

Nagel and Burge on Intentionality and Physicalism

by

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ABSTRACT

Given the success of science, weak forms of mind-brain dependence are commonly treated as uncontroversial within contemporary philosophies of mind. More controversial are the different metaphysical claims inferred from this dependence, many ascribing ontological priority to the brain. Consider the following three propositions: (i) neurological events are essentially identified by their role in material systems, laws, and causes that are constitutively non-rational; (ii) at least some mental events are essentially identified in virtue of their role in the use of reason; (iii) all mental events are realized by, identical to, or composed out of, neurological events. (i) is uncontroversial. However, (iii) is strictly materialistic. (i), (ii) and (iii) taken together appear incoherent. A fruitful task for philosophy is to resolve this apparent incoherence. In his 1997 book *The Last Word* Thomas Nagel offers an explication of reason that conceptually transcends the nature of material substrate. In his 2010 article "Modest Dualism" Tyler Burge offers reasons to think of propositional thought as irreducible to the concepts of the material sciences. Both focus on rationality as a unique form of intentionality. Both philosophers also reject materialism (iii). On their accounts it's reasonable to take 'rational intentionality' as exhibiting a logical priority of the mind with respect to the brain in inquiries into the nature of mind. Granting this, the diminished conception of mind presupposed by prevailing contemporary theories is seen to be the result of a more general failure to recognize the logical priority and intricate nature of rationality. The robust views of rationality expressed by Nagel and Burge constitute grounds for argument against even the

weakest form of materialism. I develop such an argument in this thesis, showing that the propositional attitudes exhibited in thought and speech preclude all materialistic notions of mind. Furthermore, I take the nature of propositional attitudes to suggest a perspective for exploring the fundamental nature of mind, one that focuses not on composition but on rational powers.

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CHAPTER 1

INTRODUCTION

1.1 Critical Analysis of Traditional Approaches to Argument in the Philosophy of Mind

In the philosophy of mind two positions stand at polar opposites: materialism (or physicalism)¹ and substance dualism. Materialism, defined in the broadest sense, is the thesis that all substantial forms of being are materially composed. Although use of the term ‘matter’ may be rather ambiguous within the material sciences, materialism’s stance unequivocally precludes belief in any immaterial substance. For materialism, all phenomena are *de jure* explainable as necessitated by, or supervening on, matter and its active forces; there is no other substance that is ontologically equal in status to matter since all is fundamentally matter. All phenomena, however greatly they differ from their original source, are explainable by reference to that original source. As such, all philosophical explanation of mental phenomena must appeal to the material brain and/or its surrounding environment. This position, as will be discussed below, varies in breed.

However, there are those who do not, or cannot, concede to this position due to their commitment to mental phenomena as fundamentally distinct from the physical. Incidentally, these persons differ amongst themselves about the nature of mental phenomena and their relation to matter. Two positions exhibiting this

¹ I will use the term ‘materialism’ in the sense in which it is interchangeable with ‘physicalism’.

latter contention amongst non-materialists are *property dualism* and *substance dualism*. Property dualism holds that mental properties are novel states, or events, that arise out of the material substance of the brain. Substance dualism holds that the mind is a *sui generis* substance from the material body, interrelated perhaps, but existentially independent.

Property dualism differs from substance dualism in more than one respect. The disagreement is not merely about theoretical inference, but about theoretical approach. Property dualism, like materialism, begins by approaching the inquiry into mind beginning with the physical, with emphasis on empirical phenomena. Having assumed that there are no immaterial substances or causal powers, all hope and burden is placed upon material science to offer evidence for a conclusion that is already assumed.

My general assumption is that a necessary criterion for any theory of mind is as follows: if a theory of mind is to be considered a reasonable account of mental phenomena, it must initially provide rational warrant for its theoretical treatment of mental phenomena by containing all logical features necessary for inquiry. We naturally take ourselves as having the capacity to inquire, and furthermore to make objective claims (e.g., “materialism is true”). It is analytically prudent, then, that a broader scope of inquiry into the nature of mind begin with inquiry into the nature of that capacity which enables one to inquire. That is, philosophical propriety requires that one recognize one’s assumptions before going on to make judgments that rely on those assumptions.

I will use substance dualism heuristically, attempting to cast doubt on those approaches that treat matter as ontologically prior² with respect to the mind. Materialism's theoretical objectivity will be critically evaluated to see whether it epistemically obtains rational warrant for the validity of its own claims. I'd like to suggest that substance dualism, as the extreme alternative to materialism, challenges and so exposes an unwarranted presupposition commonly implicit in philosophical approaches to mind, not to exclude the approach of property dualists.

Substance dualism contrasts such positions in its willingness to begin inquiry by taking the mental on its own terms. As such, the mind is treated as *logically* prior to matter in the inquiry into mind and the relevant phenomena are initially evaluated *simpliciter* without immediate reference to matter.³ In this way, substance dualism posits an intriguing question: "What approach ought to be taken when we inquire into the nature of the mind?" This question is properly basic to all inquiries about mind. If matter is *ontologically* prior to mind then perhaps one can hope for materialism to be true and find promise for the physical sciences to illumine future discussion through empirical discovery. However, if the mind is *logically* prior, and so ontologically distinct from matter, this will not be the case. Instead, the nature and causal importance of the mental can be

² By 'ontologically prior' I intend to convey the materialistic notion that all mental natures, states, events, and causal features are grounded in, and so supervene on, material natures, states, events, or causal powers.

³ By 'logically prior' I intend to convey that such positions take the mind to be approached *via* the nature and causal features of the mental and not approached through reference to physical states, events, or causal features.

understood only when inquiry begins by attempting to understand the instantiated mental features necessary for inquiry. By approaching the question in this way, arguments for any sort of dualism will find greater foundation in stressing that philosophical inquiries into mind cannot justifiably begin with investigations into material phenomena; that is, philosophical inquiry must precede empirical inquiry. Proponents of materialism who begin investigation with appeals to material phenomena are presupposing what they set out to prove. Therefore, a warranted materialistic methodology cannot precede, and so logically preclude, considerations of robust explications of mental capacities and phenomena. As such, a neutral methodology that justly evaluates the weightier concerns of dualism requires that robust explications of the mental be treated prior to its relations to matter.

One's answer to the question of approach will supervene on what one takes to most deeply express the nature of the mental. There is disagreement amongst philosophers of mind about what sort of mental phenomena exhibit the deepest wonders of existence; for dualists it is about what sort of phenomena exhibit the deepest problem for materialism, and offer the greatest hope for dualism. In this, dualist apologetics is bifurcated. One approach attempts to argue for dualism on the basis of *qualia*; qualia are those phenomenological aspects of consciousness that occur in perceptual experience. The other position attempts to explicate the nature of intentionality as that mental capacity to direct ourselves toward something in the world. Neither approach directly implies the

sort of dualism one will believe, though it will have implications for one's reasoning against materialism.

1.2 Base Intentionality vs. Rational Intentionality

The present emphasis will be on approaches from intentionality. Intentionality can be described broadly as the *aboutness* of mental representation. The representation of a thing in one's brain state exhibits the ability to direct one's mind *at* a thing in the world. This representation, as is often described, is exhibited in basic capacities to perceive and so desire some thing, to direct one's act toward obtaining that thing, and to be satisfied by that thing. Perhaps this sort of representation does constitute a difficulty for materialism. However, the present thesis will not be concerned with this level of intentionality.

The work to follow will aim to consider a position that supervenes on a distinct, and much stronger, sort of intentionality. This is the intentionality manifest in rationality. I will call it 'rational intentionality'. Such intentionality is manifest in our ability to *think about* something. This thinking constitutes the grounds upon which we grasp concepts, make judgments and form arguments. These mental acts are to be contrasted with the more basic acts of intentionality, what I'll call 'base intentionality'. Perhaps this contrast can be exhibited with a simple introspective consciousness toward the present philosophical topic. We are aiming at a justified belief, or more weakly a warranted truth-claim, regarding the nature of the mind. My *desiring* (here, a form of base intentionality) that materialism or dualism be true is epistemically irrelevant and inconsequential to the philosophical truth. When involved in philosophy, base intentionality is most

commonly associated with pseudo-arguments (e.g., appeal to fear, appeal to pity, etc.). As such, it bypasses the objectivity of argument, and offers no philosophical contribution to obtaining good reasons for belief. Philosophical inquiry, therefore, presupposes a robust form of intentionality that moves beyond the subjective and particular to enable us as humans to attain to the objective and universal. It is the involvement of my rationality that is important; my contribution to philosophy is contingent upon my ability to properly represent the concepts, judgments and arguments made by others, and furthermore my own *reasoning* -- the concepts I've grasped about the subject matter, the judgments I've formed about what is valid and what is invalid, and the arguments I've formed to constitute my own warrant for believing what I do -- is what is to undergo evaluation.⁴ The following examples reveal the presupposed objectivity that is inherent to all thought, whether sophisticated or unsophisticated, theoretical or ordinary.

1.3 The Ineluctable Presupposition of Thought and Its Objectivity

Science: Newton's argument for light as wavelength via prism

Prior to Newton's experimentation with light, it was thought that light is painted as it passes through a prism. (Call this the 'painted-light hypothesis'.) Newton recognized that the spectrum of light was most clearly distinguishable when a screen is set some distance away from the exit side of the prism.

⁴ Perhaps it will be argued that this 'rational intentionality' is *eiusdem generis* to that intentionality expressed in desire, manifest by the intricate mental capacities evolved through evolutionary development of the brain. This argument is offered by John Searle and will be discussed below in section 5, "Materialistic Evaluations of Intentionality".

Secondly, he recognized that the painted-light hypothesis could be tested and falsified. The painted-light hypothesis relies on the assumption that there is no natural difference between the varying physical elements composing light. Yet, if one particular color (say, green) of the spectrum could be isolated in its exit path from the first prism and alone directed through a second prism, the second prism should paint this light a different color. Of course, the prism did not paint the light, and it never has done so in any other known subsequent experiment. The second prism indefinitely yields the same color as that isolated after exiting the first.

Objective and universal categories are necessary for thinking and so are necessary for any science. The explanatory success of Newton's experiment supervenes on his ability to argue according to the nature of things (e.g., prism, light, color spectrum observable by human eye). He must show that this occurrence is not reasonably taken as mere happenstance--that the light has not merely in coincidence yielded green twice over for each observed instance.

To show this Newton displayed a capacity to move from the particular to the universal, from the perspectival to the objective. He judged that the color spectrum exuded from a prism is due to inherent variations in light itself (*viz.* wavelength). This is inference from data to theory—an assumption that all phenomena have an objective nature and that the human mind can understand the objective nature of a thing by a finite set of observations. Generally stated, this is to objectify and so universalize an interpretive inference grounded in no more than one's subjective experience of a finite number of observations. It is

irrelevant here whether such probabilities constitute knowledge. It is only relevant that we recognize the assumptions behind our doing science, or our believing in the claims of science. We naturally take ourselves as capable of objectivity in thought. This assumption is implicitly held in all science that, from a finite number of observations, one has warrant to judge this finite set to be a good representation of the objective nature of light and so extend one's interpretation of sensed data to an unqualified statement about what is.

Mathematics: Euclid's Proof for infinite sequence of prime numbers

The density of prime numbers greatly decreases as one moves toward larger integers. Intuition might easily lead one to the belief that at some point in the progressing series of integers prime numbers stop occurring altogether. Against intuition, however, Euclid proved on the grounds of mathematical reasoning that the series of natural integers contains an infinite sequence of prime numbers. His proof is commonly held as sound and uncontroversial, despite its tension with intuition.

Plainly stated, Euclid was able to lead the finitude theorist into a dilemma in the following way. Consider the progressing number of natural integers, with a_1, a_2, \dots, a_n being the known progression of primes. Let n be the product of all known primes. Consider $n!+1$. Either $n!+1$ will be a prime, in which case it will be a new prime ($n < x$), or $n!+1$ will be divisible by some i . However, i cannot be in the set factoring to $n!$, for then it would then be a factor of both $n!$ and $n!+1$, and as a factor would be able to divide the difference between $n!$ and $n!+1$, that is 1. However, 1 is only divisible by itself, and it is accounted for within the

original set of prime factors. Therefore, $n!+1$ is either itself a prime number or unveils a new prime number not accounted for in the original factors of $n!$.

Furthermore, one is consequently to the certain, conclusive proof that a new prime will *always* await us no matter how far we progress through the indefinite, endless scale of integers.

Euclid's use of reason here, though highly technical, is ordinary in at least one sense. In his proof he abstracts fundamental truths from the known series of numbers and applies them to get a universally applicable judgment. He does not need to consider every possible number, or appeal to sense experience, to make the judgment (as some empiricists might demand with respect to other fields of knowledge). He grounds his proof in principles that are necessarily true, and so unquestionable, within the system of numbers.

The nature of the proof is uniquely uncontroversial because the principles (content of its premises) are uncontroversial. A prime number is incontrovertibly ascribed with the property of *indivisibility* by whole numbers, other than 1 and itself (a necessary truth for all numbers). If one disputes this point, one doesn't understand what is being said, or one is being difficult (not having integrity perhaps). From indivisibility, then, comes the claim that such a number will inevitably arise in the progressive sequence in virtue of the known primes. The known primes are used to derive a product n . The nature of a factor to a product is such that it divides the product. Thus, any factor common to n and $n + 1$ is able to divide its difference (1) as well. However, the only divisor of 1 is 1. So, there can be no prime factor shared by both n and $n + 1$. To doubt this would require

one to doubt the concept of '1'. In Euclid's formulation of the argument, and in our grasping and evaluating it, the fundamental nature of numbers is made explicit.

Euclid's solution is compelling as an objective argument on the basis of reason. If one disagrees, one either does not understand what is being said (ill-equipped to use reason in this skill) or they doubt the concepts of '1' or of a 'prime number'. If these concepts are conceptually framed in the mind through further discussion of philosophical principles and yet one persists in disagreement it must be said that there is an unwillingness to use reason with a lack of concern for knowledge. This is the force of mathematics as a realm of thought.

Mathematics enables one to utilize reason constructively, and to attain to universally applicable laws within thought

Common and Ordinary Argument: The Sun's finitude

The final argument I invoke conveys a strong sense of reason as it relates to our everyday thoughts. Not all are gifted in ways similar to Newton or Euclid. Yet, each thinking person makes objective estimations, and furthermore evaluates the estimations made by others as either true or false. Consider a common, ordinary claim put into the form of a syllogism: i) IF the sun's fuel resources are limited and it is consuming these limited fuel resources to continue burning, THEN the sun will burn out; ii) The sun's fuel resources are limited and it is consuming these limited fuel resources to continue burning; iii) Therefore, the sun will burn out.

I am herein *primarily* concerned with the rational intentionality implicitly involved in considering any ordinary claim, and not the veridical status of the claim. What are the presuppositions (perhaps unconsciously held) by a thinking agent involved in evaluating a claim about the sun's fate? The syllogism may strike us as formal, but the reasoning is ordinary. Judgments like this fill our textbooks and our coffee breaks. In such claims we take ourselves to be capable of ascertaining aspects of reality in order to represent them in thought to ourselves and in meaningful speech to others. Most of us take reality as made up of 'mind-independent external objects' and their relations. We attempt to understand and so relate to this reality, and furthermore attempt to represent this relation to ourselves and to one another through thought and speech.⁵ If we are to live as thinking beings, we cannot avoid the objectivity of our claims. If we are to live as thinking beings, our epistemological and metaphysical views must be able to consistently ground our warrant for believing ourselves to be capable of such statements.

1.4 *Qualifying Objectivity as it Relates to My Position*

The grounds for my position are ordinary. I'm not relying on any truth-claim about objective capacities, but I'm only relying on what I take to be uncontroversial: in any thought we *do take ourselves* to be reasoning agents capable of attaining to objective knowledge in our claims. Any explicit denial of

⁵ Being aware of the anti-realist sentiment against such notions, I would point out that in all claims we exhibit an ineluctable capacity for objectivity. One may ask, "Is it, or is it, not the case that *m* is pragmatic *for me* under conditions (or parameters) *x*, *y*, and *z*?" Under such circumstances, one's answer to this question could be imagined as cut off from matters of objectivity. Instead, logical propriety would require that one see one's claim as objective, applying to all others who seek utility under similar conditions.

this capacity implicitly affirms it; any response to the claim I'm presently making about the objectivity of all thought, is *itself* an objective claim. Our thought, then, obliges us to take ourselves to be capable of objectivity in our thought.

Objectivity in thought is therefore ineluctable.

Furthermore, I reject radical skepticism. This capacity for the objective is not illusory but, with integrity, attains to knowledge of the real. We do have good reason to take Newton as attaining to a deeper (although perhaps imperfect) knowledge of light, and to take Euclid as discovering an irrefutable truth about numbers. To deny this claim (i.e., that we do in fact attain to the objective) one must presuppose it. This can be seen in the following way. Any criticism of the claim that we attain to knowledge of the objective is a judgment. A negative judgment of this sort displaces the claim by implicitly asserting an alternative claim to truth. In this case, one would displace a claim to knowledge by making a claim to knowledge of its contradiction. This form of skepticism, then, implicitly reinforces the claim being explicitly denied. Its proponents are affirming in practice that very capacity they are attempting deny in theory. This is a self-refuting skepticism, logically incoherent in virtue of its inherent absurdity. Thus, thinking is inextricably linked to objectivity. The practices of Newton, Euclid and the common man are thus upheld in the face of skepticism by virtue of the ineluctable nature of objectivity in thought. To deny the capacity for attaining to objective knowledge would be to undermine all thought.

What can we infer from this? As agents we naturally attempt to obtain warrant for our beliefs. One can ask then about the necessary ground for holding

warrant with regard to claim-making. To hold warrant for taking ourselves to be properly equipped agents for this task of making claims, we must affirm the capacities necessary for the task. These capacities require a metaphysical ground sufficiently equipped with the powers necessary to enable our capacity to make claims about the objective, mind-independent external objects that we incorporate in thought. If the link between our thoughts and objectivity was found to be unverifiable, epistemic consistency would require that we cease to think. In thinking, we implicitly deny this skepticism and affirm that we have the capacity for knowledge.

Furthermore, in beginning inquiry it's reasonable to suspend all materialistic dispositions and assumptions. For, to begin inquiry with such would be to embrace dogmatism. Where one attempts to argue for a position, one cannot reasonably begin by assuming what can be conceivably questioned by others. Clearly, this would be assuming what one is supposed to prove (*viz.* that matter can account for all mental phenomena). In this way mental phenomena are to be *initially* treated on their own terms.

Note that an assumption about the explanatory power of matter is not like the assumptions involved in Newton's science. Newton takes his perception to be uniform and so trustworthy. Furthermore, he takes the nature of the prism to be stable, not given to instantaneous co-arising phenomenological qualities that can toy with reliability in the experiment. In fact, his hypothesis is built on a sort of inductive *reductio* wherein he assumes the "painted-light" hypothesis to be true.

Conclusively then, we should note that Newton only assumes those features that his audience would also assume, and no more.

In the philosophy of mind the explanatory power of matter is in question. Like Newton, proponents of materialism ought to begin with assumptions that cannot be questioned—those assumptions that are common to all within the discussion. Only then, will materialism answer the objections adequately. If the terms of the mental are insubstantial, inference to matter's ontological priority will be an easy move. If the terms of the mental are robust, inference to material reduction (i.e., monism) will not be so easy.

The depth of the mental is exhibited in this: any truth-claim about the nature of the mind necessarily presupposes (perhaps unconsciously) those principles that ground the objectivity required to make such claims. It is not plausible to suppose that we can fully ground our claims to objectivity in base forms of intentionality such as perception and desire. It follows that any position that hopes to show good reasoning for its claims must coherently ground the capacity for rational intentionality. This has consequences for ontology, as I will argue below.

The extreme position of substance dualism has been used to call into question not only the metaphysics of materialism but, more importantly, the approach of materialism. In contrast to beginning inquiry with a presumptive emphasis on matter (precisely identified, a *petitio principii*), one alternative approach I'm suggesting attempts to begin inquiry with the mental. More particularly, this approach fundamentally begins with that mental capacity which

grounds our ability to inquire. (I assume this approach is reasonable--that we inquire about the capacity to inquire before we inquire into other aspects of mind.) The result is an emphasis on the need for our claims (as beliefs, or mental acts) to be grounded in a metaphysic of the mind that coherently affirms the capacity to make such claims.

CHAPTER 2

A BRIEF INTRODUCTION TO THE WORK OF NAGEL AND BURGE

Thomas Nagel and Tyler Burge hold very influential positions in contemporary philosophy of mind. Curiously, most take each to be interested in distinct problems. Nagel exhibits a concern for problems of qualia and Burge is intrigued by problems of intentionality. I will contend that this approach to understanding their contributions is simplistic and that a broader analysis of their work unveils their similar concerns about rationality and its vital relation to the philosophy of mind.

Thomas Nagel's philosophy of mind is often depicted as being about qualia *only*⁶. This judgment is simplistic considering Nagel's book *The Last Word* (1997) in which he offers an intriguing investigation into rationality as a human mental phenomenon. In this work, his reason-focused epistemology is counteractive against notions of reason as conventional or personal. Though Nagel's work is not intended as a work for the philosophy of mind, its relevance is explicit. By speaking of reason as natural and impersonal, Nagel speaks of the human mind as having access to objectivity and self-attesting authority. As such, Nagel's broader philosophy reveals a tighter link between his epistemology and metaphysics of mind than is typically thought to be the case.

As already noted, Tyler Burge's interests in intentionality have been more explicit. His work has consistently exhibited an intriguing approach to studies in the philosophy of mind, and this has most explicitly been displayed in his

⁶ "What is it Like to be a Bat?" and "Psychophysical Nexus"

arguments against type and token materialism *via* his doctrine of anti-individualism. Anti-individualism posits mental events as partly independent of, and so not supervening entirely on, the nature or state of the agent's neural states or events. Instead, mental states are purported to be more broadly individuated by the agent's environment. There are aspects of mental states that are not immediately reflected in the material states of the brain. Out of Burge's focused study emerged a heightened awareness of the "...deep individuating relation between the individual's being in mental states of certain kinds and the nature of the individual's physical or social environments" ("Philosophy of Language and Mind: 1950-1990", 47). Many approaches to inquiries about mind assume an ontological priority of the brain, but Burge highlights an aspect of the mental that is not reflected in the brain.

Burge's article "Modest Dualism" and his most recent work *Origins of Objectivity* (2010) will be taken together as constituting the culmination of his work on this deep individuating relation between the mental and external. "Modest Dualism" is the result of an exchange between Burge and Bernard W. Kobes. The discourse began with Kobes's article "Burge's Dualism", wherein he attempts to evaluate Burge's arguments against type and token theories. The discourse concludes with Burge's evaluation of Kobes' analysis, and a deeper and more explicit statement of Burge's position as a dualist. Kobes offers his own poignant allusions to anticipated materialistic difficulties, by considering what correlations between the nature and causal features of neural components of the brain and psychological components of the mind would look like. Along with

Burge, Kobes concludes that both type and token-identity materialistic positions are untenable. It's clear from this that Burge and Kobes agree that if there is to be any tenable position for materialism, it will be a weaker form of materialism.

Both philosophers agree that the weakest form of materialism would be something like *compositional materialism*, wherein the components of the mind would be composed or constituted of matter as a statue is composed or constituted of clay or marble.

In "Modest Dualism" Burge expresses appreciation for Kobes's comments and praises him for his uniquely modest treatment of the subject. Burge writes lucidly against the false hope of compositional materialism and argues for a modest dualism as the position most faithful to the concerns of science. His position is grounded in rational intentionality, as manifest in the human psychology of *propositional* thought. He offers two arguments. The first considers the causal features of propositional thought and whether they are analogous to causal features of matter as understood in present material sciences. Burge's second argument considers the nature of propositional thought, whether the structure of propositional thought is conceivably analogous to the physical structures of material composites. Burge is clear in his stance. Successful scientific explanations provide a determining criterion for whether a metaphysics of mind is tenable. Ironically, (given materialism's oft-proclaimed sonship to science) it is on the grounds of science that Burge believes materialism fails. Rational intentionality permeates Burge's arguments against compositional

materialism, and so precludes his assent to any contemporary materialist positions.

The fuller picture that I hope will result from the analysis of Nagel's work and Burge's work, respectively, will be an increased awareness of rational intentionality as precluding materialistic accounts of intentionality. Further, I hope to show that their views taken together constitute grounds for an argument from rationality against even the weakest form of materialism, compositional materialism. I will develop such an argument, showing that the natural way in which we treat propositions and arguments precludes all materialistic notions of mind.

CHAPTER 3

A REVIEW OF EARLIER APPROACHES TO RATIONALITY AND THEIR IMPLICATIONS FOR THE NATURE OF THE MIND

Given the relative under-emphases rationality in recent philosophy of mind, it's fitting that further development be prefaced with a brief survey of the cumulative work that has taken place to bring such an argument to the fore. So, prior to further engagement with Nagel and Burge, I'll briefly consider a few historical figures relevant to the philosophical discussion of rationality.

3.1 Historical Antecedents

Both Plato and Aristotle view man as fundamentally rational. Plato's anthropology accounts for both the emotions and volitions associated with animalistic forms of life, but holds rationality as remarkably distinct from these other features of human life. In book 4 of *The Republic* (441e-442c), Plato speaks of rationality as that essential faculty of the soul best suited to rule over the passions of the emotions and will. Although Aristotle departs from the philosophy of his mentor in many respects, this was not one. Aristotle took man to be a rational animal, and the virtue of man realized when rationality is governing. Furthermore, in his *Nichomachean Ethics* he expresses his view that man as rational is most happy when living a life in full accord with reason (i.e., when living the "contemplative life"). Both Plato and Aristotle, despite their many disagreements, agree that rational intentionality (as that directing one to knowledge of the good or *telos*) is that most basic constituent of man's essence.

For Aristotle, rationality is the *telos* in man. In his *Nicomachean Ethics*, he develops his understanding of the *telos* as that pervasive element of reality that has limitless explanatory power. Why are things the way they are? Why is it that a horse has the features and functions it does? Why do the concentric spheres move as they do? The answer to such questions for Aristotle is grounded in the nature, or functional role, of the being or system. The *telos* is a non-corporeal, and so non-mechanistic, force innate and unique to a *kind* of being that functions to drive the being to fulfill its natural purpose. Applied to man, the *telos* is manifest in the constitution of man as rational. Rationality enables man to attain happiness. Clearly, then, Aristotle sees rationality as non-corporeal and so not reducible to matter and its mechanistic forces.

Furthermore, within the Aristotelian tradition sensory qualities are understood corporeally. My visual perception of redness objectively inheres in the mind-independent external object. This redness is conveyed to my sensory apparatus and is thereafter communicated to the mind. The redness of the external object (the ripe tomato) is not understood as distinctively mental, but as a purely objective quality inherent to the external object (the tomato itself). My visual representation of redness is not distinctively mental. Therefore, the Aristotelian man is distinct from mere animal, not in virtue of his perceptual representation of the external world, but in his being essentially rational. For Aristotle, understanding rational intentionality is central to a proper understanding of the mind.

Of course, Aristotle's notion of *telos* has been abandoned for more detailed forms of explanation. During the burgeoning of science, in and after the scientific revolution, persons such as Copernicus, Galileo, Harvey, and Newton conformed themselves to a new way of viewing the world. It was a mechanistic model that captured their minds, and sated their desires for scientific understanding. Aristotelian (and Cartesian) philosophies of mind would be displaced by those models that more adequately tie mental phenomena to mechanisms of matter.

Furthermore, movements within modern philosophy made us aware of a primitive assumption in Platonic and Aristotelian accounts of man. Locke's distinction between primary and secondary qualities exposes this. Primary qualities are those qualities that are essential to the nature of a thing, without which the thing would not be *that kind* of thing. For example, in Aristotelian terms, a necessary condition of one being human is that one think. If a thing does not think, it does not have the *telos* of a human and so cannot be a human. However, Aristotle took all perceived qualities (e.g., redness) as primary, within the external object itself. However, Locke shows this to be a secondary quality not inherent in the object itself but mind-dependent. Beginning with Locke, understanding of the mind seemed to burgeon so much as to suggest the potential to include all aspects of reality as mind-dependent. The mind was not merely rational, but influencing the perception of external reality. The Aristotelian dichotomy between animalistic forms of life and man became indistinguishable. The perceptual and conceptual aspects of human life were fused together in the

mind. Consequently, if the brain can account for perception, it can account for phenomenology. Furthermore, as if no argument is needed, it is assumed that physical mechanisms that explain phenomenology can also account for concept formation and the most complex features of propositional thought.

As a philosophically minded psychologist, William James engaged deeply with the psychological status of rationality. His opposition to the associationists is analogous in approach to my own opposition of the contemporary metaphysical monist. For the associationists a multiplicity of mental ideas compounded together equal a unified mind. James takes this to be “like saying that the mathematical square of a plus that of b is equal to the square of $a+b$, a palpable untruth . . . In short, the two separate ideas can never by any logic be made to figure as one and the same thing as the ‘associated’ idea.” (*The Principles of Psychology*, 106) Instead, to account for a complex concept, (say, a unicorn), wherein multiple ideas are compounded (features of a horse, with straight horn, etc.), the entity doing the compounding must be already existent. That is, to account for the act of compounding one must infer a third entity acting as the mechanism (or agent) doing the work.

We might consider this an *indirect* argument against materialism. Just as associationism posits that “the mind is constituted by a multiplicity of distinct ‘ideas’ *associated* into a unity”, materialism posits that materially composed entities taken together simply *are* the mind, or agglomerate *into* a higher compound that is the mind. The archetype for this analog to materialism is Hume’s introspective account wherein he introspects and sees no ‘self’ but only a

bundle of mental images. The mental images are thought to compose the individual self. However, Hume, when he introspects, may only *see* a bundle of mental images, but what is the perceiver performing the act of introspection?

For materialism there is, therefore, a simple combining of the concepts of *a* and *b*—“it’s there in the brain”—without recognition that the act of compounding ideas is conceptual and not perceptual. This is the force of an emphasis on rational intentionality: materialism must explain such conceptual capacities through a monistic ontology. The nature, structure, and causal powers of matter must explain the nature, structure and causal powers of mind.

For James, the gap between physical and mental phenomena is a logical gap, not bridgeable by reference to material composition: “I confess, therefore, that to posit a soul influenced in some mysterious way by the brain states and responding to them by conscious affections of its own, seems to me the line of least logical resistance...” (119). He states further,

[The theory of the Soul] declares that the principle of individuality within us must be *substantial*, for psychic phenomena are activities, and there can be no activity without a concrete agent. This substantial agent cannot be the brain but must be something *immaterial*; for *its activity, thought, is both immaterial, and takes cognizance of immaterial things*, and of material things in general and intelligible, as well as in particular and sensible ways,—all which *powers are incompatible with the nature of matter*, of which the brain is composed. (221, emphasis mine)

Here, James offers three distinct reasons for taking the mind to be immaterial: i) thought is immaterial, ii) thought considers ‘immaterial things’, and iii) thought considers concrete material things in general and in particular through categorical distinctions at a universal, objective level. These aspects of rational intentionality

are treated as categorically distinct from all delineated powers of matter. James's concerns suggest that the inferring of some immaterial substance is rationally responsible—materialism is unwarranted in its persistent attempts to explain rationality from within a materialistic framework that doesn't itself offer the terms necessary to account for the conceptual work involved in rationality.

With similar veins of thought, Donald Davidson argues for the anomalousness of the mental by affirming the compatibility of three principles: i) some mental events interact causally with physical events; ii) events related as cause and effect fall under strict laws; iii) there are no strict laws relating mental events to physical events. (i) and (ii) are taken as given, but apparently incompatible with (iii). To argue for compatibility, then, is to argue for (iii).

To doubt (iii) one must take mental events as nomologically conjoined with physical events. My holding of Euclid's *Elements* in my hand and the optical perception of ordered symbols on a page may be part of the physical description of nomological relations in space and time; why the book is where it is—why I am in the library and not at home—why I am seated and not standing. However, if the mental is reducible to the physical the nomological status of the physical description is also sufficient to explain my taking Euclid's argument as sound. Yet, this is clearly not the case. Neither my willingness to consider the argument nor my concern to believe the argument in light of alternatives, is descriptive in physical terms. The mental cannot be reduced to the physical since the essential characteristics of each are distinct; the nomological nature of the physical cannot incorporate or relate wholly to the normative nature of the mental.

Davidson concludes that there are no psychophysical laws, and so (i), (ii), and (iii) are commensurable. His focus, then, is on the anomalous nature of the mental, namely as constituted by laws that govern description of mental events, especially those of propositional thought.

However, Davidson's position is in one way naturalistic. Though no type of mental event is reducible to a type of physical events, the token of a mental event is identical linked to its token physical event. Token mental events supervene token physical events, though the laws are themselves not reducible in nature. Though not reducible in nature and so not nomologically explainable according to physical terms, all is physically derived.

There have been significant philosophical contributions that argue, consistently with James's concerns, that human rationality cannot be accounted for through material, and more particularly through naturalistic, models. These contributions attempt to expose naturalism as untenable in light of human capacities for knowledge and belief. I'll now consider a few of these recent contributions.

3.2 Recent Antecedents: C.S. Lewis, Reppert, and Plantinga

C.S. Lewis offers an argument from reason against naturalism that relies heavily on what is aptly conveyed in the words of evolutionary biologist J.B.S. Haldane. Haldane states,

It seems to me immensely unlikely that mind is a mere by-product of matter. For if my mental processes are determined wholly by the motions of atoms in my brain I have no reason to suppose that my

beliefs are true. They may be sound chemically, but that does not make them sound logically.⁷

Lewis builds on this picture in the following way,

[The popular scientific picture] professes to depend on inferences from observed facts. Unless inference is valid, the whole picture disappears. Unless we can be sure that reality in the remotest nebula or the remotest part obeys the thought laws of the human scientist here and now in his laboratory—in other words, unless Reason is an absolute—all is in ruins. Yet those who ask me to believe this world picture also *ask me to believe that Reason is simply the unforeseen and unintended by-product of mindless matter* at one stage of its endless and aimless becoming. Here is the flat contradiction. *They ask me at the same moment to accept a conclusion and to discredit the only testimony on which that conclusion can be based.* The difficulty to me is a fatal one; and the fact that when you put it to many scientists, far from having an answer, they seem not even to understand what the difficulty is, assures me that I have not found a mare's nest but detected a radical disease in their whole mode of thought from the very beginning. (*The Weight of Glory*, 135)

Undoubtedly, Lewis's focus is on reason as a faculty *in man*. He is perplexed by it and respectful of science when its proponents ask that he take scientific inference as a valid means to knowledge about the world. Lewis doesn't appear to oppose this in any way. However, his question is whether those professing the objectivity of inference (in supporting their own claims to knowledge) are themselves fully consistent with it in their scientific theory. He takes two views to be incompatible: i) reason is absolute in man—an objective means to knowledge by application of universal laws of thought to all forms of being in all places at all times—justifying inferences from the universal to the particular and warranting judgment from the particular to the universal, and ii) reason is an

⁷ Haldane, J.B.S., *Possible World and Other Essays* [1927], Chatto and Windus: London, 1932, reprint, p.209.

evolving faculty proceeding out of the evolutionary development from hominid to human.

It is by the testimony of reason that we can attain knowledge. If science is to tell us anything about the world, it must do so on the grounds of reason. Its explanatory power must ground itself in reason, and in no way undermine it as a self-attesting basis for knowledge. Yet, Lewis charges that the explicit claim of popular science (ii) does exactly that. By taking reason to be a product of evolutionary processes, they undermine the potential validity of their own claims.

In his “De Futilitate” Lewis states,

We are compelled to admit between the thoughts of a terrestrial astronomer and the behavior of matter several light-years away that particular relation which we call truth. But this relation has no meaning at all if we try to make it exist between the matter of the star and the astronomer’s brain, considered as a lump of matter. The brain may be in all sorts of relations to the star no doubt: it is in a spatial relation, and a time relation, and a quantitative relation. But to talk of one bit of matter as being true about another bit of matter seems to me to be nonsense. (63-4)

Lewis here develops the reason he takes the physicalist picture to be fatal to science. If we are to take the brain as ontologically prior to the mind—the features of the mind being explainable by reference to the physical—we cannot transcend those limitations inherent to matter in virtue of its locality in space and time. Furthermore, Lewis here expresses his difficulty in ascribing terms acquired by rational intentionality—true and false—to material substances.

Alvin Plantinga has promoted similar ideas, in his “evolutionary argument against naturalism” (EAAN), arguing that a purely *naturalistic* interpretation of reality will have difficulty providing a consistent account of reliability of belief.

If naturalistic, evolutionary processes account for the whole scope of existence, this all-encompassing schema will delineate how one is to understand the development of the human mind and its capacity for beliefs. Plantinga offers two approaches to doubting the postulate of the evolved mind. Both of these approaches supervene on the observation that we aim to believe with accuracy and this requires the reliability of those faculties enabling belief formation.

First, Plantinga considers a suggestion that natural selection can account for reliability in belief-formation. The suggestion posits that the mental capacity for truth evolved as a survival mechanism, and that one's capacity for truth is *causally* linked with one's capacity for survival. Plantinga points out that if this is true, the true belief will have a *necessary* connection with survival in virtue of its content. He suggests that there is no necessary connection between the fitness development necessary for survival and the development of capacities necessary for reliable belief formation. He states,

Now if content of belief *did* enter the causal chain that leads to behavior...then natural selection...could shape the mechanisms that produce belief in the direction of greater reliability. There could then be selection pressure for true belief and for reliable belief-producing mechanisms. But *under the hypothesis in question*, the content of a belief, as opposed to its neurophysiological properties, does not enter into the causal chain leading to behavior. And then it is not the case that a belief produces adaptive behavior by way of being true, or maladaptive behavior by way of being false. So natural selection can't, directly, at any rate, mold belief-producing mechanisms in the direction of the production of reliability by rewarding adaptive behavior and penalizing maladaptive behavior. (*Naturalism Defeated*, 257, emphasis added)

Under the hypothesis of natural selection, then, Plantinga holds that the content of belief is not contained in the causal chain leading to behavior. That is, Plantinga takes naturalism as limited to the terms of the physical sciences, in which case a physical state, event, relation—type or token—is attributed with all the explanatory power necessary to account for survival. For Plantinga, belief is, on all naturalistic accounts, irrelevant. As such, the naturalistic, physicalist picture precludes any appeal to belief as attaining to objectivity in knowledge.

Second, Plantinga asks his reader to consider his or her own conclusion concerning naturalism. Whether in belief or unbelief, each one treats one's own doxastic capacity as sufficiently equipped to make some degree of judgment in favor of his belief and against opposing alternatives. This evinces one's own trust in one's mental faculties as a reliable belief-forming apparatus. Given this trust in our belief-forming apparatus, an implied criterion is that one must have a metaphysical ground that warrants this trust through the guarantee that one's belief-forming apparatus is in fact trustworthy. For Plantinga, this is a criterion which naturalism cannot satisfy because its metaphysics has nothing to guarantee the reliability of belief; there is no reason to think that a subjective, perception-oriented biological system has developed the capacity to reach beyond material dispositions and attain to objective reliability in belief formation about matters outside of one's immediate perception.

Any naturalistic attempt to answer Plantinga's concerns will implicitly affirm reliability. However, the key point Plantinga is making is that naturalism itself offers no grounds for such reliability, but inherently denies rational agents

any access to non-arbitrary methods of evaluation. If all is natural, and the metaphysical aspects of the mind are entirely materially constituted, then there is nothing objective outside of material dispositions to ground the epistemological appeals (argument showing good reasoning) necessary for believing one's own belief to be true, or to judge the belief of another to be false.

In Reppert's article "The Argument from Reason" he attempts to refute the naturalistic view of the mind. The argument is similar to Plantinga's *EAAN* and is in name and content a further explication of C.S Lewis's comments on rationality. Reppert's *argument from reason* and Plantinga's *evolutionary argument against naturalism* both argue that there is no way in which an *evolutionary* account of the mind can ground the capacity necessary to grasp the objective categories necessary for meaning and truth. Reppert's most relevant contribution comes through in the following statement,

[Materialists] not only believe that the world is material, they also perforce believe that the truth about that material world can be discovered by people in the sciences, and that, furthermore, there are philosophical arguments that ought to persuade people to eschew mentalistic worldviews in favor of materialistic ones...Arguments from reason are arguments that appeal to necessary conditions of rational thought and inquiry. (*The Blackwell Companion to Natural Theology*, 351)

I take Reppert's comments to be a reproof of materialists, holding to materialism in word but then turning to argue for materialism on the basis of capacities that cannot be explained through that system. If we are to say that some belief *p* is true (say, a belief that the number of primes is infinite) and then give reasons for our belief (cite Euclid's proof), there are necessarily presupposed conditions lying

at the foundations of our mental activity. It is the job of arguments from reason to make the nature of these presupposed conditions explicit. The very argument that materialism is *true* relies on notions of reason and argument that are difficult, perhaps even impossible, to account for within the schema of materialism given the apparent connection between matter and subjectivity. Arguments from reason exploit a notion of objectivity, necessarily presupposed in making claims, in order to show that these presuppositions preclude any claim to materialism. In this, it seems that the Lewis-Reppert-Plantinga arguments are helpful in making explicit some oft-neglected aspects of rationality—aspects that should be of great significance to those in the philosophy of mind.

It is clear that each argument from reason, offered by Lewis, Reppert, and Plantinga, implicitly assumes the following axiom: one's metaphysical claims ought to comport with one's epistemic presuppositions. That is, one's beliefs ought not exceed the dependability of one's metaphysical ground for belief. One is only warranted to claim one's view is true (universally) if one's metaphysical view of the mind permits one's transcending the subjective (i.e. warrants universal claims). The naturalistic/evolutionary view of the mind, believing the material brain to be ontologically prior (perhaps problematic in itself), must assume the mind is developed entirely from matter and so limited by the subjective material parameters of space and time. It claims to be true (universally), but inherently denies the objective capacity necessary for such claims (thereby precluding any claim of its truth across space and time, or between subjects). The only way, then, to truly ground the reliability of our

beliefs is to have something or someone (for Plantinga, God) guaranteeing the validity of our capacity for truth. Plantinga concludes that naturalism cannot ground the universality of its own claim to truth. Thus, given the nature of belief and our desire for reliability, belief in the schema of metaphysical naturalism is irrational.

It's noteworthy that C.S. Lewis, Reppert, and Plantinga have each attempted to argue that theism is the worldview best suited to account for the human capacity for rationality. However, for those wary of supernaturalism it should be noted that Nagel's view of reason is at least as robust as that of Lewis or Plantinga. Yet, Nagel is not a theist. In *The Last Word* Nagel expresses the fear that his view will be disparaged because of its non-naturalistic implications. He argues that a non-naturalistic metaphysic of the mind doesn't necessitate theism. As will be seen in the discussion of "Psychophysical Nexus", he offers an alternative position to theism that he believes is compatible with his rejection of standard naturalistic accounts of the human mind.

On this basis, my hope, and Nagel's hope, is that prejudices against immaterial notions of the mind be ousted; what is said of the mind is something said of the mind, and not of God. As we'll see to be a sort of irony, Burge and Nagel, who are not theists of any sort, explicitly reprove proponents of naturalism as tainting their field with dogmatic prejudices. Just as non-materialism can be dogmatically promoted as entailing other major positions, materialism can be dogmatically promoted as inferring the counter-positions of those major non-materialistic positions. Philosophical integrity ought to oblige us to treat our

theistic or naturalistic concerns as distinct from, or at least in mediate relation to, our ideas of the mind. Views of mind are not sufficient in themselves to provide any mandate for theistic or naturalistic claims. In line with Nagel's contention, I think it wise to allow arguments for the metaphysical status of mind to be evaluated as such, and no more.

This historical review serves to support my claim that there seems to be a significant relation between one's idea of reason (whether naturalistic or otherwise) and one's understanding of the human mind. One may believe one's materialism to be warranted because one has a diminished view of rationality. In like manner, to those having a grander view of the nature of rationality in the individual (i.e., a faculty giving the individual the ability to compound concepts, or to understand "how things are" in a universally applicable manner), the outright claims to materialism, as based on appeals to contemporary material science, appear highly dubitable. With this in mind, it seems reasonable to consider Nagel's claims concerning epistemology more carefully in order to better understand the full force of this view of rationality as a foundational stance against materialism.

CHAPTER 4

NAGEL'S REASON-FOCUSED EPISTEMOLOGY

4.1 An Argument for its Determinative Influence on His Non-Materialist Metaphysics

A brief review of some of Nagel's work was given above. As mentioned there, it is my contention that Nagel's approach to the philosophy of mind should be much more broadly construed than it typically is. To understand the breadth of Nagel's views concerning the mind, one must understand his view of reason. As suggested in the review of Davidson's materialism, there are primarily two options open to those considering a view about reason. One position views reason as a base form of intentionality, involving other subjective aspects of consciousness such as perception, emotion and desire (ii)⁸; this is a common view amongst contemporary philosophers of mind. The alternative is that reason, although a form of intentionality, cannot be thought of as an aspect of the material and its subjective parameters, but rather, given objectivity, must transcend -- even logically precede—the perceiving subject. This latter notion is implicit in the work of Plantinga and Reppert, though I think they fall short of offering the robust explication given in Nagel's work.

In contending for his view of reason, Nagel cites Saul Kripke as one of his major influences. Nagel states in the preface of *The Last Word*,

In the late 1970s I attended a seminar Saul Kripke gave at Princeton, in which he attacked various forms of relativism, skepticism, subjectivism, or revisionism about logic. He argued

⁸ Referenced previously as (ii) in the discussion of Davidson's view of reason.

that classical logic could not be qualified in any of those ways, that it was simply correct . . . the skeptics all rely on it in their own thinking. (vii)

Nagel goes on in the same passage to iterate, "...the last word in philosophical disputes about the objectivity of any form of thought must lie in some unqualified thoughts about how things are--thoughts that remain, however hard we may try to get outside of them or to regard them merely as contingent psychological dispositions" (vi). These thoughts, or presuppositions, that remain are akin to the necessary conditions alluded to by Reppert -- those thoughts, or principles of thought, which cannot be questioned because they make questioning possible. Nagel's commitment to reason grounds his argument against subjectivity about reason in such a way that it precludes all materialistic attempts to naturalize reason. On this basis, with respect to his dissent with materialism, Nagel's epistemological views are paramount to his own explicit contributions concerning qualia (see "Psychophysical Nexus").

In the introduction to *The Last Word* Nagel states,

Reason, if there is such a thing, can serve as a court of appeal not only against the received opinions and habits of our community but also against the peculiarities of our personal perspective. It is something each individual can find within himself, but at the same time it has universal authority . . . Whoever appeals to reason purports to discover a source of authority within himself that is not merely personal, or societal, but universal--and that should also persuade others who are willing to listen to it. (3)

Merged with Nagel's prior notion of the self-attesting authority of reason, this latter notion of "universal authority" is remarkably strong. Reason acts as an intrapersonal and interpersonal authority that constitutes the means by which

otherwise perspective-oriented beings are to understand a belief to be valid, and so rationally tenable or true. It provides access to a transcendent authority unhindered by the “peculiarities of our personal perspective”; that is, unhindered by the peculiarities of localized characteristics of reality. If there is such a thing as reason the human capacity to reason requires a substantive ground that can account for this transcendence. Further, any attempt to give an explanation to others for one’s beliefs or actions – even in appealing to subjective concerns – is implicitly or explicitly (perhaps unconsciously) appealing to this authority as the ground for justification common to all reasoners.

Superficially, Nagel’s epistemic ideals may seem anachronistic, particularly in his magisterial view of reason. On this judgment, his position might be quickly discounted as a form of rationalism. Yet, if I can do justice to Nagel’s rational objectivism, we should see that Nagel’s claims are a modestly construed rationalism. He does not postulate reason to be the far-reaching *source* of truth that typifies traditional rationalism. Instead, he begins with a rudimentary, intelligible claim that sets his position in opposition to the neo-Kantian subjectivism in contemporary philosophical thought. His claim is that reason is the self-attesting authority in human thought enabling our objective evaluation of propositions (consider again his citation of Kripke). Again, “It is something each individual can find within himself, but at the same time it has universal authority”. This transcendental aspect of rationality is expressed clearly in the statement, “One cannot question the authority of reason, *because* to do so one would be using reason to attempt to question reason”; one would be implicitly

affirming the very thing in presupposition that one is attempting to explicitly question in theory. Such “thoughts” cannot be escaped, even through the most radical skepticism. Similarly, Nagel states, “Simple logical thoughts dominate all others and are dominated by none, because there is no intellectual position we can occupy from which it is possible to scrutinize those thoughts without presupposing them” (*The Last Word*, 64). In this way, reason is self-attesting. The charge that the argument is circular (i.e., that it presupposes reason to argue for reason) doesn’t hold, since to form such a criticism one has already presupposed reason’s authority.⁹

Further, the authoritative nature of reason grounds one’s capacity to test the validity of propositions, even identifying alternatives and evaluating their tenability. It allows the mind to infer principles, to do science. Recall Newton’s theory of light. The practical application of reason was necessary to isolate the relevant phenomena through the use of a prism, and then to further construct a situation that was conducive to falsifiability of the challenging claim. Further, it

⁹ Though I am not aware of anywhere Nagel cashes out the term “reason”, it seems reasonable to think he is appealing to laws fit for universal application. For example, one may think of the law of identity (i.e., a is a) and the law of non-contradiction (i.e., a cannot be both F and non-F in the same respect at the same time; a predicate cannot be both affirmed and denied of a subject in the same respect at the same time). From this could be derived the kind of standard he is alluding to: In order to critique any claim, one would use the law of identity to identify the claim being made, and then further use the law of non-contradiction to distinguish it from all alternative claims including the claim one may suggest to put in its place. On this basis, to doubt the laws of thought, for example the law of identity and the law of non-contradiction, would be the epitome of inconsistency—doubting that set of laws which grounds one’s ability to doubt. One may also attribute propositional laws with similar (deductive) epistemic strength to this view of reason.

is through reason that we grasp the meaning of a statement and judge it to be true or false. Consider again, Euclid's theorem. To doubt his conclusion would be to doubt fundamental principles that ground mathematics. Even if one were to doubt his conclusion, one would use reason to identify his position and then propose more fundamental, unquestionable grounds, by which one can know. As such, reason is not personal or subjective. Nagel states, "To reason is to think systematically in ways anyone looking over my shoulder ought to be able to recognize as correct." (5) Though reason is to inquire into one's own subjective concerns, it is a self-attesting authority that stands apart from any one individual and reveals one's degree of consistency with the objective standards necessary for any thought to occur. We can consider the means by which Newton and Euclid reach their conclusions respectively. Furthermore, as rational agents we can objectively judge by the use of our shared, yet impersonal and non-conventional, authority, whether their use of those means accords with what reason requires.

To this point, Nagel's view of reason has been strictly epistemological. However, as already mentioned, this view of reason has significant implications for one's view of the mind. Throughout *The Last Word* Nagel's epistemology is intertwined with a wonder about the human mind and its capacity for reason. He anticipates the materialistic reduction of human rationality to natural terms, but rejects it as implausible:

Reason is whatever we find we must *use* to understand anything, including itself. And if we try to understand it merely as a natural (biological or psychological) phenomenon, the result will be an account incompatible with our use of it and with the understanding of it we have in using it. For I cannot *trust* a natural process unless

I can see why it is reliable, any more than I can trust a mechanical algorithm unless I can see why it is reliable. And to see that I must rely on reason itself. (143)

To derive a valid ontology, one must have a valid epistemology. This is the very point already seen in Plantinga's work. The point should be emphatically impressed here: the very attempt to naturalize reason and the mind requires that one presuppose a view of reason (and the mind in which it inheres) that cannot be explained by reference to material states, powers, or events. Thus, this presupposed view of reason and mind logically precludes any such naturalization. The truth of any such explanation can only be established upon the broader, objective scope of reason, which it seeks to undermine.¹⁰ Rationality, not being in any way logically explicable in material terms, implicates similar necessary truths for the mind so endowed with it.

This is an easy inference for Nagel, one with which he colors the pages of *The Last Word* in a sense of wonder.¹¹ He states, "How is it possible that creatures like ourselves, supplied with the contingent capacities of a biological species whose very existence appears to be radically accidental, should have

¹⁰ Upon this basis, relativism is also precluded. Spending a chapter on mathematics and another on science, Nagel's *The Last Word* sets out a clear argument that all relative claims are intrinsically universal; the claim "all is relative" is a claim that has universal application. Humankind may attempt to escape the "pretensions of human reason", but it cannot succeed (99).

¹¹ It may be suggested here by some that 'wonder' connotes mystery, and that an unexplained phenomenon (here, rational intentionality) is a problem for all and as such is a problem for none. However, by 'wonder' I don't intend to connote mystery. Rather, I take such wonderment to be a negative way to the truth. By understanding rational intentionality, we can at least understand what the mind *is not* and work from there. The content-rich wonder of the dualist is the foundation for proof against materialism.

access to universally valid methods of objective thought.” (4) Just as epistemic inquiry unveils the irreducibility of reason to that which is natural, it similarly bears metaphysical implications as it touches the human capacity *to* reason; human minds, presupposing standards of reason, have access to understand universals (e.g., forms of being, changes or adaptations, causality) and as such this capacity cannot be reduced to the obvious spatial and temporal limitations of material composites.

It is understandable, at one level, that one be perplexed by this account of reason. Materialism, and more broadly naturalism, has been credited with the wider range of practical and theoretical successes of science. Naturalistic assumption has been represented as the necessary and sufficient motivation behind reasonable explanations of nature. When such a metaphysical theory is credited with such power and success, it will likely appear reasonable to the masses to accept such a theory. Nagel expresses an understanding for initial skepticism toward this view of reason. He states, “How is it possible for finite beings like us to think infinite thoughts?” (74) Examples of such thoughts may be those universally applicable judgments exemplified in Newton’s judgments regarding light’s *nature* and Euclid’s judgments of *necessary truths* following from the nature of ‘1’ and ‘indivisibility’. We do reach for and attain knowledge. Nagel would not allow his wonderment toward reason in the human mind to be construed as skepticism. That would be to attempt to call into question that which cannot consistently be questioned—a wonderment toward reason is only reinforced by the challenges of skepticism. To attempt to naturalize reason only

implicitly reaffirms its nature as unexplainable by reference to any naturalistic or material processes. Wonderment, then, is inescapable for the one who begins to grasp the robust nature of reason.

Additionally, it is important to understand the epistemic status of those positions attempting to cast doubt on such a view of reason. Materialism holds that “all is matter”, and naturalism complements this position by attempting to explain origins of time, life, and natural kinds by limiting explanatory reference to uniform material forces acting in the course of time to produce the present effects. These positions are together assumed true by many great minds working within the contemporary material sciences. However, despite the popularity of this position, it cannot be proven true. Both positions assume that all knowledge is attained by observation, through empirical observation; essentially all knowledge is by sense experience. And yet this position can be called into question: Why assume that all knowledge is by sense experience? Secondly, why take our observational capacities to be reliable? Consequently, the belief that all is matter cannot be empirically verified. Furthermore, without proof for the position its epistemic status is in question. As such, it cannot be justifiably credited with theoretical advancement. There is no explanatory power in the belief “all is matter”. Therefore, any successes of the sciences could be credited to other metaphysical positions in similar ways. Furthermore, material sciences may find a greater ground in that metaphysical position that can ground the mind, since it would in turn offer grounds for understanding the use of rationality as it relates to studies within the scientific realm.

There is no reason to doubt reason, and in fact one finds that it cannot be doubted. It is a necessary, presupposed condition for our ability to make claims that are objective in nature. Nagel states,

If I try to get outside of my logical or arithmetical thoughts by regarding them as mere manifestations of my nature, then I will be left with biology or psychology or sociology as the final level of first-order thought... When I try to regard such a thought as a mere phenomenon, I cannot avoid also thinking its *content* -- cannot retreat to thinking of it merely as words or pictures going through my head, for example. That content is a logical proposition, which would be true even if I were not in existence or were unable to think it. The thought is therefore about something independent of my mind, of my conceptual capacities, and of my existence, and this too I cannot get outside of, for every supposition that might be brought forward to cast doubt on it simply repeats it to me again.
(66)

How am I to doubt my capacity for the objective, when the doubt itself “simply repeats it to me again”? Having been influenced by a culture where materialism is so often assumed, we will each, like Nagel, have difficulty accepting this view of rationality. However, if one is to choose between materialism, which makes it difficult to conceive how subjectivity-bound matter would constitute grounds for objective understanding, and a realist view of rationality that cannot be denied with consistency, the rational choice seems clear.¹²

¹² Here, I’m reminded of William Lycan’s “Giving Dualism Its Due” wherein he weighs the oft-referenced “problems” of dualism, and admits the position more formidable than is often granted. “Though the arguments for dualism (indeed) fail, so do the arguments for materialism”. Although, his materialism wins out in his mind, he admits that he does “not proportion [his] belief to the evidence”. I’d like to allow Lycan’s continued antagonism toward dualism, but then ask if this continued opposition is itself rationally warranted. Given the robust nature of reason as ultimate authority in the realm of thought, constituting our very capacity to think and speak, I take the probability of dualism to rationally outweigh the tentative hopes of materialism.

Nagel anticipates attempts to draw supernatural implications out of this reason-oriented philosophy of mind, and so he concludes the *The Last Word* attempting to dispel this idea. With like caution, though, he emphasizes that a fear of religion doesn't justify the unwarranted "...overuse of evolutionary biology to explain everything about life, including everything about the human mind" (131). Naturalistic dogma doesn't digest any better than theistic dogma; both are dogma, and so not welcome in *philosophical* discussions of the mind. For Nagel, one must affirm the real wonder that humans think and follow that truth to where it leads.

§4.2: Tying It In: Epistemological Implications for the Nature of Mind

Nagel's contribution makes explicit the implicit presuppositions involved in all human thought, and he offers a more thorough explication of it than most. As such, he takes reason to be an impersonal capacity to consider and make objective judgments with universal authority. A human's judgments can be entirely distinct from all particulars of time, space, and matter and in our act of believing we treat it so, *simpliciter*. Clearly, Nagel's concern in *The Last Word* is far more than forming an argument against epistemological subjectivism. Rather, his concerns are about how it is that we grasp universals, unavoidably attain to the objective in our claims, do science, engage with the meaningfulness of sound logic, and have objective self-attesting grounds on our side to reprove others when they use reason inconsistently in these tasks. We apply universal theories to numbers and attempt to grasp the fundamental structure of the universe, whether intelligible or unintelligible. This isn't limited to the theoretical either, but every

layman will call out injustice if his employer attempts to claim that a paradigm shift in the area of mathematics has negatively affected his paycheck. On what basis can we make sense of this capacity we have as conscious beings to evaluate the thoughts of one another and judge them reasonable or not, according to some objective standard that transcends our physical place in space and time? Clearly, Nagel's view of reason delineates his unbelief with respect to naturalistic materialism and its attempts to reduce rationality to the human brain or its complex subjective functions. For emphasis, consider it once more: If materialism is true, in one's forming or evaluating an argument how does one warrant use of faculties that logically presuppose a capacity to transcend the spatial limitations of matter? In the act of evaluation one is reaching beyond one's spatial limitations and materially composed brain to make a judgment that is universally applicable. In my saying, "There are no square-circles", I am presupposing an ability to transcend the spatially limited capacities of sense perception; I am claiming that I do not need to travel to the dark side of the moon to *see* if there is a square-circle. If my thoughts are to have any value and coherence—any reason to be believed—I must assume that mutually exclusive concepts cannot be combined without undermining my very ability to think, speak, argue, believe or know. To relate to the previous examples, what is it for Newton or Euclid to make the objective claims they have made? What is it for us to evaluate those judgments and judge for ourselves whether their grounds for reasoning are adequate for our own system of beliefs? For both the theorist and the layman there is a common authority assumed which, when used fully

according to our capacity, is claimed to yield grounds for belief that are more than subjective, or personal or conventional, but logically binding on all thinkers. For Nagel, this common presupposed capacity is wondrous and can only be denied through the austere dogmatism of naturalism and inconsistency between one's practice and theory.

CHAPTER 5

BURGE'S VIEW OF INTENTIONALITY

5.1 On *Origins of Objectivity*

Objectivity is instantiated in the dualistic capacities of perception and conception. After delineating a clear view of perception as occurrent in variant forms within biological life, Burge anticipates an attempt to ascribe to him a deflationary view of rationality. To obviate any such attempt he states, “Perception is constitutively independent of capacities for propositional thought.” (548) Further, he holds that perception is not a propositional state (537) and it is structurally distinct from propositional states. (538) Burge further develops this groundwork in explicating the constitutive nature of perceptual capacities,

A perceptual state functions to *apply to particulars in a singular context-dependent way*. Perception is always as of particulars. So the veridicality condition of a perception must contain singular representational elements. Perception always categorizes or groups particulars that it represents. A perceptual state functions to indicate properties, relations, or kinds, and to attribute them to particulars. So the veridicality condition must also contain general attributive elements. These attributive elements are inevitably *from a perspective*. They are one of many possible ways of perceptually attributing whatever property, relation, or kind is attributed . . . I think it is the fact that attributive abilities are *never exercised separately from singular applications in perception* that helps mark the non-conceptual, non-propositional status of perception. (539; emphasis mine)

Burge's comments here are apropos, conveying the inextricable link between perception, the particular and the limitations of the empirical perspective to singular applications. He takes the nature of perception to be constitutively captured in the application of particulars within a singular context-dependent,

even context-bound, attribution dependent on one's subjective perspective in the *here and now*. As such, the sorts of objectivity involved in perceiving and referring to a particular are perhaps a mystery. However, there is little reason to take them as non-empirical. The objective reference of thought is a different matter altogether. Burge states,

... [the] problem of explaining how objective reference emerges in *thought* is [in]...explaining what it is to separate attribution from its role in aiding singular reference, to arrive at propositional predication . . . In thought...we commonly make occurrent use of attributives that do not guide a contextual singular application in singling out a referent. (541)

This distinction between singular reference and propositional predication enables the “specific context independence and generality that are embodied in pure attribution, propositional thought, and rational inference.” (539) Burge terms this capacity for conceptualization ‘pure attribution’ and gives examples wherein attributives do not guide a “context-bound reference to a particular: cats and are animals in cats are animals; plants and are green in plants are green; is a number in 3 is a number”. (541) Burge calls these pure attributions “conceptual attributives, or predicates”. They serve in propositional structures to *free* thinkers from the context-bound reference to particulars, and mere singular application of attributives. He holds that this mental capacity for pure attribution is necessary for any propositional or conceptual ability to be real. (541) In this way, where such attributives are used they manifest the subject's capacity to “engage in pure attribution”.

Pure attribution offers more explicit grounds upon which to explicate the nature of propositional attitudes. Burge states,

With propositional attitudes, there is the beginning of a *freeing* of occurrent representation from presentation of particulars. Pure attribution marks a subtle kind of freedom from the here and now. This freeing of attribution, in pure attribution, from a role in context-bound singling-out of particulars is a step beyond the primitive objectivity involved in perception...Pure attribution, including conceptual attributives, marks a capacity to separate attribution, a constitutive element in any representational perspective, from its role in guiding contextual singling-out of particulars that have a causal impact on the individual and the individual's perspective. (542)

In the separation of attribution from its limited perceptual uses, an agent exhibits a capacity entirely distinct from that capacity that is dependent upon the *here and now*. Instead, the agent is purported to transcend his or her own environment and obtain warrant or justification in the broader application—even universal application—of a relevant judgment. Without this capacity for pure attribution, an agent “cannot engage in representation that is functionally independent of a role (either an attributive role or a singular applicational role) in contextually referring to particulars. [Because] perception is essentially, at every point, context-bound singling-out of particulars.” (542) Pure attribution constitutes a higher-level objectivity than any that can be obtained through capacities of perception because it attains to the non-perspectival truth.

To further support this claim consider Burge's comment, “What it is for an attributive concept to be a conceptualization is partly that it has uses, in the individual's psychology, beyond the use (essential to perceptual attributives) of modifying singular applications to particulars. It has pure-attributival uses.”

(545) Consequently, the mental capacity exhibited in the grasping of concepts enables the individual to engage in propositional inferences that are constitutively distinct from the context-bound reference involved in the subjective perceptions of particulars. Burge holds that this capacity for concepts is constitutively “marked by logical constants (such as not, either-or, if-then, is identical to).”

(545) This is akin to Nagel’s epistemology which postulates reason to be

...something each individual can find within himself, but at the same time it has universal authority... Whoever appeals to reason purports to discover a source of authority within himself that is not merely personal, or societal, but universal—and that should also persuade others who are willing to listen to it. (3)

The rationality of Nagel is taken to be reflected in Burge’s view of pure attribution, as that capacity to transcend the here and now, the environmental influences on perspective, and the singular context-dependent reference to particulars. To further support this relation between the ideologies of Burge and Nagel consider that upon referencing Nagel on objectification, Burge explicates pure attribution as that capacity which enables “the separation of representation from the proximal, the local, the idiosyncratic, the subjective.” (548)

For materialism to answer this question, there must be some natural mechanism by which attributive abilities involved in objectification in perception are related to and so ground the origination of pure attribution in propositional thought. Yet, use of pure attributives inherently involves an attempt to attain to the objective and so implicitly exhibit one’s presupposed warrant for taking oneself as having the capacity to transcend the subjective. This is further exhibited in making claims that are not context-bound to the singular context in

which one finds oneself in the here and now. Do the essential features of materialism include the terms necessary to explain how humans could be capable of such grand transcendence over context-bound reference and the more general limitations inherent in the spatial locality of the brain? Is there any *conceivable* mechanism that could enable, and thereby account for, this capacity so common to members of humankind? Perhaps the more basic question is whether materialists are at all aware of such a need to account for this capacity, or whether their inquiries into mind are wholly neglecting accounts of objectivity in rational intentionality.

5.2 Does materialism offer a ground for mental functions?

In contrast to Nagel's *The Last Word*, Burge's work in "Modest Dualism" and *Origins of Objectivity* does not begin in epistemology. Nonetheless, Burge's view of reason, as it exists in the human psychological capacity for understanding the objective, plays a large role in his stance against materialism. As mentioned above, Burge's discourse with Kobes is primarily focused on whether the weakest form of materialism, compositional materialism, could be true. This is the theory that "...mental states and events are *composed* of physical entities". For Burge, compositional materialism is a "heuristic strategy" grounded in the explanatory success of science, and he distinguishes this strategic use of compositional materialism, or heuristic device, from belief in the position. He takes belief to be entirely unreasonable at this stage of inquiry ("Modest Dualism", 235). He states, "...[materialism] has no positive support in science as applied to propositional thought, and nearly none as applied to consciousness" (236). (Note here Burge's

emphasis on propositional thought, over and against consciousness, as posing the greater difficulty for materialism.) This emphasis on propositional thought is made explicit in the two arguments he offers against compositional materialism.

5.3 Delineating Burge's Dualism

Burge views his own position as firmly dualistic. He states, "I am no type of physicalist or materialist" (249). His dualism is curiously unique in that it is not set against materialism on the basis of purely metaphysical or ontological commitments, but rather on the basis of his respect for science. "Modest Dualism" begins with this emphasis, purporting the tenets of natural science and common sense to be normative guidelines for philosophy: "My methodology requires metaphysical *claims*...to be grounded in specific knowledge that resides in explanations and judgments in science and common sense" (233; emphasis mine). Burge believes that "...our best understanding of what sorts of things exist comes from reflecting on ontological commitments of explanations in science, or clear-cut judgments in common sense" (233). Reflecting this normative framework, Burge holds that philosophy goes wayward when it fails to work within these bounds.

The implausibility of type materialism and token materialism is made explicit by exposing the doctrine of anti-individualism already mentioned, wherein neural correlates do not account for the broader scope of influence enacted upon one's mental states by one's environment. Burge sets forth the qualifications for this most tenable materialism:

The burden on compositional materialism is heavy. It must correlate neural causes and their effects with psychological causes and their effects. And it must illuminate *psychological* causation, of both physical and psychological effects, in ways familiar from the material sciences . . . For the psychological causing event to be composed materially, *psychological* causation must depend on the causation of the material parts in one of the ways familiar from causation in the natural (material compositional) sciences. To *know* that such causation occurs, we must have explanations that take psychological causation to operate in such ways. (241)

For materialism of any sort to be true, even the most modest claims of compositional materialism, the psychological aspects of rationality must be explicable in material terms. This requires that the sort of mind-brain dependence posited by materialism also be attributed to psychological causal features and structures. Science, however, offers no reason to think this picture could be right. Beyond the lack of scientific evidence for materialism, Burge explicates two primary features of psychological propositional thought. In this task the robust nature of rationality is lucidly displayed, and the implausibility of a reduction of such mental features to physical terms is made clear.

5.4 Can materialism ground the causal features of propositional thought?

Burge's first concern is about the conceivability of materially composed structures grounding the causal powers exhibited in propositional thought. These causal powers are exhibited in deduction and predication. Deductive inference exhibits rational causation by systematically transitioning the reasoner's thoughts from one premise thought to another, 'incorporating competence with the logical structures of the premises' to lead the reasoner to the 'thought occurrence that is the conclusion'. Practical reasoning also exhibits a similar causal force in

predication. Burge states, “An individual’s predicating a concept of a perceived particular, in a perceptual judgment, is part of the cause of the individual’s practical reasoning about how to deal with a particular.” (244) Propositional thought in each form—deduction and prediction—exhibits force that is not the force familiar to the sciences. Burge states, “...it is hard to see how the rational aspects of psychological causation can be illuminatingly explained as a material composite of the causal operations of putative neural or chemical components of the inferential process . . .” (241) Present scientific theories only account for physical causation by the powers latent in material composites (245); physical bonds and their powers do not constitute grounds by which logical inference can be justified as truth-conducive.¹³ The *causal* features of the mind are not reducible to any terms available to material science; mental structures and their causal features are qualitatively distinct from the physical; there is nothing inherently logical in physical nature that constitutes the universal validity of the syllogism “ $P > Q$. P . Therefore, Q ”.

¹³ Transformations within the range of physical states (i.e., amongst elements) cannot be analogous simpliciter to the relation between physical composites and thought. When hydrogen and oxygen are separate under conditions x, y and z they are in the gaseous form. When combined under conditions x, y and z they are of a liquid form. In any case, so long as they are composites they are material and have material effects. With the greatest contrast of kind, the mind cannot be taken to be physical any more than mental formations (i.e., judgments and arguments) can be taken to be a distinct novel form emerging out of physical relations. Change in degree or appearance cannot justify an inference to change in kind or reality. For the analogy to be warranted mental capacities, states, and events must be *conceptually* reducible to physical terms. Physical qualities are not mental qualities; atomic motion does not constitute truth-aptness; up and down, fast and slow neural firing cannot ground whether my argument is valid or invalid.

Where materialism seems to have difficulty explaining the abstract nature of causal features in thought, it appears to have a similar struggle in justifying the human inclination to move from the concrete particular to the abstract universal. Scientific theorizing is driven by the promise of a more parsimonious theory. What is parsimony but the ability to account for the greatest number of phenomena through the least complicated theory? What is mathematics but the attempt to deal with the overwhelming breadth of particulars through abstraction and principle—to retreat from the particulars to abstract thought and therein search for theories that are applicable within a broad range of particulars? Here, both scientific theorizing and mathematics, insofar as they incorporate inference, appear causally structured in ways not explained by material causation. Why, and how, is it that a layman, when challenged, can immediately consult objective categories in thought to relate his claim or act in a way that is justifiable before the broad range of men in all times and in all cultures? The human capacity for universal abstract thought transcends the particulars presented to us through the senses, and doesn't seem to be content with the particulars of the world. We want to know whether the sun is going to burn forever, or burn out—whether the sun's effect on the earth's environment is accelerated by humankind's actions. We take ourselves to be right (even at the subjective level), and take others to be right insofar as their thinking accords with our own. Yet, interpretations of reality vary and disagreements persist. We aim for agreement with others, but the means by which agreement is attained is vague. Are we warranted in thinking we can come to agreement with others? I see the causal features of propositional thought as

inextricably linked with issues concerning disagreement and disunity. If materialism is to explain the causal features of thought, in so doing it will need to provide an account sufficient to explain disagreement as grounded in material structure, composition, states, or events.

5.5 Can materialism ground the structure of propositional thought?

Burge's second argument is similar to his first. Is it conceivable that the nature of propositional thought and its structure are conceptually relatable to material compositional structures? (244) Matter has structure through interrelated physical bonds. Burge takes this to be common ground. For compositional materialism to have merit there must be *conceivable* material correlates, or structures, or forces, which can account for rational structure. Physical bonds make up the world. Yet, present science denies that the world is a text and so does not have bonds relatable to a text. (Knowledge of the world is not spoon-fed to us, but it requires interpretation and rational inference.) As such, the rational bonds necessary to theorize and systematically involve oneself in interpretation of the data are not relatable to physical bonds. Interestingly, it is Burge's felt duty to science that obliges him to point out the implausibility of such an idea. To consider his approach further consider the following:

The physical structure of material composites consists in physical bonds among the parts. According to modern natural science, there is no place in the physical structure of material composites for rational, propositional bonds. The structure of propositional psychological states and events constitutively includes propositional, rational structure. So propositional states and events are not material composites. (245)

The ease of this move is sustained by his distinctly robust view of reason. If there is disagreement it will supervene on a rejection of this view of reason; the only way in which to disagree is to doubt the distinct nature of "rational, propositional bonds" which constitute the structure of thought. The implications of such an objection may also be resisted, but are clear. To object on these grounds requires the assertion that propositional bonds are not distinct and so are constituted by their material structure.

On this basis, I take Burge's move as appropriate and justified. To ground one's ability to make any assertion one must presuppose that the rational bonds, by which we offer reasoning for our judgments, are not materially constituted. Further, if these are not materially constituted it seems apparent that the propositional bonds of rationality are not grounded in the material nature of reality. As such, mental structure is *sui generis*, enabling rational cognition—the capacity to obtain the meaning of premises and then infer a meaningful conclusion from those premises. In principle, the physical sciences offer no warrant to materialists to think this problem will be resolved by future developments in science. The gap between the mind and the brain is by all Burgean reckonings a logical gap. On the grounds of scientific integrity, comported with a conviction of the robustness of propositional thought, it is difficult to conceive of any other way to argue for compositional materialism. Hopes to converge mental and physical phenomena seem to rely on implausible hopes of what appears inconceivable on all robust accounts of rationality. For Burge, then, the terms of science create an ironic problem for the

materialist who calls for scientific consistency and yet cannot reduce the rational structure, nor the causal powers of that structure, to something identifiable within the physical sciences.

5.6 Kobes: On Whether it's Conceivable that Mental Events be Independent from their Neural Correlates

In “Burge’s Dualism”, printed in *The Waning of Materialism*, Bernard W. Kobes offers an evaluation of Burge’s cumulative approach to the philosophy of mind, and so offers a compelling context in which to see the weight of Burge’s claims. Kobes is concerned with conveying “a sense of the depth and seriousness” of the elements of Burge’s dualism. He does this and much more, incisively gathering the elements of Burgean dualism into a robust argument against dogmatic materialism. As Kobes argues, Burge’s doctrine of anti-individualism is immediately relevant in that the phenomena central to its concerns appear to exceed the empirical explicans available to the type or token materialist. Anti-individualism exhibits ‘how our natures are determined by norms that reach beyond what we as individuals control’ (215). Indeed, this doctrine makes explicit the “external, objective subject matter, to which thinkers have independent, causally mediated access” (220). Thus, it undermines the subjective¹⁴ mental parameters seemingly entailed by a materialistic view of the mind.

¹⁴ Here, and elsewhere, I intend that the term ‘subjective’ refer to the individual brain. This refers to the subjectively-constituted parameters entailed by its particular position within space and time, and its lack of causal power to enable any mental activity reaching beyond those parameters.

Kobes delves deep into the arguments for anti-individualism. He tightly reiterates the diverse Burgean counterfactuals that, by like agents in twin worlds, convey differences that supervene entirely on environmental differences, evincing no causal dependence on neural differences. Kobes's comments are apposite here,

An objective, mind-independent world can be mentally represented only if the relevant mental states derive their natures in part from the natures of things represented. This derivation of natures is not systematically mirrored in the nature of some local neurological or functional substrate, nor in patterns of individual or communal use, nor in conceptual or linguistic mastery. Instead, there is a 'cognitive distance' between thinker and represented objects, so that mental individuation is directly mediated by non-representational relations between perceiver or thinker and represented objects. (220)

Kobes takes the "cognitive distance phenomena", made explicit in the doctrine of anti-individualism, to exhibit a mental capacity to understand the "natures of objective, mind-independent external objects" (222). There is an argument for anti-individualism implicit here: i) mental representation necessitates that 'mental states derive their natures in part from the natures of things represented', and ii) a neurological substrate is not reflective of the derivation of natures inherent in mental states. From this a conclusion can be inferred: iii) the nature of a neurological substrate is not sufficient to explain the mental representation of 'objective, mind-independent external objects'. This summarizes Kobes's acceptance of Burgean anti-individualism: there is a 'cognitive distance' between thought and the objects being represented in thought since the data necessary for representation cannot be found in the neurological substrate. This distance is

expressed in the gap between non-representational features of reality and the representation of that reality in the mind, and that gap doesn't appear to be materially mediated in any way. The inference is drawn: "environmental differences directly, and not (and not *via*--hence 'directly') the neural differences, *best explain* the differences in individuation of perceptual states" (220).

The force of anti-individualism doesn't stop at type materialism. Kobes argues that, though mental states seem to necessarily draw their nature in part from 'objective, mind-independent external objects', it is 'implausible to suppose that any neural token derives *its* nature in anything like this way' since 'Our most basic ways of identifying neural tokens are through the descriptive and explanatory practices of neuroscience' (220). In affirming Burge's argument against type-identity materialism and systematically applying anti-individualism to argue against token-identity materialism, Kobes seems to bring further reasonability to the idea that the material sciences may be ill equipped for the task of understanding the nature of the mind.

Having concluded that both type and token dualism are unsupported by present science, as expressed in anti-individualism, Kobes moves on to consider how anti-individualism bears on compositional materialism. He states,

Compositional materialism seems to escape Burge's argument against token identity, because the same neural complex may compose one mental token in the actual world, and a distinct mental token in the twin world. Since composition is not identity, a mental event token may derive its nature in part from the natures of represented things in the environment, while the neural event token that composes it does not. (224)

Anti-individualism, then, can be taken to complement compositional materialism. However, Kobes notes that the distinctive explanatory power that the notion of composition commonly plays in science will dictate the necessary manner in which composition explains mental states. (229) Composition is employed in instances wherein the causal necessities at the macro level, of say chemistry or biology, are derived from the causal necessities at the atomic level. Kobes notes further that within the present science mental states are often set forth as explanantia of phenomena, though scientific necessity has never required mental reference to underlying neural events. If compositional materialism is true, it would seem that such need for reference would be obvious. Further, if compositional materialism is true, it is reasonable to require that mental events be explicable in the same terms in which other materially-composed phenomena are now interpreted and explained.

To clarify this point in the debate between compositional materialism and dualism, Kobes borrows from C.D. Broad's hypothetical archangel.¹⁵ Kobes considers a mathematical archangel having "unbounded logical and mathematical abilities" and a complete understanding of the "fundamental physical objects, events, fields, laws, and causes over all space and time"; the powers of the archangel are unlimited and she is able to quickly consider all factors, draw correlations and infer causal relations where they exist (226). Given these powers, if mental events are grounded in (not necessarily predicted, but can be naturally explicated by reference to) neural events and so explicable in material

¹⁵ Haldane, J.B.S. *The Mind and Its Place in Nature*, London: Kegan Paul, 1925.

terms, the archangel would be able to draw upon this connection to derive an intimate knowledge of the mental events since they are materially composed. Kobes states, “Compositional materialism is false just in case the archangel would have to first recapitulate our interpretive practices and intentional psychology, and only then, if at all, seek neural event correlations” (227). If the archangel must be informed of the intentional states apart from what can be derived through neural states, this makes compositional materialism dubitable; this conceivable ignorance of the psychological would be sufficient to constitute mental events as distinct, and so logically prior, in inquiries of mind.¹⁶

Consider Kobes’s example: “Neural event tokens $n1$ and $n2$ may sustain certain intentional mental events, $M1$ and $M2$ respectively, where $M1$ causes $M2$, but $n1$ may not appear to the archangel as, in any illuminating sense, *the cause* of $n2$ ” (229). Suppose that the archangel does not see $n1$ as the sufficient cause of $n2$; perhaps it is that $n1$ is one cause among many, all taken together as sufficient to cause $n2$. The other facts, together with $n1$ constituting the necessary conditions for the occurrence of $n2$, will undoubtedly include environmental factors involved in one’s perceptual representation of the world as described in anti-individualism. If this is right, the archangel will not be able to construct a causal relation between $n1$ and $n2$ without first constructing an account of the related intentionality (representation, or rational predication) involved in $M1$ and $M2$. If compositional materialism is true the intentional mental event tokens $M1$

¹⁶ Kobes is more optimistic than Burge about the prospects of compositional materialism.

and M2 will not only have correlated neural tokens n1 and n2 respectively, but will be derivatives of n1 and n2 respectively and fully explicable as such. Within the metaphysical picture offered by Kobes's archangel it is conceivable that M1 and M2 are not merely derivatives manifest by the underlying neural correlates. The identification of these mental events constitute necessary pre-conditions for the archangel's deriving a causal relation between n1 and n2. Their identity and determinacy, conceived in this picture of scientific inquiry into causation, is independent of the materially composed neural network of the human brain (228). In offering this thought experiment Kobes seems to have delineated the terms of compositional materialism poignantly and evinces the difficulties that might make promises for future compositional explications dubitable.

Furthermore, I take Kobes's argument to exploit an oft-neglected point: correlation doesn't constitute causation. We naturally count our intentional states as having causal power, and rightly so it seems. Present neuroscience, through the materialists' dogmatic interpretation, would have the archangel causally link n1 and n2 citing correlation. Yet, correlation doesn't offer explanantia for the *causal* features the archangel is seeking to account for the constitutive nature of n2 (229). To count n1 as having explanatory power, or offering promise for future explanation, appears to be *ad hoc*. In accounting for the intentional causal relations of an agent, the archangel cannot end inquiry by referring back to the neural level; the "intentional causal relations stand on their own" (229). For Kobes, this constitutes the grounds of Burgean dualism.

Kobes intends this as a thought experiment; it must be noted that the conclusion is dependent on the truth-status of the premises. Yet, it does seem to exploit a radical distinction between the manner in which cognitive neuroscience attempts to account for all events through the causal powers of matter and the plausible need for a more robust causal apparatus to account for the nature of thought and its role in intentional causation. It seems reasonable, then, to think of Burgean anti-individualism, and the individuality of the mental expressed through Kobes's archangel, as together constituting a compelling reason to take materialism as assertion without argument, and offering no causal explanation. Furthermore, this is reason to doubt appeals to neuroscience as argument for even the weakest form of materialism (229). Nagel's call for wonder resounds even here since the empirical sciences seem to offer no *conceivable* way in which to explain rationality.

5.7 Burge: On Materialism and Its Interpretive Tendencies Against the Real Nature of Propositional Thought

Burge and Kobes both exhibit a profound respect for science, its accomplishments and its explanatory power. However, Burge (and perhaps Kobes) strives to conceive of ways in which the causal powers or structures of representational psychology in propositional thought could be understood in terms of physical causality or structures. Given the conclusiveness touted in materialistic explanations of mental phenomena, and the great efforts made by Burge and Kobes to derive such an explanation, it is a wonder that their respect for science doesn't smoothly lead to materialistic parsimony.

One is left to wonder why those who have strongly committed themselves to materialism aren't led in similar ways to doubt materialism's professed scientific basis. Burgean dualism is constituted by Burge's own readiness to let the intentional realities of human life stand on their own ("Burge's Dualism", 229). Kobes records Burge's view of materialism as "a pervasive ideology without clear foundation in either compelling a priori metaphysics or in successful explanatory practices." (216) Burge further executes judgment on this matter in his appraisal of Jaegwon Kim's assumption that the world is 'fundamentally physical':

There are many questions to be raised about this idea and how it is supposed to apply to various cases (the mathematical 'world', the 'worlds of value', right and wrong, beauty, rational justification, semantics, indeed mind).¹⁷

Note here that both Burge (and perhaps Kobes) are noting complex *products* of rationality as being realities jeopardizing, perhaps even defeating, the materialistic worldview. These categories of the objective (mathematical conceptualization, value-theory, rational justification and argument) are concrete examples of the materialists' lack in foundation, and as such may expose materialism's lack in overall consciousness toward rationality and its logical implications as a theory.

Positively stated, rationality is the greatest problem for materialism. The objective categories cited by Burge in his resistance to Kim represent the unique aspects of a human capacity for logical, objective interaction. If this capacity is in fact objective all claims that ground themselves in subjectivity-bound capacities

¹⁷ See Burge's *Foundations of Mind* (2007), 368.

will be insufficient. Hence, a sharper argument emerges if the materialists' subjectivity-binding dogma (theory) can be shown to lack consistency with the materialists' unconscious presupposition of the objective in their claim (practice).

5.8 Objectivity Considered: Can the materialist relate?

I'll leave rational justification aside for a moment and use value-theory as an instantiation of how I understand Burge's concerns over objectivity, with respect to Kim's claim (i.e., Kim's claim that the world is 'fundamentally physical'). There is a *prima facie* tension between the objectivity of rational judgment in value theory and the materialistic inclination to locate such thoughts in the brain. Objectivity in value-theory, then, could instantiate one theoretical difficulty for the materialist. This is an aspect in which the 'theory is under-specified' (to use Burge's words).

Value theory is notorious for heated disagreement because of a propensity to instantiate 'objective principles' as universally applicable in all particular contexts. Can ideological disagreements be accounted for on a materialistic account of the mind? If so, what will a resolution of such disagreements look like? One suggestion may be that disagreement is grounded in thinking truth to be objectively applicable. If this is right, it may be said that such disagreements are avoidable if ideologies are understood as veridical at the subjective level only, as entirely relative to an individual community or person.

To convey this view consider that Jones claims *p*: "Abortion is wrong." Some theorists may cite *p* as obviously subjective, given that *experts* within the relevant field disagree with one another. In response, it may be affirmed by most

that these issues can be explained and resolved through eliminating objectivity in ethical claims *if* such claims are truly grounded in the subjective. However, to say that Jones's moral claim *p* is a subjective claim requires that Jones's reasons for *p* also be subjective. When Jones seeks warrant for the claim *p*, then, she will only cite subjective factors—factors that are devoid of any objective common ground between herself and her opposition. However, this is not the case. Jones, like any human being does not cite the subjective, but the objective.

When we seek to justify ourselves to others, especially to an authority, we reference our circumstance in ways that relate the objectivity of our decisions to those willing to listen. We form ideas about the rights of choice or the rights of life, the rights to property or the rights to freedom, as truths grounded in the nature of those respective persons or things involved. Could it be the case that such conflicts are due to a simple overextension of subjective claims? If so, then why, when challenges arise, is each individual driven to justify his or her claims by appealing to reasoning that can be objectively evaluated for coherence and strength? This account seems to track reasons why non-materialists cite value-theory as an instantiation of the ineluctable nature of objectivity in any claim. Consequently, we are left with a difficulty about how a materialist account of value-theory might begin apart from appealing to objective categories that transcend Kim's ideal of the fundamentally physical world.

The problem for the materialist is very much tied up with the problematic aspects of subjectivism that Nagel attacks in *The Last Word*. The nature of rational judgment naturally (though perhaps unconsciously) inclines us to cite

objective reasons available to all reasoners as the reasons for our judgment that p is true or false. Nagel records the subjectivists' ideology: "Since all justifications come to an end with what the people who accept them find acceptable and not in need of further justification, no conclusion, it is thought, can claim validity beyond the community whose acceptance validates it." (4) Nagel addresses this subjectivist claim in the following way:

The essential characteristic of reasoning is its generality. If I have reasons to conclude or to believe or to want or to do something, they cannot be reasons just for me—they would have to justify anyone else doing the same in my place... But for any claim that what is a reason for me is not a reason for someone else to draw the same conclusion must be backed up by further reasons, to show that this apparent deviation from generality can be accounted for in terms that are themselves general... Ideally, the aim is to arrive at principles that are universal and exceptionless. (*The Last Word*, 5)

Contrary to subjectivism, parameters¹⁸ don't disconnect one from objective features of reality, but instead tie one to it; such parameters only affirm that one's subjective experience is buried in the particulars of objective reality. These parameters may be unique. Yet, Nagel's point is so fitting: where one's actions are questioned within a context, one will be required to provide objective justification sufficient to show that another would be justified to act similarly under similar conditions. For example, where one's actions are in question by a just court, one may be declared innocent if one provides reasons sufficient to warrant one's actions. That is, if my actions are in question I must show that another would be justified in doing the same in my place. In the face of suspicion

¹⁸ By 'parameters' I intend to denote the scope of limitations inherent to a subject. For example, a material subject or substance will inherently be limited to the parameters of time and space in which it inheres.

or prosecution, despite all the subjective factors of my unique circumstance, to account for another doing the same in my place I will be led to “arrive at principles that are universal and exceptionless” that warrant my actions.

In this light, perhaps one may better relate to Burge’s expressed doubt that materialism can arrive at such principles. Value-theory is only one instantiation of the robust features of rationality that presents a great problem for the materialist.

Furthermore, one might give more careful attention to the nature of rational justification. No syllogism or inference—philosophical or scientific—can be formed without some reliance upon objective logical form and universal concepts. If this is right, to give up rational claims, as dependent on one’s ability to grasp the objective, would be to give up one’s ability to cite reasons as explaining one’s choices. As Kobes notes, this would be to give up on one’s rational deliberation having any point.

It seems somewhat obvious at this point that if one is to be a subjectivist about the human mind and its claims, in theory or in practice, it is unclear how they could *consistently* participate in human life. Burge’s resistance to materialism on the basis of objectivity (of which value-theory is one token) reaffirms my contention that our claims (as beliefs, or mental acts) must be grounded in a metaphysic of the mind that coherently affirms the capacity to make such claims. With Burge, I doubt that materialism can offer an account of rationality that epistemologically grounds the objectivity of its claims.

5.9 Further Consideration of *Origins of Objectivity*

One final note can be made concerning Burge's most recent work, *Origins of Objectivity* (2010). One might take him to suggest that a natural, or evolutionary, development of the material brain, *via* material processes, can account for the human capacity to "think infinite thoughts" (to use Nagel's phrase). Burge states, "...animal agency gains a primitive type of objectivity when non-representational relations to the environment and pre-representational psychological structures yield perception." (548) This certainly could be taken to be causally relating the origins of perception to the origins of objectivity in the human mind. However, this is inconsistent with what we have already seen developed in "Modest Dualism"; a move linking perception and rationality through a naturalistic process doesn't answer how matter, as constitutively local, could conceivably yield a capacity for the sort of objectivity involved in propositional structures and causality, conceptualization and veridicality.

An alternative interpretation is more plausible, taking Burge's comments to be about perceptual objectivity (e.g., acting upon a perceptive certainty that there are two lions and not just one) and not conceptual objectivity (e.g., knowing that logical integrity precludes contradicting oneself; that any observer can look over my shoulder and evaluate whether I am understanding the concept of '2' or 'circle'). Since Burge is speaking of objectivity as grounding the perceptual apparatus of other forms of life, one might ask about the distinction between humans and the rest of the animal kingdom. Why is perceptual objectivity not sufficient to constitute the propositional attitudes of humans? A sufficient answer

to this question seems to yield an interpretation that rationality, and the *sui generis* objectivity that follows from it, constitutes a form of life that is not reducible to a materialistic account of rationality as base intentionality. I'll draw again on a powerful passage from Burge's *Origins of Objectivity*,

Perception, unsupplemented by propositional thought, cannot engage in representation that is functionally independent of a role (either an attributive role or a singular applicational role) in contextually referring to particulars. Perception is essentially, at every point, context-bound singling-out of particulars. Its attributions function in presenting particulars. (542)

One might add the necessary inference: "...and as such cannot account for the origins of rational objectivity". Perception and conception are constitutively distinct in Burge's account, and so affirm the distinctive roles in his dualism, wherein propositional thought cannot be related to physical bonds or their causal features.

CHAPTER 6

A CRITIQUE OF NAGEL'S MONISM

To draw back again and see the forest for the trees, reconsider what is being asked in the philosophy of mind. *Is the gap between the physical and the mental logical or empirical?* As will be seen, neither Nagel nor Burge offer a solution with certainty. Burge's position has been portrayed as a firm-but-modest dualism that sees no room for materialism. On the basis of the structural and causal aspects of rationality, and the entirely distinct notions of present science concerning the structure and causal features of the physical world, Burge concludes that the two cannot reduce or converge under the terms of our present understanding of science. He states,

Causation associated with material composites is, to all appearances *constitutively, not* causation that involves rational, propositional structure. And it is a principle of physical nature that physical structures of material composites are *constitutively not* rational, propositional structures. So it appears that psychological causation by propositional states and events is *constitutively not* causation by material composites. And it appears that propositional psychological states and events are *constitutively not* material composites. (246)

Nonetheless, Burge does permit the *possibility* that the gap is empirical: "Perhaps the situation is simply a product of our ignorance" (238), and again, "Perhaps developments in empirical science will show how to overcome them" (246). But after making the latter statement, he goes on immediately to say, "But the development would have to be fundamental". This conveys his contention that materialism, as presently held and argued for, is not scientifically supportable. Its support would require what is now counted to be fundamental in science to be

uprooted and replaced with something entirely other. This is to say that for materialism to be true, a fundamental shift in scientific principles must occur beyond any other shift science has known, and nothing less.

Though he offers a congenial nod to remain open to a possibility, Burge emphasizes his doubts and so reaffirms his dualism,

In fact, propositional psychological states and events are what they are through their having logical forms. None of the primary attributes that we cite in theorizing about them--including logical forms--are cited as physical structures in the natural sciences. I see no clear sense in which propositional psychological states or events are physical. (249)

For Burge, no form of materialism presently at hand can stand in the face of the present claims to knowledge, whether that is in philosophy, science or common sense. For materialism to be true, given the lucid distinction between material and mental qualities, the elemental features of the material sciences would undergo destruction. More specifically, the nature of the terms of science would be indistinguishable so as to include that which is now distinguished. The terms of science would be forced to include that which cannot be reduced now; 'matter' would include that which cannot be empirically sensed, verified or understood.

It isn't perplexing or mysterious that when we come to consider Nagel's ontology we find he is making such an appeal. Because of his robust view of rationality, materialism is precluded without possibility. His "Psychophysical Nexus" could be argued to be a call back to wayward philosophers, who have drifted from a conscious affirmation of the delineated conceptual boundaries of 'matter' and 'mind'. He aims to bring peace between dualists and materialists.

Both do capture very real *aspects* of the world, and neither position is right in its claims to know what is fundamentally real. The physical and mental as now understood are mere aspects, or distinct manifestations, of the real substance that lies at the base of reality. A short review of Nagel's "Psychophysical Nexus" will suffice to capture the essence of Nagel's solution.

In his "Psychophysical Nexus" Nagel affirms the reality of mental events as non-physical, and yet affirms a novel form of monism that cannot be defined as physical or mental. His rejection of dualism is based on his theory's major premise: "The inadequacy of those concepts [physical/mental concepts as mutually exclusive] is revealed by their incapacity to display a necessary connection that obviously must exist" (48). This premise is supported through a Kantian distinction between the first-person phenomenological experience of consciousness and the third-person experience of physiology and behavior. The second premise points out that both physicalism and dualism fail to uphold this necessary connection; neither reality can be reduced to the other and both must be affirmed as interdependent. The only way the debate can move forward is by postulating the existence of a theoretical substance entirely unknown in the terms of our present framework; that is, hypothesize a theoretical substance that realizes the fundamental reality that transcends our current limited concepts of "mental" and "physical".

Nagel rejects dualism because he believes there to be a necessary connection between the physical and the mental. Nagel states,

...this is the main point, while it is obviously not conceptually necessary that conscious mental states are tied to specific neurophysiological states, I contend that there are such connections and that they hold necessarily. They are not conceptual, and they are not discoverable a priori, but they are not contingent. They belong, in other words, to the category of a posteriori necessary truths. ("Psychophysical Nexus"7)

Nagel's postulation supervenes on the assumption that this connection is necessary. Rather than seeking to argue for it in a substantial way, Nagel's article builds on Kripkean analogies to make the idea reasonable and then seeks to explain how it *would* work. However, to Nagel it is admittedly a fact only knowable *a posteriori* by empirical means, and so is yet to be discovered. For now, then, the postulation, though it may be objectively necessary, seems contingent to those in the present scientific paradigm.

As I see Nagel's cards, the deck is getting low. He has embraced a robust epistemology and wondered at the objectivity and universality of the thoughts we think. His judgment against materialism has been supported by both Burge's anti-individualism and accounts of psychological causation and bonds. However, upon dismissing even the weakest form of materialism, Nagel would have us *assume* a necessary connection between the mind and brain. Why not embrace dualism? It may be said, "Well, dualism doesn't affirm the necessary connection between the mind and brain", and such a statement would beg the question. Nagel has assumed a necessary connection. He has not argued for it. How do we know there is a necessary connection between the mind and brain? Well, it must be so, mustn't it? No. I don't think it must.

Nagel's appeal is permitted within the present terms of philosophical scholarship. I will argue that it should not be. My argument supervenes on a conviction that tentative appeals to a future science are unwarranted in cases where fundamental concepts would have to be abandoned. There may be ambiguity in the use of the term 'concept'. By 'concept' I'm denoting that essence of a thing that the mind grasps, that all members have, that only members have, that distinguishes them from non-members. I will argue that matter and mind are fundamental concepts of substance and that no third category is theoretically conceivable.

Traditional philosophical categories affirm mind and matter as properly basic substances by categorizing relevant positions as follows: i) idealism (all is mental; no fundamentally distinct physical substance), ii) dualism (both mental and physical), or iii) materialism (no fundamentally distinct mental substance; all physical). If this is right, it should be noted that it cannot be the case (by terms of sub-contraries: some is matter and some is non-matter) that both mind and matter are false substances.

It may be argued, however, that this is begging the question and that Nagel's move calls these traditional delineations into question because they are not properly basic. In this view, a Nagelian revolution would be analogous to those conceptual revolutions that have brought success to material science in the past. Undoubtedly, in a scientific revolution our previous judgments and paradigms come under fire, and often times our concepts are shown to be poorly

formed. Perhaps, in this respect a Nagelian revolution would be like other scientific revolutions.

However, I contend that Nagel's approach is not like those already contributing to the success of science. There is no contention in my account with the scientific success of postulating theoretical entities as real. Without Newton and others questioning the foundations of their contemporaries, science would never have blossomed. Successful postulations have questioned both religious dogmas (i.e., Biblical interpretation against a heliocentric solar system), and common sense claims so-called (flat earth). This critical use of reason toward false foundations seems to be a key feature of healthy science.

As I noted above, my use of 'concept' in this section should be distinguished from other common uses. Specifically, I do not want any ambiguity in use of the phrase 'conceptual revolution'. No scientific revolution has been a 'conceptual' revolution in the sense about which I'm concerned; no revolution has been similar in nature to the 'conceptual' revolution Nagel suggests. Simply stated, all scientific revolutions to date have occurred within the scope of what we understand as *material* science. No scientific revolution has tinkered with the fundamental structure of reality and denied that both matter and mind are non-substances. Furthermore, on this point, paradigm shifts in science appear to be entirely rooted in the questioning of contemporary assumptions *about* a substance, and not about whether such a substance is in fact a substance. For example, one might think of Copernicus's conceptual genius and see that the genius was in part due to his understanding the particulars of a system and the motions of bodies

within that system. From this understanding, he was able to offer a plausible alternative that could save the phenomena. It was not a ‘conceptual revolution’ akin to that proposed by Nagel.

The successes of science, then, are not founded in any skepticism toward the concepts themselves, but about whether those concepts are properly formed or fully formed; questioning the appearance of the earth’s shape to get at the material reality is not questioning the conceptual framework distinguishing between terms (‘flat’ or ‘round’, ‘square’ or ‘circle’) that provide the foundation for thought, discussion, and theory. Even the debate between Cartesian mechanism and Newtonian attraction was one in which *material processes*, however defined, were ascribed with the causal explanation.

With stark contrast to the plentiful examples of scientific progress, Nagel’s postulated ‘substance’ must contain the *essential* qualities of both that which can be empirically sensed (i.e., features of matter and energy) and those “mental parts and wholes” that Nagel himself takes as necessary to account for “nonspatially defined processes and functions” (“Psychophysical Nexus”, 62). The problem, then, is more fundamentally a problem of logical coherence than it is of scientific plausibility. To make his case logically plausible, Nagel needs to explain the obvious—how is it that one can logically conceive of a fundamental substance that naturally exhibits both spatially defined processes and functions, which are inherently empirical (and so empirically detectable), and also exhibits the mental qualities necessary to account for the ability to evaluate an argument for soundness? It appears that these categories (empirical and non-empirical, that

which is governed by physical law and that which is not) are properly basic. If this is right, Nagel's postulated 'psychophysical nexus' undermines both philosophy and science by denying those basic distinctions necessarily maintained in order to uphold meaningful thought about substance.

Nagel's suggestion is understandable given his denial of materialism, taken together with his commitment to a necessary connection between the material brain and the mind. Though his denial of materialism appears to have support, his suggestion that there is a necessary connection between the mind and the brain lacks similar status. This latter postulation is an appeal to an unknown that entails an apparently inconceivable natural reality. It seems more reasonable to consider that the connection is contingent, and not necessary. We have no reason to concede and every reason to doubt any such neutral monism (or dual-aspect theory).

Furthermore, though Burge may entertain such philosophical ideas, the way in which he defines philosophical modesty doesn't seem to permit such a postulate to endure. His admonishment against wayward philosophy may be helpfully applied here to support the critique of Nagel's appeal to an unknown. Though *interrelation* between mind and matter is obvious in many ways, there is no warrant for inference to a necessary connection. As such, Nagel's call for a *conceptual* revolution clashes against Burge's criterion that all metaphysical *claims* maintain a commitment to science and common sense (233).

CHAPTER 7

COMPLEMENTARITY OF NAGELIAN AND BURGEAN VIEWS OF RATIONALITY

7.1 Agreement Broadly Construed

Nagel and Burge agree in the broadest sense. The physical, as presently understood in the natural sciences, cannot accommodate the reality of the mental. It is in all presently conceivable ways an ontological gap, and not an epistemic gap. Rational categories of judgment (i.e., true and false) are “nonspatially defined processes and functions” (“Psychophysical Nexus”, 62), and as such do not have spatial extension or neuro-scientific verifiability. A form of life that naturally exhibits mental constituents necessary to account for the ability to evaluate an argument for soundness cannot be explicable through primary reference to spatially-extended compositions or their functions.

Rational intentionality conjoins the force of Nagel’s epistemology and Burge’s metaphysical dualism. The material brain and its environment cannot in any consistent manner account for rational intentionality, exhibited in mental states and events, by reference to type or token neural events. This is supported in Burge’s and Kobes’s developments of anti-individualistic phenomena, wherein they expose type and token materialisms as failing to account for the direct relation between one’s mental states and one’s environment. Yet, as Kobes shows, the rational force of anti-individualism against compositional materialism remains unclear at best. Yet, Nagel’s epistemology unveils a deeper strain of thought that undergirds robust non-materialistic accounts. This deeper strain of

thought is typified in Burge's dualism, grounded in the individuation between physical types and tokens and their mental correlates, and is fundamentally rooted in rational intentionality.

Burge's commitment to a modest dualism also contributes to a deeper individuation between perception and conception. This distinction contributes to an even deeper understanding of rational intentionality as constitutively distinct from perceptual activities of the brain. We can consider compositional materialism once more in the form of an appraisal of the brain. We are faced with the following question: Can the material composition of the brain conceivably account for the robust nature of rational intentionality exhibited in human thought?

7.2 The Brain as Local and its Referential Capacities as 'Context-Bound'

In Burge's study of perceptual forms of objectivity he concludes that perception is inextricably tied up with perspective, and with the particular.¹⁹ Perception, as an act entirely constituted by the brain, is local and so its references cannot exceed the context in which they are buried. Yet, in materialism the brain is often alluded to as constituting the natural ground for thought in a hand-waving sort of generalization—objectivity in conception is *somehow* related to, supervenient on, and so constituted by, objectivity in perception. Under such a generalization there is no real distinction between base intentionality and rational intentionality and so there is no real mystery about the nature of thought.

¹⁹ See subsection 5.1 titled, "On *Origins of Objectivity*".

Burge and Nagel are presumably of one mind with materialists in taking the brain to enable subjects to perceive and to relate those perceptions. Furthermore, there may be a variance in our capacity for perceptual objectivity and memory that results in a variety of interests and skills. I'm thinking now of the savant Stephen Wiltshire, who in a recent year spent 45 minutes in flight over Rome and thereafter drew the city in all its particular splendor, in uniform perspective with a 180 degree view. Few of us have the capacity for such grand tasks, and one would be naïve to deny that the *brain* is an amazing wonder of the natural world. As such, it is granted that the brain enables sentient beings to accomplish grand tasks in all acts of base intentionality. However, it will need to be reconsidered in greater detail whether such intelligence is *ejusdem generis* with rationality.²⁰

Burge does not deny that the individual brain's ability enables objective perception according to one's perspective. Both he and Nagel will affirm this capacity of the brain and the importance of base intentionality in a thinker's interaction with the world. The brain's influence is made obvious by damage or decay of the brain that adversely affects one's intellectual powers. However, neither philosopher is satisfied with any naturalistic account reason or the mind that would in turn reduce rational intentionality to terms relatable to the physical sciences. There is a robustness in thought as the capacity for the objective—for meaning and truth—that is not satisfied by any account that takes such capacity to be explainable in terms of a materially-composed object.

²⁰ See section 5.9, "Further Consideration of *Origins of Objectivity*".

Identity theories are bound to what is reflected in the material states of the brain. However, there is environmental influence continually enacted upon one's mental states not immediately reflected in neural states. Materialists may then hope that compositional materialism is prepared to handle this burden. Yet, even as the most plausible form of materialism, compositional materialism is still bound to the context of perception, of perspective, and of particulars. It is one thing to perceive correctly, or to be perplexed by the color scheme as it hits a prism. It is entirely another, to abstract from perception the concepts necessary to hypothesize and conceive of the circumstances in which the nature of light could be better understood (e.g., Newton). No localized account of the brain can account for the capacity to transcend the particulars of numbers and arrive at a universally applicable proof that cannot in any way be doubted without doubting the fundamentals making up the system (e.g., Euclid). Though a materially-composed apparatus (*viz.* human brain) may be described as a tool relied upon in thought, thought cannot be described in the subjective terms necessary to relate the capacity (i.e., thought) to its presumed ground (i.e., the brain) without losing its essence. The brain, as essentially local, cannot rationally ground (or even warrant) such presumption about the objectivity inherent in human thought.

If we are to take ourselves as capable of knowing, or of being able to cite good reasons for plausibility, the brain cannot be our metaphysical ground. There is nothing in the physical sciences to sufficiently describe how spatially-defined relations between matter and energy in the human brain and in one's environment could enable a human to make an objective judgment and ground warrant for their

believing such a judgment to be reliable. In such a context, all human mental representation is perceptual, wholly concerned with the particular and what is contextually salient. Ironically, under this schema even this judgment (that ‘all is perception, particular, and pragmatic’) would be unwarranted as an objective claim since there is no way for me to transcend my local substance. All references to the objective, even claims about what is practical or what is a language-game, cannot exceed or transcend the context or perspective in which they are uttered. The brain is constitutively unable to ground any objective rational thought at all.

The spatial and temporal locality of the human brain cannot ground a claim that there can be no square-circle, or that there is no ‘A’ that is a non-‘A’. Nor can it justify my claim that “*x* is useful *to me*”, since the claim’s objectivity requires that any other in similar circumstance to mine (all things being equal) finds it useful as well. The brain cannot reach this far. Yet, in any consideration of such claims—whether such claims are denied, affirmed, or even questioned without any conclusive judgment—one implicitly presupposes that the truth-value of the proposition is *knowable* and that one is a possible knower of such truth.

Conclusively, human rational functions cannot be reduced to complex sorts of cognitive puzzle-solving, like drawing ants out of a hole with a stick. In an active human mind there are functions occurring that move beyond the stimulus of the moment, beyond the variety of motions perceived in the material environment. There are thoughts that transcend the particular and the perspectival. Attempts to grasp the objective are seen in assertions, or judgments.

Fundamentally, in distinguishing one concept from another, making judgments, and forming arguments, humans manifest a presumption about their ability to attain to knowledge about objective states (e.g., whether the mind is material or immaterial). These mental events exhibit the human capacity to evaluate claims in light of universally-applicable laws. If rational intentionality is only a complex form of the capacities that are explicable in terms of the material composition of the brain, and humans cannot attain to the objective by another means, then consistency requires that humans not make judgments or claims, or form arguments in support of those claims. In such a localized framework humans would be limited to perception within the immediate spatial and temporal context in which one finds oneself. By inference, if rational intentionality is reducible to base intentionality, and all claims are based upon brain capacity, we cannot consistently attempt to apply our ideas across space or time. All is perception and desire. Philosophy and science are impossible. The particulars can only be seen, grasped and felt, and no thing is understood.

However, if there is such a thing as rational intentionality distinct from capacities explicable in terms of the brain, and humans have this capacity as exhibited in mental acts of rationality, then *and only then* is there consistency in making judgments and claims, and forming arguments in support of one's judgments. Furthermore, this is confirmed amongst every conceivable pillar of truth—from *a priori* disciplines, from empirical science, and from common sense. There is no rational support for taking the material brain as necessary or sufficient for acts that transcend the realm of perception and of the particular. Such acts, if

they are justified, preclude any theory of the mind that cannot account for the capacity of the human mind to move beyond one's senses and beyond the particular. The objectivity presupposed in any claim, therefore, requires a theory of the mind that can ground the capacity for the objective, for rational judgment, and for argument.

7.3 Remarks Concerning Rationality as Grounds for Dualism

To this point, the primary concern has been to explicate the positions of Burge and Nagel. In doing so, it has become apparent that both exhibit a similar interest in rationality as a means to argue against materialism. Burge's case is fairly straightforward in his belief that the localized features of the material brain offer science no means by which to understand the nature and function of the mind seen in propositional thought. Further, he appears to maintain a distinction between perceptual objectivity and conceptual objectivity that nullifies the force of materialistic claims to the brain as ontologically prior to the mind. The conviction with which he holds this position is evinced in his stance against dogmatic forms of materialism. Nagel shares this antipathy. I take Kobes's account to build upon Burge's arguments, but to further support his position with more detail. Nagel's lengthy explication in *The Last Word* provides a robust account against skepticism, subjectivism, and naturalism about rationality, and in so doing offers reasoning toward the rejection of materialism entirely independent of his more work on qualia. In its own right, his work offers a foundational context in which to view Burge's anti-individualism; the robust Nagelian explication of rationality grounds Burge's claims even more by offering pellucid,

concrete applications. Such applications serve to convey the objectivity of rationality, as presupposed by all who think and speak. Together these recent philosophers constitute a formidable ground for a clear argument for dualism that doesn't seem to be easily resolved by materialists.

By linking perception and the particular and illuminating a distinction between perceptual objectivity and our rational capacity as humans to form judgments and arguments, Burge lays a foundation for a unique argument against materialism. Can a purely materialist account offer any *ground* explicating the human capacity to grasp concepts which are not particular? Further, can such an *account* offer an answer to those who take perception as local and of no relation to the capacity of the human mind to attain to the objective? Burge and Nagel seem to be carrying the torch for a countercultural resistance in philosophy that doesn't see any hope for a view of the mind as grounded in the material sciences, and further affirms the human capacity to transcend the localized features of the brain and of perception.

The question is now about the responses of materialism concerning rationality. Do their responses give reason to believe they can answer such an argument? Let's now consider the appraisals of intentionality by materialists Daniel Stoljar, John Searle, and Paul Churchland.

CHAPTER 8

CAN MATERIALISM ACCOUNT FOR RATIONALITY?

8.1 Materialistic Evaluations of Intentionality

Burge's anti-individualism gives great strength to the notion that identity theories are false.²¹ Even compositional materialism has a heavy burden with no presently conceivable hope of breaking through to an explanation. Nonetheless, disagreement remains, and there are plenty of type and token materialists to keep the position alive and well for a generation to come. Is there a presumptuousness amongst these philosophers—an unwillingness to accept the materialists' arguments from science—or are materialists not willing to note and consider the arguments against their position?

Prior to considering the materialistic approaches to rational intentionality, we can sketch the general form of argument that any form of materialism must take in attempting to account for rational intentionality. Premise 1) If there are rational phenomena and no immaterial nature or force exists THEN rational phenomena are explainable through the material sciences; premise 2) There are rational phenomena and no immaterial nature or force exists; THEREFORE, 3) rational phenomena are explainable through the material sciences. It should be noted here that the conclusion (3) necessarily entails some sort of naturalistic explanation of rational intentionality. Such explanation would require that

²¹ In "Modest Dualism" Burge argues that a type or token neural event, because of variant causal histories, can occur even while the mental event with which it is to be identified doesn't. On this basis, he states, "...the neural event is not identical with the original mental event" (234). This is in agreement with Kobes. From here he shifts his focus to consider compositional materialism.

rational intentionality be understood as reducible to or supervening on material terms or functions, or explainable with reference to material composites.

However, there are necessary implications if such an explanation is to be taken as true, or plausible. Since materialistic terms abrogate causal features inconsistent with the fundamental powers natural to matter, the way in which we understand mental states and their causal powers must be consistent with the nature of the material in which these mental notions ground themselves; rational intentionality must fundamentally fall under the category of that which is governed by physical law.

The framework of the argument for materialism (above) conveys presuppositions about two aspects of human existence. Materialism: i) explicitly affirms the material world as real, and also ii) implicitly affirms rational intentionality in thought, speech and, more explicitly here, claim-making. A fundamental tenet of materialism requires that all phenomena be identical to, or composed out of, matter. This would also have to be true of rational intentionality and, more specifically, of our claims. Rational intentionality, then, must be explainable with reference to the fundamental powers natural to matter. As we'll see in the token materialistic arguments offered, to make this work reason must be naturalized or minimally made to conform to powers that are essentially understood according to physical laws.

In Stoljar's article *Physicalism*²² he distinguishes between qualia and intentionality, and then goes on to state, "...it is important to note that most philosophers don't consider the issues of intentionality as seriously as the issue of qualia when it comes to physicalism . . . As Chalmers notes (1996; p.24),...the intentionality issue is a *problem*, but the qualia issue is a *mystery*". As a result, the reader is led to think that intentionality presents no mystery amongst philosophers of mind, and so is likely not worthy of further consideration.

Of course, for Nagel and Burge, intentionality presents a *much* greater mystery than has been noted by Stoljar. Nagel wonders at how the finite mind could contemplate infinite thoughts (*The Last Word*, 74), and Burge cites his view as having "...appreciation of the deep differences between rational structures and physical structures" ("Modest Dualism", 250). This *mysterious* nature of the human mind seems to be a very substantial concern to Nagel, Burge and Kobes. By contrast, given Stoljar's treatment, it's fair to assume that the broader scope of philosophical literature treats rationality as relatively basic and unproblematic for materialism.

Taking what has been said above, the concern is about our concept of substance. Can the presently conceived notion of material substance explain the human ability to logically conceive and derive meaning according to an objective standard, which is distinct from any particular aspect of the physical world including the individual brain? Further, can the sciences in like manner account

²² Section 14: "The Case Against Physicalism II: Meaning and Intentionality", Stanford Encyclopedia of Philosophy

for the human capacity to judge the thoughts of others to see if they satisfy the *objective* standards of reason? Consider humankind's ability to derive meaning from scientific classification, hypothesis, and success. How is Newton's discovery—his use of universal concepts including the essence of light and of a prism, and his ability to isolate phenomena--to be accounted for and more particularly explained in material terms? Consider our ability to have mathematical certainty, to evaluate and believe or deny Euclid's conclusion. This is not an issue of first-person, subjective perception (i.e., qualia) that exists in animals and humans alike. It is not the mere ability to perceive, but to treat these perceptions logically—to interpret one's experience, make judgments, and form arguments in an *objectively* critical way that arrives at claims about the essential way things are from all known perspectives. For materialism, this ought to be recognized as both the mystery and the problem. Yet, in Stoljar's survey of arguments for dualism, concerns about the objectivity of propositional thought do not arise.

Second, consider John Searle's analysis of intentionality,²³

What I want to do...is bring the whole issue down to earth. If you ask, how is it possible that anything as ethereal and abstract as a thought process can reach out to the sun, to the moon, to Caesar, and to the Rubicon, it must seem like a very difficult problem. But if you pose the problem in a much simpler form, How can an animal be hungry or thirsty? How can an animal see anything or fear anything? Then it seems much easier to fathom. We are speaking...of a certain set of biological capacities of the mind . . . But in explaining how brain processes can cause feelings of thirst, we have already explained how brain processes can cause forms of

²³ For context see chapter titled "Intentionality", pages 112-135, in Searle's *Mind: A Brief Introduction*. (2004).

intentionality, because thirst is an intentional phenomenon . . . The basic forms of consciousness and intentionality are caused by the behavior of neurons and are realized in the brain system, that is itself composed of neurons. What goes for thirst goes for hunger and fear and perception and desire and all the rest. (*Mind*, 115)

Searle has not answered Burge's or Nagel's concerns. He's has only attempted to argue for a naturalization of reason—the very operation they've considered themselves and found to be impossible, perhaps absurd.

Consider: for a deer to act it must *perceive* the scent and, based upon what can be identified as neural impulse (which for Searle constitutes the feeling of thirst), act to fulfill the biochemical desire represented in, or constituted by, the brain state. This is categorically distinct from my having the logical structure allowing me to *conceive* of numbers, of being and time (universal concepts), and of the principles which universally apply to each of these; it does not in any way seem reasonable to reduce my *conception* to a material, neuro-chemical complexity. The difference between perception and conception is a difference in *kinds* of intentionality, as relatable to the distinction between the perceptual capacities of the senses in the realm of the particulars and the conceptual capacities involved in grasping a concept, or judgment, or argument, and evaluating or believing it. These latter operations, those of conceptual capacities, rely on the mind's capacity for universals.

Paul Churchland offers his own materialistic attempt to account for rational intentionality, and it is notable in offering an alternative account of rational intentionality that does not explicitly reduce this capacity to perception or desire:

...Consider first our capacity for mathematical reasoning which so impressed Descartes. The last ten years have made available, to anyone with fifty dollars to spend, electronic calculators whose capacity for mathematical reasoning—the calculational part, at least—far surpasses that of any normal human. The fact is, in the centuries since Descartes’ writings, philosophers, logicians, mathematicians, and computer scientists have managed to isolate the general principles of mathematical reasoning, and electronics engineers have created machines that compute in accord with those principles. The result is a hand-held object that would have astonished Descartes. This outcome is impressive not just because machines have proved capable of some of the capacities boasted by human reason, but because some of those achievements invade areas of human reason that past dualistic philosophers have held up as forever closed to mere physical devices.

Although debate on the matter remains open, Descartes’ argument from language use is equally dubious. The notions of a *computer language* is by now a commonplace...Granted, these artificial ‘languages’ are much simpler in structure and content than human natural language, but the differences may be differences only of degree, and not of kind. I do not mean to suggest that truly conversational computers are just around the corner. We have a great deal yet to learn, and fundamental problems yet to solve (mostly having to do with our capacity for inductive or theoretical reasoning). But recent progress here does nothing to support the claim that language use must be forever impossible for a purely physical system. On the contrary, such a claim now appears rather arbitrary and dogmatic... (15-16)

Churchland’s sentiment here exemplifies the reasonings behind a major contemporary push toward artificial intelligence. This fascination with artificial intelligence (though faultless in itself) is often used to argue for an identification of intelligence with rationality. As Churchland’s account of rational intentionality shows, the concept of rationality is narrowly defined as essentially a computational capability. Here, reason is reduced to calculation and a description of the facts. Under such a schema, what is important is “what works”. Reason, as such, has no scope beyond a utilitarian function to optimize that which is valued

individually or corporately. Furthermore, for a purely physical system such value is in optimizing duration and quality of life for that physical system or network.

However, there should be little contention in stating that calculation and its resulting practical fruit are not fully satisfying to the rational mind.

Computation does not ground questions like: “How do I know?”, “What is real?” or “What ought I to do?” The rational mind demands meaning, and is compelled to work toward a deeper theoretical understanding of reality as it coherently accords with (but is not identical to) the practical aspects of life. Materialists and non-materialists alike continue to aim for a coherent interpretation that encompasses all known phenomena. When coherence in a belief system is attained, that understanding is what is fundamentally fulfilling and practicality results secondarily as a consequence. Reason is a transcendent feature of humanity, not a calculative function, and as such manifests itself in the desire for an objective understanding of reality.

By referencing meaning here as a coherent understanding of the reality in which we live, I intend to connect with the unique aspect of human thought exhibited in grasping concepts, making judgments and forming arguments. This is not reducible to calculative powers or linguistic abilities embedded in a device through the efforts of an external mind. When I speak into a recorder the recorder is not speaking of its own accord, as if it has its own thoughts. A painting is not a reflection of the capacities in the medium, but in the artist. The capacities of a calculator don't exhibit any material capacity to use reason, or to find meaning or settle disputes through its use of reason. Such devices merely evince the *human*

capacity to understand *objective* principles and coordinate those principles with the particulars of matter to bring about a tool that can aid me in my relevant purposes. In this way the calculator is essentially no different in its function than a very complex abacus. The abacus gives a resulting output when I use it according to principles of numeration that I understand. The calculator cannot be said to *understand* the operations any more than the abacus. A computing system (binary or quantum) is not *taught* to read language. Instead, they are formed with the function to interpret that language, and at most may be programmed to derive more complex operations through consistency with *given* principles.

Furthermore, computing systems may be formatted in such a way as to become more precise in operations over time, through emulation, as if it were learning, but again it must be remembered that this process is made to conform to the principles understood by the human mind and not by the computer itself. The function of the computer supervenes on the *maker's* purpose and not on some putative purpose of the functioning apparatus.

The result of this consideration shows more clearly that materialistic interpretations of rational intentionality must theoretically abrogate it (e.g., Searle), or limit it to some capacity that functions in a way related to the base intentionality of physical systems (e.g., Churchland). These attempts at reduction do not account for our need for a coherent understanding of the world. Rational intentionality, as has been shown, is that capacity to reach for an understanding of reality according to objective principles of thought that are essentially

distinguished from all other base forms of orderly behavior, and complex function as seen in other sentient beings.

To be fair, my distinction between base intentionality and rational intentionality is claimed by many to be innate to the functions of other intelligent life forms. It may be asked whether such a distinction can account for 20th century work with animals and language. To engage with this concern, consider Josep Call and his study on great apes. The apes may be thought to clearly show an ability to conceptualize, judge and even obtain warrant in argument in the form of a disjunctive syllogism. The ape evinces behavior showing perceptual relation to a perceived object, and more importantly a complex ability for perceptive interaction. An apple is put into a box, and another box is empty. The boxes are swapped around to cause uncertainty. One perceiving the ape sees him reaching for a box. This behavior exhibits rational thought, perhaps: “Either the apple is in *this* box or in *that* box.” The empty box is handed to the ape. The ape sees it’s empty and then reaches for the other box. This behavior exhibits apparent reasoning: “It’s not in this box. Therefore it’s in that box.” One seeing this action may take this to be indisputable evidence of the ape performing a disjunctive syllogism, reasoning of the form ‘p or q, not q, therefore p’. Certainly here, it would seem, the distinction between perception and action in base intentionality comports with higher forms of intentionality, and produces rational mental operations.

We certainly ought to consider this carefully. Without much contention it could be suggested that, for this sort of exclusion to occur in the purported *mind*

of the ape, the ape must also have a more fundamental ability to conceptually identify (and *not* merely perceptually identify), and furthermore distinguish most obvious differences between one form of being and distinctly different forms of being. The ape certainly perceives a distinct object (the apple), that object of its desire, and thereby distinguishes it from those objects that are not the object of desire. This seems obvious enough.

Furthermore, some contemporary research has contributed to data that would call into question whether humans are more perceptually intelligent than other primates. One primary resource is offered in the research completed in 2007 at the Primate Research Institute at Kyoto University in Japan. The research was documented in an article titled, “Working memory of numerals in chimpanzees” (2007) written by Sana Inoue and Tetsuro Matsuzawa. The test was mediated through a computer screen that had randomly positioned numerals. The test subject was to touch each number in sequential order as quickly as possible. The most intensive portion of the examination involved white boxes masking over the numerals after a short duration of time. After filtering through the less intensive levels of examination, three agents were tested at this more intensive level. These agents included: the most accurate human subject tested, the most accurate mother chimp tested (“Ai”), and the most accurate young chimp tested (“Ayumu”). The shortest duration for unmasked numbers to appear was 210 milliseconds, near the frequency of occurrence of human saccadic eye

movement.²⁴ At this greater speed subjects are unable to explore the screen through eye movement; memory is left to depend on only that information obtained by a glance. In both the adult human and mother chimpanzee, there was a significant decrease in success corresponding to the decreased viewing time. However, Ayumu's performance was remarkably consistent, and showed little difference despite the variances in viewing time. Ayumu outperformed the human subject in both speed and accuracy. Inoue and Matsuzawa suggest that this data shows good reasons to believe that chimpanzee memory is superior to human memory. There seems little reason to doubt this conclusion given the data.

However, having delineated what a disjunctive syllogism would entail in mental capacity, and granting the ways in which chimpanzees can exhibit greater intelligence in certain capacities, the problem of rationality, quite ironically, becomes more difficult. We know that apes cannot *conceptually* communicate with humans; all ape communication is non-linguistic and pertains to an immediate context involving a given perceptual framework. If chimpanzees (or primates more generally) are equal to their human counterparts in tasks of memory, and perhaps relatively intelligent overall when compared with humans, what is left to explain the notable communicative deficiencies in primates? If intelligence exhibited in perceptual interaction is fundamentally similar between primates and humans, what conceivable variables can be understood as impeding a chimpanzee's purported conceptual capacities in *conceptual communication*

²⁴ Referenced in the Inoue-Matsuzawa article as follows: Bartz, A.E. (1962). "Eye-movement latency, duration, and response time as a function of angular displacement". *J. Exp. Psychol.* 64, 318–324.

with humans? We are called by the empirical data to reconsider our judgments about intelligence. After numerous attempts over the past four decades to assimilate primates into the language community of humans, the attempts have been characterized as failures, and even more—disastrous.²⁵ Primates cannot be taught principles and thereafter grow in understanding of a subject, to contemplate the future or consider death. The suggestion that non-human beings cannot be taught concepts, judgments and arguments is further supported in that all objectivity for chimpanzees in communication invariably supervenes on the local and perceptual aspects of reality.

It's clear enough that the difference between apes and humans is distinct from those differences we find between German and Chinese thinkers. Members of human communities like Germans and Chinese, Aborigines and Europeans, exhibit great in intellectual capacities or interests. Yet, invariably, they share a common capacity for understanding concepts, making judgments, and forming arguments. This is most clearly seen in cosmological concerns, or the interpretation of one's experience through basic belief; humans construct and change worldviews, animals do not. Though my dog may lead me out of a burning building through behavior communicating a perceived danger, or an ape communicate dissatisfaction with some thing within its local environment, this does not signify any capacity in the dog or ape to understand concepts or form

²⁵ Edelstein, David. "Project Nim': Monkeying Around With A Chimp : NPR." NPR : National Public Radio : News & Analysis, World, US, Music & Arts : NPR. 7 July 2011. Web. 22 July 2011. <<http://www.npr.org/2011/07/07/137672140/project-nim-monkeying-around-with-a-chimp>>.

judgments. Instead, these circumstances evince a capacity to communicate in non-conceptual forms that merely supervene on the perceptual data in the immediate context, and can be explained as such.

In stark contrast, communication that is uniquely human transcends reference to particulars. The grasping and communication of a concept like that denoted by the word ‘food’, which is common to all thinkers, is not obtained because of greater intelligence (*via* evolution of the brain) or adaptive mechanisms for communication; the wonder of conceptual objectivity shared among humans—that capacity to transcend the particulars of time and space—is not conceivably ascribed to an increase in the quantity or quality of firing patterns in the primate’s brain.

A hypothesis taking the quantity or quality of firing patterns in the brain as accounting for conceptual objectivity would take the distinction between primates and humans to be a difference in degree. If this were the case, the common capacity could be bridged through non-verbal means within a short span of time, as it is within the scope of human communication. But there is no such bridge between humans, whose understanding and communication enables the perceiver to transcend the perceived particulars and grasp the universal concept, and non-human beings, whose communication exhibits a behavior entirely explainable by reference to its perception and desire within the context of its local environment.

Compounding this wonder, that I can attain to the objective, is the common human nature essentially exhibited in being rational that allows all humans together to attain to the objective. Assuming that the syntax and

semantics of my assertion are understood, anyone with normal brain function and disciplined focus can critique my compliance or lack of compliance with the rules of rationality in most cases. Nagel states, “To reason is to think systematically in ways *anyone* looking over my shoulder ought to be able to recognize as correct” (*The Last Word*, 5, emphasis mine). All rational persons presuppose the self-attesting authority of reason, as exhibited in thought and speech, and it is this very capacity which enables, even obligates, one to reach to the objective each time they considers a concept or makes a judgment. This cannot be reduced to the same capacity exhibited in the wavering desires of a deer, the behavioral intelligence of an ape or the capacities of a computer in calculation that merely emulates a very narrow aspect of human rational consciousness.

In this way there are reasonable grounds to infer a distinction between the perceptual capacity (and resulting communication) common to both apes and humans, and that conceptual capacity unique to humans. The distinction between perception and conception, between base intentionality and rational intentionality, in every way points to the need for another explanation.

The naturalization of reason by means of a conceptual conflation of rational intentionality and base intentionality may attempt to maintain the complexity of a materialistic conception of rationality, but in the end this conflation manifests itself as a diminishment of rationality; rationality is conceived of as being no more than a complex function grounded in the perceptual capacities of base intentionality. Overall, the materialistic view attempts to affirm the intelligence and obvious perceptual communication in the

behavior of non-human animals, but fails to distinguish this intelligence and communication from the rational nature and function uniquely exhibited in humans.

8.2 The Epistemological Status of the Claim “Materialism is true”

The claim “Materialism is true”, motivating the conflation of rationality to desire, perception or computation, is subject to the meaning of its own propositional content. If materialism’s truth-status entails a naturalized view of reason, one’s metaphysics is too heavy for such a weakened epistemology to support it. Naturalized reason (as an amalgam of desires, perceptive capacities, or computation) is too weak to support this metaphysical view; it cannot justify, warrant or support the taking of one’s claim to be any more than what can be constitutively understood by reference to the nature of that naturalized capacity. The result is that, under a materialistic metaphysics, we *cannot* obtain warrant in any objective claim since, in essence, conceptual objectivity requires that one transcend the limits of perception and one’s environment.

Objective claims like those of Newton, Euclid, or the common man (in judging the sun to be fated to burn out) cannot be construed in terms of desire or perception or computation, since as objective claims they transcend the limitations of perception in grasping and understanding objective principles that govern reality. If desire and perception fundamentally construe the basis for our claims they will direct the proper way in which to understand rational intentionality. A statement “materialism is true”, within this schema, will only permit a judgment that one *wants* (i.e., desire) materialism to be true, or is

materially *disposed* to believe (through computation) materialism to be true, where the statement is “the output” or verbal expression exhibiting one’s materially-disposed brain state to believe. Such a claim *in any case* is devoid of any ground for believing ourselves to be capable of objective knowledge. As such, in not offering any *epistemic* groundwork to support its claims, this schema is devoid of any rational force to persuade us to believe it.

As a result, all materialistic claims reduce to behavioral manifestations that should be described accordingly. If the propositional structure leading one to believe *p* is materially composed (in the brain), the judgment is trivial. One cannot be said to have good reason for asserting *p*, but only a commonly-held, or mutually agreeable, disposition to believe *p* to be true. Materialism entails that what the materialist presumes to be grounds for his claim that materialism is true (i.e., his reasoning), is merely a process expressing his material disposition to believe *p* through conventionally-coordinated utterances. Any materialistic account will similarly be found inconsistent, and so incoherent, at the fundamental level. The natural outworking of materialism’s fundamental commitments, taken together with its implications for rational intentionality, lead to the undermining of the grounds necessary for rational functions of thought and speech. That is, a materialism that is consistent in practice with its fundamental theory will be self-refuting in its implicit denial (theory) of those principles it implicitly affirms to have any thought or speech at all (practice).

Nagel and Burge each give distinct reasons why one should avoid materialistic claims. Nagel speaks of the claims we make every day as being such

that they are available for rational critique. We should expect that others looking over our shoulder agree with us if our claims are endowed with sufficient rational support. Can the nature of matter, evidenced in the phenomena studied in the material sciences, support the objectivity of rational judgment amongst persons? As Burge shows, the nature and full extent of perceptual capacities are constitutively captured in the application to particulars within the *here and now*. As such, though the behavior of matter may be the same everywhere understood and described through universal laws, the nature of materially constituted perceptual capacities is essentially local. More explicitly stated, a sentient being taken to be materially constituted would be limited to only those localized particulars available through its perceptual capacities; transmission of perceptual data to the brain gained through perception of phenomenon *x* requires that the brain be spatially and temporally related to the immediate context wherein phenomenon *x* occurred, perhaps at times supplemented with memory.

A resulting limitation of materialism is that references to such phenomena cannot be taken to reach beyond the brain's immediate context. Consequently, the brain, taken as a metaphysical ground for rational intentionality (in materialism), cannot rationally warrant claims that exceed one's immediate context. With Nagel's explication of reason as that unavoidable inclination to attain to objectivity in thought and Burge's clear delineation of objectivity as distinct between the acts of perception and conception, the concept of matter appears unable to justify or warrant our disposition to make claims.

To elaborate this point, consider that for a modest materialist claim (“Materialism is most plausible”) to obtain as an objective claim it must be theoretically grounded in (or undergirded by) an ontological commitment that provides a substance sufficient to account for objective claims. That is, the objectivity of my claims must coherently comport with my view of the self. The nature of matter, as that which is governed by physical laws, leaves me with nothing to ground the objectivity of a claim that has been derived by rational standards. My view of self, if purely material, will only grant me the warrant to make claims in ways that accord with, and are explainable by, reference to the nature of matter.

If materialism is true and I am expected to believe that materialism is true, then agreement with materialism would be construed materially, and not rationally, at the fundamental level. Under this schema, agreement *is not* the result of one’s willingness to evaluate an argument for soundness by the use of one’s rational faculties. The causal features of rational intentionality must be fundamentally understood as material features. More explicitly, the conceptual work, the formation of judgments and (more alarmingly) the citing of rational support for one’s belief, are in themselves impotent. Applied to the present discussion, one’s belief that materialism is true, or that materialism is false, is *fundamentally* due to one’s brain and its ‘proper’ structure or function. Furthermore, the implications for community are grim since there is no hope for agreement through the use of reasoning in itself.

8.3 Salvaging Mental Objectivity within a Materialistic Framework

It may be suggested that, in a Turing-style picture of the mind, there is an isomorphism between symbolic processing (reason) and the underlying hardware state transitions. Prima facie, this seems to be a very promising line of argument for the materialist. The physical bonds may be mirrored in propositional bonds; my understanding of a disjunctive syllogism is a mental mirroring of the nature of physical bonds. In this picture it would be argued that there is no sacrifice of the epistemic objectivity inherent to rationality because rationality would be reflecting the objectivity inherent to physical bonds.

However, I'm concerned about what this might imply about the rational evaluation of argument. To comport rational evaluation with materialism, it seems that the materialist must take the semantics of argument as materially interacting with the hearer's brain (i.e., the materially-composed thought processor). As such, once the semantics are heard properly the reasonableness of the argument is seen and agreement follows. No problem, right?

We need to ask ourselves about the more common reality. What if all semantics involved in an argument are understood and disagreement persists? For the non-materialist, the fault may lie in an unwillingness (i.e., mental disposition of the agent) to examine one's assumptions and beliefs for rational consistency. That is, if the disagreement were grounded in a failure of rational bonds (as distinct from physical bonds), the disagreement has the possibility of being remediated by argument. For the materialist, however, the explanation is much

more difficult since the fault must lie somewhere in the materially composed mind of the hearer.

If this sort of mirroring is veridical, we would expect that the materially composed force constituting the link between material propriety (i.e., in structure of function) and knowledge would be sufficient to bring about agreement in all cases. Explanation of the disagreement, and therefore culpability for persisting disagreement, could not be rooted in anything other than the structure or function of the materially composed minds. So, if materialism gets it right and such a mirroring constitutes the human capacity to make objective claims then, all things being equal between materially composed minds, it would follow that in the case of any given argument all minds (properly mirroring physical bonds) agree in their evaluation of the argument. Furthermore, both minds would also agree in their evaluation with precisely similar reasoning since reasoning is fundamentally constituted by and corresponds with one's brain state, structure or function.

However, I contend that this picture is far from accurate. Many persons don't doubt the data used by evolutionists or misunderstand the meaning of their words. Berkleyan monists don't doubt Samuel Johnson's ability to 'kick a stone' in attempt to refute Berkeley. Yet, the disagreements persist. The meaning of the arguments (or of the kick) in these cases is entirely understood by the hearer (or observer) and so cannot account for the disagreement in any way.

In instances of genuine disagreement, then, a natural outworking of materialism appears to find fault within variant material dispositions (i.e., variances in structure or function). Consequently, the willingness to consider

argument *rationally*, as a means to know the *objective* plausibility or truth of a claim, is dismissed. That is, there is nothing inherently valuable in argument that compels the hearer, or gives warrant to the hearer, to believe or disbelieve. Since the causal features of reason are fundamentally constituted by the causal features of matter the causal force involved in believing a premise to be true, or in believing the conclusion of a sound argument, must be ascribed to the semantics corresponding with the disposition of the material mind. Agreement occurs just in case a hearer understands the semantics of the argument and is materially disposed to agree; that is, agreement occurs within a mind wherein the materially composed force innate in the semantic structure of the argument exceeds the material resistance of that structure.

The only rational justification for discussion that materialism can offer then is comprised of a belief that all disagreement is due to a misunderstanding of syntax, or misinterpretation of semantics. However, the longer philosophy goes on the more factions arise. This doesn't seem to support such an attempt at rationally justifying discussion. Agreement, then, will only come in cases wherein material dispositions are alike, and in all such cases discussion is mechanistic, not rational; discussion is merely an operation wherein we come to discover those with material dispositions similar to ourselves. It appears that on all materialistic accounts discussion is rationally unjustified as a means to come to genuine agreement about what is true and of value.

8.4 Materialist Implications Derived

Similarly here, as in my analysis of materialistic evaluations of rational intentionality, material disposition offers no epistemic ground to believe one's belief is true. Within the scope of this schema, sound argument can only be said to be sound on grounds of agreement between similarly disposed minds across time, and a claim that "Materialism is true" is only a claim that I am materially disposed, or "desire" (in psychological terms), to calculate or believe that materialism is true. As such, agreement with the claim 'Materialism is true' doesn't entail the truth or rationality of materialism, and it offers no causal force that I should regard as giving good reasons for me to believe materialism. Further, if I understand the claims of materialism, and I believe I do, my material disposition is already manifest. My continuing to disagree with materialism under such conditions reveals that my material disposition is in fact disagreeably structured or composed in a manner unlike those who believe materialism. If this is the case, no amount of clarification in argument will bring me into agreement with materialists. Yet, I ought not be disheartened in this disagreement since, under the scope of materialism, agreement gets me no closer to the plausibility or truth of the proposition.

In the natural outworking of materialism's fundamental commitments agreement merely shows that there are at least two minds materially disposed to believe similarly. If the semantics are in place, persisting disagreement amongst persons can only be due to the variety of material dispositions and no further

appeal to argument will bring agreement. In the natural outworking of materialism, then, it appears that argument is impotent.

On these grounds it seems reasonable to think of any attempt to absolve or limit rational intentionality to the perceptive or computational capacities exhibited in the brain as precluding or undermining all warrant for attempts to attain an objective understanding of reality. As such, any reduction of rational intentionality to physical function will essentially undermine one's ability to make any objective claim. Thus, materialism itself would undermine its adherents' attempts to proclaim its truth.

8.5 Against Materialistic Dogmatism

In "Modest Dualism", Burge devotes the final paragraph to considering how it is that philosophers like Stoljar, Searle and Churchland persist in their position. He recounts his earlier days in the field, "Many philosophers exuded a certainty that was out of line with the speculativeness and lack of force in the grounds supporting their positions. Many still do." (250) The idea conveyed here is that materialism remains a prominent position because dogmatic philosophers cling to their own preconceived ideologies rather than yielding to positions better supported by science and common sense.

Burge's stance is grounded in his view of science, and he posits that current material science offers no promise for explaining the mental through reference to the brain and its physical environment. The nature of "propositional states and events" can be clearly seen to ground themselves in their logical forms and causal powers and these are not materially constituted. Burge states, "And

there are attributions of reason in parts of psychology that have no analog in the natural sciences. Material composition is not a relation that grounds theorizing in mathematics or logic” (235). So, materialists are without warrant in taking the psychology of propositional attitudes as attributable to the physical structures presently identified in natural science (249).

For those who follow the Burgean/Nagelian countercultural ripple, it seems ironic that cognitive science is currently thought of as being able to lead us to a more comprehensive naturalistic account of the mind. It would seem that the same candor would prevail in anyone with a genuine love of the sciences, entailing an affirmative stance on the limitations of data. In turn, this candor would culminate in a common belief that no number of empirical studies can explain rational structure and its causal efficacy through the material. Yet, this is not the case and so the conflict continues on the basis of what appears to be in many ways an *ad hoc* fallacy.²⁶

²⁶ My claim that materialism is *ad hoc* may require reiteration here: My opposition to materialism is grounded in rational intentionality, and this in turn is grounded in the nature of inquiry. By beginning with inquiry, I’ve shown that materialism is from the outset precluded by a robust view of rationality. Consequently, I take any attempt to justify materialism as due to an unwarranted neglect of epistemic priorities. Furthermore, I take materialism to be grounded in *ad hoc* fallacies when its use of the concept *matter* is weakly defined and not identified with any delineated *essential* qualities. Where the concept is treated as forever open to revision, one’s metaphysics can never be called into question in self-examination or be made open to philosophical examination. Discussions with materialists may turn out to be similar to the following: if *x* is a phenomenon then *x* can be understood by reference to matter because, *after all*, all is matter. For further development of this point, see section 9.2 “Self-Examination: Has this argument for dualism committed an intensional fallacy?”.

If rational intentionality cannot be coherently integrated or conceived of properly within a materialist framework, then the existence of rational intentionality warrants, even requires, the rejection of materialism. Materialism requires that all aspects of existence (including reason) be construed in terms of that which is governed by physical law. Furthermore, reasoning and belief, if governed by physical law, cannot coalesce with offering, or having, good reason for belief since physical law cannot be used to offer reasons for belief distinct from its conforming to a physical form or function. Furthermore, Burge has explicated the nature of propositional psychological states and events in a way that evinces the lack of support from reason or science to take such states or events as conceptually related to physical structures or bonds. (“Modest Dualism”, 241, 244-246)

If the natural outworking of materialism leads to the impotence of valid or sound argument, the natural outworking of materialism will require that we take ourselves as believing out of desire or disposition (something like natural functions of physical systems or computation) and only cite such phenomena as the underlying components of belief. It has been shown that the natural outworking of materialism leads to the impotence of argument, since argument presupposes an ability to transcend the aspects of the particular and obtain objective reasons for believing one proposition over its contradiction. For this reason, I’ve concluded that a materialist must take valid argument for x as impotent in rationally persuading others to believe x . Belief or disbelief of the theorems of Euclid or Newton is not fundamentally constituted by the causal

features of rationality, but by the causal features of matter. The argument given is explanatorily irrelevant when looking for the causes of disagreement between reasoners. Reason is not what allows any person to look over my shoulder and evaluate my reasoning. Matter is. If one is a materialist a genuine, conscious appraisal of this belief's implications will obligate one to have greater consistency with that belief and forego attempts to gain warrant or justification for one's belief through the use of reason and argument.

In my proof for dualism, I'm assuming the truth of what has been said in section 7 against Nagelian sorts of appeal to mysterianism as a means to maintain belief in neutral monism. The promises made by such positions rely on an appeal to ignorance ("we may know in the future"), and assume an empiricism that offers no clearly delineated definition for 'matter'. If rational intentionality is veridical, and neither materialism nor Nagelian monism can account for i) the essential quality of matter as a fundamental substance *and* ii) the reality of rational intentionality in the human mind, then another position is logically necessary. Dualism is logically necessary to uphold our presupposed ability to think and speak about the objective and universal.

CHAPTER 9

BRINGING THE STRANDS TOGETHER

9.1 The Central Anti-Materialist Argument

Harking back to Nagel, rationality is an objective capacity that transcends all particulars of the brain and one's physical environment in space-time. Nagel states, "To reason is to think systematically in ways anyone looking over my shoulder ought to be able to recognize as correct." (5) Furthermore, Nagel and Burge together have given good reason to deny an over-extension of naturalistic explanation. Consider Nagel's relevant thoughts again: "...overuse of evolutionary biology to explain everything about life, including everything about the human mind" (131). In the midst of a culture laden with naturalistic explanations, Burge has clearly explicated fundamental features of science (e.g., nature of physical bonds and their causal features) to expose the nakedness of material monism. As a result there is little, if any, reason to see materialism as being supported in any way by current science. Hence, extension of material functions into mental ontology is an overextension, and so unwarranted.²⁷ A *scientific* distinction is therefore necessary, delineating a clear distinction between structure and causal features of propositional thought and those structures and causal features of matter.

²⁷ Tightly reiterated, the argument (from section 8.2 above) is as follows: i) If mental features are fundamentally material features then there is no objective thought; ii) There is objective thought; iii) Therefore, mental features are not fundamentally material features.

In addition to the elements I've borrowed from Nagel and Burge, I've argued further that the natural outworking of materialism, understood in light of its most essential commitment (all is matter), logically entails the impotence of argument.

Argument is not impotent. Both materialists and non-materialists value argument. Consistent with this value, we do not inquire into the nature of the mind based on material standards for the appraisal of matter, but on rational standards. We do not take our rational agreements or disagreements to be due to the material structure or function of our minds; when we seek to criticize, persuade, and justify through the use of reason, we do not simply point to materially construed rational bonds. We want good reason for believing what we do, not good matter. One who is concerned with integrity in belief will require this of oneself and of others.

A norm of rationality is satisfied when we have good reasoning behind our belief. This norm is exhibited in our attempt to reference the objective in our reasoning and explanation. I take myself as believing that white light is composed of light of various wavelengths because Newton offers good reasons to believe this claim; I take myself to believe Euclid because I take myself to understand the objective, though non-empirical, nature of numbers, and he offers *sound* reasons on that objective basis that there is no limit to the sequence of prime numbers. (Note the wonder of being able to capture this understanding for ourselves, given the expanse of time and space that separates us from Euclid!)

Furthermore, applied to the discussion of mind, I take myself as disbelieving materialism because I believe there is *good reason* to believe an alternative position is a better representation of the truth. Materialists do not ordinarily take themselves as believing dualism to be false because of the material structure or composition of their brains and its environment. Each of us, materialists and non-materialists alike, take ourselves as believing what we do because we have good reason to believe what we do. All things being equal, where we are concerned with integrity, we evaluate arguments based on their conformity to the *universal* standards of rationality and we treat persons as responsible for recognizing a valid argument as valid because they are capable, as rational agents, to evaluate such arguments. Our rational attitudes are logically and pragmatically incompatible with materialism, being grounded in the valuing of rationality as function that is independent of physical desires and material dispositions. To be consistent with taking ourselves to be rational, to value thought, to be consistent in treating discussion as a means to understanding and agreement, requires that we embrace a dualistic interpretation of the mind.

9.2 Self-examination: Has this argument for dualism committed an intensional fallacy?

Opponents of dualism may object to this reasoning, judging it to be committing the intensional fallacy.²⁸ An intensional fallacy differentiates entities by referencing a variance in mental attitudes towards a thing. In committing this

²⁸ Neutral monism is held in common by neutral identity theories of material monism and dual-aspect theories. What is said here undermines the common assumptions of both.

fallacy one disregards real, objective mind-independent commonalities or distinctions existing in the relations between external objects. One example of argument close to the heart of analytic philosophers that commits this fallacy would be similar in content to the following argument: i) 'The medieval peasant wants water; ii) the medieval peasant does not want H₂O; iii) therefore, water and H₂O are not the same substance'. Ignorance should be corrected. The natural kind that is the substance commonly denoted in English with "water" is the same substance (referent) as that which has a chemical makeup of 2 hydrogen molecules and 1 oxygen molecule fused together; the substance is the same though its intensions vary by context. The mental attitude of the medieval peasant has no bearing on the nature or ontological state of an objective, mind-independent external object.

It's necessary, then, to evaluate the relationship between substance and qualities. I take qualities as inhering in substance, the substance being that being which binds qualities together in unity. In recognizing an essentially distinct quality, one is rationally obligated to distinguish that thing or class of things from unlike things. Two substances are said to be distinct in essence from one another when they can be shown to differ at the level of *fundamental* properties, exhibited in distinctly dissimilar qualities.

The intensional fallacy is committed subtly in cases where there are deficiencies in one's understanding of the fundamental properties of a thing. In the case of water and H₂O the intensional fallacy is obvious. Once one comes to understand the *fundamental properties* of H₂O as being the same as those of water

one gains a fuller understanding of the *nature* of water. Water, as formerly understood by the peasant, was a less-fully formed concept. Notice that the peasant's empirical judgments about water are maintained but that these fundamental properties are understood in greater degree as the concept becomes more robust. Learning of the chemical composition of water added to the former concept, providing a robust understanding of the said substance.

We can note, then, that a referent may be denoted by two distinct words (i.e., intensions), but the nature of the referent (i.e., the objective extension referred to) may in fact be one and the same; the referent of each word may be essentially the same thing. However, the intensional fallacy is committed when a concept is insufficiently formed and a premature judgment is made (e.g., water is not H₂O, Hesperus is not Phosphorous). When the concept is less formed one is more vulnerable to committing an intensional fallacy wherein an improper judgment is made about whether particular qualities inhere in a given substance. This is clearly the case in the peasant's unsound judgment.

Within the history of analytic philosophy this fallacy was at the fore of J.J.C. Smart's argument for materialism on grounds of parsimony. In his article "Sensations and Brain Processes", Smart considers eight dualist objections, each of them committing an intensional fallacy. Our primary purpose in considering Smart's work will be to better understand the intensional fallacy as it relates to claims within the philosophy of mind and to see if it is relevant to my own position.

Smart aptly notes that each objection assumes that a percipient is warranted in taking the meaning or entity as it appears to them under their current knowledge paradigm (uncritically held assumption), despite weightier reasoning showing the reality to be different from its ordinary interpretation. Although the specifics of each dualistic objection seem to vary in rhetoric, the application seems to be the same wherein Smart shows his position to be intuitively adequate in taking sensations and brain processes to be physical. That is, sensations and brain processes are not distinct at the fundamental level--at least not distinct enough to warrant a claim *prima facie* that sensations are something over and above the physical. As such, dualistic appeals to sensations as non-physical phenomena are *prima facie* taken to be committing the intensional fallacy.

To evaluate my suggested distinction between sensation and rational, consider the first objection referred to by Smart:

Any illiterate peasant can talk perfectly well about his after-images, or how things look or feel to him, or about his aches and pains, and yet he may know nothing whatever about neurophysiology. A man may, like Aristotle, believe that the brain is an organ for cooling the body without any impairment of his ability to make true statements about his sensations. Hence the things we are talking about when we describe our sensations cannot be processes in the brain.

Smart responds by offering two analogies. First, he uses the example of Hesperus and Phosphorous as the morning star and evening star wherein the two names (i.e., grounded in distinct time slices) have one referent (*viz.* Venus). However, Smart confesses the identity he's aiming for may require a more palpable example. For this example he chooses to invoke lightning and an electrical

discharge. This is clearly the strong 'is' of identity; lightning just *is* a kind of electrical discharge due to ionization of water vapor in the atmosphere. The objector takes a lack of knowledge (e.g., about neurophysiology or about the brain's function) to constitute a real distinction in the referent. As with the peasant's simplistic concept of water, lightning could similarly be thought of simplistically--that phenomenon when light flashes from the sky in a storm. However, this is not getting at the nature of lightning but only reporting the personal sensation. Smart's comments elsewhere speak of the "ordinary man" as reporting experience that "something is going on" with no attempt to explain "what sort of thing is going on". (65) Namely, we do not ordinarily attempt to describe in our language what sort of thing is going on materially or otherwise in our experience. However, science does attempt to get beyond the appearance of the physical thing and understand the underlying reality that persists throughout the variant perceived behaviors of the thing. Hence, we come to understand that lightning *is* a kind of electrical discharge. The latter notion of *electrical discharge of sort x* is inclusive but more robust (and so better suited for scientific precision) than the former notion of *lightning*. What has been said above of water holds true here for lightning. Smart is right to correct such dualistic notions for relying on such fallacious reasoning.

Furthermore, Smart goes on in his first reply to make a distinction between lightning as the publicly observable object and one's individual sense datum of lightning. My sense datum of lightning is not lightning, but a correlate of it. This relates in the following way: If I have an after-image of my experience

of lightning I am able to recount the lightning through memory, but this introspective act is not itself relevant to discussing the external objective referent-lightning. The sensation, in this way, is not the activity of the objective referent. The sensation is a brain state correlated with the perception of the objective referent. The referent is one and the same, although the brain state may vary.

Similarly, I may have an introspective element of experience that occurs as the aggregative correlate of my total conscious experiences. However, as Hume noted, this aggregate doesn't itself get me to an immediate proof for the existence of the self but instead to a bundle of mental images.²⁹ My perception of water, of lightning, or of my self is correlated with the experience of objective referents. I cannot therefore take myself as having self-evident knowledge that an immaterial substance exists independently of my brain simply because I have a sensation that would commonly lead me to believe such a proposition; the objective referent is not immediately known by sensation, or intuition.

If dualists are arguing on the basis of experience—and it is clear that many are—Smart's basic approach seems to be perfectly reasonable in arguing for materialism. His approach seems to be: show that dualists, by invoking counterfactuals and possible-worlds, are committing an intensional fallacy and that materialism follows on the grounds of parsimony.

²⁹ Recall William James's dealings with the Associationists. The immediate experience of after-images may not constitute the grounds for the existence of a distinct mental substance. As Hume noted, "All I see when I look inside is a bundle of mental images". However, inferentially it can be asked of Hume, "What is doing the looking when "I" look inside?"

However, Smart's objections cannot be said to obtain in cases wherein the fundamental properties essential to matter are unequivocally defined as those properties of substance governed by physical laws. If rational intentionality naturally exhibits qualities distinct from all such unequivocally defined fundamental features of matter, as analogous to non-water substance with respect to our unequivocal concept of water, there is no philosophical bifurcation open to the materialist. In such a case, the nature of that substance constituted by rational properties must be taken *logically* as being fundamentally distinct from material substance.

A materialist may evaluate my argument as follows: i) propositional thought is governed by rational norms; ii) neurological events/processes are not governed by rational norms; iii) therefore, propositional thoughts are not neurological events. This argument would appear to commit the intensional fallacy given that both propositional thoughts and neurological processes could capture distinct aspects of brain activity--respectively noted, subjective and objective aspects of the brain. However, this materialistic appraisal neglects important features of my argument given in section 9.1 (*viz.* the rational capacity to transcend the particular, the perceived, the localized perspectival context-bound reference). Furthermore, an intentional fallacy can only reside where the constituent concepts can be conceived of as being commensurably synthesized in the nature of an entity and its properties. In such a case there is reasonable hope that the intentional fallacy can be exposed empirically by showing how hierarchically (i.e., more basic and less basic) arranged properties can coexist

within an entity. However, where there is a claim that the natures of the substances are *fundamentally* distinct the dispute is genuine. This is the case in my claim wherein the domains of thought and matter are mutually exclusive, and so delineated by the laws that govern them. Norms of objectivity in rationality are not compatible with any material monism since such a position would require that the potency of argument be fundamentally explained by reference to causal-explanatory patterns (i.e., physical laws) of physical science. In such a case the concepts are mutually exclusive, and logically incommensurable. As such, the case I've presented leaves no conceivable room for hope to resolve the dispute between those qualities of being exhibited in rational intentionality and materialistic notions of thought. Therefore, this argument does not commit the intensional fallacy.

An unwillingness to make inferences by use of good and necessary consequence is often buttressed with a claim that an intensional fallacy has been committed. This move is unwarranted in cases where two distinct objective, mind-independent external substances exhibit essentially distinct qualities at a *fundamental* level. If rational intentionality is affirmed, how is it that one can logically [in present or future] conceive of a form of being [a single substance] that naturally exhibits qualities governed by physical laws and also the mental aspects necessary to account for the ability to evaluate an argument for soundness? As argued in section 6, against Nagel's appeal to monism, it seems

necessary that these categories (that which is governed by physical law and that which is governed by laws of rationality) be understood as properly basic.³⁰

Although differences in nature, or essence, may be more or less obvious, one's understanding and life may often depend upon one's willingness to investigate and then affirm the unique, objective natures of distinct substances. For example, consider the distinction between water and sarin. It would be absurd (perhaps murderous), given the essential qualities of sarin ($[(\text{CH}_3)_2\text{CHO}]\text{CH}_3\text{P}(\text{O})\text{F}$) if I were to convince you that the two substances are the same merely by those immediately perceivable qualities, *viz* their commonly held colorless and odorless qualities. Although the two distinct substances share these qualities, these qualities are less basic. It's conceivably the case that the distinct phenomena, water and sarin, are one and the same substance, exhibiting various qualities under variant circumstances. The two substances can only be understood as essentially distinct (i.e., not one substance merely conditionally variant in quality) by understanding the distinct natures exhibited at the fundamental level. Scientifically, we identify two distinct substances *qua* distinct by isolating them and subjecting them to similar conditions. We then observe their behavior to see if, under those similar conditions, the substances consistently manifest distinct incommensurable qualities. We are then able to identify whether there be any consistent manifestation of distinct qualities between the two substances under similar conditions. If so, we take ourselves as having isolated two essentially distinct material composites.

³⁰ For further elaboration, see section 6, "A Critique of Nagel's Monism".

It would be disastrous in most cases to treat sarin as one treats water. Yet, to get at this essential distinction mankind has been pressed to get a fundamental understanding of the substances. Similarly, in all areas of knowledge, to understand the constitutive properties of essentially distinct things one must get at the fundamental qualities of the thing (i.e., the nature of the thing). One must understand qualities of water before determining whether another substance would fundamentally differ from it. Coincidentally, this is what science is about. This is the greatest virtue of the proverbial scientific method and its many forms that have brought empirical science to the fore of western society. So why, given such success, do we in the philosophy of mind permit speculation and non-committal approaches with respect to the nature of matter?

Any genuine skepticism about the nature of water would prove burdensome to the natural sciences. If there were skepticism about the nature of water, we could not have any basis to empirically define it as distinct from other similar substances. Would we not also have to say the same of a genuine skepticism about the nature of matter? If we do not know what the nature of matter is, we have no beginning point at which to distinguish it from any other purportedly existing substances; that is, there is no basis for philosophical discussion between materialists and dualists without an agreement on the fundamental qualities of matter. If no essential qualities are identified in a substance, then no qualities can be understood to contradict such a substance. If matter's explanatory powers are limitless there is no reason to go on in philosophical discussion. If matter is not limitless in explanatory power, we have

an established foundation for philosophizing about the mind. If philosophers and scientists will together commit to a commonly held concept of matter then, *and only then*, can profitable philosophy be done. Only *then* can those fundamental properties of matter be evaluated by all for commensurability or incommensurability with the fundamental properties of constitutively mental phenomena of rational intentionality.

Ironically, the distinct qualities exhibited in water compared with those of sarin (a matter of biological life or death) could be said to be negligible, or less immediate, when compared to the differences in essence between mental substance, as exhibited in the real aspects of rationality, and material substance as exhibited in composition, states or events. As noted above³¹, if we attempt to include the nature of reason under the scope of that which is governed by physical law a grave suppression of truth results. If reason is governed by physical laws the implications for our everyday thought and speech—our wanting good reason for our beliefs—are fatal. If materialism is true, discussion and argument are absurd. If one is to consistently maintain a valuing of reasoning (in thought, speech and discussion), the substance that constitutes the nature of rationality must be held as clearly and constitutively distinct from all physical substance and processes.

The tension here between materialism and our everyday valuing of rationality is ultimate and unresolvable. If we value reason and (more relevantly

³¹ See subsection 8.3 titled, “Salvaging mental objectivity within a materialistic framework”.

here) argument, we have no good reason to believe materialism to be true, or even plausible. Furthermore, if we want to be consistent in seeking to have good reason for our going on as thinking agents then we ought to abandon materialism, because our active consciousness as reasoning beings (practice) undermines materialism (theory).

9.3 A More Definitive Modest Dualism

The search for a metaphysical ground sufficient to enable rational inquiry about the mind has led here. In contrast to the presumptive emphasis on matter, I began using an alternative approach [of substance dualism] as a hypothetical, beginning with what must be true given our ability to inquire about mind with the mental apparatus provided in rationality. The result is an emphasis on the need for our claims (as beliefs, or mental acts) to be grounded in a metaphysic of the mind that coherently affirms the capacity to make such claims. I've contended that this approach dismisses all rational grounds for belief in materialism, and further constitutes more robust grounds upon which to delineate terms for a modest dualism grounded in rational intentionality.

Materialism and monism have been dismissed with good reason based upon philosophically grounded conceptual distinctions between the constitutions of 'matter' and 'mental', and furthermore materialism and monism are taken as scientifically unsupportable within the current conceptual framework. The result: both the physical and mental are to be metaphysically affirmed. I agree with William James. Properties (or capacities) must inhere in a substance and that substance must explanatorily ground the nature of such properties. Material

properties inhere in substance that is definitively defined as that which is governed by physical laws. Rational capacities, not being governed by physical laws, are distinct from material capacities and cannot be explained with reference to matter. Therefore, if one's philosophy of mind affirms rational properties and their qualities (taking ourselves in practice to have good reason for any belief) one must also affirm that such properties inhere in a substance that can ground the nature of such properties. We could not conceive of localized features of human perception apart from that structured substance (the brain) which metaphysically constitutes the means by which perception is accomplished. Similarly, rational intentionality (as a mental capacity) cannot be conceived of properly apart from that structured substance which metaphysically constitutes the means by which humans attain to objectivity in thought.

It appears that good and necessary consequence entails an immaterial substance as that metaphysical ground for qualities of the human mind that transcend the particulars of reality. That is, the robust nature of rational intentionality entails the conceivability, and furthermore the necessity, for an immaterial metaphysical ground in human nature that constitutes the means by which we attain objectivity in our thoughts.

9.4 Qualifications for this Modest Substance Dualism: Substance and Dependence

Herein the term "substance" is used broadly and is not intended to denote those aspects often attributed to Cartesian dualism. The term minimally conveys the concept of an immaterial body in which immaterial qualities of being inhere.

The phrase "substance dualism" denotes an anthropology asserting the existence of two substances. Yet, the immaterial substance asserted is often taken to be a sort of "ectoplasm" or "spiritual gunk" that connote a pseudo-material substance. In contrast, the substance dualism posited herein is one entirely predicated on the notion of humankind's capacity for rationality and objectivity through the use of the mind. The metaphysical product of this project does attempt to reach any further than what seems to be reasonably inferred from the necessary conditions for the objectivity of rational intentionality.

Understandably, there are questions about dependence remaining. However, it is a fairly uncontroversial claim to say that 'dependence' is an ambiguous term. There are obvious sorts of *functional dependence* between the mind and the brain that cannot be denied. Substance dualism affirms interrelated dependence between the mind and the brain. However, substance dualism affirms the ontological independence of the mind as constituting the ground for rationality. In the latter affirmation, all notions of existential dependence, that would give ontological priority to the brain, are precluded.

Functional dependence is evident in cases of brain damage, which reveal the interrelation between the mind and brain. However, such cases are curiously taken by many to evince the mind's ontologically posterior status with respect to the brain. However, data evincing more obvious sorts of interrelation-like dependence (like aphasia) cannot be used to warrant less obvious claims about ontological dependence. It may be the case that proper brain function is a *necessary* condition for optimal rational capacities, but that does not show that

proper brain function is, in itself, *sufficient* for optimal rational capacities.

Interrelation between two substances doesn't imply identity.

It may be believed that dualists have no valid, interesting interpretation of aphasia. However, this is simply not the case. Functional dependence is granted by most, including substance dualists. To account for such dependence one need only affirm that the brain is the means by which the mind interacts with the world. Naturally, the mind cannot bypass the brain and interact with the world in some other way. So, if the brain is damaged the mind's *ability* to interact with the brain and its environment will be affected identically. However, this evinces *nothing* (emphatically!) about the mind's *capacity* in itself, ability being distinct from capacity. Hence, a distinction between mental ability, as functionally dependent on the health of the brain, and mental capacity, as that rational and unique aspect of personhood, delineates a clear dualistic explanation of brain damage cases.

On the basis of this explanation, irrespective of one's metaphysical view of the mind and one's judgment of this explanation, one ought to see that in cases of brain damage, or of counterfactual split-brain experiments, all empirical conditions will appear similar whether the mind and brain are identical or substantively distinct. Both materialism and dualism, as beliefs formed prior to interpretation of the data, direct the interpretation of the data and so cannot be argued for through the data. Any inference from the data about the nature of the mind can be questioned by questioning the presuppositions that are used to interpret the data.

Consequently, cases of brain damage cannot be used to argue against substance dualism. Though the materialist explanation does attempt to account for the evidence, and seems to do so in many regards, alternative interpretations of such cases are available that both affirm rational intentionality and dependence. So, one is not *prima facie* logically bound to accept a necessary dependence of the mind on the brain. Materialistic claims that espouse cases of brain damage as logically entailing a necessary mind-brain dependence, and the ontological priority of the brain, are unwarranted.

Furthermore, one may concede with my argument to this point and yet deny the idea of mental substance as an independently existing entity. My reply is to grant this. However, in arguing this point, one might attempt to argue that one's position is more plausible than a position taking the mind as continuing to exist apart from the body. There are likely materialistic assumptions and tendencies interwoven into this thinking. Instead, I contend that a proper view would treat the brain as that substance which grants the immaterial mind access to the material world. As mentioned above, this functional dependence is illuminated by cases wherein the brain has deficiencies in its function—the natural connection between the mind and the brain is diminished. But such functional dependence does not entail an ontological dependence. Therefore, no inference from functional dependence to ontological dependence is warranted.

9.5 Rational Intentionality Applied: Traditional Objections to Substance Dualism

In "Giving Dualism Its Due" Lycan cites 9 objections to substance dualism. Lycan comforts the dualist by affirming that there are just as many objections set against any philosophically interesting position. However, it is conceivable that dualism might be held in contempt for its immaterial explanations. In such cases it would be expected that warrant be established through point-by-point defeater-defeaters. However, the case I have presented attempts to approach objections in a way similar to Burge's approach to epiphenomenalism; Burge cites epiphenomenalism as an unwarranted worry due to misplaced epistemic priorities. In this, Burge implicitly suggests that the philosophical strength of a position ought to be evaluated by appeal to well-ordered priorities. (223) For the one who affirms rational intentionality, the objective, veridical nature of thought is logically prior to the evidence cited in material science, which is inherently limited to the empirical study of the localized material brain. The result: epiphenomenalism, and all other objections to dualism that attempt to dogmatically understand rational intentionality through the lens of unwarranted materialistic assumptions, constitutes no warrant for dismissing a dualism that is epistemologically grounded in the reality of rational intentionality exhibited in all thought. The robust conception of rationality that has been purported here precludes belief in materialism, and so perhaps, if noted by materialists, would be conducive to a less dogmatic, more transparent and perhaps more truth-conducive, debate.

I want to more clearly convey the philosophical strength of this position by considering a few ordinary objections to dualism. Lycan states, (Note: I take his reference to Cartesian dualism to be relevant to all forms of substance dualism.)

1) The Interaction Problem of course. (2) Cartesian egos are excrescences, queer and obscure, and they are not needed for the explanation of any publicly known fact. (3) Even if conceptually intelligible, Cartesian interaction violates known laws of physics, particularly the conservation of matter-energy [Cornman 1978: 274]. (4) Evolutionary theory embarrasses dualism, since we have no idea how natural selection could have produced Cartesian egos; an immaterial substance could not possibly be adaptive . . . Paul Churchland too has rehearsed objections (1)-(4) [1984: 18-21], and . . . he appeals to simplicity . . . (5) In comparison to neuroscience, dualism is explanatorily impotent (pp. 18-19). (. . . The point is . . . that the dualist theory itself explains nothing.)

In response to Lycan: (1) Interaction is a question, not an objection. The only force it would hold as an objection is grounded in materialistic assumptions already shown to be without warrant and self-refuting; (2) Rationality is publicly known, even necessarily presupposed for any thought to occur, and yet it is not explainable through material terms. I don't think the mind, as that which grounds this capacity for meaning, is 'queer and obscure' unless a materialistic view of science is dogmatically assumed without question; (3) The law of the conservation of energy pertains to a physical system and says nothing about the actions of non-physical entities external to that physical system. Entropy doesn't entail the nonexistence of substance outside of the *physical* system of reality. Lycan's claim only assumes what it attempts to prove: all is matter. This is obviously going to affect one's *interpretation* of entropy, though entropy itself

can still be affirmed in all its essence by a substance dualist. A substance dualist is fully capable of affirming entropy in theory and practice. (4) Evolutionary theory, or natural selection, cannot explain rationality. In essence, it cannot explain objectivity. So, if one is to have objectivity, it is evolutionary theory that is an embarrassment. It's entailed in this response that natural selection cannot produce immaterial substance or its capacity for rationality, and I'm glad to see that Lycan affirms this. However, this is to the detriment of naturalism, not rationality or of that dualism which metaphysically grounds rationality. (5)

Neuroscience is a study of material processes, and is not materialistic. It is not contrary to dualism. Churchland's presumptuous approach is exposed in setting neuroscience against dualism, as if they were contrary to one another. This is only further confirmation of the general materialistic attitude that Burge noted as dogmatic. In contrast, one should notice that neuroscience, as the gathering of data, explains nothing; the world is not a text. The data of neuroscience must be interpreted, and it is only that interpretation that can disprove or disagree with dualism. The strength of the interpretation will depend on how well founded the beliefs are that are used to interpret the evidence. Neuroscientists coming to the table with materialistic assumptions will inevitably attempt (perhaps unconsciously) to bring that data under the domain of their prior metaphysical commitments, but dualism is unscathed if materialism is unwarranted.

Furthermore, no materialistic assumption contributes to the explanatory power of the neural data. All data would similarly contribute under a dualist-based science. (Beginning with a materialistic worldview and affirming one's own interpretation

as the *only interpretation*, is a good way of ensuring that one's science is 'explanatorily powerful'.)

The dualist position, as the ground for objective thought, is alone *sufficient* to coherently account for the mental capacity for explanation; in one sense, dualism is the only position that grounds the capacity for explanation. It grounds our presumed warrant to make objective claims—to do science. No materialistic approach except compositional materialism would seem to metaphysically ground our capacity for representation (anti-individualism). Yet, compositional materialism, as the weakest conceivable materialism, cannot offer any metaphysical ground for our presumed capacity to think and speak, as particularly exhibited in objectivity and argument. A materialistic view of the mind, then, may be an indicator for an unwarranted naturalistic view of reason. When we reform our view of epistemology, as I take Nagel and Burge to be doing, we are confronted with rational intentionality as that capacity to make objective claims and cannot be naturalized. We are confronted with an insurmountable authority in thought that must be presupposed in order to have any thought at all. Consistency with this robust epistemology requires a firmer commitment to our view of the mind than is typically the case. We must affirm a view of the mind that can ground our epistemology. Not just any will do, and even compositional materialism fails in this. In deed, dualism does explain 'something'. On the grounds of rationality and science, we are led to dualism almost by necessity.

Though the nature of this dualism could be left open in some regards, most objections to substance dualism appear to rely on a strong assumption of

materialism. With materialism's logical instability, substance dualism appears much more plausible than is often assumed.

The substance dualism I have argued for places priority on epistemic questions; one cannot question reason's authority without implicitly affirming its authority. We don't want our assumptions leading us astray into some dogmatic slumber by overlooking the basic questions about rational intentionality. I have argued that rational intentionality must be affirmed or that objectivity must be abandoned. In emphasizing the priority of epistemic priorities this approach to substance dualism easily dismisses all common objections that rely on materialistic presumption.

One's stance concerning materialism is predicated by one's epistemology. For one considering the robust objective nature of rationality any objections against dualism seem to wane in the midst of an epistemological stronghold that seems to logically preclude materialistic notions of the mind; from this interpretive framework all objections seem to be issues of unimaginative dogmatism which incessantly appeal to a priority of the physical and empirical cognitive studies. If Burge's notions of materialistic dogma are right, it ought to be expected that many objections will supervene on a presumption about interpretation; the metaphysical position of materialism will attempt to take the name of science and so dismiss opposition by appeal to its own interpretation over emphasizes on rational discourse. In contrast to materialistic objections that emphasize the particular and the subjective, the success of a meaningful philosophical position might be evaluated by its ability to account for all

phenomena including notions of objectivity and rationality. On these grounds, materialism has been dismissed and dualism embraced.

10.6 Anticipating Future Developments

I am persuaded by Burge and Nagel (*inter alia*) to think that materialism tends toward scientism and, as such, is harmful to the scientific and philosophical enterprises. It oppresses inquiry that would question assumptions by the critical use of reason. Instead, it assumes an unconsciously held sacrosanct epistemology (i.e., empiricism; science as ultimate authority) and metaphysic (i.e., naturalism), and goes on to use these in the interpretation of (what it takes to be raw) data. I believe this occurs through a confusion of the respective roles of philosophy and science. In presuming a material view of the mind to be true, materialism has distracted the scientific enterprise with loaded questions infused with the wrong aim. Philosophical inquiry has been taken presumptively to begin with the terms of matter, held up by the central pillar of materialism—there are no immaterial substances or forces. Scientific inquiry has presumably been endowed with the capacity to transcend the particular and give us the brute facts. Yet, there are no brute facts and knowledge in science requires proper interpretation. A proper interpretation of the data, however, requires a proper approach, and a proper approach presupposes proper basic beliefs. Basic beliefs are the content of philosophy and not of science. Philosophy is the rightful tutor of those preparing for future inquiries into the deeper reaches of philosophy and of science. It is in philosophy that basic beliefs can be questioned and properly established.

Given this correction, I would contend that dualism has the potential to burgeon research in both philosophy and science in ways unimaginable under the scope of the current schema. This flourishing of philosophy and science seems inevitable, and should be looked forward to with anticipation. Assumption is by nature unkind to rationality. Its interpretation is taken to be the raw data, and a question of that interpretation is 'irrational'. Burgeoning of new ideas is inevitable when dogmatism loses hold in a culture. Reason's wonders sprout forth.

Dualism is philosophically grounded. It is not scientifically grounded. What can be seen from philosophy (that is, what can be seen from an explication of those unquestionable principles which enable any inquiry at all) is that something like dualism must be true. Science has no role in this. Yet, once this distinct view of the mind is philosophically established, unwarranted assumptions about the nature of science and philosophy are exposed. Philosophy establishes the nature of the mind that coherently accounts for the capacity to do science. It gives us the principles that will enable a consistent interpretation of the data, to prevent wayward science (and so ensure greater efficiency in distribution of research grants).

I want to be clear here that I share an intrigue with materialists about the progress of empirical studies of the brain. I might add that I take myself to be fairly influenced by the materialistic paradigm (my mental pores still exude the imaginative limitations of materialism), and so I may have lost some of the imaginative vigor that would lead to the truly intriguing questions for a generation

under this paradigm. Standard objections to dualism seem to be a great resource for discovering interesting topics for scientific research. How does interactionism play out? In the process of evaluating an argument where does the empirical data stop, and the mental interaction of rationality begin? What does a dualistic approach to neuroscience entail for the relationship between harmful addictions of the brain and the mental weaknesses that fail to consider arguments for more beneficial, more valuable, choices? These are a few interesting questions for the scientist under a dualistic paradigm.

10.7 A Recapitulation of the Epistemic Strength of this Approach to Substance Dualism

It has been contended that dualism has support on the basis of an often-neglected view of reason. Proponents of this view of reason have a propensity to accept immaterial views of mind. Further, materialistic reviews of dualistic arguments fail to account for this particular vein of argument. I began tracing out this vein of argumentation with William James who inferred a concrete immaterial mind on the basis of the rational capacity to “compound” basic concepts. Next, I offered Plantinga’s and Reppert’s arguments as together arguing against naturalistic interpretations of the mind. Both offer compelling reasons to think that value of truth-apt capacities require an immaterial view of the mind. Further, I offered an extensive review of Nagel’s and Burge’s philosophies of mind, each in their own right offering compelling reasons to reject materialism as a consistent implication of science. In turn, each offer good reason to suspect some form of immaterialism about mind to be true.

Additionally, I infer from Burge's rejection of epiphenomenalism good reason to believe the mental as explanatorily prior to the brain in metaphysical inquiries into the mind. What constitutes the mental? I believe this leads to the epistemic status of reason as a self-attesting authority in thought, and this in turn leads to the *logical* priority of the mental (as grounded and constituted in rationality) over the physical (no-self attesting authority relevant to thought). If this is right, that the mental is logically prior to the material brain in philosophical enquiry, then rationality will ground the metaphysical status of the mind; if rationality is not materially reducible, but instead logically prior to it, it is *sui generis* and its qualities require a substance which itself is logically prior to the material brain.

Finally, building from Kobes's ideas I offered an argument that materialism, consistently held, leads to the devaluing of all argument. I take this fundamentally to be an argument that materialism is inconsistent with rationality, since rationality, being objective, veridical and self-attesting, cannot be materially construed in any way. It is materially inexplicable and Nagel's question, "How is it possible for finite beings like us to think infinite thoughts?" (*The Last Word*, 74), is apropos for this point. This constitutes further reason to think of the mental as logically prior to, not referenced through, and so entirely ontologically distinct from material composites. Such mental qualities exhibited in rationality appear to require a substance that is itself explanatorily prior matter in inquiries into mind; epistemic priority appears to necessitate an immaterial substance. It

seems most reasonable, then, to think of rationality as inhering in, and so being metaphysically grounded by, an immaterial substance.

Upon careful analysis of the grounds for inquiry, a genuine evaluation of rational intentionality appears to entail a rationally compelling argument for substance dualism.

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