To claim that I am having a wholly private experience is meaningless: I would not be able to have an experience in the first place unless it took place in the terms of some language within which I could identify it. What supplies meaningfulness to my experience for Husserl is not language but the act of perceiving particular phenomena as universals – an act which is supposed to occur independently of language itself…How can I possibly come to possess meanings without already having a language is a question which Husserl's system is incapable of answering (Eagleton, 2003, pg. 52).

Wittgenstein recognized that meaning is not something expressed or reflected in language: it is actually produced by it (1953). In other words, meaning is created by its use in experience: "It is not as though we have meanings or experience which we then proceed to cloak with words; we can only have the meanings and experiences in the first

place because we have a language" (Eagleton, 2003, pg. 52). There can be no such thing as a private language as our experience as individuals appears to be social to its roots. Meaning is created in an ongoing game of its collective use.

If we turn to Tomasello's evolutionary account of intentionality, we find empirical evidence to support this view. The idea of a self-interpreting human only emerges after cooperative gesture and communication across an evolutionary history (Tomasello, 2014). Without there being others through which we can objectively perceive our action as a means to a goal, and whose perspective we license as a normative standard, there would be no self-reflective experience. Concepts were developed and adopted from others' use.

Dan Zahavi disagrees with this charge of solipsism, and provides some evidence of Husserl's unpublished work on intersubjectivity: "Husserl took intersubjectivity very seriously…he claims that the subject can only be world-experiencing insofar as it is a member of a community, that is, as a member of a sociality, and that a radical self-reflection necessarily leads to the discovery of absolute intersubjectivity" (Zahavi, 2003, pg. 121).

Richard Holmes has written against this charge as well: "Before proceeding, I want to allay suspicions that phenomenology is a blatant form of subjectivistic, solipsistic idealism – worse by far than that of Berkeley, who at least had the decency to believe in God as the origin of the stuff of our experience" (Holmes, 1995, pg. 8).

Heidegger and phenomenology

The recognition that meaning is socio-historical led Husserl's most celebrated pupil, Martin Heidegger, to break from his system of thought (Eagleton, 2003, pg. 53). While Husserl appears to start with a Cartesian mode of inquiry, Heidegger rejects this starting-point, beginning with our most occupied way of living in the world; what Wittgenstein might call, the form of life (1953, para. 19, 241). The human being is always and already interacting with the world in a familiar way before we ever begin to doubt the connection between mind, body, and world. There is no "I think" in this natural engagement.

Instead, Heidegger sought to untangle the connection between the meaning given by the socio-historical world and the human being through a new kind of phenomenological analysis. Heidegger treats appearances, in their familiar presentation to consciousness, as ontological phenomena. "What it is like" for a human subject embodies an understanding of what it means to be a human being with this kind of consciousness. In beginning with this familiar way we interact with the world, Heidegger thought that the meaning of Being in general – a foundational study of ontology - could be disclosed in connection to human being's awareness of finite existence in time.

In *Kant and the Problem of Metaphysics,* Heidegger provides an account of Kant's first critique that serves to lay the ground for an inquiry into the Question of Being (Heidegger, 1929/1997). Heidegger interprets Kant's transcendental conditions as a foundation for a more primordial understanding of Being in general. He saw this more general question leading to an overlapping inquiry with Scholastic Metaphysics: "The Kantian laying of the ground for metaphysics began with the grounding of what underlies

authentic metaphysics, or *Metaphysica Specialis…*[that is,] *Metaphysica Generalis.* This, however – as "ontology" – is already the form which has been consolidated into a discipline, the form of what, in Antiquity and finally with Aristotle, remains established as a problem of…authentic philosophizing" (Heidegger, 1929/1997, pg. 154). The "finitude of Dasein" would be Heidegger's attempt to regain the Greek sense of limit and mortality, but through an original elaboration of anxiety, death, and authentic existence (Krell, 2008, pg. 23).

Heidegger's mode of inquiry is still noticeably phenomenological. It can be seen as an application of phenomenology to the study of Being in general. Phenomenological analysis of the human being provides conditions for the ontological analysis of Being in general. In other words, Heidegger's analysis is existential-ontological:

Being is to be laid hold of and made our theme. Being is always being of beings and accordingly it becomes accessible at first only by starting with some being. Here the phenomenological vision which does the apprehending must indeed direct itself toward a being, but it has to do so in such a way that the being of this being is thereby brought out so that it may be possible to mathematise it. Apprehension of being, ontological investigation, always turns, at first and necessarily, to some being; but then, *in a precise way, it is led away from that being and led back to its being*. We call this basic component of phenomenological method - the leading back or reduction of investigative vision from a naively apprehended being to being, *phenomenological reduction*. (Heidegger, 1927/1988, pg. 18)

The leading away and back terminology is used by Heidegger to characterize his and Husserl's phenomenological reduction. Husserl suspends our natural attitude such that we are not necessarily denying, neglecting, abandoning, or excluding the reality of appearances, but rather bracketing their validity. Heidegger's change in attitude toward reality leads us back to appearances, but as a way to disclose ontological structure.

Heidegger's analysis treats the being that apprehends these appearances as the initial object of ontological study. Heidegger's phenomenology begins foremost with the entity that questions its being, the human being: "We are defining this being terminologically as *Dasein*…Scientific research is neither the sole nor the primary kind of possible Being of this being. Moreover, Dasein itself is distinctly different from other beings. We must make this distinct difference visible in a preliminary way…Dasein is a being that does not simply occur among other beings. Rather it is ontically distinguished by the fact that in its Being this being is concerned about its very being" (Heidegger, 1927/1962, pg. 12).[4]

Heidegger seeks an understanding of the human being whose own search for being is inevitably entangled with the question of Being in general. Human beings are "special kinds of beings in that their way of being embodies an understanding of what it is to be" (Dreyfus, 1991, pg. 15). Through a change in attitude toward our being, as entities that question the meaning of being, we can be brought back to the underlying nature of Being in general. Distinguished in the world among other beings that do not conceive of themselves as such, Heidegger seeks a phenomenological reduction of our being-in-the-world, or Dasein:

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[4] When citing *Being and Time (1927/1962)*, pagination from the original German version will be used.

We are thus adopting a central term of Husserl's phenomenology in its literal wording though not in its substantive intent. *For Husserl* the phenomenological reduction…is the method of leading phenomenological vision from the natural attitude of the human being whose life is involved in the world of things and persons back to the transcendental life of consciousness and its noetic-noematic experiences, in which objects are constituted as correlates of consciousness. For us phenomenological reduction means leading phenomenological vision back from the apprehension of a being, whatever may be the character of that apprehension, to the understanding of the being of this being (projecting upon the way it is unconcealed). Like every other scientific method, phenomenological method grows and changes due to the progress made precisely with its help into the subjects under investigation (Heidegger, 1927/1988, pg. 18).

Dasein

Heidegger characterizes Husserl's phenomenological reduction as a bringing back or leading towards conscious appearances through an understanding of the conditions for their conceptual structure. On the other hand, an understanding of Being seeks to bring one back to the structure of what it means for there to be this consciousness which seeks an understanding of its being. That is, bringing one back from the apprehension of a being (the human being), to an understanding of what it means for there to be a being who apprehends its being. Characterizing the nature of Being in general requires an ontological investigation of human being as *Dasein.* The existential-ontological analysis

of Dasein is open to us through a change in attitude toward our everyday conscious experience.

Dasein roughly translates as *being-in-the-world* or being-there. However, a better way to put it is to say that Dasein describes the *there* of being. As such, Dasein does not designate the human being itself, but rather its way of being in the world: "When we designate this entity with the term 'Dasein', we are expressing not its 'what' (as if it were a table, house, or tree) but its Being (Heidegger, 1927/1962, pg. 42). Dasein's activity in the world creates a stand it is taking on what it is to be Dasein: "Its ownmost Being is such that it has an understanding of that Being, and already maintains itself in each case as if its Being has been interpreted in some manner" (Heidegger, 1927/1962, pg. 15). This self-interpreting way of being is *existence:* "That kind of being towards which Dasein can comport itself in one way or another, and always does comport itself somehow, we call "existence" (Heidegger, 1927/1962, pg. 12).

Heidegger coins two terms to describe the way Dasein exists or is *there* in the world: *existentiell* and *existential* kinds of understanding (Heidegger, 1927/1962, pg. 12). These are two ways that Dasein understands its existence. Existentiell understanding designates the way that Dasein seizes or ignores various possibilities of its interpretedness of its being – that is, by living its life (Heidegger, 1927/1962, pg. 12). Dasein chooses these possibilities itself, stumbles upon them, or already grows up in them (Heidegger, 1927/1962). One of these possibilities is to question the very structure of life and its possibilities, which is Dasein's distinctive ontic feature – it questions the meaning of being, or in other words, *is* ontological (Heidegger, 1927/1962, pg. 13). This

leads to the next mode of understanding, *existential* understanding – it attempts to answer the question concerning the structure of existence (Heidegger, 1927/1962, pg. 14).

The question of structure attempts to analyze what constitutes existence, where the coherence of these structures is called *existentiality* (Heidegger, 1927/1962, pg. 12-13). In contrast to existentiell understanding that examines the various possibilities that can be seized or ignored by Dasein for self-interpretation (eg. A mother, a fighter, a man, a machine, a care-taker, or a homo sapien), existential understanding tries to provide the ontological structure of these possibilities. What belongs to the structure of Dasein is called an *existential* (Heidegger, 1927/1962). Phenomenologist, Edith Stein provides a quick inventory of some of these existentials and their explanations, eg.,"in-the-world", "being-in", "care", and the "who".

Dasein's "in-the-world" is not the totality of objects present-at-hand, nor a certain spatial area of beings, but rather *that wherein a Dasein lives* (Stein, 2007, pg. 58). "Being-in" also has nothing to do with spatiality. Rather, as an existential, being-in belongs to Dasein's mode of being (Stein, 2007). As being-in-the-world, this is always characterized by *care*. As an existential, *care* marks our dealings with the world, and arises on the basis of a familiarity with the world (Stein, 2007).

Dasein finds itself concerned with certain projects, objects, or people in the world, which it understands in a familiar way. With this familiarity, Dasein deals with things in its world not as merely present-at-hand, but as equipment which are *ready-to-hand* (Heidegger, 1927/1962). Dasein's dealings are already understood as to be *for* something through *care* (Stein, 2007). It is only when ready-at-hand phenomena break or become useless that they become merely present-at-hand objects.

Indeed, Dasein is not a present-at-hand, a "what", but instead is a "who" (Heidegger, 1927/1962; Stein, 2007, pg. 58). For Heidegger, the essence of Dasein lies in its existence, and its searching for the nature of being (Heidegger, 1927/1962, pg. 42). Unlike material objects which are simply present-at-hand to Dasein or entities whose self-identity is of no concern, Dasein actively takes up its being (the who) as a question, while present-at-hand objects (the what), do not. Indeed, "the essential definition of this being cannot be accomplished by ascribing to it a "what" that specifies its material content, because its essence lies rather in the fact that it has always to be its Being as its own" (Heidegger, 1927/1962, pg. 12). In other words, Dasein relates to itself intimately by questioning the meaning of existence. This is an integral part of what it means for Dasein to have the kind of existence it has. For each Dasein, the search for the meaning of being is its own:

> That Being which is an issue for this entity in its very Being is in each case mine. Thus Dasein is never to be taken ontologically as an instance or special case of some genus of entities as things that are present-at-hand. To entities such as these, their Being is 'a matter of indifference, or more precisely, they 'are' such that their Being can be neither a matter of indifference to them, nor the opposite. Because Dasein has in each case *mineness* one must always use a *personal* pronoun when one addresses it: 'I am', 'you are' (Heidegger, 1927/1962, pg. 43).

As such, the primary characteristics of our being as Dasein are 1) the priority of existence over essence, where our way of being is to find its being rather than be predefined as a "what", and 2) that this being as Dasein is in each case mine. The *who* of Dasein is not a present-at-hand substance, but rather a form of existence: "The human

being's substance is not the spirit as a synthesis of soul and body; it is rather existence"

(Heidegger, 1927/1962, pg. 117). Through the possibility of realizing its authentic being,

Dasein does not "have" this possibility; rather it *is* this possibility as a mode of being.

Dasein's proper mode of being is its *having-to-become-itself* (Stein, 2007):

> Dasein does not have the kind of Being which belongs to something merely
>
> present-at-hand within the world, nor does it ever have it…The right way of
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> presenting it is so far from self-evident that to determine what form it shall take is
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> itself an essential part of the ontological analytic of this entity…In determining
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> itself as an entity, Dasein always does so in the light of a possibility which it *is*
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> itself and which, in its very Being, it somehow understands. This is the formal
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> meaning of Dasein's existential constitution. But this tells us that if we are to
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> interpret this entity ontologically, the problematic of its Being must be developed
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> from the existentiality of its existence. This cannot mean, however, that Dasein is
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> to be construed in terms of some concrete possible idea of existence…Dasein
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> should not be Interpreted with the differentiated character of some definite way of
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> existing…it should be uncovered in the undifferentiated character which it has
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> proximally and for the most part (Heidegger, 1927/1962, pg. 44).

Dasein and time

What is this undifferentiated character that Dasein must sift through in order to

find its proper mode of being? This is Dasein as contemplated in its *everydayness* (Stein,

2007, pg. 58). In other words, the ontological structure of Dasein's existentiell

understanding, or the structures through which Dasein seizes or ignores various

possibilities for interpreting its being. We must find an interpretation of Dasein which does not designate its being in any presupposed "self-evident" way. The access that Dasein has to its Being must be disclosed in an interpretation that allows Dasein to "show itself to itself on its own terms" but through the undifferentiated character of its everyday familiar existence (Heidegger, 1927/1962, pg. 16).

The path to understanding Dasein as the possibility of becoming itself lies in its relation to time. This relation can be seen as having two parts. Firstly, time as the condition for the possibility of having a human meaning of existence as Dasein. Secondly, the constant influence of time and history on the meaning Dasein derives from its experience.

Indeed, the meaningful human history that Dasein is always involved with in the world provides the basis for deriving a meaning for being. However, a meaningful human history arises on the basis of temporality. Thus, time is also the condition for the possibility of human history. As a condition for the possibility of Dasein's temporal mode of being, history is grounded by historicity:

> But temporality is at the same time the condition of the possibility of historicity as a temporal mode of being of Dasein…historicity is prior to what is called history (world-historical occurrences). Historicity means the constitution of Being of the "occurrence" of Dasein as such; it is the ground for the fact that something like the discipline of "world history" is at all possible and historically belongs to world history (Heidegger, 1927/1962, pg. 19-20).

As being-in-the-world, Dasein lives within this already established historical world. This is the undifferentiated worldly character Dasein already belongs to as being

in the world. In taking up an interpretation of itself within the world, Dasein manifests itself through its future, but only as this future is already interpreted by the past:

> Dasein "is" its past in the manner of *its* Being which, roughly expressed actually "occurs" out of its future…This understanding discloses the possibilities of its Being and regulates them. Its own past – and that always means that of its "generation" – does not *follow after* Dasein but rather always goes already ahead of it (Heidegger, 1927/1962, pg. 20).

Dasein is projected or "thrown" out of the historical past toward the future, which it must come to terms with in the present through *care*. Dasein also understands its future possibilities through its interpretation of the past.

In both cases, whether in present familiar dealings with the world, or in projections toward the future, Dasein is always and already ahead of itself through *care*. Heidegger calls this thrownness "facticity" which "as a kind of being, belongs to a being which in each case is its possibilities and is them in such a way it understands itself in these possibilities, projecting itself upon them" (Heidegger, 1927/1962, pg. 181).

Through this temporal structure, the undifferentiated character of everyday existence prompts self-interpretation. Indeed, this is Dasein's ontological nature as a temporal being who questions its own being. It is an escape from the same natural attitude Husserl had in mind:

> The everyday way in which things have been interpreted is one into which Dasein has grown in the first instance, with never a possibility of extrication. In it, out of it, and against it, all genuine understanding, interpreting, and communicating, all re-discovering and appropriating anew, are performed. In no case is a Dasein

untouched and unseduced by this way in which things have been interpreted (Heidegger, 1927/1962, pg. 169).

Dasein cannot realize its own way of being by only understanding itself in this everyday way. Dasein is no longer that which seeks to realize its own being, but instead becomes objectified as a product of the tradition which it initially grows up and interprets itself as. The everyday factical experience of life for Dasein can fall into the objective meanings of the environment:

With respect to the meaning of its being, the self can easily be experienced in an objectified sense… As soon as this particular burden of factical life [the past] is seen in terms of tradition…,the concrete possibility of bringing phenomena of existence into view and specifying them in genuine conception can manifest itself *only when* the concrete, relevant, and effectively experienced tradition is destructured, precisely in reference to the ways and means by which it specifies self-realizing experience (Martin Heidegger, as cited in Krell, 2008, pg. 21).

Heidegger calls the everyday Dasein a *they-self,* distinguishing it from the self we seek to realize as Dasein. The initial everyday understanding imparted by the tradition of the past encroaches on Dasein's own potentiality for being. As part of everyday existence, Dasein has to *be-with* other beings that also have the form of Dasein (Stein, 2007, pg. 59). As an existential, being-with is not a finding of subjects that are present-at-hand, but instead belongs to Dasein's presupposed familiar understanding of the world as ready-to-hand (Stein, 2007). Being with the They and being with ready-to-hand objects are integral modes of being for Dasein: "Being alongside the ready-to-hand, belongs just as primordially to Being-in-the-world as does Being with Others" (Heidegger,

1927/1962, pg. 181). However, this everyday self, "is proximally and for the most part inauthentic, [as] the they-self" (Heidegger, 1927/1962, pg. 181).

Dasein's understanding of being always includes the understanding of others: "This understanding, like any understanding, is not an acquaintance derived from knowledge about them, but a primordial, existential kind of being, which makes such knowledge and acquaintance possible in the first place" (Heidegger, 1927/1962, pg. 123). Dasein is *with-being-there-in-the-world* in so far as its understanding of itself is predefined by the They (Stein, 2007).

We may even think of this primordiality of existence in the They as an evolutionary primordiality, given Tomasello's concept of collective intentionality (2014) and Wittgenstein's form of life (1953). Our everyday meanings are derived from the They and have evolved through the They. But the everyday they-self is not its own proper self as such. Dasein wishes to be Dasein, or in other words, it seeks to be authentic in its search for being:

> The Self of everyday Dasein is the *they-self*, which we distinguish from the
> *authentic Self* – that is, from the Self which has been taken hold of in its own way.
> As they-self, the particular Dasein has been *dispersed* into the "they", and must
> first find itself. This dispersal…we know as concernful absorption in the world
> we encounter as closest to us. If Dasein is familiar with itself as they-self, this
> means at the same time that the "they" itself prescribes that way of interpreting
> the world and Being-in-the-world which lies closest (Heidegger, 1927/1962, pg.
> 129).

While the they-self is an "essential existential" as part of the ontological structure of Dasein, the authentic self is covered over by the they-self (Stein, 2007, pg. 59). To take up an authentic interpretation of itself within the everyday way of encountering the world is the meaning of being for Dasein:

> While we exist in the everyday, we understand ourselves in an everyday way, or as we can formulate it terminologically, *not authentically* in the strict sense of the word, not…from the…most extreme possibilities of our own existence, but *inauthentically*,…as we are not our own, as we have lost our self in things and human beings while we exist in the everyday. "Not authentically" means: not as we at bottom are *able* to own up to ourselves. Being lost, however, does not have a negative, depreciative significance…This everyday having of self within our factical, existent, passionate merging into things can surely be genuine (Heidegger, 1927, as cited in Krell, 2008, pg. 28).

Being-towards-death

Uncovering the authentic self is a project each person must decide for themselves. Dasein is involved in worldly projects and plans for the future but also fundamentally comes to terms with a relation to itself. Authenticity is uncovered by self-interpretation, thereby distancing the *who* of Dasein from the *They*.

We can think of Dasein and its projection of possibilities as having a beginning and end. In other words, Dasein can be grasped as a whole in its relation to time, and its self-interpreted history. By examining the finitude of Dasein, we look to understand its existential-ontological structure as a whole.

Heidegger has initial worries about the potential for describing Dasein as a whole since the fundamental existential of *care* appears to always leave the nature of Dasein unfinished. In care, Dasein is ahead-of-itself through its projecting into the future as a possibility for authenticity. But in being constantly ahead-of-itself, there appears to only ever be a projecting, or *potentiality-for-Being* that never ends. Even after death, there is something *still outstanding,* or inevitably never accomplished. In the words of Edith Stein:

> The specificity of Dasein's being as care, in which it is ahead of itself and according to which something of its being always remains outstanding seems to exclude an understanding of Dasein in its totality. It must therefore be shown that death can be grasped, and that as a consequence the entirety of Dasein can be grasped along with it (2007, pg. 62).

How does Dasein grasp an understanding of death in order to understand its being as a whole? This outstanding must be conceptualized as a mode of being through which Dasein realizes its ownmost being. Dasein must interpret this end as its own. Indeed, one must differentiate this end from the Being of things in general:

> The 'outstanding', which belongs to Dasein's being and which matures in death, is not the outstanding of a not yet ready-to-hand, which becomes disposable [after being obtained]…It is not the immaturity of the fruit which is consumed in the ripening, and it is not like the unfinishedness of the road ending only at the goal. The ending that lies in death is also not a disappearing (like the rain that stops)…Dying is neither identical to the 'perishing' of a living being, nor to the

demise as a passage from life to being-dead, but it is the mode of being in which Dasein is towards death (Stein, 2007, pg. 62).

We are already aware of this impending end, most especially through our projection of the self into the future: "Being towards death is prefigured in case as the being-ahead-of-one-self" (Stein, 2007, pg. 63). Death is given as an insurmountable possibility, one that shows the finitude of our being. But death as our own is only revealed when we distance our understanding of its significance from the They. Death is our own as a being-towards-death. It is our possibility-not-to-be, "our ownmost possibility of being free from all relations" (Stein, 2007, pg. 63). Impending death must be seen not as something exterior, pushing us along toward the end, but as exposing our ownmost possibility *to be* before that time comes. The everyday understanding avoids death's ownmost significance in the pacified meanings of the They:

> Idle talk makes anguish out to be fear of a threatening event…something which one ought not to indulge in; it does not let the courage to anguish before death come up…In that the 'they' accords to death only an empirical certainty (as a fact of general experience), it hides Dasein's own authentic certainty…the specific certainty that death is possible at every moment, even if temporally undetermined (Stein, 2007, pg. 63).

If Dasein exists as a possibility projected in time, the certainty of the possibility of death reveals Dasein in some of its totality. There is an end to this experience at some future point. In coming to terms with the anguish of being-in-the-world as being-toward-death, Dasein's own finitude allows for uncovering authenticity:

With death Dasein stands before itself in its *most proper* potentiality for

Being…Its death is the possibility of being no longer able to be "there". When

Dasein stands before itself as this possibility it is *fully* directed toward its very

own potentiality for Being. Standing before itself in this way all relations in it to

other Daseins are dissolved….As potentiality for Being, Dasein cannot surmount

the possibility of death….Death thus reveals itself as the *most proper,*

nonrelational, insurmountable possibility (Heidegger, 1927/1962, pg. 250).

Confronting death uncovers the open possibility for Dasein to realize its ownmost

being. The differentiation of Dasein from the Being of things in general includes no

longer being able to draw this distinction. I will no longer have the possibility of

engaging in this ontological problem of being that I am living now. As Stein puts it:

The authentic being towards death…envisages the ability-to-not-be as pure

possibility… which it must take up itself independently of all relations…From

inside the anguished state-of-mind this possibility poses a threat. But for its

totality it has significance, 'as anticipation of the unrepeatable possibility opens

up all its presented possibilities with it', it harbours the possibility of an

existential anticipation of the whole of Dasein (Stein, 2007, pg. 63).

Authenticity, anxiety, and finitude

The existential phenomenology of Heidegger opens us to a new way of

understanding consciousness – through the self-interpretation of a being in the world who

questions its existence. Through the phenomenological reduction of our conscious

experience as being-in-the-world we return to consciousness as a phenomenon,

conceptualized as a whole of finite appearances. In view of existence that extends from beginning to an end, we realize the need to own our way of existing.

Heidegger would most likely disagree that the existential-ontological analysis of Dasein provides us with something about the nature of consciousness per se (Krell, 2008). Instead, his analysis might be seen as something far more significant, pertaining to the nature of being human, and Being in general. But as we have seen through the self-reflexive movements of the analysis, where the apprehension of Being (the general question) must be characterized by another being, that which apprehends Being (Dasein, or human being), the self-interpretive capacity of consciousness shows its potential for understanding the nature of being. Heidegger's phenomenological reduction uncovers an analysis of consciousness as existence.

The existential structure of consciousness involves a striving for authentic being. The human capacity for self-consciousness and a unique self-interpretation emerges from the undifferentiated consciousness of the they-self. Authenticity can then be realized in purview of the mineness of death and the anxiety it inspires.

Realizing authentic existence requires each human being to confront the most insurmountable possibility of existence, death. In realizing that death and the possibilities of the future are ultimately mine, Dasein is able to differentiate itself from the they-self. However, what phenomenologist John Russon notes is not Heidegger's acknowledgement of difference between the everyday self and authentic existence (Russon, 2008). Rather, it is Heidegger's insight into the nature of this authentic self.

For Heidegger, the search for authenticity entails a feeling of *anxiety*. Stein translates this feeling as *anguish* (Stein, 2007) while Dreyfus as *angst* (Dreyfus, 1991).

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Projecting ourselves into the future leads us to the most insurmountable possibility, death. Death as we must own up to it reveals authentic being for the individual within their existential understanding. In positing a beginning and end to our conscious experience, we experience anxiety in our personal search for authenticity. The mood of anxiety has a capacity to disclose the way we care about our existence:

> In this anxiety…what is on display is precisely that "mattering" matters; i.e., it is how we care about the world that lets things be significant. Anxiety, in other words, discloses "care" as the fundamental meaning of our reality…the way in which my reality and the reality of my world are interwoven. Authenticity is the distinctive stance in which I own up to this, my role as "caregiver," so to speak, of my world: it is uniquely up to me to take my world up in a meaningful way (Russon, 2008, pg. 99).

Russon frames what this striving is like through Heidegger's idea of a resolution (Heidegger, 1927/1962, pg. 267-268). The most salient examples of resolutions come from experiences where we make a promise either to ourselves or others. As Russon states, on New Year's Day, I say that I will try to exercise more, or quit smoking. At the altar of our wedding day, I say, "I will always love you" (2008). In each case, a person is speaking on behalf of a possible self that exists in the future. The predicament of this situation is that we do not know whether the person who we are speaking for will still abide by this promise and attempt to realize it (Russon, 2008).

In this way, resolutions operate on the basis of a kind of fraud or lie – I claim to be sure that I will continue to fulfill this self-made promise, yet I cannot be entirely sure based on the evidence I have now (Russon, 2008). A resolution is "a promise one has

insufficient authority to make" (Russon, 2008, pg. 99). One speaks on behalf of someone one is not (Russon, 2008). When we make arrangements with our self, we must first posit that our future self will be much like the self we encounter here and now. In maintaining resoluteness, we may experience ourselves as the imposter of an imagined self. Heidegger's claim, however, is that maintaining authenticity in the face of future possibilities (including death) requires this kind of resoluteness - it is "anticipatory resoluteness" (Heidegger, 1927/1962, pg. 305):

> Normally, we treat things in the world as imposing their meanings upon us: this is important because it is a job or because it is cold or because it is what my family wants or because it is a law…Anxiety is the initial discovery that the meaningful weight of things is not inherent to them but can be stripped away, and authenticity is owning up to one's own reality as the founding meaning-giving power here. In authenticity, then, one can no longer "go along with" the simple "way things are" but recognizes oneself as the one who must set the terms of care (Russon, 2008, pg. 99-100).

Heidegger marks a major turn from Husserl's examination of the transcendental subject to our most immediate way of being in the world. Heidegger's phenomenological method elucidates the ontological structure of conscious existence rather than the essences of conscious phenomena. For Heidegger, existence precedes essence, as human beings are themselves ontological in that they question the possibilities of their being. But like Husserl, Heidegger suspends the natural attitude in order to be brought back to its underlying reality. By suspending the natural attitude, we can destructure the mechanistic meaning of experience, and return to the meaning-giving power of the authentic self.

In examining existence in the everyday way, experience appears to fall into the meanings of other objective modes of being. In being already in the world, involved in projects and others, the human being may realize it does not own up to the most extreme possibilities of its existence in simply going along with tradition. The basic everyday worldliness feels inauthentic, not in tune with one's fully realized self. But surely, the everyday way of being can become authentic.

Time ultimately serves as the basis for interpreting one's conscious existence. Dasein's self-differentiated character as a being that questions its being is brought out by the mineness of death. Indeed, the human being is intimately bound up with awareness of its finitude. Consciousness marked from beginning to end constitutes the world in a way disconnected from the everyday self. In wondering about existence, the human being seeks to actualize its authentic way of being.

Chapter 5: Conclusion/Future Directions

The development of scientific psychology has cast doubt on introspective methods for investigating the mind. As a result, the phenomenological perspective has been divided from scientific psychological methods. But as individuals capable of interpreting their own experience, phenomenology provides an understanding of our self-reflexive capacity. The existential structure of consciousness exists for each person in time, each with a unique history represented by the subject. The meaning we give to our own experience is presented through the phenomenal concept of consciousness as a whole in time.

The Hard Problem asks why consciousness as a phenomenon emerges from a system of complex causal mechanisms. The emergent quality of consciousness can be explained by the functional and social evolution of the mind, and analogized with computational-representational systems. Yet we still ask why we are here, having this experience, as the product of complex biochemical reactions. Why is there, and what is this feeling of consciousness, a what-it-is-like to be thinking matter?

We do not have to accept phenomenal realism to be pluralists about how we should understand consciousness. Nor do we have to deplore scientific psychology. In fact, mechanistic knowledge has positively informed this discussion. But we do have to acknowledge that mechanistic explanations do not provide a complete understanding of consciousness, in particular, our sense of time.

If we are able to suspend our judgement about consciousness as an emergent phenomenon, bracketing the scientific understanding, we see that mind actively experiences and understands this quality extended in time. So natural an occurrence in

everyday existence, we pay little attention to the constituting nature of time in experience. However, our implicit awareness of its beginning and end can be brought out in returning to the unfolding experience itself.

What-it-is-like is elucidated through the self-reflexive consciousness that occurs in time, referring to the first-personal character of its own occurrence– what it is like in time. Heidegger's phenomenology exposes the existential ontology of this consciousness– we question our finite existence and its relation to the existence of things in general.

Consciousness unfolding from beginning to end exposes how time constitutes our experience. The concepts used to describe the temporal unity of consciousness are constructed in dialogue with the surrounding historical world. To put it in Daniel Dennett's terminology, we are imagined and talked about to ourselves as the center of narrative gravity (Dennett, 1992).

Owning up or taking hold of this meaning-giving power requires one to examine the whole of individual experience. Self-projection into the future that meaningfully connects the personal past demonstrates this whole. As Heidegger says, the human being is always acting as though it were ahead of itself, though properly understood within a limited timeline. Consciousness and the self can be easily estranged because it is our default attitude to understand according to the historical tradition of a particular time. Meaning becomes estranged in the historical tradition in which a human being consciously understands itself.

The psychological tradition that extends from Darwin presupposes the influence of time in cognition by understanding our being through the functional development of

evolutionary mechanisms. Mind as a mechanistic system is reducible to the brain or an environmental/behavioural input-output structure. The accounts we are given in psychology presuppose the grounding of time for our experience as a whole.

But as a phenomenal structure of experience temporal existence is being-towards-death. Rather than deferring the meaning-giving power of consciousness to the ongoing tradition, we experience anxiety - compelling us to question the meaning of being in the first place. Only once the historical tradition of the time has been destructured "precisely in reference to the ways and means by which it specifies self-realizing experience" can the phenomena of existence be brought into view (Martin Heidegger, as cited in Krell, 2008, pg. 21).

While we have here examined Heidegger's account of the human being and the self-interpretation of experience, there are many other phenomenological approaches that should be considered as well. This is only one extension of Husserl's original phenomenological method.

We started with the history of the mind-body problem, and said much about how mind and body have been conceptualized across history, but have not examined specifically the role of the body in our experience. The embodied and embedded nature of the mind in everyday experience bears a functional relationship, but how we imagine the self and the world of possibilities for acting bears greatly on the limits of the body. Juxtaposed to Heidegger, Maurice Merleau-Ponty is the best representative of a phenomenological inquiry into the body (1978).

A historical inquiry into Heidegger's existential turn may also provide an avenue for the cross-influence of phenomenology, psychology, and existentialism. Situating

Heidegger between the early existentialism of Kierkegaard and Nietzsche, and later development by Sartre and Camus, would shed further light on his ontological structure, and its later interpretations and critiques.

In psychology, we may slowly begin to see the significance of phenomenology and existentialism in the concept of human agency. The phenomenology of agency and free will has been criticized by scientific psychology (Libet, Gleason, Wright, and Pearl, 1983; Libet, 1985; 2004; Wegner, 2002; 2005). Indeed, the feeling of agency or what it is like to intentionally act in the world may be reducible to implicit motor procedures rather than a feeling of action produced by low-level comparator mechanisms (Grünbaum, 2015).

However, Heidegger's idea of projection into the future implicates forms of empirically verified conscious mental representations. For example, semantic and episodic representations are considered two basic kinds of explicit memory storage (Tulving, 1985; 2002; Squire & Zola-Morgan, 1991). Tulving refers to the self-representing quality of episodic representation as *autonoetic,* similar to Husserl's term for the act of consciousness, *noema* (2002)*.* The act of thinking about the future with semantic and episodic representations has been termed mental time travel (Suddendorf & Corballis, 2008). Imagining the self in the past and future through the storage and retrieval of prospective intentions would involve a combination of psychological and phenomenological perspectives on consciousness.

The extent that identity development across the lifespan takes on an intersubjective quality for the subject (rather than a purely monological narrative as Dennett's terminology might suggest) may be reflected in memories of significant others

and feelings of pride or shame. More specifically, self-attributed meanings are most proximally derived from important social relationships – even long after the death of these significant others (Taylor, 1991). Our identities are always defined "in dialogue with, sometimes in struggle against, the identities our significant others want to recognize in us" (Taylor, 1991, pg. 33). The value of social recognition may be implicated in what it is like to experience these episodes emotionally and how these experiences are articulated across an individual's life. As Tomasello accounts for the evolutionary significance of gesture in the development of language and culture, Charles Taylor accounts for language in all modes of communication, including gesture, art, and love, in which we not only express, but define ourselves (Taylor, 1991).

Finally, we must remember that the idea of an *authentic* self, uncovered through the existential-phenomenological reduction, is only one particular interpretation that a human being can take about its conscious existence. Charles Taylor speaks of the ethic of authenticity as a way of being that came about after the 1960's (Taylor, 1991). Indeed, when Sartre, Camus, and Heidegger were gaining prominence. As such, it would be crucial to consider the concept of authentic existence within the developmental context of evolutionary psychology and Taylor's writings on self and modernity (Taylor, 2003; 2007).

With these future directions in mind, and the dynamic relationship between consciousness, history, and our self-interpretive capacity shown, we may continue to destructure static understandings of the human being, thereby increasing the scope of study of human consciousness.

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