Intentionality, Information and Consciousness:
A Naturalistic Perspective

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Abstract

In this thesis, I offer a new interpretation of the principles of Naturalistic philosophy that are relevant to the philosophy of mind. In doing so, I attempt to accomplish the broader task of showing how we can make significant progress in our thinking about consciousness by first offering new conceptual foundations that can ground our theorizing, and then applying these new ideas to specific problems in the field. The thesis first articulates the advantages of Naturalism, properly understood, as a valuable methodological alternative to traditional approaches to problems in the field. Next, I explore what we can distill from work in Situated Cognition Research (understood as an extension of my interpretation of Naturalism) which will be useful in truly appreciating the Naturalist's theoretical starting point, our conceptual foundation for work in the philosophy of mind. The thesis proceeds to show how the phenomenon of intentionality is to be understood given the principles of Naturalism, and a naturalistic account of intentionality emerges. I conclude with a consideration of the implications that a naturalistic account of intentionality has for our understanding of the nature of consciousness in general.

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Dedication

For Jessica, my wonderful family and friends, and my fellow thinkers.

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1. Introduction

One of the primary goals of the present work is to exhibit the value of taking a fresh approach to the philosophy of mind. The contemporary conceptual landscape seems fraught with difficulties inherited from problematic thinking about the complexities of consciousness and its place in the world. We should feel compelled to challenge and, if necessary, discard any metaphysical assumptions that get in the way of real progress in our attempts to articulate the nature of minds. And, if real progress is to be made at all, by rejecting traditional assumptions and approaches to the problems of consciousness, we will have to offer an alternative theoretical or methodological starting point that transcends the old difficulties and gets us to the core of the philosophy of mind.

My approach is broadly naturalistic: I will offer my own interpretation of Naturalism as the theoretical and methodological starting point that should be foundational in our thinking about minds in the world. The principles that I will argue are central to a naturalistic approach to the philosophy of mind will be shown to offer a way out of the old conceptual difficulties, and provide a new method of conceptualizing consciousness and its place in the world which honours undeniable features of our experiences as conscious, rational agents. With this naturalistic approach in hand, it becomes clear that consciousness cannot be understood in isolation from its complex

relations to the world, specifically those that are central to action and perception. And the undeniability of these relations, not a metaphysical belief about the kinds of things that exist in the world, must drive our theories. This is philosophical bedrock.

After articulating the details of this naturalistic approach, I proceed to analyze the relation of intentionality, which is a central, relational feature of consciousness. By applying the principles of Naturalism to the development of an account of intentionality, we are brought directly to the core of the philosophy of mind. In articulating the details of intentionality as an *informational relation*, an informational theory of consciousness emerges which consolidates all the crucial concepts surrounding consciousness into a detailed unified theory of minds in the world.

2. Philosophical and Methodological Background

It is always necessary in philosophy to be clear about the metaphysical assumptions that we make when approaching a particular philosophical problem. This is certainly the case in the philosophy of mind. The task of articulating the nature of minds and how they are related to the world—the problem that lies at the heart of the philosophy of mind—challenges philosophers to make explicit their deepest metaphysical assumptions about themselves and about the world they occupy. Divisions among theorists in the field follow from the various deeply rooted conceptual commitments that philosophers hold about the mind and its place in the world. These conceptual commitments, which drive the approaches theorists take to issues in the philosophy of mind, have produced a wide variety of accounts of the nature of consciousness. And in these, very little common ground has been reached, and the problem remains. Thus, as the present work attempts to reach to the core of the philosophy of mind, this chapter will serve as an attempt to establish sound conceptual and metaphysical foundations on which any subsequent philosophizing about the mind can be securely erected.

The conceptual problems that lie at the heart of the philosophy of mind have particular force due to the fact that consciousness and its features (as they are typically conceived) resist the kinds of accounts that are produced by the physical sciences. Given the way we typically think

about mental and physical phenomena (i.e., as fundamentally different), it is impossible to conceive of a "naturalized" account of the mind, according to which minds are understood to be a real part of the natural world. It has become obvious that the way philosophers conceive of the mind and of the natural world has kept them from making real progress in the field. John Searle has pointed out that problematic conceptions of the mind and of the natural world are really aspects of a larger, more general problem; what he calls *the* fundamental question of contemporary philosophy. The question, for Searle, is this:

> How, if at all, can we reconcile a certain conception of the world as described by physics, chemistry, and the other basic sciences with what we know, or think we know, about ourselves as human beings? How is it possible in a universe consisting entirely of physical particles in fields of force that there can be such things as consciousness, intentionality, free will, language, society, ethics, aesthetics, and political obligations?[1]

The apparent inability to reconcile our conceptions of mental phenomena with our conceptions of the physical world is what creates the traditional mind-body problem. It has been a continuing challenge to provide an account of consciousness and the world that does justice to what we know about each of them. For instance, we know that mental

[1] J. R. Searle, *Making the Social World: The Structure of Human Civilization* (New York:

and physical phenomena interact in human action and perception, as we could not retain the concepts 'action' and 'perception', and therefore make sense of such features of our lives, without at least granting as much. Thus, any theory that cannot make sense of these very real features of our lives cannot be considered an adequate account of conscious beings in the world. In the philosophy of mind, then, one criterion of success is theoretical unification. Providing a *unified account* of conscious beings in the world that can make sense of consciousness and its features, as well as the *relations* that exist between minds and the world, should be the primary motivation of the discipline. It is the metaphysical assumptions that philosophers bring to problems in the philosophy of mind that have hindered their attempts to solve them. Moreover, in order to see the mistaken methodology at work, we should consider some of the more significant contributions to the historical development of our thinking about the mind. By looking at these, we find clear examples within the history of the philosophy of mind where metaphysical presumptions produce untenable theories of consciousness.

2.1 Traditional Approaches

René Descartes, whose work brought the philosophy of mind into the modern philosophical world, confronted the problem of reconciliation. For him, the problem of successfully reconciling a

conception of consciousness with what was known about the natural world appears insurmountable, precisely because he began his thinking about the problem with a particular conception of the nature of minds and bodies in place. Descartes was committed to a conception of the mind as a purely thinking thing. According to this conception, minds are composed of immaterial, spiritual, and thoroughly non-physical substance. This sort of theory attempts to account for those features of minds that appear to be fundamentally different from the features of things that make up the physical world, and as a consequence of focusing on those differences, minds were thought to be theoretically isolatable from the physical world.

This particular characterization of mental phenomena, according to which the way consciousness is understood is so fundamentally different from how the natural world is typically conceived, is the foundation of the assumption that the world must be made up of two very different kinds of things (i.e., Substance Dualism). Moreover, Descartes is a *conceptual dualist*: due to his conception of the mind, he maintains that whatever is conceived as mental cannot be physical, and vice versa, because the *mental* and the *physical* represent mutually exclusive conceptual categories.

Descartes' proposed solution to the mind-body problem would, for better or for worse, have a lasting influence on modern theories of consciousness. Cartesian Substance Dualism, as it has come to be

known, is Descartes' attempt to reconcile his conception of the mind as an immaterial substance with his very different conception of the world as physical matter governed by physical laws. Substance Dualism proposes that the world is made up of two utterly different kinds of things, each having utterly different kinds of properties. On one hand, there are those things that comprise the physical world, namely, physical objects and events. Physical things are characterized by their spatial extension, and are subject to basic physical laws. On the other hand, there are those things that make up the world of mental phenomena: minds and their thoughts, etc. Minds are essentially thinking things for Descartes, and therefore lack any physical properties. Most importantly, despite these differences, Descartes insisted that mental and physical phenomena interact in human action and perception.

It is important to recognize the value of Descartes' contributions to the philosophy of mind. We can see that his dualism appeared to be a theory that paid homage to our pre-theoretical conceptions of the mind and its features, and also of the natural world[2]. It thus aimed to account for the features that we intuitively assume must be included in a plausible theory of minds, including interaction between mental and physical phenomena.

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[2] Descartes' conception of the natural world was in fact much different from modern scientific views for an important reason: his dualism, as well as his ideas about God, entail that he did not conceive of the natural world as causally closed.

However, the problems that render dualism untenable are rooted in the deeper metaphysical assumptions inherent in dualistic thinking. While dualistic conceptions of the world aim to account for everything that exists by postulating two utterly different kinds of things, the mistake lies in the methodology of beginning with a metaphysical belief about the nature of the phenomena in question. A direct result of such a mistake is that we cannot make sense of how interaction between mental and physical phenomena could be possible at all.

The problem with proposing two utterly distinct, *mutually exclusive*, metaphysical realms is that an account of their interaction is made impossible. If, as Descartes imagined, the entities which occupy the mental world are utterly different from—that is, *share no properties with*—entities which occupy the physical world, then there is no conceivable way for the two kinds of entities to interact. According to the basic principles of causation, if two objects share no properties, then there is no ground for causal interaction between them. It is generally and uncontroversially accepted that, "causes and effects cannot be mere sets of correlated phenomena; they must share some common feature which provides a rationally accessible link between them."[3]

So the way Descartes conceived of the mind and the world (i.e., his commitment to Substance Dualism) made their interaction impossible. Though he offers a rough account of how such interaction *is* possible—it

[3] J. Cottingham, *The Rationalists*, (New York: Oxford University Press, 1988), 92.

is mediated by the pineal gland—philosophers tend to agree that "Descartes' final position is to insist that God is responsible for these interactions."[4] Because of his commitment to interactionism, to claim that God must underwrite the interaction between the mental and the physical is really his only theoretical option. However, this move has no explanatory value, and gets us no closer to a solution to the mind-body problem, as it amounts to saying that interaction happens, but we know not how.

As a result, because Descartes' dualism cannot account for the relationships between mental states and the physical world (those relationships required to account for action and perception) his account fails to explain what is a central aspect of our experience of being persons; namely, agency. Perceptual and motor interaction with the world, including the mental states that mediate these processes, must be accounted for in our theories of mind, as this is one central feature of our existence.

Property Dualism is a subsequent manifestation of dualism, and its proponents are also motivated by the desire to make sense of those features of mental phenomena that appear to be unaccounted for by the physical sciences. The view postulates not two types of fundamental substance, but rather a world in which all substance is physical, although some (special) objects can have non-physical properties that are

[4] C. Eliasmith, (2006). "Dictionary of Philosophy of Mind" [Online]. Available: http://philosophy.uwaterloo.ca/MindDict/dualism.html

fundamentally different in kind than physical properties. Although the world is conceived as comprised thoroughly of physical objects and events, property dualists argue that brains can have two utterly different kinds of properties. Thus, Property Dualists typically assert that some brain events have both mental and physical properties. Property Dualists also postulate irreducibly mental properties in order to make sense of certain mental phenomena that appear to be unaccounted for in terms of physical objects and properties[5]. They too approach the philosophy of mind with a conception of the mental as irreducibly mental in order to soothe our intuitions about the unique nature of certain mental phenomena.

Consider the position Frank Jackson formulates in his paper *Epiphenomenal Qualia*[6]. Jackson advances what is known as the Knowledge Argument, where he concludes that even if one possessed all the physical information about a subject's experience of the color red (e.g., the neural mechanisms involved, information about light waves, etc.), something is left out: information about the qualities of the experience of red itself. He argues that, "there are certain features of the bodily sensations especially, but also of certain perceptual experiences,

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[5] For instance, the qualitative character of certain experiential states (labeled *qualia*) is typically thought to be irreducible to mere neurophysiological processes. This is because no amount of empirical data can provide information about the ontologically first-person, qualitative features of our mental states.

[6] F. Jackson, "Epiphenomenal Qualia," *Philosophy of Mind: Classical and Contemporary Readings*, edited by D. J. Chalmers (New York: Oxford University Press, 2002), 273-280.

which no amount of physical information includes."[7] He assumes that if there is something that is not thoroughly physical—some exception in a world that can be thoroughly grasped by the physical sciences—it must be thoroughly mental (i.e., conceptual dualism). The result is a clear instance of the Property Dualist's position: although the world is understood as thoroughly physical, given that there are some phenomena that cannot be accounted for in terms of physical properties, there must exist an utterly different kind of property, properly understood as mental.

Property Dualists think that by postulating mental properties they can claim that minds are brains, and hence are mostly accounted for by the physical sciences, yet with certain important exceptions such as qualia. However, these exceptions come with a cost: we cannot make sense of how the mental and physical interact. In order to make sense of mental phenomena, theorists often diminish their role in the physical world, specifically in action and perception[8]. They are left with conceptual "danglers,"[9] in the sense that mental phenomena are granted as thoroughly mental, yet an account of their relation to the physical world in action, and hence what work they do in the lives of persons, is unattainable on their own terms.

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[7] Ibid., 273.

[8] This is precisely the epiphenomenalist's position. Epiphenomenalism is the view that mental states are completely inefficacious, and are only postulated in order to soothe our intuitions about the nature of mental phenomena.

[9] I am using this term as J. J. C. Smart does. See: J. J. C. Smart, "Sensations and Brain Processes," *Philosophy of Mind: Classical and Contemporary Readings*, edited by D. J. Chalmers (New York: Oxford University Press, 2002), 60-68.

Searle makes this point by arguing that "the problem with [Property Dualism] is that we do not see how to fit an account of these properties into our overall conception of the universe and how it works."[10] Jackson's Epiphenomenalism, for instance, which is a result of his acceptance of the conceptual dualism of those he argued against, is a theory of the mind that explicitly denies qualia any causal role in action and perception[11]. Jackson believes that "the major factor in stopping people from admitting qualia is the belief that they would have to be given a causal role with respect to the physical world and especially the brain; and it is hard to do this without sounding like someone who believes in fairies."[12] That he sees the causal role of qualia in such a way represents his commitment to conceptual dualism, and hence his inability to formulate a theory of minds which can make sense of their interaction with the world. Qualia are construed as causally inert in action. These phenomena are understood as inefficacious "by-products" of neurobiological processes.

So a version of the criticism of Substance Dualism also applies to Property Dualism: claiming that qualia are inefficacious with respect to the physical makes it impossible to make sense of how interaction, and hence theoretical unification, could be possible between the mental and the physical. According to Epiphenomenalism, there is no causal relationship between one's qualia and one's actions—no one ever drank

[10] J.R. Searle, *Mind: a Brief Introduction* (New York: Oxford University Press, 2004), 45-46.
[11] See Jackson, *Epiphenomenal Qualia*.
[12] Jackson, *Epiphenomenal Qualia*, 273.

because they were thirsty, or yelled because they were in pain—which is absurd. Searle recognizes that "we really do not get out of the postulation of mental entities by calling them properties. We are still postulating nonmaterial mental things."[13] The way theorists are committed to thinking about the mental and the physical as mutually exclusive categories still necessarily renders inconceivable their interaction even at the level of properties, as they are still postulated as utterly different in kind. It is clear then that Jackson and the Property Dualists begin with the same conceptual commitments as Descartes (i.e., conceptual dualism), and as a result, their theories encounter the same difficulty: we cannot make sense of the interaction between the mental and the physical because it has been assumed that they are too different in kind to sustain interaction.

And this is the crux of the problem with dualistic accounts in general: once the mental and the physical are rendered different enough to warrant two mutually exclusive categories, one can no longer make sense of how they work together in ways we know they must. We cannot make sense of even the most basic aspects of our lives without assuming that minds are both causally efficacious and central to perceptual processes, and hence that minds interact with the physical world[14]. If, as

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[13] Searle, *Mind*, 46.

[14] See S.C. Coval and P.G. Campbell, *A Critique of the Liberal Idea of a Person* (New York: Edwin Mellen Press, 2010), 52-53. For instance, Coval and Campbell offer a list of all the concepts that we must necessarily assume are real features of the lives of a

dualism assumes, interaction between the mental and the physical were impossible, then we could not act, and know that we had acted, nor could we even speak to raise such issues. Such events presuppose interaction between the mental and the physical. Therefore, because dualism, in any of its manifestations, cannot account for these basic features of our existence, it cannot be correct.

And this is indeed the case. Dualistic thinking, or conceptual dualism, in fact segregates the proposed metaphysical realms of the mental and the physical, and renders theoretical unification impossible. This is precisely because the two concepts are construed as mutually exclusive. And as long as we are committed to this conception of the mental and the physical, we will not have a plausible theory of minds in the world. Searle, whose criticisms of Dualism are central to his philosophy of mind, notes that "[Descartes'] terminology is designed around a false opposition between the 'physical' and the 'mental.'"[15] Dualism, then, is not the right way to think about the mind. It should be clear that dualistic philosophers begin with a particular metaphysical view about the nature of minds in hand, and end up with theories inherited from that metaphysics that are themselves untenable.

It has become obvious to most philosophers that dualism does not solve the mind-body problem, but rather perpetuates it. As a result,

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person. They argue that a complete chronicle of the lives of persons must include at least an account of agency.

[15] J. R. Searle, *The Rediscovery of the Mind* (Cambridge, Massachusetts: The MIT Press, 1992), 25.

most modern theories of mind advanced since Descartes have exhibited negative reactions to his philosophy, and can therefore be characterized as *anti-dualist*. In turn, most anti-dualist positions, which purport to offer an alternative to dualistic thinking, espouse some form of substance and property *Monism*[16]. So almost all modern anti-dualist positions[17] are properly called 'materialistic' or 'physicalistic' theories of mind: the world is conceived as thoroughly physical.

'Physicalism' refers to a broad set of metaphysical views that dominate most of the recent history of the discipline[18]. The views are labeled 'physicalist' because, in every formulation, the central idea is that the world is made up of only one kind of stuff; namely, corporeal matter. Matter and the laws that govern it are believed to exhaustively account for everything that exists. Thus, if minds and their features exist, Physicalism assumes that they must necessarily be strictly and narrowly physical in nature. Given the prominence of anti-dualist theories of mind like Physicalism, it will be useful to evaluate the success of the general theoretical position by focusing on some of its specific historical manifestations.

The history of Physicalism in the philosophy of mind can be characterized as the continued attempt to provide a physical account of

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[16] This is the view that all of reality is of one kind. R. Audi, "Philosophy of Mind," in *Cambridge Dictionary of Philosophy*, 2nd ed., 1999, 686.
[17] The exceptions are idealist theories that assume the world is thoroughly mental.
[18] I will use the term 'Physicalism' as opposed to the more traditional term 'Materialism,' because the former is broader in scope, and typically applies to things not normally considered material (e.g., forces like electromagnetism, gravity, etc.).

mental phenomena. Consequently, physicalist theories of mind come primarily in two variations: they are either reductive or eliminative.

Reductive Physicalists grant the existence of certain phenomena that at least appear to be beyond the scope of the natural sciences. However, they do so on the grounds that a final analysis will reveal that we are mistaken about the real nature of these phenomena, and that they are really nothing more than physical phenomena. In other words, it is assumed that any unique phenomenon is ontologically reducible to physical phenomena: the former is explicable in terms of the latter, without remainder. These sorts of accounts reduce unique phenomena to their real physical nature, and thus establish descriptions of them that are in fact rooted in a thoroughly scientific understanding of the world. J. J. C. Smart exhibits the Reductive Physicalist's faith in science when he states, "that everything should be explicable in terms of physics, except the occurrence of sensations seems to me to be frankly unbelievable."[19] Reductive Physicalism changes our conceptions of the nature of otherwise mysterious phenomena so that they are revealed to be thoroughly physical, and therefore compatible with Physicalism as a metaphysical presumption. With regard to mental phenomena, Reductive Physicalists seek to reduce them to neurobiological processes in the brain and central nervous system.

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[19] Smart, *Sensations and Brain Processes*, 61.

The Identity Theory, despite its various formulations, represents the Reductive Physicalist's general view that minds are brains, and mental states are nothing more than brain states[20]. Therefore, according to the Identity Theory, descriptions of mental phenomena are construed as merely different kinds of descriptions (perhaps illusory descriptions) of thoroughly neurobiological processes.

U.T. Place, for example, argues that we must "treat two observations as observations of the same event in those cases where the technical scientific observations set in the context of the appropriate body of scientific theory provide an immediate explanation of the observation made by the man in the street."[21] What he means is that, according to this version of Physicalism, when a scientific description can be given of some phenomenon that we have come to describe intuitively based on our observations of that phenomenon, it is the scientific description that reveals and explains that phenomenon's real nature. Because, for instance, the scientific description of lightning as a sudden discharge of energy in the atmosphere can explain our experiences of lightning flashes, it is inferred that the scientific description gets at the phenomenon's true nature.

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[20] See U.T. Place, "Is Consciousness a Brain Process?," *Philosophy of Mind: Classical and Contemporary Readings*, edited by D. J. Chalmers (New York: Oxford University Press, 2002), 55-59. J. J. C. Smart, "Sensations and Brain Processes," *Philosophy of Mind: Classical and Contemporary Readings*, edited by D. J. Chalmers (New York: Oxford University Press, 2002), 60-67.

[21] U.T. Place, *Is Consciousness a Brain Process?*, 58.

Moreover, it is argued that the same applies to the way we should understand mental phenomena: because neurobiological explanations can in principle account for why we have mental states, they reveal the true nature of those experiences. According to the Identity Theory then, mental states, just like lightning, are mere appearances that distort our understanding of the real nature of the phenomena. Thus, the relevant science can show us that mental states *are* states in the brain and central nervous system, whose true nature is exhaustively accounted for in terms of the physical (i.e., neurobiological) sciences. Furthermore, as neuroscience developed exponentially over the last forty or so years due to advancements in neuro-imaging techniques, the search for neurophysiological descriptions that would reinforce such reductions seemed even more appealing as a method of accounting for the nature of mental phenomena.

There are, however, problems with this position. Most importantly, such reductions again leave out crucial aspects that must be included in the final description of the phenomena being explained. Identity Theorists seek to reduce mental phenomena to events in the brain, without remainder. However, there are remainders in such a reduction. Searle notes that physicalist theories are subject to the "absent qualia"[22] objection; the theories make no room for the qualitative aspects of conscious experience, which cannot be excluded from the final analysis.

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[22] Searle, *The Rediscovery of the Mind*, 53.

They cannot be excluded from the final analysis precisely because the qualia we experience are things we *know* about ourselves and, I argue, about our relations to the world we occupy. So, for instance, by attempting to reduce a subjective experience of the color red to the neurological events that underlie the experience, we miss something crucial in the final analysis[23]: the qualitative features of the experience itself.

At best, we can identify the physical correlates of a conscious state, or perhaps the causal mechanisms that are responsible for them. Hence, another related problem with this version of Physicalism is the mistaken assumption that a causal explanation of mental phenomena provides an exhaustive metaphysical account of the mind. We know that the brain is causally responsible for the existence of mental states, but this does not entail that mental states are nothing more that the neural mechanisms that create and sustain them. Causal reductions attempt to show that some entity's causal powers are entirely explainable in terms of the causal powers of another entity, whereas ontological reductions attempt to show that entities of a certain type consist entirely of (i.e., are really nothing but) entities of another type. Causal reduction is not the same as ontological reduction, and therefore causal reductions do not entail ontological reductions.

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[23] See Jackson's *Knowledge Argument*. We miss something even if we possess all the physical information about a subject's color experience.

Reductive Physicalism provides us with a theory of the mind according to which irreducible features of mental phenomena—which are precisely what we are really trying to account for—are illicitly reduced to brain states. This alone is enough to discredit Reductive Physicalism: a complete account of neurobiology does not provide us with a complete analysis of mental phenomena. There are remainders in such a reduction, and they are undeniable features of our conscious lives. And this theoretical shortcoming is a direct result of the physicalist's metaphysical presumption that whatever exists must be strictly and narrowly physical.

The shortcomings of Physicalism are even more apparent in its most exaggerated formulation, namely Eliminative Materialism[24]. On this view also, anything that cannot be accounted for in principle by the natural sciences cannot exist at all. But instead of accepting that the unique phenomena exist but are really something else (i.e., Reductive Physicalism), Eliminative Materialists deny that they exist altogether, precisely because they cannot be reduced. So, for instance, an Eliminative Materialist will deny altogether that there is such a thing as the conscious experience of the color red. We cannot ask the eliminativist what such an experience is like, because they claim that

[24] This view is attributed to Paul and Patricia Churchland. See: P.M. Churchland, "Eliminative Materialism and the Propositional Attitudes," *Philosophy of Mind: Classical and Contemporary Readings*, edited by D. J. Chalmers. New York: Oxford University Press, 2002: 568-580. P.S. Churchland, *Neurophilosophy: Toward a Unified Science of the Mind/Brain* (Massachusetts: The MIT Press, 1986).

there is in fact no experience the having of which is like anything (i.e., there is no such thing as a mental state, and therefore, no qualitative content). On this view, any intuitions we may have about the nature of mental phenomena are false, and are considered instances of the outdated and inaccurate claims of "folk psychology".[25] In other words, eliminativists claim that accepting irreducible mental phenomena is the result of bad theorizing, and that advancements in neuroscience will continue to reinforce their own view that there are no such things[26].

It is clear that the phenomena we are trying to explain are simply being denied, as if these theorists can simply choose to eliminate familiar features of our mental lives from their final analysis because they evade scientific accounts. Galen Strawson construes Eliminativism as a truly significant mistake in the history of philosophy:

> This is surely the strangest thing that has ever happened in the whole history of human thought…[and] it shows in a very pure

[25] This point was defended by Richard Rorty. See: R. Rorty, "Mind-body Identity, Privacy and Categories" in *The Review of Metaphysics* XIX: 24-54. Reprinted Rosenthal, D.M. (ed.) 1971.

[26] Even Patricia and Paul Churchland, who, along with Rorty, are seen as the most significant proponents of Eliminative Materialism, have backed off of the idea that we can eliminate "mental things" from our theories of mind. They claim that Eliminative Materialism was intended to be a prediction about the efficacy of neurobiological explanations. However, such a prediction, namely, that neuroscientific descriptions would replace mental discourse is a retreat to the psycho-physical reduction of the Identity Theory. See Patricia Churchland, interview by Julian Baggini, *The Philosopher's Magazine*, Issue 57. Acumen Publishing Ltd., 2012.

> way that the capacity of human minds to be gripped by theory, by faith, is truly unbounded.[27]

On the same topic, Searle states that:

> One sees this pattern over and over. A Materialist thesis is advanced. But the thesis encounters difficulties; the difficulties take different forms, but they are always manifestations of an underlying deeper difficulty, namely, the thesis in question denies obvious facts that we know about our own minds.[28]

This "underlying deeper difficulty", despite being under the guise of anti-dualism, is in fact a result of the same sort of thinking that produces dualist theories. Physicalist theories of mind, for the most part, implicitly endorse the central principle of Cartesian Dualism; namely, that the *mental* and the *physical* represent mutually exclusive metaphysical categories. So even though physicalist theories of mind are characterized by their opposition to metaphysical dualism, the same conceptual dualism drives them: the ungrounded assumption that what is mental cannot be physical, and vice versa. The difference with Physicalism is that its proponents are committed also to the view that nothing can exist that is not material or physical, so they have to either reduce mental

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[27] G. Strawson, "Introduction'" in *Real Materialism and Other Essays* (New York: Oxford University Press, 2008), 6.
[28] Searle, *The Rediscovery of the Mind*, 30.

phenomena to physical phenomena or deny they exist, because of this prior metaphysical commitment in favor of Physicalism. As a result, these forms of anti-dualism also fail to provide an adequate theory of minds in the world.

We have now seen from a few historically significant examples how *not* to do philosophy of mind. We have witnessed how assumptions about metaphysical categories have a history of producing inadequate theories of mind. It is apparent that we need to take a fresh look at the problems involved in articulating the nature of consciousness, and in doing so, be clear about the way we initially conceptualize minds and the natural world so as to begin from a sound theoretical starting point, and not from a problematic metaphysical commitment. And we should strive towards a conceptual foundation for working on the mind-body problem that not only avoids the conceptual dualism contained in both dualistic and anti-dualistic thinking, but that can help us start to actually establish real answers that can account for the very real phenomena that we confront as conscious beings in the world.

3. Naturalism

The history of the philosophy of mind has repeatedly shown that the theories we end up with are a result of the way we begin to think about the mind and its place in the world. The old conceptual categories have constrained our theories, and as such have produced untenable theories of mind. But there is in fact a genuine methodological alternative to theories rooted in conceptual dualism, which avoids the traditional mistakes that have halted progress in the field. The alternative, I believe, is Naturalism.

Typically, Naturalism within the philosophy of mind proposes that whatever exists, from brains and nerves to consciousness and intentionality, is to be understood as a real part of the natural world, and that to be a real part of the natural world requires that a thing has a function in the world[29]. Those who take a naturalistic approach to the philosophy of mind should deny any conceptual obstacle to this position, because it is a view that strives to be metaphysically neutral. Naturalism, as I understand it, is generally not the kind of theory that begins with the self-imposed task of enumerating and describing the kinds of things that exist. Most importantly, the greatest strength of a naturalistic approach to the philosophy of mind, properly understood, is that it can begin by accepting *what we cannot deny about ourselves and about the world*. A

[29] Anything that we think exists but has no function in the world is truly a conceptual dangler.

Naturalist should recognize that whatever "kind" differences there are between mental phenomena and physical phenomena are not obstacles to their function, and that starting by categorizing the kinds of things that exist will obscure more than it will illuminate the nature of consciousness. Furthermore, the inability of the natural sciences to account for mental phenomena has no force, as this shortcoming appears to be a result of the way we conceive of the scope of scientific inquiry[30].

Searle and Strawson are candid about defending a naturalistic approach towards the philosophy of mind. Strawson writes:

> Full recognition of the reality of experience is the obligatory starting point for any remotely realistic version of physicalism because it's the obligatory starting point for any remotely realistic theory of what there is. It's the obligatory starting point for any theory that can legitimately claim to be naturalistic because experience is itself the fundamental given natural fact.[31]

This position represents a methodological shift away from the problematic conceptual commitments that have halted progress in the

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[30] Physicalist theories of mind, like the Identity Theory, are guilty of "Scientism" in this regard. This is the view that the scientific method is the ultimate authority on the nature of reality. Those guilty of scientism maintain that the only things that exist are those that are knowable, in principle, strictly empirically (i.e., those things that are ontologically *objective*). However, this necessarily implies denying that consciousness exists because, as consciousness is ontologically *subjective*, in the sense that it is only experienced by the person who is conscious, it evades a strictly empirical account. And denying consciousness cannot be done coherently.

[31] Strawson, *Introduction*, 7.

field. Strawson's point is important to the history of the philosophy of mind, because by urging that theories must begin with the acceptance of the undeniable existence of conscious experience[32], his account is not constrained by a pre-established metaphysics. Such a naturalistic approach implies a denial of conceptual dualism, and specifically of the idea that differences between mental and physical phenomena make their interaction unintelligible. As Searle notes, "the poverty of these categories becomes apparent as soon as you start to think about the different kinds of things the world contains."[33] Conscious processes, which indeed are most likely caused by and realized in the central nervous system, can neither be construed as strictly and narrowly mental nor physical and so should not be conceptualized as such. A naturalistic approach should urge, then, that philosophers theorize about minds and the world without the self-imposed constraints of such fixed categories, and instead produce accounts of consciousness that are compatible with the undeniable facts (e.g., that consciousness really exists). For this reason, it appears that there are definitive advantages to having the naturalistic methodology driving our theories of mind.

The term 'Naturalism' is apt for this alternative methodology, because it is an approach that begins with the acknowledgement of certain truths about our nature as persons. One cannot escape one's

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[32] Note here how narrow Strawson's theoretical starting point is (i.e., experience). I argue that there is a much richer theoretical starting point that the Naturalist is entitled to. See Strawson, *Introduction*, 7.
[33] Searle, *The Rediscovery of the Mind*, 25.

nature as a conscious being; it is confronted at every moment. Human beings are the kinds of things that have conscious experience, and so any theory of mind that denies this will necessarily fail.

Naturalism, as I have outlined it so far, obviously relies on the notion of "undeniability." For instance, Strawson, who claims conscious experience is undeniable, draws attention to the logical absurdity of philosophical theories of consciousness that deny that there is such a thing as consciousness at all, and labels this denial "the silliest view ever held by any human being."[34] The denial of consciousness is self-contradictory: a denial itself entails the existence of consciousness because denial, like any action, presupposes consciousness. A denial of consciousness presupposes consciousness because such an assertion implies the use of thought and language on the part of the denier. So the denial of consciousness is self-refuting. No argument for the existence of consciousness is needed; it is something we know about ourselves non-inferentially, and, moreover, any attempt to refute it confirms it. To argue against this point in any way would be to miss the point entirely, as it would again necessarily imply thought and language on the part of the one making the argument. Furthermore, this point exhibits the value of the Naturalist's method. By beginning with undeniable facts, one recognizes what must be the case in order to make sense of what one already knows about the world; one reaches philosophical bedrock.

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[34] Strawson, *Introduction*, 8.

Thus, with Strawson's version of Naturalism, a conception of the natural world emerges which is more commodious, more hospitable to "non-physical" phenomena, and thus which can account for what cannot be denied (e.g., experience). By 'experience', Strawson is referring to conscious states, and those particular ontologically subjective features of conscious states that escape objective, third-person investigation. His primary concern is *qualia* (i.e., the qualitative character of conscious experiences, such as the experience of the color red or the experience of the taste of bitter food). Qualia are typically absent from physicalist theories of mind, precisely because they cannot be accounted for by the physical sciences, given that they exist only as experienced by a subject (i.e., they have an irreducibly first-person, subjective ontology[35]). Thus, Strawson claims that he is a "realistic physicalist, a real physicalist, a realistic or real naturalist, and one can't be one of those if one denies the existence of the entirely natural phenomena whose existence is more certain than the existence of anything else: experience."[36]

So the important point here is that Strawson's Naturalism begins with a particular undeniable claim about minds and the world, and not with a theory-laden metaphysical view about the nature of minds and the world already in place. We might say that the naturalistic philosophical

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[35] Searle, *The Rediscovery of the Mind*, 19.

[36] Ibid., 7. Note that this is actually quite Cartesian, i.e. he begins with his own conception of a thinking thing. The Cartesian "I" and Strawson's "experience" seem to play the same foundational role in each theory, and this should make us cautious of Strawson's theoretical starting point, specifically his (solipsistic) epistemological claim that we can be more certain of experience than anything else.

method starts with claims like "it is a matter of fact that X", where X stands for any phenomena the denial of which would be absurd. And those things that cannot be denied must then be foundational in our theories of mind (i.e., we cannot describe our way out of them[37], they are philosophical bedrock).

Searle also defends a naturalistic theory of consciousness, and in doing so, he provides some detail to our understanding of the undeniable facts about consciousness that constitute the Naturalist's starting point. His theory of consciousness, which he labels Biological Naturalism, is a refreshingly clear and concise account of what one must accept about the nature of consciousness in order to begin building a plausible theory of the mind. Searle lays out four points that constitute the metaphysical core of his work:

1. Conscious states, with their subjective, first-person ontology, are real phenomena in the real world.
2. Conscious states are entirely caused by lower level neurobiological processes in the brain.
3. Conscious states are realized in the brain as features of the brain system, and thus exist at a level higher than that of neurons and synapses.

[37] This is an expression used by Coval and Campbell. It refers to certain metaphysical truths that we must acknowledge, and subsequently build theory upon. Whatever we cannot describe our way out of must be foundational in our thinking. See: Coval and Campbell, *A Critique of the Liberal Idea of a Person*, 82.

4. Because conscious states are real features of the real world, they function causally.[38]

Searle's Naturalism of the mind, therefore, explicitly endorses the premise that consciousness is a biological phenomenon. He argues that "consciousness is a system-level, biological feature in much the same way that digestion, or growth, or the secretion of bile are system-level, biological features."[39] Thus, Searle's account is reinforced by what we have learned empirically about the physical nature of the brain: it is a thoroughly physical organ that as a matter of fact produces consciousness. The entire field of clinical neuropsychology is ripe with empirical evidence that maps the effects that physical changes to the brain have on one's mental states[40]. To deny this point would be bad philosophy, given what we already know about the world.

The value of Searle's Biological Naturalism is that it, like Strawson's account, endorses an expanded notion of what sorts of things comprise the natural world, beyond the narrow conception of the physical. And this increased theoretical acceptance is not arbitrary. Searle argues that

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[38] Searle, *Mind: A Brief Introduction*, 113-114.

[39] Searle, *Mind: A Brief Introduction*, 112.

[40] Numerous case studies have been thoroughly documented that map relationships between the brain and mental states of human subjects. Physical changes to the brain, such as the result of trauma, exposure to toxic material, and even preventative surgeries like the severing of the corpus callosum to alleviate the symptoms of seisures, cause radical changes to the mental lives of the subjects who are documented. This entire field must presuppose that the brain is causally connected to mental states. See J. A. Ogden, *Fractured Minds: A Case-Study Approach to Clinical Neuropsychology*, 2nd ed., (New York: Oxford University Press, 2005).

"consciousness *qua* consciousness, *qua* mental, *qua* subjective, *qua* qualitative is *physical*, and physical *because* mental," and that this was deemed an untenable position solely on the grounds of the "inadequacy of the traditional vocabulary."[41] His claim, although seemingly counterintuitive, is justifiable once we reject problematic metaphysical commitments like conceptual dualism. He can proceed because he recognizes that he need not accept the old, limiting vocabulary used in the field which obscures the straightforward point that consciousness exists, and is a product of natural, biological processes. A naturalistic account of consciousness is unavoidable.

For Searle, Naturalism about consciousness entails that no matter how mysterious the phenomenon is, the world of the natural sciences includes consciousness, irrespective of whether science and scientists recognize it as a subject of scientific enquiry. Consciousness, on this view, is compatible with what we know about the natural sciences, and especially neurobiology. And the evidence suggests that this is exactly the case: what we know about consciousness is entirely compatible with what we know about the underlying biological, chemical, or physical nature of reality, if we deny the mutual exclusivity of the old dualistic categories. Thus, a naturalistic approach denies that an understanding of the kinds of things that exist determines what in fact does exist, and whether they interact, etc.

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[41] Searle, *The Rediscovery of the Mind*, 15.

Consequently, it should be stated that one of the greatest strengths of Naturalism, as it is generally understood, is that its proponents need not enter into debates that typically occupy philosophers of mind. Despite the fact that Naturalism seems obviously promising, philosophers have not been quick to endorse it. Many philosophers who are interested in the nature of consciousness are still worried about the dualist/materialist debate as it is traditionally formulated. Naturalism allows us to move beyond such a debate and begin to tackle the philosophically substantial task of articulating the nature of consciousness and its features.

There is something crucial touched on in point (4) of Searle's account that deserves much more attention. Both Strawson and Searle argue that consciousness is undeniable, and so any theory of mind that makes it problematic or denies its existence is therefore inadequate. I agree with their strategy, but consciousness is only a part of the picture, and thinking of consciousness in isolation represents a misunderstanding of what it is that we cannot describe our way out of. Simply recognizing the existence of consciousness is how Descartes began, and his method was problematic precisely because it assumes that consciousness is isolatable from the work that it does in the world. If one simply understands consciousness in isolation from what it does, one risks falling into solipsism, and the very problems a naturalistic methodology

promises to avoid. But there is a richer conception of the undeniable facts about our nature that we are entitled to, and in failing to recognize this, Strawson's "fundamental given natural fact" is inadequate as philosophically foundational.

Consciousness is undeniably *related* to the world, through the relations that are necessary for action and perception. Hence, these relations are truly the Naturalist's theoretical starting point; true philosophical bedrock. It must be the case, given what we already know about ourselves and the world, that thought cannot occur in isolation as Descartes proposed, but is in fact related to the world in complex ways. So, it is the complex *interaction* between consciousness and the world that characterizes the metaphysics of persons, and thus that philosophers of mind must accept as undeniable and foundational.

Therefore, the Naturalistic method, as I present it, *begins* with a unified theory of minds in the world, and thus satisfies the desire to provide a single account of the world that can make sense of the presence and functions of consciousness. What this means, however, is that a plausible naturalistic account of consciousness must make sense of the particular work that consciousness does in the world: namely, as central to agency. Conscious states not only exist, they are fully integrated with the natural world, in the lives of persons. So my version of Naturalism proceeds by acknowledging that theoretical unification is no longer problematic. In fact, the materials of theoretical unification are

given to us, because once consciousness is properly understood, philosophers must recognize that it is undeniably the case that consciousness requires complex relations to the world (e.g., in action and perception). Consciousness is one's informational link to the world. It allows an uptake of information from the world (e.g., in perception) and allows one to make changes in the world based on that information (e.g., in action). We cannot begin to make sense of what we know about the world and about the persons who occupy it without granting that consciousness is fully integrated in these ways. And so, agency—the complex relations between conscious beings and the world they occupy—is philosophical bedrock.

However, providing an account of the mind which addresses full-blown agency has been continually problematic as a result of certain philosophers' commitments to conceptual dualism, and the subsequent failure to construct a unified theory of conscious beings in the world in which they act and perceive. Are there other theories out there that apply a naturalistic method and consider agency foundational in the philosophy of mind? I would like to evaluate a fairly new school of thought that purports to acknowledge the significance of agency relations in theories of mind: Situated Cognition research.

The term 'Situated Cognition' refers to a collection of loosely related ideas that have emerged out of research in cognitive science,

artificial intelligence, and the philosophy of mind. Like most expressions that attempt to label certain schools of philosophical thought, 'Situated Cognition Research' means different things to different theorists. However, that persons are fully integrated with the world via agency relations appears to be common to all interpretations of Situated Cognition (SC) research. In order to see whether SC research helps or hinders the overall naturalistic project, it will be beneficial to understand the historical development from which SC emerged.

The prevailing model of cognitive and conscious processes that drove research in such areas as cognitive science, neuropsychology, and the philosophy of mind before the emergence of SC research has been labelled by some as "cognitivism."[42] Cognitivism, in the context of the philosophy of mind, construes mental processes primarily as formal, rule-based operations performed over abstract symbolic representations. This (traditional) view "maintains that cognition can be understood by focusing primarily on an organism's internal cognitive processes (that is, specifically those involving computation and representation)."[43] So, for instance, problem solving on this model is understood as a "purely" cognitive affair: linear input and output, mediated by symbolic

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[42] M.L. Anderson, "Embodied Cognition: A Field Guide," *Artificial Intelligence*, 149 (2003), 93. Cognitivism is rooted in conceptual dualism, as it was Descartes' philosophy that emphasized the "thinking" aspect of the human being. Descartes assumed that the mind could in principle exist without any external world at all, as minds are "purely" thinking things. This is not only wrong, I argue that it is incoherent.

[43] M. Cowart, (2004). "Embodied Cognition," In *The Internet Encyclopaedia of Philosophy* [Online]. Available: http://www.iep.utm.edu/embodcog/. Section 1.

representations that enable an agent to devise a solution to a given task by means of computational processes alone.

Cognitivism, then, exhibits an *isolationist* approach to the philosophy of mind. Those who accept Cognitivism emphasize the internal, syntactical elements of cognition, and thus attempt to explain cognition and consciousness in isolation from particular facts about the world. The influence of conceptual dualism is at work here: the mind is understood as utterly different from the world, and hence can be analyzed as such. On this view, contributions made by the actions and perceptual experiences of an agent are deemed insignificant to understanding the nature of the mind, and the fact that agents are fully integrated in the world is not appreciated.

The idea that we can explain mental processes without an account of the complex relations between agents and the world they occupy is exactly what SC theorists, and naturalism in general, take issue with. It should be uncontroversial to accept some version of an input/output model of perception and action (given what we know about the physiology of perceptual and motor processes), and the existence of abstract symbolic representations and the formal computational rules that govern them are essential to our mental lives. However, those who endorse the SC program claim that to attempt to understand cognitive and conscious processes in isolation from the world is to miss something crucial.

Consequently, SC research recognizes that agency relations are necessary for any mental processes at all, and so any theory that ignores this fails to truly grasp the nature of the mind. Perceptual and motor interaction with the world cannot occur without accepting the full integration of agency, and symbolic representation and manipulation cannot aid in these processes unless we assume those symbols are not semantically-neutral, but represent real things in the world. With SC, the complex relations between agents and the world they inhabit are acknowledged as central to plausible theories of mind. So SC exhibits another attempt to shift away from conceptual dualism. In general, we can say that, contrary to the cognitivist position, SC research favours a "relational analysis that views the organism, the action it performs, and the environment in which it performs it as inextricably linked."[44]

However, the way philosophers have interpreted the principles of SC has obscured its real import. In most cases, they have missed the real significance of the ideas that are central to the SC approach, because those who claim to endorse SC research are not clear about the nature of the relations that characterize a situated agent. For example, the Extended Mind Thesis (EMT) is one strong interpretation of the central

[44] Cowart, *Embodied Cognition*, Section 1. Drawing on dynamic systems theory, SC theorists understand the human being as a complex system, whose "cognitive processes are not strictly attributable (reducible) to neurological mechanisms, nor are they purely conceptual" but are instead best understood as part of a dynamic process which involves the complex interaction of "cultural, social, biological and physical environment systems." W. J. Clancy, "Scientific Antecedents of Situated Cognition'" in *The Cambridge Handbook of Situated Cognition*, (New York: Cambridge University Press, 2009), 28.

claims of SC research. This is a view endorsed by David Chalmers, Andy Clark, and others[45]. Essentially, the EMT is an attack on the internal/external distinction with regard to mental processes. The EMT argues that because of the functional role that objects in the world can play in cognitive processes (e.g., a calculator), we should say that cognitive processes literally extend to include these objects and their processes, and therefore the world. The idea is that truly understanding the situatedness of cognitive states renders the claim that cognitive processes are a thoroughly internal matter simply arbitrary.

The EMT is problematic. The idea that the mind itself extends into the world, and the world into the mind, depends upon SC's claim about the "causal coupling" of internal cognitive states and external cognitive tools. This is closely related to functionalist theories of mind[46], as the central claim is that because a certain step in a cognitive process can also be performed by something external to the agent, we are wrong to assume that the mind is merely an internal process, but should rather assert that it includes anything that might fill a specific functional role in that cognitive task. In the most common examples used to defend the EMT, theorists attempt to show that cognitive processes that recruit

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[45] See A. Clark and D. Chalmers "The Extended Mind", *Analysis* 58.1, January 1998, pp. 7-19. R. A. Wilson and A. Clark "How to Situate Cognition: Letting Nature Take Its Course", in *The Cambridge Handbook of Situated Cognition*, (New York: Cambridge University Press, 2009), 55-77.

[46] Functionalist theories of mind seek to explain mental phenomena solely in terms of their functional role, and thus they assume that anything that can perform the function of a mental state can in principal be said to be a part of mental processes.

objects in the world are in all relevant ways similar to cognitive processes that do not recruit such external cognitive aids. Using a notebook to augment one's memory, it is argued, involves a cognitive process that is functionally identical to biological memory, with the only difference being the spatial location where the cognitive process takes place[47]. Furthermore, not only do cognitive processes extend beyond the head into the world, but by implication consciousness itself, according to the EMT, is at least partially constituted by the external world (i.e., external cognitive aids are *part* of the mind of the subject that uses them). However, as Fred Adams and Kenneth Aizawa argue, Chalmers and Clark fail to recognize that there are in fact (obvious) important differences between biological memory and the use of a notebook, and consequently, between our "internal" and "external" worlds[48]. They argue that the EMT theorist fails to identify what it is that makes something a cognitive or conscious state (i.e., the mark of the cognitive/conscious[49]), and so unsurprisingly has misplaced the boundaries of the mind. For instance, it is a matter of contingent empirical fact that cognition involves certain distinct kinds of causal processes[50]. More importantly, Adams and

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[47] Clark and Chalmers, "The Extended Mind," 12.

[48] F. Adams, and K. Aizawa, "The Bounds of Cognition," *Philosophical Psychology*, 14 (2001), 43-64.

[49] In the present context these are not distinguished, but it seems uncontroversial to assume that the cognitive is one part of the conscious, which includes other kinds of states. For instance, pains are conscious but not cognitive.

[50] They are referring here to the causal (e.g. neurobiological) processes that underlie cognition, and how they differ from the causal process which underlie, for instance, the use of a notebook (i.e. elementary motor/mechanical processes).

Aizawa point out that cognitive or conscious states are marked by their possession of non-derived (or intrinsic) content[51]. In other words, it is the mind alone that can have semantic content, precisely because the content of a mental state "means" something to the agent who has it. Only where there is consciousness is there cognitive content, as well as the ability to symbolize, operate on, and act on that content. Because we cannot reasonably ascribe intrinsic content to anything external to minds (only minds can symbolize and assign meaning to those symbols), the EMT is clearly mistaken. Moreover, Jesse Prinz contributes to this rejection of the EMT by arguing that the neuropsychological task of identifying the *neural correlates of consciousness* has been quite successful (e.g., mapping neuroanatomical relationships to conscious experience through neuropsychological experimentation), and there is no reason to assume that we would find such correlates outside the brain[52].

It seems that proponents of the EMT are also motivated by the desire to theoretically unify their conception of the world with the existence of consciousness. It is clear that there is some relation between internal mental processes, and objects and events that they are about. However, the EMT distorts the real value of this point. Their grounds are insufficient for extending the boundaries of the mind.

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[51] We need to be clear here about the distinction between content (i.e., semantic, interpreted by or meaningful to an agent) and symbolized content (i.e., syntactical, uninterpreted symbols).

[52] J. Prinz, "Is Consciousness Embodied? In *The Cambridge Handbook of Situated Cognition*, (New York: Cambridge University Press, 2009), 419-436.

Identifying complex causal relationships between those things that are internal and external to the agent, and which together can contribute to the completion of some cognitive tasks, does not warrant the constitution claim that the EMT makes[53]. That cognition may be *causally* dependent on the external world (i.e., requires the external world to provide content for thinking) does not imply that cognition is *constitutively* dependent on the external world (i.e., those external objects necessarily make up part of the mind). By analogy, that a group of elected officials is causally responsible for drafting a policy does not imply that that group of individuals is somehow a constitutive part of that policy, or that billiard ball A causes billiard ball B to move does not imply that billiard ball A is somehow a part of billiard ball B; this is absurd. Thus, the EMT is one failed interpretation of the general principles of SC research, as SC clearly does not have the consequences that the EMT theorists think it does.

I suggest that it is best to interpret SC research as an extension of the Naturalist's project, which brings agency and causation to the foreground of the philosophy of mind. Situated Cognition reminds us of the complex relationships that as a matter of fact exist between the actions, perceptions, and conscious states of an agent, and the world they occupy. It reminds us that interaction with the world is crucial for one's mental life; it is one of the undeniable features of consciousness that form the foundation of the Naturalist's account. Agency and its

[53] Adams and Aizawa, *The Bounds of Cognition*, 56.

family of relations, and not an isolatable Cartesian mind, becomes the theoretical starting point for our attempts to understand the mind. Moreover, the best way to understand agency relations is by recognizing the central role that causation plays in the natural world[54]. Causation is central to a proper understanding of SC, and certainly of Naturalism. Causation is *the* natural relation of change. So one role of SC research is to remind us that when attempting to get at the nature of the mind, we must look to the complex causal relations that as a matter of fact exist between the mental states of an agent and the world that agent occupies.

There is another insight that follows when we understand the principles of SC as an extension of Naturalism. SC research provides us with a better understanding, for lack of a better expression, of exactly what consciousness is *for*. On the old model (i.e., conceptual dualism, Cognitivism and isolationism), consciousness appears to function in the service of abstract representation and computation alone. There is no doubt that conscious states are capable of such tasks. However, there is a further purpose for engaging in these, as in any, conscious tasks: consciousness' primary function is to facilitate an agent's interaction with the world. SC research, and the greater naturalistic method, suggests that thinking is in the service of doing; we would not be able to perceive or act at all without conscious states, and we would not need conscious

[54] It is important to note that causation has been a problematic notion in the history of philosophy (e.g. Hume). However, most skepticism about causation is a result of theories of mind that already assume minds to be isolated from the world, and therefore that observing apparent causal relations tells us nothing about the world.

states if we did not need to perceive and act in the world around us. One of the additional bits of evidence that supports this claim is that, as a matter of fact, agents typically optimize the amount of conscious deliberation needed in order to accomplish a given task[55]. The ability to symbolize, conceptualize, and use language to represent the world all serve to make agents more successful in their interactions with the world.

Thus, a naturalistic approach should trust persons' abilities to know (or come to know) the world as it really exists. As Coval and Campbell argue, "persons and the objectivity that houses them are *internally related*: the person is a gatherer of information of, and actor in, the world, and the world is that objectivity that may inform us and be acted within."[56] Naturalism honors this crucial link to objectivity that makes agents what they are.

So mental phenomena are fully integrated in, fully interactive with, the world. Therefore, on one hand, we cannot make sense of the Cartesian isolated mind, because there can be no mental content without such interaction, and we cannot make sense of a "contentless" mind. Conscious agents are always causally situated in the world, and mental phenomena cannot be understood in isolation from their source of content: the world. On the other hand, we cannot make sense of the world, as we know it (e.g., complete with agency), without presupposing

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[55] At least, effective agents do. See Rodney Brooks's Herbert in: Anderson, *Embodied Cognition: A Field Guide*, 96.
[56] Coval and Campbell, *A Critique of the Liberal Idea of a Person*, 2.

the presence of consciousness, because agency is not possible without consciousness. Thinking and doing are necessarily linked. Chalmers' "philosophical zombie"[57] is also incoherent then. Derived from a thought experiment, the philosophical zombie purports to establish the possibility of a world exactly like ours (i.e., complete with agency) where consciousness does not exist. However, because agency necessarily requires conscious states, this is not a genuine philosophical possibility. The fully interactive nature of minds and the world is philosophical bedrock.

Consequently, what information we are capable of having will be one limiting factor in what perceptions and actions we are capable of. Agents like humans, who rely heavily on visual information in their interaction with the world, have visually rich conscious experiences[58]. The abstract symbolization and computation which humans are capable of allows us to accomplish the more complex, abstract tasks we engage in (e.g., tracking the stock market). For agents like bats that use echo-location, it would only make sense that their conscious experience, the information they are capable of possessing, would make that particular kind of behaviour most effective. Once we realize this point, we can see how possessing consciousness is a huge evolutionary advantage. At least

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[57] See: D. Chalmers, "Consciousness and Its Place in Nature," *Philosophy of Mind: Classical and Contemporary Readings*, edited by D. J. Chalmers (New York: Oxford University Press, 2002), 249.

[58] Many philosophers focus on visual-perceptual states as paradigm examples of human conscious states.

in our own case, the evolutionary advantage of our specific type of conscious experience is enormous. Without the simplest conscious states we could not engage in action or perceive the world in any way, and so clearly the chances of survival would be slim. With the ability to symbolize and manipulate information, or articulate systemic rules for logic, for instance, comes a greater capability for action, understanding, communication, and so on.

So Naturalism, as I have presented it, has provided a clear conceptual foundation on which to begin making real progress on specific problems in the philosophy of mind. In summary, a naturalistic approach, as I have presented it, makes philosophical problems concerning the nature of consciousness "manageable" again. The problems are manageable because the naturalistic method recognizes the undeniable existence and full integration of mental phenomena, complete with all the information we know agents to possess, instead of beginning with commitments to metaphysical beliefs that would thwart such integration (e.g., conceptual dualism).

Furthermore, what is really significant about Situated Cognition research, understood as an extension of Naturalism, is that it reminds us that there is something crucial about the *causal* relations between agents and the world (i.e., an agent's source of information). SC recognizes that consciousness is informationally connected to the world and so one

cannot give an account of consciousness apart from those connections. Consciousness is always situated (causally and informationally) in the world, it functions to facilitate an agent's perceptual-motor interactions with the world, and thus what information an agent has will be, in part, a matter of its nature. The theoretical starting point, then, is the existence of consciousness and its internal relations[59], as these are undeniable features of our lives as agents.

The background that we will work against has been erected. The next step in the larger project of articulating the nature of consciousness, then, should be to begin to analyze in more detail some of these complex relations between minds and the world that are central to consciousness. Among the informational relations of consciousness is *intentionality*, a subject of considerable interest in the philosophy of mind.

[59] "One says that *a* bears an internal relation, *R*, to *b* provided *a*'s standing in *R* to *b* is an essential property of *a*…a thing's essential properties will seem to include certain of its relations to other things." R. Audi, "Relation," in *Cambridge Dictionary of Philosophy*, 2nd ed., 1999, 789.

4. Intentionality

4.1 Recent History

Intentionality is among the most philosophically significant relations between minds and the world. The relation of intentionality is the property that some things have in virtue of their being *about* something else. A paradigm example of an intentional state is a thought being about some object or event in the world. Providing an account of intentionality has been a problem in the philosophy of mind (as with the other relations of consciousness) because it necessarily involves interaction between mental states and the world, which is a familiar problem, specifically for those who endorse (explicitly or implicitly) substance or property dualism. Moreover, because it appears that no ordinary material objects have intrinsic intentionality, accounting for it is a serious problem for physicalist philosophers of mind, who would seek to reduce mental states to brain states, or eliminate such a phenomenon from their account of the kinds of things that exist. However, because an account of consciousness must include an account of its various relations to the world, and intentionality is one of these relations, then having a clear account of the relation of intentionality will be a necessary component of any complete account of consciousness. There are specific issues that are presently thought to be most important in the conceptual

analysis of intentionality. Michelle Montague, in "*Recent Work on Intentionality,"* provides a detailed map of the relevant contemporary conceptual landscape.

It is necessary, first, to approach the specific problem of providing an account of intentionality with our naturalistic methodology in mind. We must make the preliminary naturalistic move, and start by acknowledging what must be true given what we already know about ourselves and about the world.

As Montague points out, William Lyons characterizes naturalization, in the task of providing an account of intentionality, as the attempt to "give an up-to-date and 'tough-minded' account which [theorists] feel is consonant with the findings in the relevant sciences that deal with the mind."[60] However, there are obviously many contentious notions in such a claim, and such obscurity does not tell us how to proceed. For many theorists, naturalization means retreating once again (perhaps unintentionally) into conceptual dualism, and thus defending a reductive or eliminative materialism, when Naturalism is mistakenly understood as a reiteration of Physicalism. For others, it is assumed that naturalization implies that intentionality is far more ubiquitous than we have traditionally assumed, and it is ascribed to all sorts of phenomena. As Montague notes, for instance, "philosophers pointed to the example of tree rings tracking the age of trees (an entirely non-mental phenomenon)

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[60] Montague, *Recent Work on Intentionality*, 765.

to ground the sense in which intentionality could be a natural relation."[61] I argue that a naturalistic account of intentionality does not have any of these implications.

In regard to the project of naturalizing intentionality, namely providing an account of intentionality that is consistent with Naturalism as I understand it, I endorse Searle's position:

> By naturalizing intentionality [philosophers] usually mean denying that it really exists, or asserting that it is really something else. My answer to this is that intentionality really does exist and is not something else. Intentionality is already naturalized because, for example, thinking is as natural as digesting.[62]

So, as I understand it, a naturalistic account of intentionality begins with the recognition of the fact that intentionality is a real, and central, feature of our conscious lives. Again, the advantage is that an account of the phenomenon becomes possible when we recognize the undeniability of the phenomenon, and do not allow prior metaphysical constraints to create a problem in the first place. Intentionality, like all mental phenomena, is caused entirely by, and is realized in, the brain, yet cannot

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[61] Montague, *Recent Work On Intentionality*, 765.
[62] Searle, John. *Making the Social World*. Page 42-43.

be accounted for exhaustively in terms of neurobiological processes[63] (i.e., something is left out of such an account). But regardless, intentionality must be a real part of the world, as we once again cannot make sense of our lives (e.g., our agency), and so cannot have an accurate theory of minds in the world, without at least granting that some of our mental states are about objects and events in the world we occupy. If we deny that intentionality is a real phenomenon—that is, if we take Naturalism as a reiteration of Physicalism—then we would have to abandon most of the concepts we effectively apply, including those relevant to action and perception (e.g., we could not make sense of our perceptual experiences, including our perceptions of our own actions, if they were not understood to be about things in the world).

Given my interpretation of the Naturalist's method, we can begin to truly understand the conceptual details of the phenomenon of intentionality. To do so, one must recognize that the substantive debates about intentionality revolve around two sets of issues. These issues concern, on one hand, what genuine intentionality is (what intentional content is and how it is related to other mental phenomena and the world) as opposed to derived intentionality, and, on the other hand, what sorts of things are capable of having intentionality. These issues are related, and in order to get clear on what kinds of things can have intentionality, one needs to first articulate in greater detail what

[63] Searle calls consciousness a system level feature of the brain. Searle, *Mind: A Brief Introduction*, 115.

intentional content is, and how it is to be understood in comparison to other related mental phenomena.

Montague notes that in the recent history of the attempt to say just what intentionality amounts to in some detail, a number of accounts have been put forth by philosophers which highlight some of the different views on crucial concepts surrounding intentionality. I summarize the relevant points as follows:

1. Intentional content is distinguishable and therefore theoretically isolatable from other kinds of mental content (specifically something called *phenomenal content*[64]).

2. There are various kinds of mental content, and among them are intentional and phenomenal content, which are intimately and inextricably linked.

2a. (2) is true, and moreover, all phenomenal content is sensory.

[64] The historical treatment of intentionality, especially in the rejection of Continental thinkers like Husserl and Brentano, led contemporary analytic philosophers of consciousness to argue that intentional content is easily distinguishable from what was known as phenomenal content, and that either kind of content can and does exist without the other.

2b. (2) is true, and there is such a thing as *cognitive phenomenal content* as well as sensory phenomenal content, and it plays a central role in intentionality.

Once we can say what it is about mental states by virtue of which they have intentionality, an explanation which will depend upon an understanding of intentional content, an account of what kinds of things can have intentionality emerges.

Given that intentionality is the property of *aboutness*, then intentional content has to be something like the *determinate* content of certain conscious states; the content that determines what a particular conscious state is *about*. So, if my thought is about that apple, then my thought has intentionality, and the content of that mental state is what makes it a thought about that apple and not something else or nothing at all. These general remarks seem compatible with most, if not all, existing accounts of intentionality.

Now, how might intentional content be related to what we call phenomenal content, if at all? What is phenomenal content, and is it crucial to understanding intentionality? When phenomenal content is discussed in the literature, it is generally agreed to be something like the total content of one's subjective conscious states at any given moment. Any and all experiential content (e.g., perceptual content, qualitative content) is typically believed to be included in a subject's phenomenal

content. Phenomenology, for instance, is a school of philosophy whose proponents believe the central task of philosophy is the subjective analysis of the totality of experience. So while my thought may be about that apple, the totality of my conscious states at the time that thought occurs amounts to more than that. Included in the overall phenomenal experience for beings like me are things like perceptions of the table the apple is on, the room the table is in and all the other objects that occupy it, memories, background beliefs, perhaps even my own thoughts[65], as well as the qualitative features of my experiences.

I argue that there is necessarily an important relation between intentional content and phenomenal content. One way to describe this relation is to say that intentional content will always be a part of the phenomenal content of a subject (i.e., a part-whole relation). The ability to possess phenomenal content at all (i.e., to have, and store information about, experiences of the world) must be a prerequisite for having thoughts that are about particular objects and events in the world. If intentional content is some determinate part of the totality of one's phenomenal content, then phenomenal content must be required for there to be any intentional content at all. In other words, one cannot have intentional content without phenomenal content precisely because it is this totality of one's conscious states that provides the possibility of

[65] Siewert, Pitt, Strawson, and I all endorse some version of the view that there is such a thing as cognitive phenomenal content. We will see the role of this notion when we discuss the details of Strawson's account of intentionality, which contributes to the foundations of my account. See Montague, *Recent Work on Intentionality*.

having any intentional content at all. All of this follows, I believe, from these definitions of intentional and phenomenal content.

We can now say at least something about what kinds of things are capable of intentionality. Given that intentionality and phenomenal content are intimately related in the sense that intentional content can only occur where there is phenomenal content (i.e., intentional content is a determinate part of the phenomenal content of a subject), it follows that intentionality can only exist in objects capable of phenomenal content.

If this is the case, the externalist theories of intentional content (such as the EMT, or the tree-ring ascription theory) are untenable. Both schools of thought claim that there are no important differences between the kind of aboutness that my intentional states have, and the kind of aboutness found in words written in a notebook, or in the rings of a tree. However, those who defend such claims have failed to recognize that the notebook that aids in memory tasks or the rings of the tree are not intrinsically intentional. This kind of content can only exist in a conscious subject, because only a conscious subject with phenomenal content can have experiences at all, and, moreover, only then is the content intrinsic (i.e., symbolizable, meaningful to, or interpreted by, the subject). Thus, if there is no phenomenal content, there can be no intentional content.

4.2 Strawson's Theory of Intentionality

Galen Strawson develops an account of intentionality according to which intentional content can be a feature of *occurrent*, conscious, experiential states only[66]. This follows from the previous claim (which Strawson and I endorse) that intentional content requires phenomenal content, because only occurrent conscious states have phenomenal content, according to our definition of phenomenal content.

It is clear that a persistent general objection to naturalistic theories of intentionality is that such theories might be interpreted in such a way as to allow for the ascription of genuine intentionality to all sorts of things. Thus, the Naturalist should continue to defend the general claim that intentionality is only a feature of occurrent conscious states against those interpretations that ascribe intentionality to anything other than occurrent conscious states, such as the dispositional states (e.g., unconscious beliefs) of entities capable of conscious experience, and even entities that are not at all capable of conscious experience. If the criteria for genuine intentionality are too broad, Strawson argues, then we confront a problem of ubiquity. The idea that it might be possible to ascribe intentionality to everything distorts our understanding of the real nature of intentionality; a phenomenon that seems obviously and crucially related to conscious experience.

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[66] G. Strawson, "Intentionality and Experience" in *Real Materialism and Other Essays* (New York: Oxford University Press, 2008), 259.

The first sort of ascription of intentionality beyond occurrent conscious states that we should evaluate is the ascription of intentionality to dispositional states, such as the beliefs one has that are not presently conscious[67]. However, if intentionality requires phenomenal content, and phenomenal content is the totality of one's conscious experiences (or conscious states), then merely dispositional non-occurrent states could not be intentional. Strawson points out that even though this is contrary to some current theories, it is really an elementary metaphysical point that a disposition is not intentional[68]. This follows if we are truly speaking of these as dispositional states (i.e., brain states that are *potentially* conscious under certain conditions). A disposition, by its very nature, is only potentially contentful (i.e., if it becomes actual or occurrent). If, at time *t*, a state is not *actually* conscious, it is not, at time *t*, actually about anything.

Another sort of ascription of intentionality beyond occurrent conscious states, the sort that leads to ubiquity claims, namely further ascriptions of genuine intentionality beyond experiential conscious states to experience-less entities, is by way of the identification of what seem to

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[67] Searle, *Making the Social World*, 26. Searle takes it as obvious that the belief that George Washington was the first U.S. president has genuine intentionality when not presently conscious, presumably because there is some sense in which information about the world is stored in memory.

[68] G. Strawson, "Real Intentionality 3: Why Intentionality Entails Consciousness", in *Real Materialism and Other Essays* (New York: Oxford University Press, 2008), 282.

be certain other "aboutness" relations[69]. It appears that the presence of such "aboutness" relations might warrant the ascription of intentionality to the experience-less entities that have them. In fact, some might go so far as to argue that all items related causally have intentionality, because "effects carry information *about* their causes."[70] The idea is that intentionality must exist wherever there is causation, because if information is intentional, and causation is informational in the sense that effects carry information about their causes, then the relata of causation must be intentional. Moreover, if this is the case—that every relata of causation is intentional—then genuine intentionality is ubiquitous because causation is.

Strawson disagrees, however, and argues instead that there must be at least two kinds of aboutness: the kind that is a feature of conscious states and the kind that is a feature of causal relations. Aboutness, then, would be ubiquitous on this view[71]—a real feature of all items related causally—but this ubiquity is not threatening to our account of intentionality, because it is not the kind of aboutness that is a feature of conscious states[72]. Intentionality, again, involves a different kind of

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[69] "A puddle, for example, may reflect San Vitale, and in that sense genuinely contain or constitute a representation of San Vitale, and representation entails aboutness, which is in this case wholly underived." Strawson, *Real Intentionality 3*, 284.
[70] Strawson, *Real Intentionality 3*, 286. Strawson does not name any philosophers who endorse this position, but nevertheless construes it as a real theoretical possibility.
[71] Strawson speaks of "underived non-experiential aboutness" (*Real Intentionality 3*, 284) and maintains that "UNA falls *infinitely* short of any kind of genuine intentionality and that UNA is utterly ubiquitous." (*Real Intentionality 3*, 290).
[72] This would be "aboutness" without "intentionality."

aboutness[73], which is a feature of experiential states alone. So for Strawson, intentionality entails aboutness, but aboutness does not entail intentionality.

Now, what might motivate Strawson to make this move? Why might he feel the need to multiply kinds of aboutness? Again, philosophers concerned with the metaphysics of the mind are often motivated by the need to provide a unified account of minds in the world. To claim that intentionality exists in all items related causally (or, the weaker but similar claim that Strawson concedes, that at least genuine "aboutness" exists in all items related causally) is no doubt to attempt to answer the call for theoretical unification. Unification, on this kind of view, is achieved by stating that aboutness is ubiquitous, whereas intentionality is something like a "special case" of aboutness unique to conscious experience. The important question, however, is whether or not Strawson's move works: Do we get the ingredients for a unified theory of minds in the world by claiming that there are two kinds of aboutness, or does Strawson concede too much?

According to Strawson, one kind of aboutness—intentionality—is a feature only of occurrent conscious states, because only they have phenomenal content. So what is it about phenomenal content that provides the kind of aboutness needed for intentionality?

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[73] Only if you accept this distinction between kinds of aboutness.

As Montague points out, some theorists believe that all phenomenal content is sensory in nature (e.g., all of our experiences are exhaustively explicable in terms of sensory qualities), while others believe there is such a thing as cognitive phenomenal content (i.e., an aspect of the totality of experience that is not exhaustively explained by its sensory qualities, such as entertaining the conceptual content of sentences while reading, memories, fears, beliefs, etc.).

For Strawson, not only is there such a thing as cognitive phenomenal content, this kind of content is a crucial player in the determination of any intentional state. He thinks cognitive phenomenal content is that feature that gives us the kind of aboutness that is intentionality. To understand this feature of the overall phenomenal content of a conscious subject, consider an example Strawson himself uses. Imagine one has a perceptual experience of a moose, M, which came about by ordinary means (i.e., by a visual experience caused by M, or even of a photograph of M). How do we distinguish the content of our intentional state from the overall content of our phenomenal experience? Or in Strawson's terminology, "how do we—how does intentionality—know where to stop?"[74] This has come to be known as the "stopping problem", and the problem lies in explaining how the specific content of an intentional state is determined, or how it is that a subject's intentional state is "only and precisely about" what it is said to be about, given the

[74] Strawson, *Real Intentionality 3*, 296.

rest of the phenomenal content that produced the experience of M. Why is the intentional state about M, and not, for instance, about only a part of M, or M and M's environment, or perhaps the light which is affecting the subject's retina in the perception of M, or the neural activity which occurs directly before the thought of M arises[75]?

Strawson argues that we have to acknowledge cognitive phenomenal content in order to answer the stopping problem, and to explain intentionality. He argues that the only way we can achieve the required determinateness of an intentional state is with something like an active cognitive feature "built in to the character of experience."[76] What he means is that there must be some feature or mechanism of the overall content of our experience which is not sensory in nature, but which is marked by cognition. By this I understand him to mean some form of cognitive contribution to perception made by the subject.

If he is right about the existence of a cognitive element in the totality of experience, then it makes sense that this element is responsible for the determinateness of particular intentional states. Strawson proposes a "taking mechanism", whereby subjects "take" their experience to be about something determinate. This built-in feature of our mental lives is what determines the specific content of each

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[75] Strawson, *Real Intentionality*, 296.

[76] Strawson, *Real Intentionality,* 297. He adds: "Cognitive experience of the sort I am focusing on at present is a matter of whatever EQ [experiential qualitative] content is involved in episodes of consciously entertaining and understanding specific cognitive or conceptual contents after one has subtracted any sensory-affective content." Strawson, *Real Intentionality*, 293.

intentional state (e.g., properties are "taken" to be of a certain individual), in varied degrees of determinateness. So on this account, a subject, from their overall phenomenal content, "takes" their perceptual experience to be about some particular. The subject "takes" their experience to be about M (i.e., cognizes under the description "that moose") and not nothing and not anything else, for instance, and this can only be achieved, Strawson says, via the taking mechanism, which alone can produce intentionality. Thus, according to Strawson, it is cognitive phenomenal content, which is a feature of phenomenal content and is only present in conscious experience, that determines what a state is about (i.e., gives us "the right kind" of aboutness), and is thus required for intentionality.

Yet, this taking mechanism, while explaining how we might determine what particular thoughts are about, does not tell us how phenomenal content, and consequently intentional content, produces the kind of aboutness that is a feature of occurrent conscious states alone. Searle, however, does provide such an account. He refutes externalist theories of meaning that assume that, because of the causal role the world plays in our having the mental content we have, "intentional content is in large part constituted by the (external) causal relations that the agent has to the world and not by the (internal) features of the

mind/brain."[77] Searle recognizes that the reason our intentional states are about the things they are about (e.g., the reason our thought is about that moose) and not something else or nothing at all, is because we stand in a particular causal relation to them[78]. However, this is not because what a thought is about is part of that content, it is because those states stand in an *indexical* relation to what caused them, in which the intentional content one has is caused by that thing in the world it is about. It is because an intentional state is caused by M that it is about M, while any conceptual impositions (like a taking mechanism) merely serve to determine the "boundaries" of our particular thoughts. Furthermore, if indexicality is a result of certain causal relations, then why don't ordinary causes and effects "index" one another? The reason is that mental states have something ordinary causes and effects do not: information about those causal relations they are a part of.

Strawson is at least right, then, to claim that intentionality is a feature of experiential conscious states alone. And since phenomenal content represents properties, and since properties cannot exist on their own, we "take" certain phenomenal content to be "of" the particular that has those properties[79]. Given Searle's account of causal indexicality, we also have an account of why only conscious subjects can have intentional

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[77] Searle, *Mind: A Brief Introduction*, 179.

[78] Searle, *Mind: A Brief Introduction*, 185.

[79] Even though Strawson assumes it plays a greater role in intentionality, I think that it is best to construe the taking mechanism as a conceptual matter. We take our experiences to be about a particular in the sense that we perceive properties that are organized by concepts.

content, and how conscious states are about the things they are about, and hence have intentionality at all (i.e., because conscious states stand in a particular causal and informational relation to the world).

However, we should evaluate Strawson's earlier claim that aboutness is, in one sense, ubiquitous, and that it is the other kind of aboutness that is intentionality. On his view, because at least one form of aboutness is ubiquitous, it is a candidate for a unifying principle that would give us a unified account of minds in the world. I would like to propose, however, that in his claim that there are two kinds of aboutness, one ubiquitous and one a feature of conscious states alone, there is a subtle, yet important shortcoming that exhibits Strawson's confusion about certain crucial concepts he employs.

4.3 Strengthening Strawson's account

There is a way to avoid the ubiquity problem altogether, which denies the postulation of two kinds of aboutness. The ubiquity problem is created, for Strawson, precisely because he argues that there is a sense in which terms related causally are about one another, and hence that genuine intentionality might be ubiquitous. He thinks that maintaining that "effects carry information about their causes", and presumably vice

versa[80], entails that terms related causally are informational of one another, and therefore about one another in some ordinary way. Hence, Strawson must distinguish this aboutness from what he thinks is another kind of aboutness that is a feature only of intentional states, in order to reject the claim that intentionality is ubiquitous. However, what entitles him to speak of information in causal relations in this way?

One might speculate that Strawson is influenced by his father's work on causation and explanation, and the wider debate about the relations between causal and explanatory descriptions. P.F. Strawson argues, "In observing [any characteristically causal] transaction one already possesses the explanation of the new state of affairs."[81] However, this claim can be interpreted in different ways. On the weaker interpretation, the idea is that *observing* a causal transaction gives the observer an explanation of the effect of that transaction. What this means is that because causation is a relational concept, to understand an event *as a cause* is to already characterize it in terms of its effect, as the concept of an event *qua* cause necessarily includes the concept of an event *qua* effect, and vice versa.

On the stronger interpretation, which appears to be Galen Strawson's, the idea is that because effects carry information about their causes, and vice versa, the objects and events *themselves* are explanatory

[80] On this view, one is also forced to concede that causes would carry information about their effects.
[81] P.F. Strawson, "Causation and Explanation," *Essays on Davison: Actions and Events* (New York: Oxford University Press, 1985), 121.

of one another. And from this, the idea that causes and effects are themselves about one another in some ordinary way seems to follow.

It appears that P.F Strawson thinks that causation is an explanatory or informational relation in a weaker sense, and reconciles this with the fact that causation is a natural relation in the following way:

> We sometimes presume, or are said to presume, that causality is a natural relation which holds in the natural world between particular events or circumstances just as the relation of temporal succession does or that of spatial proximity. We also, and rightly, associate causality with explanation. But if causality is a relation that holds in the natural world, explanation is a different matter. We also speak of one thing explaining, or being the explanation, of another thing, as if explaining was a relation in the sense in which we perhaps think of causality as a natural relation. It is an intellectual or rational or intensional relation. It does not hold between things in the natural world, things to which we can assign places and times in nature. It holds between facts or truths.[82]

I think the proper way to interpret these concepts is to acknowledge that while there is a sense in which the relata of a causal interaction carry information about one another[83], explanation (i.e., information that is symbolized and interpreted by a subject) is only present in beings sufficiently like us, namely with sufficient causal power

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[82] Strawson, *Causation and Explanation*, 115.

[83] The sense required by causal statements like "x happened *because of* y" or "y *made* x happen".

to be informationally affected as we are. So understood, it would be a mistake to assume that because causation is in a sense an informational relation (i.e., properties of the cause and effect are "informative" of the nature of their causal transaction) that the relata in a causal relation themselves are explanatory of one another, in the sense that they are therefore about one another as is the case with intentional states. The *ideas* that conscious beings possess of the relata of a causal relation are informational about one another in a much stronger sense. Galen Strawson's confusion about the implications of causal and explanatory relations is precisely what creates the ubiquity problem for him, because he thinks that granting that there is an informational relation among objects implies ascriptions of aboutness, and the possibility of the ubiquity of intentionality (i.e., in all items related causally). In ordinary garden-variety causation, a billiard ball, for instance, has certain properties such that when it interacts with another billiard ball with certain other properties, a particular change occurs. Thus, an effect is an object or event that is determined by the object or event that is its cause, and is therefore in a sense informative of that cause, because the properties of each relata, the objects and events in the natural world, determine the nature of the change that occurs upon their interaction. So we can grant a sense in which there is information in ordinary causation (i.e., the properties of a cause are informative of the properties of its effect, and vice versa), yet this does not entail intentionality. Thinking of

causes themselves as being informational in the sense that gives us intentionality, is an illicit projection of features of our *representations* of objects and events as causes and effects onto the objects and events themselves.

If this is right, then the fact that causation and information are ubiquitous does not mean that aboutness and intentionality are. And in fact, causation is ubiquitous and informational: the world is thoroughly causal, and causation is the natural relation of change, each particular instance of which is determined by the properties of the objects and events involved. However, there is an important difference when beings sufficiently similar to us are involved in causal interactions: one of the effects that things have on us, given the properties that comprise our nature (e.g., the causal power of the central nervous system), is the representation or symbolization of information about that interaction.

Given what persons are (i.e., rational agents), consciousness must be informational of the world. What does this mean? Consciousness is a natural effect of the causal interaction of some natural biological systems with the world they inhabit. Conscious experience is produced via ordinary causal interaction between such systems and their environment, where again, the properties of the objects and events that make up a cause and its effect will determine (are informative of) the nature of that interaction. One such system is the human central nervous system.

Consciousness is a causally emergent[84] property of such physiological systems, (and, presumably, of anything causally equivalent); it is the result of the ability to *represent* or *symbolize* information about our causal interactions with the world, given the causal power of the human central nervous system to be so affected by things in its environment. Only in consciousness is information *symbolizable*, and therefore useful for the subject that possesses it. Brains-like-ours fully causally enmeshed in a world-like-this are causally sufficient conditions for consciousness.

Furthermore, conscious experience always has content; conscious experience is always the conscious experience *of* something. There are no contentless conscious states. Every conscious state is informational of its causal origins, and is therefore informational of its cause, even if it is not always *veridical* of its intentional object. In standard cases of sense perception, a conscious perceptual state has its causal origins as its object. As Searle points out, to have a conscious experience of some object is for that object to have caused that experience[85]. In non-perceptual cases as well (i.e., pains, hallucinations, etc.), and thoughts that contain vacuous terms, conscious states are informational of their

[84] Emergence is a natural causal relation, although it is not to be understood as ordinary event causation. It is a species of causation in which "the cause is simultaneous with the effect." Conscious experience is emergent from (i.e., caused and sustained by) lower level brain processes, and is thus a system level feature of the brain. Searle, *Mind: A Brief Introduction*, 124.

[85] In Searle's terminology: "What makes my belief have the content that Caesar crossed the Rubicon is the fact that it will be satisfied if and only if Caesar crossed the Rubicon. The content of the intentional state is exactly that which makes it have the conditions of satisfaction it does." Searle, *Mind: A Brief Introduction*, 189-190.

cause, yet with different degrees of articulateness[86]. Pains are not therefore purely qualitative experiences (exhaustively accountable in terms of qualitative features), as it is sometimes argued (e.g., by Searle), but rather are informational and therefore intentional states, yet are often not articulate enough for the subject in pain, for example, to identify the cause of the pain in any detail. Pains are often informative simply of the fact that some damage has occurred to one's body, but they are informative nonetheless[87]. As for hallucinations, there are a number of ways that information about the cause of a conscious experience may be distorted so as to not be sufficiently identificatory of the causal origins of the experience (e.g., the result of pathology or the use of drugs). And thoughts containing vacuous terms (e.g., thoughts about unicorns, which originate from mistaken implications drawn from the discovery of narwhal tusks) are also informational of their cause and are therefore intentional states. Here, ordinary information is symbolized and manipulated via standard mental operations (e.g., imagination), and thus may not refer to anything real; but the thought nevertheless represents the causal origin of that information. In every case of a conscious state, that state is informational of what caused it, albeit with different degrees of articulateness. Anything physiologically similar will have similar

[86] By this, I mean the degrees to which information enables a subject to veridically identify the causal origin of a particular conscious experience.
[87] Even in cases where the cause of the pain is unknown, information is still available to the subject in pain (e.g., was it a burn or a cut?).

conscious qualities, and any physiologies that are *causally* dissimilar are likely to have informationally dissimilar conscious experiences.

So, because only conscious states are informational *of* the properties of objects and events in the world that cause those states, only conscious states are intentional. Only in creatures sufficiently similar are the properties of a particular cause "made conscious" (i.e., symbolized), and hence only then is there aboutness, and consequently, intentionality.

Coval and Campbell have argued that "if we are to be actors in the world, consciousness, which does envelope us, must be informational about the world."[88] Without information, for example, the family of action concepts we use would be without application: we could not act, know that we had acted, and know, when we fail, that we have failed and why. Because persons are able to act in the world and have the experiences they do, it must be the case that consciousness connects persons to the world via information about the world. The term 'intentionality' should be reserved for this symbolizing of the properties of particular objects and events in the world that causally impinge on a subject. Symbolized information is produced in conscious beings when the properties of objects and events are *made conscious*. What this means is that intentionality is the conscious effect that the properties of objects and events in the world have on conscious agents like us. We can, once symbolized, store and recall this information, contribute to it

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[88] Coval and Campbell, *A Critique of the Liberal Idea of a Person*, 33.

and even create information with no real-world correspondence, (e.g., thoughts about unicorns) through the manipulation of information. But only thoughts themselves are intrinsically intentional.

This account is given additional support because it is consistent with what we know generally about evolution. If consciousness is the informational result of a subject's causal interaction with the world, where the properties of objects and events are "made conscious" (i.e., information about the world is symbolized by a subject) then the evolutionary advantage is huge[89]. The more information we have, the better we can interact effectively with the world, the more goals we can set and achieve, etc. Increased information makes for an increased repertoire of behaviours. On the other hand, we cannot act at all without information, and the entire family of concepts that surround action would have no application (e.g., action, mistake, success, failure, etc.; concepts without which we could make no sense of our lives). Consciousness and its operations, including thinking, has a logic: it is for action[90]. Consciousness, being informational, is thus *internally related* to the world.

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[89] Not to mention the advantages of the ability to represent and share that information with language.

[90] The "new cogito": I act-*therefore* I think. Coval and Campbell, *A Critique of the Liberal Idea of a Person*, 36.

3. Conclusions

I have formulated a naturalistic, informational theory of consciousness that also outlines an account of intentionality. Consciousness is informational *of* the world, and it is therefore intentional. And intentionality, the property that each individual mental state has because it is informational in this way, is a natural effect of certain systems' causal interaction with their environment. In their complex causal interactions with the world, persons are caused to symbolize information about these interactions, given their physiology and the nature of the world they occupy. Furthermore, the categories of thought allow persons to organize information into discrete, useful packages. They are useful because they correspond to the world in which we live and otherwise act.

So, contrary to Searle's view that there are some non-intentional conscious states (e.g., general anxiety, pains and tickles, etc.), if we have symbolized information about the world (i.e., if we are conscious), we necessarily have an intentional state, regardless of its degree of articulateness. Consciousness is the effect of the causal immersion of certain complex biological entities in complex environments. In consciousness, information about the properties of objects and events in the world that causally affect us are symbolized. And so thoughts are always informational and therefore about something, some feature of the world as it naturally affects the conscious being. Being informational in

this sense *means* being about something. The specificity of intentional content can come in degrees, and certain identificatory confusions might be the result of less articulate intentional states. Nevertheless, all thinking requires content, regardless of its clarity and distinctness. Searle's suggestion that "a state of anxiety or nervousness where [one] does not know what [one] is anxious or nervous about and may not be anxious or nervous about anything" is a case of a non-intentional conscious state is wrong[91]. Its being conscious means it is intentional. It has a cause; the cause is what it is about, but the conscious state is not sufficiently informational for the subject to identify that cause. All conscious states "speak" of their causes, yet sometimes what they say is too inarticulate to enable the subject to identify those causes.

I have tried to strengthen Galen Strawson's account of intentionality. In doing so, we can see that he is missing an important point. Strawson argues that intentionality requires consciousness (hence, intentionality entails consciousness). But there is more. If consciousness is thoroughly informational, and information is intentional when symbolized in consciousness, then it follows that all conscious states have intentionality because they are informational in this way. In other words, if we are conscious, we have symbolized information, and this information is intentional (i.e., it is about the thing that caused it). Thus, intentionality entails consciousness, and consciousness entails

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[91] Searle, *Making the Social World*, 26.

intentionality. And this is why an informational account of intentionality has such broad implications in the philosophy of mind: consciousness, information and intentionality are inextricably related conceptually.

Consequently, there are certain advantages that this view has over the views of our Cartesian ancestors. It appears that the traditional question posed in the philosophy of mind (i.e., what is a mind and how are minds related to bodies?) is poorly constructed. The mind is not isolatable as the question implies; the ghost in the machine no longer haunts us. If we want insight into the nature of consciousness we must understand the crucial sense in which consciousness is relational, and proceed by analyzing the relations that produce conscious experience of the world. So the question becomes: how is it that certain biological entities are related (presumably causally) to the world such that consciousness is produced? One significant part of that answer is the relation of intentionality.

Finally, establishing an account that can theoretically unify minds and the world has been understood throughout the present work as a criterion for success in the philosophy of mind. Can one, given what has been done here, provide such a unified theory? I think the ingredients are here. My method of unification is Naturalism, which, properly understood, asserts that philosophers of mind have to start by acknowledging what must be the case given what we know about ourselves and the world. This allows us to proceed under the assumption

that however we understand consciousness, it is always inextricably related to, unified with, the world. Moreover, given that the universe is thoroughly causal, we can understand consciousness in causal terms, and provide a detailed explanation of how it all happens. Consciousness (and thus necessarily intentionality) results from the causal interactions of certain biological entities and the world those entities occupy, and is informational of those interactions. And the fact that we are informationally related to the world in this way is undeniable: we could not be the kinds of things we are if we did not get information from the world. Again, given the unique properties of certain biological entities, a unique effect is produced as a result of its ordinary causal interaction with the world. That effect is consciousness: a natural, relational, informational, intentional phenomenon.

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