

Hegel's *Noesis* as Embodied and Extended Mind

Anthony F. Crisafi, *Valencia College*

Introduction

Hegel's dialectical movement from the subjective to the objective in his *Phenomenology of Spirit* is one of the first real attempts in western thought to articulate a theory of embodied and extended mind. Whereas before Hegel Descartes would situate a problem between the mind and the body and whereas Kant would categorize that the world of the mind was divided between the noumenal and the phenomenal, Hegel attempted to reconcile these problems by proposing that the mind must make itself manifest and concrete in order to have any power or influence. Hegel imagined embodiment taking the form of social institutions, such as government, religious, or educational, and in the form of certain kinds of discourse and texts, such as religion, art, and philosophy. The most important concept we gained from Hegel is that questions of metaphysics must be examined in connection with their relationship to objective consciousness, as these questions themselves only made sense if they were being objectified in some real and physical manner. Making the mind embodied either in institutions and texts, or through technology, is a fundamental concept throughout Hegel's works, particularly in the *Phenomenology of Spirit*, the *Science of Logic*, and the *Philosophy of Right*, as well as in others. For Hegel, the concrete and the objective represent the absolute consciousness at work in our world.

However, it is clear from the research that Hegel has been either ignored or forgotten when it comes to issues dealing with mind, consciousness, and cognition, and more particularly in the fields of phenomenology and cognitive science. In the growing field of embodiment discourse, there are very few articles or books that deal with Hegel and embodiment. One reason may be that critics and theorists may view Hegel's dialectic as not pertaining to the body specifically. One book that tries to clarify this problem, John Russon's *The Self and Its Body in Hegel's Phenomenology of Spirit*, offers a view of Hegel and embodiment as a psychological discussion of Hegel's concept of Geist. Hegel's concept of embodiment remains, according to Russon, an explication of numerous levels of expression, socialization, and habituation. Russon understands Hegel here as the inheritor of the Aristotelian teleology, and Hegel's concept of embodiment parallels Aristotle's in abiding by an internal principle of self-explication, in which personal identity requires and is defined by self-expression. However, most other articles that deal with Hegel and embodiment tend to focus on Hegel's relationship to

idealism than to pure concepts of embodiment, such as Paul Redding's article "Embodiment, Conceptuality and Intersubjectivity in Idealist and Pragmatist Approaches to Judgment." That Hegel is so ignored in this field makes me question just how critics and theorists who work in embodiment situate Hegel in the first place.

Setting aside the issues of critical exegesis of Hegel for the moment, it is my thesis here that Hegel is important and pertinent to the discussion of mind as it is unfolding in the fields of phenomenology and cognitive science. I will argue that the Hegelian dialectic is in fact a vital key to understanding current theories of embodied and extended mind. The general field of contemporary phenomenology is alive with Hegel, not because he has become fashionable, but that different discourse areas in which phenomenology runs through are also looking seriously at Hegel. This can be demonstrated at the amount of work currently appearing in a plethora of areas that intersect and interconnect with each other in these fields. For example, in the research writings of Axel Honneth, Shaun Gallagher, and Peter Sloterdijk, Hegel has become important for making the relationship between the human being and the physical world possible. Honneth recognizes in Hegel the concept of intersubjectivity, what Hegel himself referred to as interrelatedness; Gallagher, whose own contributions to phenomenology and cognitive science, specifically in embodied and extended cognition, have led him to explore Hegel in these areas from a pragmatist view, arguing for a more central positioning of Hegel as what may link together variegated approaches both to theoretical and to practical problems within phenomenology and cognitive science; and for Sloterdijk Hegel is crucial for humanizing the often coldness of purely cynical pseudo-scientific technologies in favor of a deeper and warmer discussion of the creative side of consciousness and how it maintains and sustains our existence.

Phenomenology, therefore, through its various discourses, is becoming more and more dependent on Hegel for describing much more substantive relations and connections between subjective and objective consciousness. Cognitive science is beginning to look seriously at Hegel in connection with concepts as they relate to consciousness and cognition through embodiment and extension. I will demonstrate Hegel's influence in all of these areas in this dissertation by focusing on a specific concept within Hegel's philosophy that resonates throughout all of the areas I have mentioned so far. It is Hegel's concept of intelligent consciousness that connects all these threads together, and Hegel understood and defined this intelligent consciousness as *noesis*. Therefore, the purpose of this analysis is to demonstrate how the cognitive aspects of Hegel's dialectic can be applied to current research methods within phenomenology and cognitive science, specifically how Hegel's dialectic applies to the concepts of embodied and extended cognition. Phenomenology and cognitive science represent a unique and interdisciplinary approach to the study of mind, one in which research methodologies of philosophy and psychology are united under the humanistic past they both share.

They are both respective discourses of the human sciences: phenomenology, as an extension of philosophy, is the study of the human experience with consciousness, specifically how cognition interacts with the physical in order to become representation through the creation of artifacts, whether verbal, textual, or cultural; and cognitive science, as an extension of psychology, is the study of the bio-physical construction of cognition as an organic system grounded in the body. I am not interested in tracing this complex history any further at this point; it may be important to do so in the future, but my main point here is that the recognition of Hegel as contributing to the study of human cognition has been neglected by these discourses. There may be good reasons for this, and we may need to discuss these further, but for now I want to focus on how Hegel applies specifically to the area of embodied and extended mind. This is where I see Hegel as being integral, as his dialectic represents the first articulation of what is now known as extended and embodied cognition in western humanistic tradition.

Classical and Hegelian Construction of *Noesis*

Noesis was specifically understood by the Ancient Greek philosophers as the operation of *nous*, or thinking as opposed to sensation, and intuition as opposed to discursive reasoning. There are subtle differences between the mere perception of an object or objects, as understood by the term *aisthesis* and other kinds of psychic awareness that goes beyond the sense data and perceives less tangible things, like resemblances and differences between objects, is already present in Homer and is identified with the organ called *nous*, or mind. Central to the history of philosophy are three overarching problems: the problem of knowledge, the problem of conduct, and the problem of governance. Beginning in *mimesis*, or the mirror, in dance and ritual that encoded and explained the world, the questions become more insistent, and as a whole, communities begin to ponder the nature of things. The dance is augmented by song and poetry, by epic tales so vivid that children never forget the main characters and their extraordinary experiences and exploits, and which pose in different terms the fundamental questions: (1) What is the world? (2) What should I do? and (3) How are our lives to be ordered?

Homer's epics are rich in what may be called pre-philosophical reflections on the human condition and the very point and purpose of life. Such works are the background "folk" wisdom of an age; philosophy is a refinement or rejection of the claims of the dancer and the bard. The three basic philosophical questions—What can I know? How should I behave? Is this tribe or polis able to preserve our knowledge and protect our interests?—were addressed before the beginnings of history. The beliefs of preliterate societies are stored and rehearsed in the form of dance and painting, song and poetry, all incorporated into and deriving from myth.

Hegel discovered *noesis* through his studies of Plato, Aristotle, and Plotinus. From Plato, Hegel learned that “divine intelligence” is a creative force, one which manifests itself in the dialectic between mind and reality. The image of the birth of Athena that Plato uses to depict the “*he theon noesis*” appears also in Hegel as the prime and supreme example of creative intelligence. For Plato, *noesis* represented the highest form of intelligence, in which only the gods or the most prized of philosophical minds could engage. Plato demonstrates this in his *Republic*, where *noesis* resides in the upper level of Plato’s “theory of the line” as the ultimate form of intelligence. What is appropriate to note about Plato’s *noesis* is that it is the highest level of intellection—the ability to create new ideas out from the struggle between life and death. The Birth of Athena, which Plato identifies in his *Cratylus*, exemplifies this for Plato. Hegel, however, views Plato’s *noesis* similarly, but without mythologizing the intellectual process. For Hegel, Plato’s *noesis* forms the basis for the Hegelian dialectical struggle of the mind coming to grips with an atavistic reality, one which much be overcome by mind (*Geist*) in order to ensure the existence of the human. In other words, for Hegel, the image of Metis struggling to ensure her own survival against Zeus’ destruction by creating her progeny Athena is tantamount to the human overcoming the physical world in order ensure its own existence. What Hegel takes from Plato here in terms of *noesis* is that human intellection is a creative and destructive process—a dialectic of life through cognition engaged by consciousness. In the *Republic*, Plato not only attempts to establish a universal understanding of justice, but he also developed an explanation of reality and our knowledge of it. This explanation lead Plato to postulate the Theory of Forms. In order to explain the theory of reality, Plato used the “Theory of the Divided Line” and the “Allegory of the Cave” in the *Republic*. In these, Plato distinguished four distinct levels of reality and their corresponding levels of knowing. The length of each segment of the divided line represents the degree of clarity, certainty, and truth of that particular level. This system can be represented in the following table:

What we can know	How we can know it
Pure Form, Universal Harmony— “The Good”	Dialectics
Laws—Formulas	Logic—Reasoning
The Physical World	Beliefs—senses
Images	Conjecture

Plato has a new spiritualized conception of soul that, though originally posited on religious grounds, is incorporated in his theory of knowledge. It is this pure unitary soul of the *Phaedo* that becomes the epistemological correlative of the *eide* and, being absolutely different in kind from the body, can perform all the cognitive activities that Pre-Socratic philosophers associated with *nous* but were unable

to explain on the level of substance. But the problem is considerably more complex than this. Even in the *Phaedo* the soul is the *arche* of all cognitive activity; sensation is perception by the soul through the body, and *phronesis* (wisdom) is an operation of the soul alone. In the *Phaedo* the distinction between the two operations is largely in terms of the objects known; in the *Politeia* it reappears in a much more complex form based on the internal operations of the soul. This latter is now divided into three parts, and the upper part, the *logistikon*, is responsible for noetic activity. But the psychology is far more sophisticated here, and in the “Theory of the Divided Line” (above), from the *Republic* VI, noetic activity is explained in some detail. The distinction drawn between *episteme* and *doxa* is maintained here, but Plato discovers that there is more than one type of *episteme*. The upper part of the line that represented knowledge of the *noeta* (*Rep.* 509e) is further subdivided into what Plato calls *noesis* and *dianoia*. These two operations of the *logistikon* have been debated by both Aristotle and Plotinus. Aristotle tends to view the *dianoia* as that activity of the mind which has as its object the mathematical, while the objects of *noesis* are the *eide*. Aristotle also notes that *dianoia* is discursive reasoning in general and *noesis* is the immediate intellectual intuition (*Anal. Post.* II, 100b). Plotinus will distinguish between *logismos* and *nous*. What is clear, however, is that the method of *noesis* is that known to Plato as *dialektike*, and the way of life based upon it is *philosophia*.

There are certain passages in Plato that give somewhat more of a purely psychological insight into the workings of the intellective process. Plato seeks to derive *episteme* from the Greek word to “stand” or “come to a halt” (*ephistamai*) and so explain intellection as a “coming to a halt” in the midst of a series of sense impressions, the “fixing” of an intuitive concept (*Cratylus* 437a, *Phaedo* 96b). But this psychological approach is overwhelmed by a flood of physical considerations. *Noesis* is an activity and as such must be located within the general categories of change and kinesis. Plato speaks of revolutions of the body of the *kosmos* that reveal the motion of its own soul and provide a visible moral paradigm for the motions of our own soul.

For example, in the *Timaieus* Plato presents an elaborately wrought account of the formation of the universe. Plato is deeply impressed with the order and beauty he observes in the universe, and his project in the dialogue is to explain that order and beauty. The universe, he proposes, is the product of rational, purposive, and beneficent agency. It is the handiwork of a divine Craftsman (“Demiurge,” *demiourgos*, 28a6), who, imitating an unchanging and eternal model, imposes mathematical order on a preexistent chaos to generate the ordered universe (*kosmos*). The governing explanatory principle of the account is teleological: the universe as a whole as well as its various parts are so arranged as to produce a vast array of good effects. It strikes Plato strongly that this arrangement is not fortuitous, but the outcome of the deliberate intent of Intellect (*nous*), anthropomorphically represented by the figure of the Craftsman who plans and constructs a world that is as excellent as its nature permits it to be. As Plato tells it, the beautiful orderliness of the universe is not only the manifestation of Intellect;

it is also the model for rational souls to understand and to emulate. Such understanding and emulation restores those souls to their original state of excellence, a state that was lost in their embodiment. There is, then, an explicit ethical and religious dimension to the discourse.

But it is in the *Cratylus* that Plato offers the most important analysis of *noesis*. Plato writes:

The ancients seem to have had the same belief about Athena as the interpreters of Homer have now; for most of these, in commenting on the poet, say that he represents Athena as mind (*nous*) and intellect (*dianoia*); and the maker of names seems to have had a similar conception of her, and indeed he gives her the still higher title of “divine intelligence” (*hê theou noêsis*), seeming to say: This is she who has the mind of God (*Theonoa*). (*Cratylus* 407a-b)

Plato’s eerily deconstructive reading of Homer’s rendition of the myth of Athena’s birth here from the *Cratylus* reminds us not that language is ineffable and ephemeral, but that within the dialectical synthesis between attempts to define and create meaning for and from a word or term, the moment that definition becomes possible itself demonstrates the *hê theou noêsis*, the “divine intelligence.” Athena herself is the *noêsis*, the intelligence, the ability to bring together disparate organon in order to sustain life through wisdom. Plato here reminds us that *noêsis* makes Athena from *Theonoa*, which in this case should be understood as the feminine gynecological struggle to create life against the patriarchal destroyer, Zeus, Athena’s Father and the killer of her mother Metis. The Greek poet Hesiod tells the tale about the birth of Athena:

And she remained hidden beneath the inward parts of Zeus, even Metis, Athena's mother, worker of righteousness, who was wiser than gods and mortal men. There the goddess received that whereby she excelled in strength all the deathless ones who dwell in Olympus, she who made the host-scaring weapon of Athena. And with it gave her birth, arrayed in arms of war. (*Theogony* 929a-929t)

Zeus and Metis, daughter of the Titan Oceanus, were the parents of Athena. But Gaea had warned Zeus that, after giving birth to the girl with whom she was pregnant, Metis would bear a son destined to rule heaven. To avoid losing his throne to a son, Zeus swallowed Metis, just as Cronus had previously swallowed his own children to thwart succession. Metis’s child Athena was born from the head of Zeus, which Hephaestus split open with an axe. Consciousness stands atop the head like a triumphant spirit set free, completely formed from within the mind first before being birthed into the world, conquering the limitations of the materiality of its quickening within the brain, and emerging as a dancing thought whose strength and precision buoys it above and beyond even the most powerful

of forces. The birth of Consciousness into the world is the most painful of mental processes, as the organon necessary to create and produce it requires a concentration of multiple faculties, some of which include deeply self-reflecting phenomenologies of cognitive moments of existence so subtle as to originate from within the very nervous system itself.

Hesiod shows how Metis (Thought) is consumed by Zeus, and how from that initial consumption she becomes the quickening agent for the daughter Athena, goddess of wisdom and strength. Zeus' anger at being cheated by Hera, as she bore Hephaestus to spite Zeus for his infidelities, and his fear of the strength of unknown creative and reproductive beauty of Thought compulsively leads him to sexually conquer and then consume Metis in an attempt to rid himself of the painful memories of his own insecurities. In the mythologies, Zeus is fated to be dethroned as he dethroned his father before him, Kronos, who also dethroned his own Father Ouranos. However, Metis, whose very name means "wisdom, skill, or craft," would use the very last bit of her abilities not to sustain herself but to create a new living entity who would be the strongest force for human life. Plato writes in his *Symposium* that:

If Apollo invented archery and medicine and divination, it was under the guidance of Desire and Love; so that he too may be deemed a disciple of Love as likewise may the Muses in music, Hephaestus in metal-work, Athena in weaving and Zeus "in pilotage of Gods and men."
(*Symposium* 197b)

Here in his list of accomplishments the guidance of Desire and Love creates, Plato relates that Athena's creation is weaving, the ability to bring threads of different colors to create beautiful art, examples of Athena as *noêsis*, synthesizer of organic structures which can be used to create meaning. The image of Athena's birth becomes for Hegel the central metaphor for how the human is born from consciousness instead of merely the bio-organic nature of reproduction. In Hegel's famous parable of the flower in the Preface to the *Phenomenology of Spirit*, we can directly see the correlation of the flower (which equals the human being born into the world) as the image of Athena being born out of Zeus' head:

The bud disappears in the budding-forth of the blossom, and one might say that the former is refuted by the latter; similarly, when the fruit appears, the blossom is shown up in its turn as a false manifestation of the plant, and the fruit now emerges as the truth instead. These forms are not just distinguished from one another, they also supplant one another as mutually incompatible. Yet, at the same time their fluid nature makes them moments of an organic unity

in which they not only do not conflict, but in which each is as necessary as the other; and mutual necessity alone constitutes the life of the whole. (22)

Just as the fruit is the actuality of the plant, the idea exists as a pure form that is born into physical reality, just as Athena. The parable of the flower is probably one of the best examples of how mind works through stages of the dialectic to become an extended and embodied organic unity; because ideas themselves are conscious creations, they must necessarily give themselves over to the higher rational function of the social reality in order to see any growth or development at all.

Of birth and of *noesis*, Hegel also writes in the *Phenomenology*:

The 'P', or becoming in general, this mediation, on account of its simple nature, is just immediacy in the process of becoming, and is the immediate itself. Reason, is, therefore, misunderstood when reflection is excluded from the True, and is not grasped as a positive moment of the Absolute. It is reflection that takes the True a result, but it is equally reflection that overcomes the antithesis between the process of its becoming and the result, for this becoming is also simple, and therefore not different from the form of the True which shows itself as *simple* in its result; the process of becoming is rather just this return into simplicity. Though the embryo is indeed *in itself* a human being, it is not so *for itself*; that it only is as cultivated Reason, which has *made* itself into what it is *in itself*. (12)

Here the concept of birth is here linked to the essential quality of *noesis* in that the human being possess the immediacy of rational intellect in so far that in the embryonic state the human is an existent-in-itself. For it to become a purely rational being, it must engage in deliberative *noesis*, or what Hegel expresses as "Reason is *purposive activity*" (12). It is only through the exercise of *noesis* that the human actualizes its reason and becomes conscious, self-conscious, and then intelligent.

The image of Athena as the epitome of *noesis* is also evoked by Hegel in the *Philosophy of Nature*—the second volume of the *Encyclopedia of the Sciences*. Here, Athena becomes the pure embodiment of rational intelligence born by the noetic mind into the natural world itself. Hegel writes:

There is essentially Understanding in Nature. Nature's formations are determinate, bounded, and enter as such into existence. So that even if the earth was once in a state where it had no living things but only the chemical process, and so on, yet the moment the lightning of life strikes into matter, at once there is present a determinate, complete creature, as Athena fully armed springs forth from the head of Zeus. . . . Man has not developed himself out of the animal, nor the animal out of the plant; each- is at a single stroke what it is. In this individual,

evolutionary changes do occur: at birth it is not yet complete, but is already the real possibility of all it is to become. The living thing is the point, this particular soul (*Seele*), subjectivity, infinite form, and thus immediately determined in and for itself. Already in the crystal, as a point, the entire shape is at once present, the totality of the form; the crystal's capacity for growth is only a quantitative alteration. Still more is this the case in the living thing. (284)

From here we can readily see that the Platonic image of Athena as the *hê theou noêsis*, or the “divine intelligence,” is what drives the human to create, maintain, and sustain its existential space within nature predicated on engaging the active intelligence. Plato's Athena then becomes for Hegel the supreme creator, as she is the truest and purest form of intelligence.

From Aristotle Hegel learned that *noesis* is the intellection of the mind (*nous*)—an intellection purely grounded in human capability. For Plato, *noesis* represented the formal intellection of the divine, and as such was not attainable to human consciousness, except by the philosophical few. For Aristotle, however, *noesis* is the creative act of human mind *sui generis*, in that *noesis* is what the human mind is both capable of and for which it has been created for. This is what Hegel discovers about *noesis* in Aristotle's image of the *noesis noesos*, the Prime Mover who “thinks itself into thinking.” For Aristotle, the Prime Mover creates itself by thinking itself into existence. However, here we find in Aristotle the same division between soul-body as we find in Plato; Aristotle admits that humans can divinely intelligize, but he still keeps this intelligizing within the realm of a mythology. Instead of being merely the caprice of the gods, as Plato does, Aristotle insists that this intelligizing comes to the human from outside of itself—it is given to us by the Prime Mover. The distinction, at first, does not seem much different from Plato, as both Plato and Aristotle suggest that *noesis*—the act of intelligence—is something for which is outside the complete grasp of the human. But for Plato, the human can only glimpse at this divine intelligence, while in Aristotle's typology the human can engage with this intelligence, but only by first enactively engaging with intelligence, thereby keeping this divine intelligence within the realm of the Prime Mover, and hence, with the realm of the divine. This, of course, is in line with Aristotle's teleology, but remains a mystery as far as how the human itself develops intelligence.

There are significant problems with what Aristotle proposes, especially by way of his typology between the body and the soul. Aristotle keeps these separate and does not consistently explain how the soul (mind, *nous*), as entangled with the body, can engage intellectually. Aristotle tries to explain intellectual abilities—such as love, hate, memory, and discursive thinking—as attributes not as a pure intelligence but as a composite between intelligence, body, and soul. For example, in *De Anima* (On the Soul), Aristotle argues that desires as such are not part of intelligence (*noesis*) but are produced by the body—they are fantasies of the body. Here, again, as with Plato, Aristotle presupposes a double

intelligence—a higher intelligence and a lower intelligence, in which the higher intelligence is an active intelligence and the lower a passive intelligence. It is this lower intelligence that is changeable and possesses the desires. Memory is also considered by Aristotle to be a component of the lower intelligence, since memory is a part of the physical fantasy of the body. The higher intelligence is considered active, in that it is *noesis* pure and proper. However, this active intelligence is not an individualized intelligence, meaning that it is not found within any one example of the human being. Therefore, Aristotle creates a dualistic problem in defining *noesis* as intelligence both as and as not a part of the human body. For example, for Aristotle, active intelligence does not memorize, but somehow is the true practice of the human. This creates a dichotomous problem in Aristotle's psychology, in which the soul is the entelechy of the body and intelligence is the entelechy of the soul from outside of the body.

Aristotle's treatment of *noesis*, like his explanation of *aesthesis*, is conducted within the categories of potency (*dynamis*) and action (*energeia*). The nous before it knows is actually nothing but potentially all the things it can know; the *eide* are present in it but only potentially, as Aristotle claims in *De Anima*, (III, 429a). When the *nous* begins to operate it passes from a passive to an activated state by reason of its becoming identical with its object, the intelligible form. There is in *noesis* a parallel with *aesthesis*: just as *aesthesis* extracts the sensible forms of sensible objects, so *noesis* thinks the intelligible forms in sensible images (*phantasiai*), and *noesis* never occurs without these latter. *Noesis* can be directly of essences or it can operate through judgments (*hypolepseis*), or by the combination (*synthesis*) or separation (*diairesis*) of concepts, and it is only in this latter operation that error is possible.

Hegel, however, is neither a strict Aristotelian nor a strict Platonist when it comes to the relationship between the soul and the body. Hegel seeks to reconcile this dichotomy, and as such *noesis* for Hegel is a pure construct of human consciousness, one in which the consciousness mind actively engages with the body in order to situate and extend itself into existential space. For this typology of *noesis* to work, however, Hegel had to turn to another source in order to find the reconciliation between Plato and Aristotle. As Hegel sought to overcome the mind-body (soul-body) problem that was still prevalent within philosophy of his day, as evidenced by the Cartesian mind-body dualism and the Kantian dualism between the noumenal-phenomenal, Hegel has first to define *noesis* for himself as first a theory of embodied consciousness. Hegel would make *noesis* the central logic of his dialectic, a logic which is first and foremost a synthesizing of the mind and the body, and for this he would find in another ancient philosopher who the imagined the intellect as ensouled within the body. That philosopher was Plotinus.

Plato's successor, Plotinus, Born in Greek-speaking Egypt studied in Alexandria, center of Hellenistic learning. After unsuccessful attempt to visit Persia and study philosophy there, established himself as philosophical teacher in Rome. Plotinus became foremost advocate of Plato's thought in

ancient world, and his interpretation forms the basis of revived Platonism known as “neo-Platonism.” Plotinus was enormously influential on early Christian thought. Plotinus asserts that humans, as eternal souls in temporary bodies, come into contact with crude matter and forget their origins in “the One” (an entity unknowable through ordinary reason, completely self-sufficient, totally transcendent, and the source of all things). Through cultivation of virtue, philosophical training, and spiritual contemplation, the soul may regain its lost unity with the One. Often considered the founder of “Neoplatonism,” Plotinus regarded himself as a Platonist, as a defender and expositor of the position of Plato. But, according to Plotinus, Plato needs to be interpreted, and the central Platonic works bearing on our reading of Plotinus are the *Timaeus* and *Republic*. Plotinus developed a theory that consisted of Three Hypostases. Hypostasis means something that stands under and supports, or is the underlying or essential part of a thing. A hypostasis is not a cause in the sense of preceding temporally. The Three Hypostases of Plotinus include: The One (or The Good), Intellect, and Soul. For Plotinus, the beauty of art and nature is a manifestation of the unity of being. Plotinus ascends from the unity of individual souls to the unity of the general or world soul, and from that to the intellect thinking itself. Ultimately all dualities of knowing and known, subject and object, are overcome by the self-identity of the self-reflective thought. It is to this wholeness that all orders of creation aspire, and from it that all have been created.

Clearly this concerns more than analysis of composition. Beauty then could be seen to achieve at least two things: (1) to understand or perceive the world in a new and enriched way or (2) to move us outside ourselves. That concept can lead us in two directions: (1) the relationship between the beautiful and the good—the path of architectural determinism or (2) the relationship between the beautiful and the sacred—the discussion of sacred places.

For Plotinus, then, *noesis* is the active mind, embodied and entellected. Plotinus’ doctrine of “the One”—in which he seeks to eliminate the duality between mind-body (soul-body) is both Platonic and Aristotelian, in that both Plato and Aristotle’s images of the “thinking thinker” represents a duality between subject and object. According to Plotinus, any thought about intelligence (*noesis*) must be a thought about something, and this thinking about something involves a duality that remains true even of intuitive self-thinking intellect (*nous*). Plotinus seeks to establish that the first principle must be beyond all determination or limitation, and as such, it must be free from even the minimum duality implied in this kind of self-reflective thinking. This leads Plotinus to posit “the One” as being beyond even the conception of a limitation—in other words, it could not be a “Being” as such, as a “Being” for Plotinus is always limited by form or essence. An absolute formless being is impossible, and therefore absolute being is the unified whole of all form which is the divine intelligence (the *he theon noesis* that Plato himself describes). Therefore, that which is beyond the limitation of form is beyond being, for Plotinus.

Plotinus here is attempting to lift the mind (*nous*) beyond limitation and claims this is the “Good” in the Platonic sense. Plotinus reminds us that the undetermined, unlimited first principle is not a mere negation, but something supremely positive, so positive that it is both the cause of the existence of the whole universe and the goal to which all living beings aspire. The universe for Plotinus is conceived entirely in the classical Hellenic sense—of both Plato and Aristotle—up to the level of the divine intellect (*noesis*) in that up to this level the more formed and definite a thing is, the better and more real it is. The being and existence of the world of the intellect—the Forms—are definite in character and finite in number, and they are the best of and the only real beings.

There is here in Plotinus a synthesis between Form and Being. For Plotinus, beyond intellect lies the total indetermination of “the One” or “the Good,” which is the source of a certain indeterminate vitality underlying the formal and definite world of intellect (*noesis*) itself. But as Plotinus associates being with form, limit, and determination, “the One” emerges as pure and absolute being, and as such it is the first existential intellect (*noesis*). The whole purpose of the critical purification of our minds by negation which Plotinus requires of us, if we are to pass beyond intellect to the first principle of reality, is to reveal to us the eternal source of being, intellect, good, and unity as we discover these at their highest form, which for Plotinus is more than they are because at their source they are themselves free from limitation. It is an essential part of this process of purification of our minds by negation that what is denied of “the One” should be thoroughly eliminated.

It is in this light that Hegel himself both interprets and incorporates Plotinus’ own concept of *noesis* into his philosophy. In his *Lectures on the History of Philosophy*, Hegel writes that “Plotinus thus distinguishes in *νοῦς* thinking (*νοῦς*), the object thought of (*νοητόν*), and thought (*νόησις*), so that *νοῦς* is one, and at the same time all; but thought [*νόησις*] is the unity of what had been distinguished” (Vol. 2, 421). Here Hegel recognizes in Plotinus that thought (*νόησις*) is synthesis; it is the mediating term that Hegel himself writes about throughout his works, the mediating term that brings together the individual and the universal through the particular. It is the mediation of subjective spirit through objective spirit into absolute spirit. But, more importantly, for Hegel this mediation is accomplished through the body. As he writes in the *Phenomenology*:

The individual exists in and for himself: he is *for himself* or is a free activity; but he has an *original* determinate being of his own—a determinateness which is in principle the same as what psychology thought to find outside of him. In his own self, therefore, there emerges the antithesis, this duality of being the movement of consciousness, and the fixed being of an appearing actuality, an actuality which in the individual is immediately his *own*. This *being*, the *body* of the specific individuality, is the latter’s *original* aspect, that aspect in the making of which it has not itself played a part. But since the individual is at the same time only what he has

done, his body is also the expression of himself which he has himself *produced*; it is at the same time a *sign*, which has not remained an *immediate* fact, but something through which the individual only makes known what he really is, when he sets his original nature to work. (185-186)

Here Hegel makes the body the seat of both the immediate nature of the mind and the mediating factor of consciousness itself. The body as immediate is finite in its existence but also infinite in its ability to engage in *noesis*. This mediation of the body is clearly in line with Hegel's analysis of Plotinus above and the following passage from the *Lectures*:

. . . Plotinus makes the first world-soul to be immediate activity of the finite understanding, which is an object to itself; it is pure soul above the sublunar region, and dwells in the upper heaven of the fixed stars. This world-soul has power to originate; from it again there flows an entirely sensuous soul. The desire of the individual and particular soul separated from the whole gives it a body; this it receives in the higher regions of the heavens. With this body it obtains fancy and memory. At last it repairs to the soul of the sensible world; and from this it acquires sensation, desires, and the life that is vegetative in nature. (Vol. 2, 430)

Noesis, then, is the mark of the creative intelligence that is capable of creating itself in both its world soul and its sensuous soul. In both of these passages, we can clearly see Hegel invoking both the concept of *noesis* as higher intelligence and as physical manifestation. For Hegel, *noesis* represents the mediation of *Geist* mind, soul, and spirit at once through the very immediate existence of the human and its body. For Hegel, the very physicality of the body represents more than something to be overcome; in his analysis of Plotinus, Hegel recognizes the absolute existence of the body as the seat of pure noetic creation.

Problems with Husserl's Typology of *Noesis* and the Hegelian Solution

Husserl's *Logical Investigations* was inspired by Bolzano's ideal of logic, while taking up Brentano's conception of descriptive psychology. In his *Theory of Science* (1835) Bolzano distinguished between subjective and objective ideas or representations (*Vorstellungen*). In effect Bolzano criticized Kant and before him the classical empiricists and rationalists for failing to make this sort of distinction, thereby rendering phenomena merely subjective. Logic studies objective ideas, including propositions, which in turn make up objective theories as in the sciences. Psychology would, by contrast, study subjective ideas, the concrete contents (occurrences) of mental activities in particular minds at a given time.

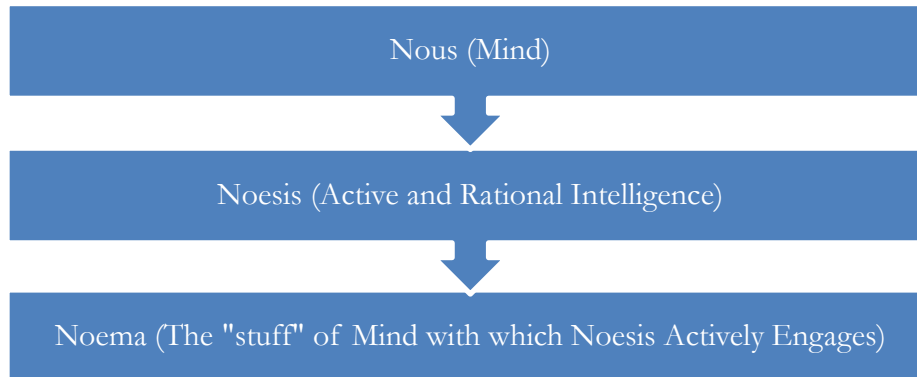
Husserl was after both, within a single discipline. So phenomena must be reconceived as objective intentional contents (sometimes called intentional objects) of subjective acts of consciousness. Phenomenology would then study this complex of consciousness and correlated phenomena. In *Ideas I* (Book One, 1913) Husserl introduced two Greek words to capture his version of the Bolzanoan distinction: *noesis* and *noema*, from the Greek verb *noō* (*voéō*), meaning to perceive, think, intend, whence the noun *nous* or mind). The intentional process of consciousness is called *noesis*, while its ideal content is called *noema*. The *noema* of an act of consciousness Husserl characterized both as an ideal meaning and as “the object as intended.” Thus the phenomenon, or object-as-it-appears, becomes the *noema*, or object-as-it-is-intended. The interpretations of Husserl’s theory of *noema* have been several and amount to different developments of Husserl’s basic theory of intentionality.

One change between the *Logical Investigations* and the *Ideas* is that Husserl began using the term ‘*noesis*’ to refer to intentional acts or “act-quality” and ‘*noema*’ (plural ‘*noemata*’) to refer to what, in the *Logical Investigations* had been referred to as “act-matter.” Husserl does not simply change his terminology, however. This change in terminology coincides with an apparent change in metaphysical understanding of the relationship between the *noema* as an ideal meaning and the particular mental activities of actual subjects, and also with a much more intense interest in analyzing the different elements of the *noema*, as well as understanding its relationships, both temporal and semantic, to other *noemata*.

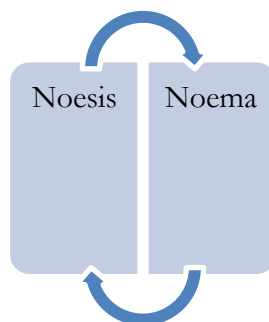
Metaphysically the main change is that Husserl seems to abandon the model of meanings as ideal species that get instantiated in the act-matters of particular subjects in favor of a more direct correlative relationship between the *noesis* (intentional acts) and the *noemata* (their objects). In *Ideas* it is *noemata* themselves that are the objects of intentional thought, that are graspable and repeatable and that, according to Husserl, are not parts of the intentional acts of conscious subjects. It is a point of interpretative and philosophical contention whether the *noema*, as Husserl understood it, is better viewed as a sort of abstract Fregean sense that mediates between the subjective noetic acts of individual thinkers and the objective referents of their thoughts (Føllesdal 1982, Smith and McIntyre 1982), or whether the *noema* is better seen as the object of intentional thought itself as viewed from a particular perspective (Drummond 1990). While the difference between these two interpretations may seem rather small, they are actually quite different in terms of their metaphysical commitments and in terms of the particular issues of meaning, reference, and epistemology that they are able to resolve or be challenged by. For a general introduction and overview see the introduction to Smith and Smith (1995) and for more detailed discussion of some of the main differences see Dreyfus and Hall (1982), Zahavi (1994), and Drummond (2003).

There arises a significant problem with the typology of *noesis* and *noema* as Husserl constructed these terms for his phenomenology, especially in light of the details concerning the classical

construction of *noesis* as I have outlined it above. *Noesis* was an already established concept within ancient Greek philosophy, one in which the following diagram demonstrates:



In the original Greek concept, *noesis* is the power of the mind (*nous*) which arranges, creates, maintains, and sustains the *noema*. The term *noema* in Greek does not stand for the empirical object of *noesis*; rather, *noema* is the plural form for the stuff of the mind itself, the *noetic* and the *noematic*. For Husserl, however, it was important to maintain the dualistic problem of the mind in relation with the outside world, one in which he both inherited and embraced through his investigations into both Descartes and Kant. For Husserl, the *noema* was the object of *noesis*, meaning that through the *epoche*, the phenomenological reduction of the *noema*, one then extracts the *noesis* as a pure, abstract category of thought. This can be seen in the following diagram:



However, this is misunderstanding on Husserl's part; because in the Greek construction of *noesis*, as well as Hegel's own construction of *noesis*, *noesis* is the dynamic intelligence that not only understands *noema* but actually creates *noema*. For Husserl, *noesis* is the pure meaning that is left after the *epoche* reduces the *noema*; *noesis* becomes the abstract ideal and not as created *noema*. For example, in the *Ideas*,

Husserl gives the example of the apple tree in the garden (214-215). Husserl suggests we must distinguish between three things: The act of perception, the perception itself, and the tree itself. We say what is perceived is the apple tree, but the transcendent tree, the actual tree is quite different from the sense, and the psychological state of remembering, believing and judging is quite different from the *noesis*. There is a real external relation between the actual tree and the actual person, but the *noesis* and *noema* are not real, and moreover their relation is not external, but the *noema* is internal to the *noesis*. In the phenomenological gaze we bracket the real world, and we ask what is immanent to the noetic processes. Even though we have placed the real relations in suspension, nonetheless there still emerges a new type of relation between the perceiving and the perceived. The content is the same, but now it is viewed in an immanent manner. What then is the perceived in this new relation? It is no longer a transcendent thing. The task of phenomenology is to describe this immanent “tree” as it is given in consciousness itself.

In the reduction we no longer see a tree, which we take for granted as being out there as it is in itself, but we see the tree as a tree, and it is this “as a tree” which is the marker of the immanent content. For this second tree, unlike the real tree, cannot be burnt up. It is not made of anything and has no “real properties.”

Is this second tree, therefore some kind of mysterious tree with magical and mysterious properties? This would only be the case if we were to think the real tree and the tree as something meant as though they were the same kind of thing. But the “tree as something meant” is precisely not a thing at all, and not even some special kind of thing, rather it is a meaning, or what Husserl calls sense (*der Sinn*).

The object as it is meant, what we have called the immanent object, is in no way dependent on the actual object. This should not lead us however, to think that there are two real objects or that the immanent object is the image or reflection of the actual object (this again is the mistake of thinking both as though they belonged to the same order, which would be the error of Platonism). What is perceived as what is meant or intended in the act of perception is not the same in any way as the actual or transcendent object, and therefore cannot be a copy or image of it.

To say that the immanent object is a copy of the transcendent object is merely a metaphysical addition that has no basis in lived experience. The task of phenomenology is to stay with what is given in the *noesis* itself, and not go outside it in dogmatic statements about reality. What we find when we look at the *noesis* is that inherent to it is always a *noema*. The “apple tree” as opposed to the real apple tree.

Having made this distinction between transcendent and immanent objects, we can make investigation of the essential relation between the *noema* and the *noesis*. First of all the *noema* and the *noesis* are radically different, though they are always a necessary correlation of one another. More

interestingly, however, the pure structure of the *noesis* affects the *noema*. The apple tree remembered appears differently than the apple tree perceived. On the other hand, even though there is this difference, we can still that over different noetic acts, there is part of the *noema* that remains the same. This Husserl calls the noematic core. It is that which remains the same over different intentional relations. That part of the *noema* the “apple tree” that remains the same, whether it is perceived, remembered, judged and so on. This is what we mean by the sense of the object. The meaning of the apple tree does not change whether we thinking of this apple tree perceived, remembered, or even liked.

When we think of the world, therefore after the reduction that reveals this whole network of relations between noetic and noematic, we realize that the natural attitude is in error to think the starting point is an opposition between the subject and an object, and where the subject’s understanding of the world is given by the object through sense impressions. Rather the relation to the world is already directed in advance and what directs me or guides me the world is the *noemata*. Accordingly, Husserl states that we never just see a thing, rather we always see something as already embodying a meaning, which is immanent to consciousness, and this meaning guides my gaze. But if we return to Hegel’s notion of *noesis*, grounded in the ancient Greek concept, we find something very different. Hegel takes great pains to trace *noesis* through the emergence of the mind out of nature, where an ensouled body is its first externality and expression. Hw writes:

Under the head of human expression are included, for example, the upright figure in general, and the formation of the limbs, especially the hand, as the absolute instrument, of the mouth—laughter, weeping, etc., and the note of mentality diffused over the whole, which at once announces the body as the externality of a higher nature. (*Encyclopedia, Philosophy of Mind*, 44)

Thus, insofar as the mind consciously recognizes itself as this exposed body that Hegel describes, it also seeks fulfillment from others which derives “the emergence of man’s social life” (56). This seeking, in turn, takes the form of the will, which externalizes the mind into something that can be comprehended by others and that develops into “an objective phase, into legal, moral, religious, and not less into scientific actuality” (482). Here, extension and embodiment become important variables to Hegel’s thesis, particularly since ideas and states of consciousness remain dependent upon their influence. Mind must transform itself into a concrete form in order to accomplish anything and this extension and embodiment is reflective of cognition as a rational act. Specifically, the mind is motivated to identify with the objective, and this is achieved through physical work and actions that become manifest in cultural activities such as art, religion, and philosophy, and through social

institutions, such as government and law. Indeed, as Hegel writes in the *Philosophy of Right*, “A person must translate his freedom into an external sphere in order to exist as Idea” (40).

Contrary to most interpretations of Hegel, his dialectical philosophy may be viewed as one of the first real attempts in western thought to articulate a theory of embodied and extended cognition. Whereas before Hegel, Descartes and Kant had situated all of the important categories of cognition fully in the mind, Hegel proposed that the mind must be manifest and concrete in the world as part of its proper function and in order to have any power or influence. Hegel viewed mind as externalized in the form of social institutions and practices, in technology, and in the form of certain kinds of discourse and texts, such as religion, art, and philosophy. The most important concept we gain from Hegel is that questions of metaphysics must be examined in connection with their relationship to objective/externalized consciousness, as these questions themselves only make sense if they are objectified in some real and physical manner. Understanding the mind as embodied and extended in institutions, technologies, and texts, is a fundamental concept throughout Hegel’s works, particularly in the *Phenomenology of Spirit*, the *Science of Logic*, and the *Philosophy of Right*. For Hegel, the concrete and the objective represent a form of absolute consciousness at work in our world.

Hegel’s concept of *noesis* is more than just an historical movement in the dialectic, as for Hegel synthesis represents the moment when cognition realizes itself as the folding together of the disparate moments of the dialectic and creates a cognitive model extending and embodying mind. *Noesis* is the moment when cognition becomes concrete, because it is through this process that mind organizes the thesis and antithesis into an exact system that can be utilized as a cognitive technology to create/maintain order and stability while promulgating the expansion of human epistemology. The main position that I am taking here is that Hegel’s concept of the *noesis* serves as an appropriate model for structuring research theory and methodology in cognitive science discourse. For Hegel, *noesis* represents the highest state of human consciousness or a moment in which ideas come together to form a conscious connection. It is philosophy itself that Hegel sees as being the methodology for these conscious connections, since philosophy is first and foremost grounded in dialectic, the dialogue between conscious ideas in themselves. Because philosophy is a form of consciousness—as it can demonstrate at any time the logical structures of a science of consciousness—Hegel identified this as the *noesis* of phenomenology; that is, the uncovering of this cognitive mechanism through the representation of dialogue demonstrates the purposive power of phenomenology as a method for demonstrating consciousness. Hegel understood *noesis* from the original Greek, meaning thought, and he posited that *noesis* constitutes a form of conscious power, or Geist, which should be recognized as the linguistic synthesis for Hegel between both mind and spirit as the embodiment of the human.

Hegel’s overall system always leads to *noesis*, which should be understood as the rational and conscious bringing together of the dialectical conflict through technological structures in order to

create and maintain the stability for cognition to function. It is of no consequence right now to argue the historical forces at work, nor to argue whether Hegel's system is truly capable of creating this stability: all that matters is that Hegel saw synthesis as the cognitive mechanism that helps both to establish and to move *Geist* (both mind and spirit) towards embodiment. Charles Taylor does a good job of providing an early discussion of Hegel's conception of embodiment in his book *Hegel*, so I will not labor this right now. Instead, I argue here that the Hegelian dialectic is in fact a vital key to understanding current theories of embodied cognition, with special focus on the concept of the extended mind. I will first analyze Hegel's contribution through a close analysis of certain movements of the dialectic as they pertain to embodiment. Specifically, I will offer an analysis of the movement from subjective to objective spirit.

For instance, Hegel outlines this concept of mind, throughout his philosophical writings, as an unfolding of both individual and societal existences through experience and thought. Mind, for Hegel, is equal to reason, specifically where the manifestation of an entity or event naturally leads to the occurrence of another. More importantly, for this discussion, Hegel asserts the dichotomy between natural law and legal right is of utmost importance in extending human consciousness. He stresses the relationship between sense certainty and perception: for whatever we come in contact with physically is reality, and how we perceive physical objects is also the essence of the object. This creates a tension in the consciousness of the individual mind, for as we accumulate more and more physical and sensual experiences, we are able to recognize objects and people, calculate what is supposed to happen in a given social situation, and understand basic properties of objects unknown to us beforehand. Hegel writes:

Mind again takes as its object and applies its activity to the Notion in which in going within itself, it has comprehended itself, which it is in form and being, and which has just been separated from it anew. The application of thought to this, supplies it with the form and the determination of thought. This action thus further forms the previously formed, gives it additional determinations, makes it more determinate in itself, further developed and more profound. (*Lectures* Vol. 1 27)

This happens because *noesis* moves us to import knowledge from past experience into the realm of the here and now. Accordingly, mind moves through us as individuals and manifests itself into the physical as objects of sense. These objects can become anything from works of art to social institutions, which in themselves serve as both examples and as moderators of historical culture. The heart of Hegel's dialectic is based on mind as constantly manifesting itself in the real in order to affect and influence human society towards the rational, and it can only do this effectively through cultural and social

institutions. And, according to Dudley Knowles in his article on Hegel, “man’s understanding of himself, of his place in nature and his relationship with other men has developed through history in a way that can be characterized as the increasing self-knowledge of Spirit [Mind]” (48). What Knowles recognizes is the emphasis Hegel places on the rational becoming the real, or mind becoming extended and embodied, which is essential for any discussion of society at all.

Hegel views the development of mind as an historical movement that is also at odds with genuine universal principles. Any given period in history is the process and the product of the dialectic—thesis-antithesis-synthesis—where ideas are brought to the fore and worked out instead of merely being implemented. The dialectic is both an intellectual and a social process, hence making it a phenomenology of conscious and social forces. There are three basic principles of *noesis* here that we should stress: (1) ideas are teleological, as they develop past associations and note merely abstracted out of nothing, (2) ideas, not being themselves whole or complete, attempt to become so by positing themselves as universals, and (3) as posited universals, ideas interact with opposing forces to become physical manifestations. For Hegel, the universal is more than just a representative of a higher rational function; by abstracting the universal into concrete physicality it becomes the higher rational function in and of itself. Therefore, all ideas attempt to become universal, which according to Hegel, is society itself. Again, if we take Hegel’s famous parable of the flower from his *Phenomenology*, just as the fruit is the actuality of the plant, the idea exists as a pure form that is also contained within physical reality. The parable of the flower is probably one of the best examples of how *noesis* works through stages of the dialectic to become an extended and embodied organic unity; because ideas themselves are not universal, they must necessarily give themselves over to the higher rational function of the social reality in order to see any growth or development at all.

Extension and embodiment are of utmost importance to Hegel, because no idea or state of consciousness can be of any influence if it is not extended and embodied. *Noesis* here must turn itself into a concrete form in order to move towards absolute mind. In Hegel’s system, this movement has at least three steps: (1) consciousness of the individual within the framework of a physical reality, (2) consciousness of the individual’s relationship to itself and to other self-conscious individuals, and (3) individual consciousness of the responsibility to the universal society. The first two steps develop the consciousness of the individual mind. Afterwards, once the individual mind attains this level of maturity, it becomes the embodiment of subjective mind. The individual mind can then extend itself to objective mind by moving into the social realm and becoming a responsible member of a social entity. Moreover, this extension and embodiment is reflective of cognition as a rational act. Crawford L. Elder states in his article “Hegel’s Teleology and the Relation between Mind and Brain”:

Let me begin with a rough formulation of the intuition about “embodiment”: we feel that for any individual mental state, there is some brain state without which that mental state could not make an real “dint” or difference in the world at all, could not perform any real “work”; and that this brain state by itself produce (or could produce) all of the work which that mental state performs (or could perform) in the world. In particular, we feel that there is some brain state which does (or could) produce all the “work” which that mental state, in virtue of its nature or type, is such as characteristically to do. For we do feel that mental states of any given type characteristically do “make themselves felt” in certain definite ways, i.e., do characteristically perform “work” of a certain definite type. (28)

It is this concept of “work” which Elder identifies that Hegel is truly focusing on in his philosophy; *noesis* “works” itself out in subjective and objective ways in order to extend and embody itself as the Absolute. As subjective mind acknowledges the universal qualities of the physical, it increasingly becomes aware of itself as existing in the same physical reality as those objects. Once aware, the subjective mind pushes to identify itself with the objective, and it does this by working on the physical, molding it and melding with it to become absolute. *Noesis* does this through work and actions that become manifest, such as through cultural activities as art, religion, and philosophy, and through social institutions, such as government and law. As Hegel writes in the *Philosophy of Right*, “A person must translate his freedom into an external sphere in order to exist as Idea” (40).

Therefore, we can posit that the Hegelian dialectic is a model for cognition and that Hegel’s phenomenological dialectic is well suited to be situated in current cognitive science discourse. I base this thesis on the following premises:

1. That Hegel’s concept of *noesis* is in the dialectic models the way in which mind and thought develop through engagement with other minds, thoughts, and ideas. One way in which this is possible is through literacy and engagement with texts. Hegel was fully aware the place formal education played in helping to shape the mind, specifically the relationship between formal literacy and its representations.
2. That Hegel posits the growth of mind as the *noesis* between conscious agents living within socially constructed systems predicated on rational thought over mere materialist chance. This is evident throughout Hegel’s work, specifically concerning the nature of the will and how it must enforce itself into concreteness through technology. Specifically in the *Science of Logic*, Hegel posits a concept of the mind as it imprints itself onto society through what I will term technologies as it concretizes itself. It is often easy to forget the role the material played in

Hegel's system, since we tend to think of Marx as the father of dialectical materialism, but Hegel agreed that the physical world was important in maintaining the being of our consciousness.

3. That Hegel firmly establishes embodiment and extension of mind as the *noesis* of his dialectic.

The main premise is that Hegel's dialectic can provide phenomenology and cognitive science with a model for extended and embodied cognition. As Hegel constructs it, the dialectic represents mind as a sustained entity that embeds itself physically through cognitive technologies. We should understand cognitive technologies as any means for which mind is extended beyond the physicality of the body. Specifically, for the purposes of this thesis, we should understand cognitive technologies as any type of cultural institution that performs cognition or any kind of cultural artifact which records cognitive activities. This may sound broad at first, but we should look at it this way: cultural institutions, as political, legal, or educational, perform human cognition by trying to regulate order and solve problems. Government, courts, and schools all provide society as a whole with the means for regulating human behavior through institutional practices based on sound principles that represent mind as a rational entity. The arts of politics, law, and pedagogy are technologies these institutions both use in order to maintain this order and balance. Also, cultural artifacts, such as books, sculptures, paintings, etc., and the arts of writing, sculpting, painting, etc., all represent the dialogue between the human mind and the outside world. These artifacts are created and produced both from within institutions and from without, and as such these artifacts further represent a *noesis* between what is thought and what that thought produces. This is exactly what Hegel means by mind or spirit (*Geist*), that the inner life of mind must be made concrete as cultural institutions and artifacts. We must then recognize here that Hegel's dialectic is grounded in identifying how mind makes itself concrete, both as a cultural force and as an individual member. Therefore, we should focus on Hegel's concept of extended and embodied cognition in order to realign phenomenology and cognitive science around these cultural institutions and artifacts.

Hegel and the Extended Mind

In this section, I will consider how Hegel's *noesis* can be understood as extended mind, and more specifically how Hegel can be considered a consultant within phenomenology and cognitive science discourses. Clark and Chalmers (1998) introduced the concept of the extended mind, in part to move beyond the standard Cartesian idea that cognition is something that happens in a private mental space,

“in the head.” In order to both liberate the concept of mind from its neuronal confines, and at the same time, to place some controlling limits on how extended we can make it, they appeal to the parity principle:

If, as we confront some task, a part of the world functions as a process which, were it to go on in the head, we would have no hesitation in recognizing as part of the cognitive process, then that part of the world is (so we claim) part of the cognitive process. (Clark and Chalmers 1998, 8)

This principle, however, continues to measure cognition in terms of the Cartesian gold standard of what goes on in the head. It suggests that a process outside of the head can count as a cognitive process only if in principle it could be accomplished in the head (or at least imagined to be so). It is a piece of mind only if in some way it conforms to the (minimal) Cartesian concept of mental process as something that would normally happen in the head. Thus, we can think of some mental processes as happening “out there” in the world, yet still have a principled reason to limit mental processes to the kinds of things that fit the established model. Clark and Chalmers “allowed that (at least as far as [their] own argument was concerned) conscious mental states might well turn out to supervene only on local processes inside the head” (Clark 2008, 79), but other mental states may also supervene on some external processes and form part of a cognitive process.

The parity principle is further tightened up by a set of additional criteria that need to be met by external physical processes if they are to be included as part of an individual’s cognitive process.

1. That the resource (external process) be reliably available and typically invoked.
2. That any information thus retrieved be more-or-less automatically endorsed. It should not usually be subject to critical scrutiny (unlike the opinions of other people, for example). It should be deemed about as trustworthy as something retrieved clearly from biological memory.
3. That information contained in the resource should be easily accessible as and when required.
(Clark 2008, 79)

The parity principle and these criteria certainly rule over the primary and much discussed example of extended cognition provided by Clark and Chalmers—the example of Otto and Inga:

First, consider a normal case of belief embedded in memory. Inga hears from a friend that there is an exhibition at the Museum of Modern Art, and decides to go see it. She thinks for a moment and recalls that the museum is on 53rd Street, so she walks to 53rd Street and goes into the museum. It seems clear that Inga believes that the museum is on 53rd Street, and that she believed this even before she consulted her memory. It was not previously an occurrent belief, but then neither are most of our beliefs. The belief was somewhere in memory, waiting to be accessed.

Now consider Otto. Otto suffers from Alzheimer's disease, and like many Alzheimer's patients, he relies on information in the environment to help structure his life. Otto carries a notebook around with him everywhere he goes. When he learns new information, he writes it down. When he needs some old information, he looks it up. For Otto, his notebook plays the role usually played by a biological memory. Today, Otto hears about the exhibition at the Museum of Modern Art, and decides to go see it. He consults the notebook, which says that the museum is on 53rd Street, so he walks to 53rd Street and goes into the museum. (Clark and Chalmers 1998, 12-13)

The argument is that the notebook, for Otto, clearly plays the same role that memory plays for Inga. Information stored in Otto's notebook stands equivalent to information that constitutes belief in Inga. The belief, in Otto's case, we might say, supervenes on processes that lie "beyond the skin" (Clark and Chalmers 1998, 12-13).

From the perspective of Hegel, the claims made by Clark and Chalmers are quite modest. Hegel's concept of objective spirit extends the concept of extended mind to larger processes. The concept of objective spirit involves the mind in a constant process of externalizing and internalizing. On this concept, social institutions, like cultural practices and legal systems, are pieces of the mind, externalized in their specific time and place. We create these institutions via our own (shared) mental processes, or we inherit them as products constituted in mental processes already accomplished by others. We then use these institutions instrumentally to do further cognitive work (i.e., to solve problems and to control behavior).

Extension and embodiment is of utmost importance to Hegel, because no idea or state of consciousness can be of any influence if it is not extended and embodied. Mind here must turn itself into a concrete form in order to accomplish anything. Moreover, this extension and embodiment is reflective of cognition as a rational act. The mind is motivated to identify itself with the objective, and it does this by working on the physical, molding it and melding with it. It does this through work and actions that become manifest in cultural activities such as art, religion, and philosophy, and through social institutions, such as government and law. As Hegel writes in the *Philosophy of Right*, "A person

must translate his freedom into an external sphere in order to exist as Idea” (40). This view pushes us beyond the parity principle and extends the mind to a degree that even Clark and Chalmers might have reservations about. Is Hegel’s concept of objective spirit is too large, or is Clark and Chalmers’ concept of the extended mind is not large enough? However we answer that question, we stand to gain some additional insight into the concept of the extended mind by considering Hegel’s notion of objective spirit.

Hegel’s analysis often starts in the realm of psychology with the individual mind (see, e.g., Hegel 1949, §§4ff; 1971, §§440ff). But he quickly moves beyond claims about how the mind functions in isolation from the world, and he recognizes that the fuller concept of mind is to be found in a person’s contextualized action. He contends that willful activity externalizes the thoughts in our individual heads.

It is only by this activity that that Idea as well as abstract characteristics generally, are realized, actualized.... The motive power that puts them in operation, and gives them determinate existence, is the need, instinct, inclination, and passion of man. That some conception of mine should be developed into act and existence, is my earnest desire: I wish to assert my personality in connection with it: I wish to be satisfied by its execution.” (Hegel 1956, §25)

The mind, then, is not just a kind of subjectivity that is opposed to the objectivity of the world. This is rejected as an abstraction, merely as a way that one can begin to talk about the mind. The mind becomes objective to itself in the fulfillment of its activity.

In the very element of an achievement the quality of generality, of thought, is contained; without thought it has no objectivity; that is its basis. . . . In its work it is employed in rendering itself an object of its own contemplation; but it cannot develop itself objectively in its essential nature, except in thinking itself. (Hegel 1956, §88)

In other words, the mind is not simply externalized in its objective works, it works in its externalizations that call forth further cognitive activity. In this sense, for Hegel, the mind is not simply externalized, it is extended when we cognitively engage with such institutions. These works of objective spirit are best exemplified by social institutions. Such institutions take on a life of their own and allow us to engage in cognitive activities that we are unable to do purely in the head, or even in many heads. This view pushes us beyond the strictly defined parity principle and extends the mind to a degree that even Clark and Chalmers might have reservations about. Is Hegel’s concept of objective spirit too large, an overextended mind, or is Clark and Chalmers’ concept of the extended mind not

large enough? Whatever way we answer that question, we stand to gain some additional insight into the concept of the extended mind by considering Hegel's notion of objective spirit.

Much of the analysis in the *Philosophy of Right* turns on the concept of the will. Of this Hegel says, "The distinction between thought and will is only that between the theoretical and the practical. These, however, are surely not two faculties: the will is rather a special way of thinking, thinking translating itself into existence, thinking as the urge to give itself existence" (1949, Addition 4). The external realization of the will leads to the concept of property (1949, §45, §59). The institution of meaning and value derives from the subjective claim on these external realizations. This is a process that goes beyond a purely internal cognition; it is realized only in appropriation and use, which immediately puts us in certain kinds of relations to others, relations which grow in complexity (1949, §§64ff). Such relations include the alienation of property, the instantiation and violation of rights, which may be expressed or tested out in contracts. A contract is in some real sense an aspect of one or more minds externalized and extended into the world, instantiating in external memory an agreed-upon decision, adding to a system of rights and laws that transcend the particularities of any individual's mind. Contracts are institutions that embody conceptual schemas that contribute to and shape our cognitive processes. As such they can be used as tools to accomplish certain aims and to reinforce certain behaviors. Concepts of property, contract, rights, and law, once instituted, guide our thinking about social arrangements, for example, or about what we can and cannot do (see Hegel 1971, §§488ff). Insofar as we cognitively engage with such tools and institutions, we extend our cognitive processes.

Such institutions of civil society, the social, educational, and legal institutions that originate in human cognition are, ideally, not alien to the subject. As Hegel puts it, one's spirit "bears witness to them as to its own essence, the essence in which one has a feeling of selfhood, and in which one lives as in one's own element which is not distinguished from oneself" (1949, §147). Educational institutions can be good examples. The purpose of education, as Hegel puts it, is to

. . . banish natural simplicity, whether the passivity which is the absence of the self, or the crude type of knowing and willing, i.e., the immediacy and singularity in which the mind is absorbed. It aims in the first instance at securing for this, its external condition, the rationality of which it is capable. . . . By this means alone does mind become at home with itself within this pure externality. . . . [M]ind becomes objective to itself in this element. (1949, §187)

For Hegel, education liberates the individual mind by introducing it to something larger, but still of the same nature. "In the individual subject, this liberation is the hard struggle against pure subjectivity of demeanor, against the immediacy of desire, against the empty subjectivity of feeling and the caprice

of inclination.... [I]t is through this educational struggle that the subjective will itself attains objectivity ...” (1949, §187). Educational institutions are the result of human cognitive processes (they are externalizations of individual minds working collectively), but they are also employed in a cognitive manner to extend knowledge, to solve problems, and to control behavior.

We can think of the legal system as another good example. Hegel states clearly that the law is a product of thinking (1949, §211)—it is constructed in thought processes, and indeed, it is that fact which makes it positive law. Hegel recounts the formation of law as “the March of mental development” in the “long and hard struggle to free a content from its sensuous and immediate form, [in order to] endow it with its appropriate form of thought, and thereby give it simple and adequate expression” (1949, §217). The recognition of rights in law, qua recognition, is a form of cognition that depends on the law. The administration of justice, the application of law to particular cases, is a cognitive process through and through. If we are justified in saying that working with a notebook or a calculator is mind-extending, it seems equally right to say that working with the law as a means (1949, §223), the use of the legal system in the practice of legal argumentation, deliberation and judgment, as well as the enforcement of law for purposes of controlling behavior is mind extending too.

Let us consider again the three criteria offered by Clark.

1. That the resource be reliably available and typically invoked.
2. That any information thus retrieved be more or less automatically endorsed. It should not usually be subject to critical scrutiny (unlike the opinions of other people, for example). It should be deemed about as trustworthy as something retrieved clearly from biological memory.
3. That information contained in the resource should be easily accessible as and when required (Clark 2008, 79).

One can say about these criteria that each of them involves matters of degree. What counts as reliably available (or as providing easily accessible information), for example? A legal system may be reliably available even if I do not carry it in my pocket. It may be only a phone call away. If I have a specific kind of question that needs answering (surely something that would typically count as a cognitive event), I can call my attorney, who can consult his law texts and codes, and together, in this process, and relying on easily accessible information and the mechanisms of the law, we can answer the question in a reliable way. Answering the question, solving the cognitive problem, may in fact be impossible without that access to the legal system. Indeed, one could imagine a specific kind of

question that would never even come up if there were no legal system. For example, every question of the sort: “is it legal for me to do X?” The legal system in effect helps to generate certain cognitive events, and helps to resolve them.

With regard to the second criterion, why should some process that would otherwise count as a cognitive process not count as a cognitive process because it requires critical scrutiny, which is itself a cognitive process? There are plenty of instances of taking a critical metacognitive perspective (which is, of course, a cognitive process) on some problem solving acts of cognition. Taking such a perspective is itself a cognitive process, and again, that process may necessitate an institution like the law. That is, some critical perspectives may be legal perspectives that supervene on a legal institution, and do so in a way that is even more “trustworthy” than biological memory. Taking these criteria in a more liberal direction, we can certainly think that more prolonged and complex external processes that involve many elements, including processes that depend on social institutions, may be less reliable, or may be less easy to access as a whole, or may require more critical metacognitive scrutiny. But such things should not disqualify them from being cognitive processes. One roadblock to this liberal interpretation is the fact that Clark and Chalmers introduce these criteria around their discussion of belief. Clark (2008) then seems to generalize the criteria to apply to all cognitive processes. Clearly, however, these are not necessary criteria that apply to all cognition, especially if one thinks of cognition in terms of cognitive processes and activities (e.g., problem solving), rather than in terms of mental states (e.g., beliefs).

For example, what if some process X, instead of briefly supervening on a set of directions in a notebook, supervenes in a temporally extended way on a complicated and large set of directions for solving a problem. One can imagine that the directions are complex and printed in a book that takes a couple of days to work through. It should not matter in regard to the cognitive status of the process whether it takes two seconds to retrieve information from a notebook, or two days to solve a problem using a printed book. The issues of complexity, time, and quantity of processing, however, push on the issues of easy accessibility and ready availability. Should such measures matter if the process is the same in kind and the outcome similar? The important issue here is not whether something is rare, or requires critical evaluation, or is easy to access. Rather, the question is whether the external resources can carry our cognitive processes—whether they can be part of (or a potential part of) a cognitive process in that sense.

If this is right, then the kinds of institutions described by Hegel in terms of objective spirit should count as “mental institutions” (Gallagher and Crisafi 2009), that is, as supporting a form of extended cognition. Of course, this pushes us beyond the strict interpretation of the parity principle to the extent that such external resources are quite different than anything that can be found “in the head.” Yet they can partly carry our cognitive processes when we cognitively engage with them. Our

argument, in agreement with the liberal interpretation of the parity principle, is that any lack of parity in this sense should not disqualify such processes from being considered cognitive if they are processes to which the human organism is linked in the right way, that is, “in a two-way interaction, creating a coupled system that can be seen as a cognitive system in its own right” (Clark and Chalmers 1998, 8). Accordingly, we can start to see that human cognition relies not simply on localized brain processes in any particular individual, or on short-term uses of notebooks, tools, and technologies, but often on social processes that extend over long periods of time.

Usually, we think of judgments as happening in the privacy of one’s own head. But some judgments supervene on processes that allow control over a large amount of empirical information. In a court of law, evidence and testimony are produced, and judgments are made following a set of rules that are established by the system. The process in which the judgments get made will depend on a body of law, the relevant parts of which may only emerge (because of the precise particulars of the case) as we remain cognitively engaged and as the proceedings develop. Judgments are not confined to individual brains, or even to the many brains that constitute a particular court. They emerge in the workings of a large institution. Yet these legal proceedings are cognitive processes—they produce judgments that may then contribute to the continued processes of the system. The practice of law, which is constituted by just such cognitive and communicative processes, is carried out via the cooperation of many people relying on external (and conventional) cognitive schemas and rules of evidence provided by the legal institution itself. It is a form of cognition that supervenes on a large and complex system, an institution, without which it could not happen. It is a cognitive practice that in principle could not happen just in the head; indeed, it extends cognition through environments that are large and various. An individual required to make judgments about the legitimacy of certain arrangements interacts with the legal institution and forms a coupled system in a way that allows new kinds of behavior to emerge. Take away the external part of this cognitive process—take away the legal institution—and “the system’s behavioral competence will drop, just as it would if we removed part of its brain” (Clark and Chalmers 1998, 9).

Concluding Remarks

If there is a limitation to Hegel’s thinking, it may be considered his focused concern for *noesis*. That he successfully or not extended his dialectic into the physical and concrete reality is of no concern, but what is important here is to accept that Hegel understood that mind extends itself into the objective in order to ensure its existence. There may be other mechanisms at play in the objective (material, for example) but nonetheless, the objective exists to keep *noesis* propagating. What we have heretofore considered is how Hegel can be understood in connection to large institutional

superstructures, but the great power of Hegel's dialectical *noesis* is that the means of organization and maintenance of cultural institutions is predicated on the internal rational logic within mind. Logic, as such, was not merely the abstract field of study as it was taught in the institutions of his time. He saw the very structures of logic as relating to how cognition is the technology that constructs the psychology of the human organism both internally and externally, and that *noesis*, for Hegel, then, is the dialectic between these specific processes. As any system of measurement and demonstration, Hegel recognized that philosophy must include abstract concepts that can be easily disseminated by ways of institutions, but the real key for Hegel was how to reassemble the bits and pieces of these concepts and use them to enhance mind into the objective. For as Hegel writes in *Phenomenology of Spirit*, "*Die Wahrheit ist die Bewegung ihrer an ihr selbst; jene Methode aber ist das Erkennen, das dem Stoffe äußerlich ist*" (*Phänomenologie*, §48). I interpret Hegel here as writing "The Truth is a movement in-itself, but whose method is the cognition of the physically material," which is keeping in line with Hegel's own noetic dialectic. This here clearly shows that Hegel understood the relationship between cognitive structure as a *noesis*, which in this case is placing both cognition and organism together as one superstructure. That this *noesis* can be extracted out of his system and applied to other types of cognition is the evidence for its universality.

My initial feeling is that it is wrong to criticize Hegel for creating an over-arching system that somehow erases "otherness." Hegel is very and painfully aware of the multiplicity of identity, and although there are clear instances where his philosophy is certainly Eurocentric (such as in the *Philosophy of History* where he discusses Africans not being as culturally "evolved" as Europeans), nonetheless, the dialectic itself is not discriminatory, nor does it create cultural homogeneity, as the postmodernists would argue. In T. M. Knox's edited versions of *Hegel's Early Theological Writings*, which includes "Fragment of a System" written around 1800, Hegel writes:

One kind of opposition is to be found in the multiplicity of living beings. Living beings must be regarded as organizations. The multiplicity of life has to be thought of a being divided against itself; one part of this multiplicity (a part which is itself an infinite multiplicity because it is alive) is to be regarded as something related, as having its being purely in union; the second part, also an infinite multiplicity, is to be regarded as solely in opposition, as having its being solely through a separation from the first.... The concept of individuality includes opposition to infinite variety and also inner association with it. A human being is an individual life in so far as he is to be distinguished from all the elements and from the infinity of individual being outside himself. But he is only an individual life in so far as he is at one with all the elements, with the infinity of lives outside himself. He exists only inasmuch as the totality of life is divided into parts, he himself being one part and all the rest the other part.... (309-310)

Several points are interesting to me in connection with possible poststructural/postmodern criticisms here. First, clearly Hegel sees life itself as containing multiplicity, and this even extends to both cultural and existential manifestations. Second, he makes an argument here that is clearly grounded on the foundation of enlightened self-interest, or mutual cooperation, for individual consciousness to exist. That “he is only an individual life in so far as he is at one with all the elements, with the infinity of lives outside himself” clearly suggests that the homeostasis of polity is what supports this multiplicity in the first place. It is this political imperative that Hegel sees as *noesis* manifesting itself as reasonable institutions. That he must be bounded by the conventions of rhetoric in presenting his system is not the same as the system overriding culturally multiple identities.

Let us understand Hegel’s *noesis* through a general understanding of his philosophical system, which can be elucidated through an analysis of the *noesis* and its relationship to embodied and extended cognition. Indeed, we must now recognize that Hegel did create a pure phenomenology based on the mind’s ability to engage consciously with *noesis*. Hegel attempted to systematize the development of human epistemology and ontology through *noesis*, the structure of the stages of embodied experience the human moves through in order to develop the *Geist*—mind, spirit, psyche, and soul—that will structure the *Bildung*, or the intellectual structure of the social world. I will retain Hegel’s German term *Geist* as an ambivalent synthesis of Hegel’s concept of *noesis* as being of essence to human cognition, as cognition is the *noesis* of the phenomenological investigation Hegel used as his investigative tool. I will also acknowledge that my understanding of *Bildung* here comes from the work of Fredrick Beiser, whose book *Hegel* allows me to trace how Hegel hit on the idea of embodied and extended cognition in his *Phenomenology of Spirit*. Beiser’s thesis concerning *Frühromantik*, the early period of German Romanticism, is an interesting in connection with the analysis presented in this paper so far. First, Beiser demonstrates that the underlying goal of the *Frühromantik* movement itself was the embodiment of logical knowledge into the very social fabric of German society. These Romantics were interested in the ethical, moral, and political advantage that Romanticism could provide German society, especially in the face of a changing Europe, with the French Revolution and the Napoleonic Wars remaking the old boundaries. Beiser argues that most scholarship of German Romanticism has ignored this ethical and political dimension of the movement, reducing the movement merely to an aesthetic and literary pursuit. But he focuses in on the very real concern of the *Frühromantiks* themselves as to how this spirit, working against the rigidity of *Aufklärung*, can be extended into society itself as a means of creating social progress beyond the “enlightened” ruler.

Hegel comes into this discussion through his response to *Frühromantik* in his *Phenomenology of Spirit*. The *Frühromantiks* were interested in making art the highest pinnacle of human reasoning, but Hegel turned that pinnacle into philosophy, making art a part of the cognitive construct of philosophy itself. According to Beiser in his work, this is what grounds Hegel in *Frühromantik*, that of his insistence

on philosophy as the structure for *Bildung*, or the education of the society. Through the phenomenological dialectic and the ontology of the human through its extended and embodied cognition, Hegel demonstrates how the consciousness of structure itself remakes the human into the absolute agent of itself. The human ontologizes itself through its very labor: it becomes its own master/slave relationship in order to create a synthesized *noesis* in which the human can live through the cognitive technology of the state. Hegel synthesizes the logical structures of Descartes, Kant, and Fichte into an *noesis* whose components create the underlying architecture for cognition necessary to become an education system. The *Frühromantik* investment in *Bildung*, according to Beiser, is such an important component in understanding Hegel's *Phenomenology of Spirit*. This becomes important because it shows that Hegel was more interested in the embodied aspect of human cognition.

Hegel structures the development of Geist as an historical moment as well. Any given period of time develops its ideas through relational conflicts that become the dialectic. Hegel's dialectic consists of this: An idea is presented as a thesis of a moment, grounded in its historical foundations; this thesis, because of its historical foundations, is confronted by the antithesis, that which challenges the thesis. I would like to make a note here about the antithesis not necessarily being a direct contradiction; in fact, I will argue that the antithesis may merely be an unanswered question by the thesis itself, one that needs further elucidation. From this point it is clear that one dialectical moment can actually move towards multiple dialectics at once, maybe moving the whole structure towards synthesis, based on the need to equalize the dynamic embodiment into organisms of the thesis and the antithesis. Looking at the dialectic in this way, we can understand three principles of the historical dialectical movement: (1) ideas in themselves are teleological, as Aristotle posited, and are developed from past associations and are not abstracted out of nothing; (2) ideas, not being whole or complete in themselves, become so by embodying themselves as the structure of dialectic phenomenology, and (3) all ideas attempt to become universal by existing both outside of the psychical *Geist* as pure consciousness. The historical moments are grounded in the same principles that govern the physical world. Again, Hegel's parable of the flower serves as an example of this embodiment (*Phenomenology of Spirit*, 2). Just as the fruit is the actuality of the plant, which is contained in the plant from the very beginning, the ideal exists as a pure form that is also contained within physical reality the very bodily organism of the plant itself. All of the processes from bud to bloom Hegel lays out in this parable point to the "organic unity" he writes. "These forms are not just distinguished from one another, they also supplant one another as mutually incompatible" (2). This is the very definition of *noesis* as we have encountered it here so far. Therefore, the historical is merely the embodiment of dialectical phenomenology, not the other way around.

This has implications for how we should read Hegel's system in connected with contemporary theory and debate within phenomenology and cognitive science concerning the extended and

embodied mind theory. Because it is not universal all on its own, the human must learn the necessary means to attain consciousness through cognition and then embody itself in order to thrive. There is clearly an existential foundation here for Hegel, as he does acknowledge the body as the seat of consciousness. Its *Bildung*, then, is its investiture in becoming a part of *Geist* through exercise of the mind and body. *Bildung* must be understood as the *Frühromantik* desire to create a system that could adapt to changes in the socio-political objective consciousness that is important to provide the vehicle for the bloom. The human pushes itself towards absolute consciousness through the embodiment of the human into the fabric of the social world. In Hegel's system there are three steps to this embodiment: (1) consciousness of the individual within the framework of *Bildung* to become subjective consciousness, (2) consciousness of the subjective consciousness to itself and to other self-conscious humans and social organizational structures, objective consciousness, and (3) absolute consciousness of the human and its extended conscious existence as a participating member in the life-world of the dialectical phenomenology. Accordingly, absolute consciousness occurs when the subjective consciousness fully realizes itself as both an object and a subject of its own physical embodiment. The subjective consciousness then moves towards homeostasis so as to existentially derive pleasure and essence from being alive.

This homeostasis represents a universal structure that can be applied in every situation that pertains to the conditions of liberty and freedom. However, notice that even as a universal, this does not work for each and every circumstance, but rather in the circumstances that demand these conditions. The universal here is conditional upon a situation, as Hegel understood it, and this makes the possibilities of human cognition and its embodiment infinite. We must remember that Hegel uncovered the organic mechanisms at work in supporting mind culturally, for without mind the human does not exist. Otherness of culture and of self is then an essential component here because this differential creates the organic desire to keep mind existing. Hegel's logical understanding of speculative reasoning, that it is an area for mind to conduct its own theoretical experiments in which mind can, by utilizing the phenomenological law of absolute consciousness, noetically becomes its own conscious moment, synthesizes itself into a new form of being. Hegel demanded that *noesis* lives and embodies itself through logic, and that it becomes the moment of its own existence. For Hegel, logic is the ultimate technology, as it both sets up the required structure to observe and study *noesis* itself. This does not implicate an absolute outcome for *noesis* other than the moment to change the essential nature of its own existence. The nature of *noesis* itself is the use of a body of knowledge that is capable of acting like a technology. Logic represents this body for Hegel, as its principles are both universally established and also uncovered through the movement of the dialectic. *Noesis* cannot create or produce any of its understandings from any other resources than its own pure cognition. *Noesis* can utilize cognition to create and produce thought, but thought will always be relegated to being a

subjective experience. This is what Hegel means by the necessity of working and of producing; mind takes thought and then converts into a materialist practice. However, *noesis* does so only after first creating thought within itself first, which is where the problem between empiricism and what was once thought to be idealism occur.

Therefore, Hegel's dialectic can provide phenomenology and cognitive science with a model for extended and embodied cognition. As Hegel constructs it, the dialectic represents *noesis* as a sustained entity that embeds itself physically through cognitive technologies. We should understand cognitive technologies here as any means for which through *noesis* mind is extended beyond the physicality of the body. Specifically, we should understand cognitive technologies as any type of cultural institution that performs cognition or any kind of cultural artifact that records cognitive activities. This may sound broad at first, but we should look at it this way: cultural institutions, as political, legal, or educational, perform human cognition by trying to regulate order and solve problems. Government, courts, and schools all provide society as a whole with the means for regulating human behavior through institutional practices based on sound principles that represent the *noesis* of mind as a rational entity. The arts of politics, law, and pedagogy are technologies these institutions both use in order to maintain this order and balance. Also, cultural artifacts, such as books, sculptures, paintings, etc., and the arts of writing, sculpting, painting, etc., all represent the dialogue between the human mind and the outside world. These artifacts are created and produced both from within institutions and from without, and as such these artifacts further represent a *noesis* between what is thought and what that thought produces. This is exactly what Hegel means by mind or spirit (*Geist*), that the inner life of mind must be made concrete as cultural institutions and artifacts. We must then recognize here that Hegel's dialectic is grounded in identifying how *noesis* makes *Geist* concrete, both as a cultural force and as an individual member. Therefore, we should focus on Hegel's concept of extended and embodied cognition in order to realign phenomenology and cognitive science around these cultural institutions and artifacts.

It seems possible, then, to extend the Clark-Chalmers version of the extended mind, usually exemplified in terms of notebooks and such, in the direction of these larger processes where we may be able to think of social institutions as contributing to the constitution of extended cognition. If "the use of instruments such as the nautical slide rule...and the general paraphernalia of language, books, diagrams, and culture" are instances of extended cognition, it seems clear that the use of a legal system to solve a legal problem constitutes a case of complex "epistemic action," and is also an instance of extended cognition. "In all these cases the individual brain performs some operations, while others are delegated to manipulations of external media" (Clark and Chalmers 1998, 8). Proponents of the extended mind idea, even if they allow social institutions to be included in that extension, have not provided any concrete analysis of this possibility.

This kind of analysis can have importance, beyond the philosophy of mind, in so far as it can be the beginning point for more critical investigations. Institutions are powerful mechanisms for extending and preserving cognition, and in doing so, they introduce order—something which can be liberating or enslaving. Legal systems are a good example, but so are other types of institutions, including political, military, economic, religious, and cultural institutions, as well as science itself. Part of what I want to argue is that it is important to take a closer look at how social and cultural practices either extend or, in some cases, curtail mental processes. Pieces of technology, as well as specific institutions, offer possibilities, which at the same time carry our cognitive processes in particular directions. Institutional structures, especially, can shape the way that we use certain technologies and can allow us to see certain possibilities even as they blind us to others. Observation of the physical manifestations and effects of technology can only go so far. Eventually, one needs something similar to the kind of social hermeneutic approach Hegel offers, and to make that a critical approach, in order to capture the full-scale effects of technologies and institutions on embodied, embedded, and extended cognition. It is certainly possible to build on the research in extended mind, to integrate it with critical approaches, and to create more hybrid and hermeneutic methodologies that address all dimensions of human experience.

Bibliography

Adams, Fred, and Ken Aizawa. "The Bounds of Cognition." *Philosophical Psychology* 14.1 (2001): 43-64.

Aristotle. *Metaphysica*. Oxford Classical Texts. Ed. W. Jaeger. Oxford: Oxford UP, 1957.

Beiser, Fredrick. *Hegel*. London: Routledge, 2005.

Clark, Andy. *Supersizing the Mind: Reflections on Embodiment, Action, and Cognitive Extension*. Oxford: Oxford UP, 2008.

Clark, Andy, and David Chalmers. "The Extended Mind." *Analysis* 58.1 (1998): 7-19.

Crisafi, Anthony, and Shaun Gallagher. "Hegel and the Extended Mind." *AI & Society* 25.1 (2010): 123-129.

Elder, Crawford L. "Hegel's Teleology and the Relation between Mind and Brain." *The Southern Journal of Philosophy* 17.1 (1979): 27-45.

Gallagher, Shaun, and Anthony Crisafi. "Mental institutions." *Topoi* 28.1 (2009): 45-51.

Hegel, G. W. F. *Aesthetics: Lectures on Fine Arts*. Trans. T.M. Knox. 2. Vols. Oxford: Oxford UP, 1975.

Hegel, G. W. F. *On Art, Religion, Philosophy*. Ed. J. Glenn Gray. New York: Harper Torchbooks, 1970.

Hegel, G. W. F. *Encyclopedia, Part I: Logic*. Indianapolis: Hackett, 1991.

Hegel, G. W. F. *Encyclopedia, Part III: Philosophy of Mind*. Trans. A. V. Miller. New York: Oxford, 1971.

Hegel, G. W. F. *Encyclopedia of the Philosophical Sciences in Outline and Critical Writings*. Ed. Ernst Behler. New York: Continuum, 1990.

Hegel, G. W. F. *Lectures on the History of Philosophy*. Vols. I-III. Trans. E.S. Haldane and Francis H. Simson. Intro. Fredrick C. Beiser. Lincoln: U Nebraska P, 1995.

Hegel, G. W. F. *Lectures on the Philosophy of Spirit: 1827-8*. Trans. Robert R. Williams. Oxford: Oxford UP, 2007.

Hegel, G. W. F. *Phenomenology of Spirit*. Trans. A.V. Miller. Oxford: Oxford UP, 1977.

Hegel, G. W. F. *Philosophy of History*. Trans. J. Sibree. New York: Dover, 1956.

Hegel, G. W. F. *Philosophy of Right*. Trans. T. M. Knox. Oxford: Clarendon, 1949.

Hegel, G. W. F. *Science of Logic*. Trans. A.V. Miller. Atlantic Highlands: Humanities Paperback Library, 1989.

Honneth, Axel. *The Pathologies of Individual Freedom: Hegel's Social Theory*. Trans. Ladislaus Lob. Princeton: Princeton UP, 2001.

Knowles, Dudley. "Hegel on Property and Personality." *The Philosophical Quarterly* 33.130 (1983): 45-62.

Plato. *Cratylus*. Trans. Benjamin Jowett. Vol. 1. New York: Random House, 1937.

Redding, Paul. "Embodiment, Conceptuality and Intersubjectivity in Idealist and Pragmatist Approaches to Judgment." *The Journal of Speculative Philosophy* 15.4 (2001): 257-271.

Rupert, R. "Representation in Extended Cognitive Systems: Does the Scaffolding of Language Extend the Mind?" In *The Extended Mind*. Ed. R. Menary. London: Ashgate, 2009.

Russon, John. *The Self and Its Body in Hegel's Phenomenology of Spirit*. Toronto: Toronto P, 1997.

Sloterdijk, Peter. *Spheres: Volume I: Bubbles: Microspherology*. Trans. Wieland Hoben. Los Angeles: Semiotext(e), 2011.

Taylor, Charles. *Hegel*. London: Cambridge UP, 1975.