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The Split Gaze of the Soul: Parts and Wholes in Aristotle’s Model of Epagoge
By Mark Faller

All of Aristotle’s science relies in the end on the whether or not his model of perception can provide an adequate grounding for the induction of essential forms. In other words, can the accounts of the acquisition of essential forms, from the De Anima, be completely reconciled with the functions that these forms will be required to fulfill in the Posterior Analytics and the Metaphysics.

In this paper I will try to clarify Aristotle’s conception of induction or epagoge. I will begin by critiquing a variety of contemporary accounts of Aristotelian induction with reference to how they evaluate its adequacy as a grounding for science. I will then try to establish a set of conditions that must ultimately be met for this grounding to succeed.

It will be my contention that by appreciating how the critical faculty (to krinon) can act with the common sense (koine dunamis) to hold multiple dimensions of consciousness in front of the attention in a unitary “gaze,” we can begin to sort out how induction is the determinate movement from the phantasms of parts within a whole to the noeta of particulars under a universal. In this manner, phantasms are not transformed into noeta so much as serve as the extensional map of the intensional conditions for thought. The Principle of Non-contradiction dictates the law under which the concept must be thought. The spatial/temporal map determines the conditions within which concepts may be applied.

In presenting my case for how Aristotle establishes an adequate model for induction, I will be focusing on two difficult passages. I will try to work out the implicit consequences of Aristotle’s description of the critical faculty in the De Anima. And I shall try to elaborate some of the problems inherent within Aristotle’s multiple representations of the concept of universal from the Posterior Analytics. Then, in attempting to bring these two presentations together, I will develop the framework within which this activity of induction might adequately bridge the apparent break between phantasia and nous.

My method in this difficult task, will follow Aristotle’s lead in pursuing his very similar end in the De Anima; it will be aporetic. I will set out the seemingly irreconcilable conditions that frame the possibility of a robust model of scientific induction and then put forward the singular framework which could possibly fulfill them. I will then test said hypothesis against all of the outstanding claims typically forwarded against the induction of universals.

I will also take some liberty in moving freely between the work of Aristotle and his teacher, Plato. Since I believe that they are substantially in agreement on the nature of science, and its methods, and since each brings unique and specialized tools to bear upon this problem, I believe that such an approach will greatly illuminate the contributions of both.

As presently interpreted, Aristotle’s system of critical empiricism is founded upon the twofold procedures of the De Anima and the Posterior Analytics. Deborah Modrak in her insightful and well written, Aristotle’s Theory of Language and Meaning, re-interprets Aristotle’s method of science, through the lens of his theory of meaning as presented in On Interpretation. She tries to makes sense of some of the apparent inconsistencies in Aristotle’s presentation of both the acquisition and utilization of universals.

Modrak’s analysis of the acquisition of universals starts from Aristotle’s description of the perception of “incidents”: “those that are spoken of as common are movement, rest, number, figure, size; for such as these are not proper to any, but common to all [senses]. For certain movements are perceptible by both touch and sight. An object of perception is spoken of as incidental, e.g. if the white thing were the son of Dares; for you perceived this incidentally, since this which you perceive is incidental to the white thing (De An. 428b30-429a1).”

1 This effort, although perhaps quixotic, was inspired by the wonderful writing of Deborah Modrak, stimulating conversations on parts and wholes with Mark Wheeler, and cathartic seminars on the De Anima, the Sophist, and the Metaphysics with Ed Halper.
Somehow this account is supposed to show how we can “pick up” elements of the essential form at the same time as we are perceiving the sensual forms, on an analogy with the way we grasp the common sensibles. Just like we can pick out shapes and sizes from the perceiving of the proper sensibles, so we can also pick out some inhering qualities of the essence.

There are clearly difficulties with this account. It seems reasonable to claim that a faculty of the soul can accumulate the sum of proper sense forms, like color and hardness, and simultaneously “perceive” those shapes and sizes that the colors and hardness are ordered within. It is not so reasonable to also conclude that those same colors and hardnesses can tell us anything directly about the specific qualities of laughter or reason. Something else must seemingly be at work if we are to conclude with Aristotle that we somehow “perceive” such essential forms.

Modrak examines Aristotle’s system of meaning through its relationship to certain problems remaining from the teachings of Plato. These four difficulties from the works of his teacher amount to: a. the problem of learning (Meno), the problem of definition (Theaetetus), the problem of kinds (Sophist), and the problem of forms (Parmenides).

Modrak generalizes these specific difficulties into four “tensions” within the model of Aristotelian induction.

The first is the Humean dilemma regarding the possible perceptive “content” of induction: “At best the image of a cat seems to convey minimal information about the essence of a cat.” How is it that we can base the whole science of metaphysics out of the colors, scents and flavors, of the senses, or even their more general common perceptibles?

The second challenge is the Kantian puzzle surrounding the apparent duality between the givenness of the sensibles and the logical requirements of the universals. How can universals satisfy the coherency requirements of the Metaphysics or the Topics, when they are putatively products derived from perception? What claim should the Law of Contradiction or the principle of division make upon the reproduction of the senses?

The third difficulty is also one latter raised by Kant, but is inherently psychological: How can the extended and mutable manifold of the phantasmata play a causal role in the determination of the noeta of thought? Are they merely transformed into the elements of thinking, or can they in any way, despite their radical heterogeneity, be “similar” to their ghostly cousins? Or does some other operation “deep within the recesses of the soul” account for this development?

And finally there is the ontological paradox of the nature of form and substance itself: How can the ontological necessity for the particularity of substance be reconciled with the equal injunction for its universality as a ground of knowledge?

Although Modrak is never so presumptuous as to claim final resolution to any of these difficulties, she does lay out some of the conditions that such a resolution must satisfy. She suggests that something like the modern type-token distinction would satisfy many of seemingly intractable claims against Aristotle’s use of universals in his science.

While the logical distinction between types and tokens may remove some of the formal contradictions apparent in Aristotle’s use of particular and universal in his science, the real problems of how they actually interact remain. If we can’t envision a model by which such seemingly contradictory conditions positively interact, then like the simple boy witnessing his naked emperor, our imaginations will rebel, even if our understanding is pacified.

I will instead try to show that by bringing into closer proximity two very difficult conceptual schemata in Aristotle, one that of discrimination or, to krinon, and the other that of the universal, or kathaiou, we can begin to make sense of this complex process which is Aristotelian induction.

The reason to suppose that perception of incidentals relates to induction is because of its involvement with the discriminating power. The relationship between the perception of proper sense forms and common sense forms sets forth the conditions that necessitate the formulation of the discriminating power:

Now each sense is concerned with its own sensible object, being resident in the organ, qua sense-organ, and judges the specific differences of its own sensible object. Thus sight pronounces upon

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3 Modrak, p. 244.
white and black, taste upon sweet and bitter, and so with the rest. But, since we compare white and sweet and each of the sensibles with each, what in fact is it by means of which we perceive the differences between them?

And it is not possible that we can make such distinctions between white and sweet from separate sense organs, “But the single faculty is required to pronounce them different, for sweet and white are pronounced to be different (De An. III.2.).”

This single faculty, the common sense, provides a framework of unity within which to discriminate between the separate senses. And the ability to make such discriminations is central to the activity of this faculty.

The singularly distinguishing characteristic of this discriminating power is its ability to bring into unity two seemingly separate moments of consciousness. It seems that this unifying power enables the soul to bring separate “presences” into a single experience.

But this faculty provides for much more than just distinguishing between different forms of the proper sensibles. It is also that by which we have awareness of sensing while we are sensing. The state of double attentiveness is utilized by Aristotle to equally capture the peculiar duality that surrounds the distancing of the awareness of perception from the perceiving experience itself.

Aristotle’s description of this duality is fittingly enigmatic. He illustrates the double dimensionality of the discriminating sense through the mathematical example of a point which divides a line: “So far as it treats the boundary-point as two, it passes judgment on two separate things with a faculty which in a manner is separated into two; so far as it treats the point as one, it passes judgment on one thing, and that instantaneously (De An. III.2.427a20).”

In the De Anima, Aristotle’s answer to this dilemma is in terms of metaphors. The sense in question is like a boundary (431a22) or a point (427 a10-14). In these examples, a single entity (a point or a boundary) functions as more than one thing, for instance, as the point at the center of a circle functions as the terminus for all the radii (see Modrak 1981c, 417-18). The point belongs to many lines but retains its unitary character. Enormous difficulties beset an interpreter who tries to elicit from these geometrical examples an explanation of how it is possible for a sense to respond to radically different stimuli simultaneously or for an organ to be moved in opposite directions.4

Plato calls up a strangely similar model of the “doubled” boundary in his strange aside about the nature of the “instant” in the Parmenides. While attempting to explain the relationship between the incongruous states of rest and motion, Parmenides invokes this unusual model of the multi-dimensional instant:

Parm. - Is there, then, this queer thing in which it might be, just when it changes?
Arist. - What queer thing?
Parm. - The instant. The instant seems to signify something such that changing occurs from it to each of the two states. For a thing doesn’t change from rest while rest continues, or from motion while motion continues. Rather this queer creature, the instant, lurks between motion and rest - being in no time at all - and to it from it the moving thing changes to resting and the resting thing changes to moving (Prm.156d)

This instant point can be neither at rest nor at motion. It must instead be neither and both. It must share in both the one and the many at the same time.

It is this duality of the transition point, which is single outstanding feature of both presentations, that I would like to examine further through the lens of a tool borrowed from contemporary literary criticism. That lens is the conceptual model referred to as liminality. The liminal is the dividing boundary between two distinct fields of being. The liminal serves, “as a threshold or passageway allowing access to alternative worlds that may subsequently through communal choice or socio-cultural practice.” It seems appropriate for the study of Plato both for its emphasis on the “middle” as well as its provoking a mathematical vision.

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Boundaries and limits are extremely critical in Plato’s spatial hermeneutic. The Pythagorean concept of peras or limit is frequently raised by Plato as the fundamental condition for forms and knowledge.

But there are two distinct kinds of boundaries or borders found in the dialogues. There are those outer boundaries that are more precisely called horizons, which more directly “limit” a phenomenon. It is these kinds of bounds that Plato explicitly links to the definition of forms in the *Meno*: “More briefly, figure is the limit of a solid (76a).”

The liminal border is different than the horizontal boundary. The horizon is a limit beyond which there is no continuity. It is an end with no further beginning. It is a one sided limit. Like an asymptote, it serves as the perfection or paradigm of what it ideally limits.

The liminal border is a center or middle. It divides two heterogeneous extensions and maintains an equivocal situation in reference to each. The liminal is the relation of the center to two or more opposed horizons, from the perspective of the center or norm. It has a kind of extra-dimensionality from those parts it separates.

How is it that the liminal position of the point with respect to the line it divides can adequately represent the “doubleness” of the critical faculty? The meaning of this mathematical example has implications for understanding Aristotle’s theory of consciousness. It is my contention that this example points to a model of consciousness based on a model of mathematical “powers” or dimensionality.

Think about a line, half yellow and half green, divided at a point. Is the dividing point green or yellow, or both, or neither? The only way we can make sense of this “boundary” point is by understanding it to have a kind of “double” nature.

If we think about how we determine or find a point on a line geometrically, this extra-dimensionality of the boundary point shows itself. To determine a point on a line we construct a second, intersecting line. In other words, in order to determine the point within the line we need to go outside the given line to the planer dimension. The point, although having one less extensional dimension than its containing line, can be said to have one more dimension of determinateness in comparison to that line. And it is apparently this quality of determinateness that corresponds to the sense of attentiveness.

Many philosophers may not be comfortable with my use of a model of dimensionality as a tool for interpreting Plato and Aristotle. It has a fantastical or science fictional sort of association, that Platonists may be more comfortable with than Aristotelians. I would like to argue, instead, that the model of dimensionality is fully rigorous and precise and is clearly called for by the kinds of examples that both Plato and Aristotle utilize. More significantly, it is the only model that can capture that unique set of properties that will resolve the particular questions raised at those points in their works where Aristotle and Plato invoke this precise kind of reference.

The model of the soul as the liminal expression of extra-dimensionality or “power” arises again in Plato’s latter dialogues. In the *Sophist*, the Stranger informs us that the only way to resolve the persisting problem of the seemingly dual nature of Being, is to understand that Being just is the *dunamis* (as “capacity”) “to do something or have something done to it (*Sophist* 248c).”

This suggestion arises in an attempt to resolve the Battle between the Giants and the Friends of the Forms. The Friends are not willing to allow for the possibility that the Forms and Being could possibly suffer variation and change. But the Stranger brings up the difficulty of the relationship between the Form of Life, or Soul and its situation as the subject of learning: “But for heavens sake, are we going to be convinced that it’s true that change, life, soul, and understanding are not present in *that which wholly is*, and that it neither lives nor thinks, but stays changeless, solemn, and holy, without any intelligence (248e)?” Somehow by establishing Being as “power”, or dimension, we can conceive that there is a kind of change possible within that which must always be the same (Being and the Forms). Socrates solution to this intractable dilemma is to be like the liminal child and to demand “both”.

This spatial model of the soul’s multiple dimensionality also brings into focus Aristotle’s other difficult relationship within the phenomenon of induction. There is the ambivalent way in which Aristotle seems to equivocate between two different senses of “universal.” While often he will use *kathalou* in the

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6 In Plato the use of *dunamis* to convey degrees of dimensionality is reinforced by his use of this term with reference to geometrical dimensions with regard to problems in the *Meno* and *Statesman*. 
modern sense as that under which particulars can be brought. He just as frequently uses it almost interchangeably with holon, as that within which parts may be distinguished.

At first glance this confusing of spatial inclusion with logical inclusion can only seem misled. The fundamental distinction between that “within which” something is imagined or that “under which” something is thought seems to ground our very concept of the distinction between the intuition and the intellect.

But even in Kant, there is some mysterious, liminal boundary within which the enigmatic synthesis of the schematism takes place. If we are to make headway on such mysteries, whether with Kant or Aristotle, we will need to risk foraging within such grounds.

Mark Wheeler in his dissertation, Real Universals in Aristotle’s Organon, makes a compelling case that Aristotle’s conception of the universal is parasitic upon his concept of part-whole. He cites three textual sources from the Organon for support of his mereological account of Aristotle’s substantial universal.

First he shows that Aristotle’s terminology for particulars and universals implies a strong mereological connection: “Aristotle’s term for a universal kathalou is literally translated ‘of the whole’, and his two terms for particulars, kath hekaston and kata meron are both best translated as “of the part”.

Second, Wheeler shows that Aristotle explicitly refers to genera in terms of wholes. He makes the powerful case that:

- a. “Aristotle refers to a genus as a whole and recommends dividing it into its atomic parts in order to grasp what the genus is” (APst. A 15 79b14-20).⁸
- b. “Aristotle distinguishes between the genus which is a whole, and its parts” (Top D 5, 126a26-29).⁹
- c. “Aristotle discusses genera and their constituents in terms of parts and wholes” (Apr. B 27, 70b24-31).¹⁰
- d. “Aristotle claims that we often err in our demonstrations by placing the particulars [kath hekasta] in a whole [to holon] that does not hold primitively and of the universal [kathalou]” (Apst. A5, 74a4-12).¹¹
- e. “Aristotle apparently takes all universals to be whole in his discussion of belonging atomically in Apst. A15, where he claims that if there is a middle term that is truly predicated of some term, then the entity secondarily signified by the latter term must be in some whole.”¹²

Finally, and of most significance for our discussion, Wheeler notes that it is precisely in the discussion of epagoge in the Organon where Aristotle claims that it is in the “relation between the particulars that we perceive and the universals about which we have scientific knowledge is the relation of part to whole.”¹³

Induction is the inference from particulars to the universal, and these particulars are instances through which the universal stands as if a composite: “One must comprehend C to be composed out of all of the particulars: for induction is through them all (Apr. B23, 68b27-29).”¹⁴

The model of induction of the universal from particulars as being based on the relation of parts to wholes is strongly supported by Aristotle’s example of how we come to grasp the universal from perceptions. He compares the process to the reversal of fortune in battle, “when a rout has occurred, first one man makes a stand, then another does, and then another, until a position of strength is reached (Pst. An., II,19 100a12-14).”

With this example we can visualize how Aristotle’s formulation of the process of epagoge is parasitically constructed from the image of the coalescing of a whole:

When one of the undifferentiated items makes a stand, there is a primitive universal in the soul; for although you perceive particulars, perception is on universals, - e.g. of man, not of Callias the man. Next, a stand is made among these items, until something partless and universal makes a stand (Pst. An. II, 19100a16-100b3)
Like the elements of a crystal aggregating about its seed, the determination of the universal is cultivated from such an image of the whole.

In the process of formulating some universal for the first time, we attempt to find some grouping or whole within which to “locate” the particular. It is from the image of this initial “wholeness” that we rise to find the limiting conditions of the universal class or category. In both geometry and rhetoric this grouping to find the universal is know as determining the “locus” or “topoi” - place.

Proclus, in his *Commentary on the First Book of Euclid’s Elements*, informs us about the distinctively philosophic interpretation of locus theorems. First, he informs us that Chrysippus “likened theorems of this sort to the (Platonic) Ideas.” Different than the triangular construction problems of the first half of Book I, locus constructions are determined by “a position of a line or surface producing one and the same property.” As such these constructions can be viewed as paradigmatic of the activity of participation, “For just as the Ideas embrace the generation of an indefinite number of particulars within determinate limits, so also in these theorems an indefinite number of cases is comprehended within determinate loci.” Again, we have a “spatial” analog being used as a paradigm for the universality of the Ideas.

In defending the claim that Aristotle’s model of epagoge is grounded upon and parasitic of a model of whole to part, I stop short of endorsing Wheeler’s stronger position that the universal-particular relation just is that of mereology. Such a position makes superfluous any possible distinction between the two relationships. Rather I hold closer to Heidegger’s reading that each aspect of the universal-whole relationship maintains its own bounded, asymmetric priority.

Heidegger, with his peculiar and penetrating sense for languages, finds something fundamental in this relationship between όλον and καθόλου. In his introductory chapter to his commentary, *Plato’s Sophist*, Heidegger shows how the whole-part relationship discloses the structure of the universal-particular determination:

The term καθόλου is composed out of κάτα and όλον. The concept of όλον will be our path to a closer elucidation of the Being of καθόλου. Aristotle provides a orientation toward the όλον in *Metaphysics* V, 26. There he understands the καθόλου as a determinate mode of the όλον.

Even though Heidegger specifies that the universal can never be fully uncovered by an αἰσθησις, it somehow takes its origin through the perception of wholes.

Heidegger makes the further case that it is only as understanding the origins of the concept of καθόλου from that of the concept of όλον, that we can make sense of apparently contradictory accounts of the way in which we first gain access to universals.

He notes that according to *Topics* VI, 4 and *Metaphysics* VII, 3, the passage to the universal is through the perception of particulars: “The way in which beings are uncovered in their most proper Being thus proceeds from the καθ’ ἐκάστον and passes through it, to the καθόλου.”

Yet in *Physics* I, 1, we seem to get a completely contradictory stance, “Aristotle emphasizes that the way we must take leads from the καθόλου to the καθ’ ἐκάστον.” Heidegger reconciles these two opposing positions by showing that in the *Topics* also, there is some temporal priority given to perception of the universal – as taken as a “whole”: “As regards perception, the whole is more familiar (α24f.)” Heidegger argues that in both presentations, the intermingled elements, or ἀρχή remain initially hidden, and only the whole is seen: “What is intermingled is separated out by our taking it apart.”

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16 Ibid., p. 310.
17 p. 311.
19 Ibid., p. 59.
20 Ibid.
21 Ibid., p. 60.
ἀρχή is disclosed by our taking apart the μέρη in διαίρεσις. As such the two presentations are not contradictory: “On the contrary, it makes the latter still more explicit: the way proceeds from the unarticulated καθόλου to the articulated καθ’ ἐκαστον, such that every single μέρος becomes visible.”

There is still the further question of how this “matching” between the whole and the universal takes place. In pursuing this deeper analysis I will return to those same dialogues that Modrak raised as the source of Aristotle’s concern with the problems of induction. And fittingly they all refer to the problematic of parts and wholes.

This procedure of bringing what is in question before the eye of the mind, in close proximity to that which is already transparently known, is a persistent image accompanying the Platonic use of models. Whether it is ‘writing the soul large’ in the Republic or keeping the target aligned in the Theaetetus, models somehow help us to keep our images in order: “Well, I was saying that if you know one man and perceive him as well, and keep your knowledge of him in line with your perception, you will never take him for some other person whom you know and are perceiving, and the knowledge of whom you are holding straight with the perception.”

Plato gives his most detailed exposition of this process in his dialogue the Statesman. Here, in order to make his mythos more “vivid”, Plato offers the paradigm of weaving. This visual model of a complex activity is to establish a structure of knowledge in our dreaming that can remain with us when we awake. He elaborates on this notion with the example of how we use our knowledge of the spelling of small syllables to gain command of the spelling of longer ones:

Stranger: First, to bring them back to those in which they were opining these same elements correctly, and once we’ve brought them back, to place them beside whatever elements are not yet recognized, and by our bringing them alongside, point out that the same similarity and nature are in both weavings, until the elements that are truly opined may be shown being placed alongside all those not recognized, and, once they have been shown, become in this way paradigms and make each of all the elements in all the syllables always be addressed on the same terms as itself - the other as being other than the rest, and the same as the same.

This comparison cannot be one of strict similarity. There is no direct comparison between the extended and the non-extended. In this manner even the abstracted images of triangles cannot be thought of as direct imitations of the lawfully determined mathematical of the intellect. Rather this relationship between the images and the mathematical is more of the nature of a “mapping”, and not one of similarity.

This process of mapping the universal from the comparison with the whole is a matter of mutual cross determination and reciprocity. The “upward” way of movement toward the universal utilizes the rational form of spatial relations to elaborate the rich spectra of possible reality that bridges the poles of non-contradiction. The part-whole relation, prior in determination, is the fixed and rigid resistance to languages attempt to simplify the world under intentional concepts. The “downward” way of bringing our ideas into finer resolution retains the conceptual condition of inclusion/exclusion from the spatially conditioned model while loosening the conditions of place and degree. The particular-universal relation, prior in abstraction, pricks our seductive slumber and forces us to make those careful distinctions that make the logical structure of our intuition more precise. As such, the spatial model determines the conditions upon which the conceptual model is mapped: “...or rather, put the schema alongside the category as a restricting condition of called a formula of the categories.”

In this double determination of comparison and projection, we can begin to visualize just how our soul is elevated to kinship with the forms themselves. In the loving of a physical body, we begin to compare and

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22 Ibid.
23 Ibid., p. 61.
24 Theaetetus, 193e.
25 Plato, Statesman 278b.
associate the common qualities of the physically beautiful. The understanding is able to eventually bring some lawful unity to the “wholeness” of the qualities of beauty, and we understand that such physical beauty could only be caused by its origins within the soul. And then the process repeats.

In this process of cross-insemination, the whole can equally determine the conditions of particularity. Socrates’ story of recollection, overcomes the gap in Meno’s Paradox, not by the details of a system of reincarnation, but rather by hypothesizing the wholeness and unity within nature: “As the whole of nature is akin, and the soul has learned everything, nothing prevents a man, after recalling one thing only – a process men call learning – discovering everything else for himself, if he is brave and does not tire of the search, for searching and learning are, as a whole, recollection (81 c-d).”

Our interpretation of how the model of parts and wholes is central to Aristotle’s formulation of the process of epagoge is further supported by his establishment of the logical priority of extension over intension in the development of the rules of logic.

In the Prior Analytics, when he lays out the nature of categorical propositions, Aristotle defines them in both extensive and intensive fashion and says no more on the subject: “For one thing to be in another as a whole is the same for one thing to be predicated of every one of another” (Pr. An., 24b10, 28). The whole-part relationship, like that of class-member, is inherently extensional. Aristotle most usually refers to the intensional framework of predicating properties to a subject, but sets the two moods of Barbara and Celeste apart as being the only perfect forms of scientific demonstration. These are the only forms for which an extensive relationship exclusively holds. They are the only forms for which the major, middle and minor terms can be consistently interpreted as the larger, intermediate and smallest classes. This condition is the foundation of the class interpretation of extension. Aristotle’s insistence that all other syllogisms derive their authority from these two forms, confirms that Aristotle maintained an extensional grounding of logical validity.

And finally, beyond the coherence that the part-whole model brings to the narratives of knowledge and logic, it equally grounds the ontological basis for the identity between knowledge and being. As Plato informs us in his mythos of the Intelligible Living Being, in the wholeness of the perfectly complete Being, all unities, both extensive and intensive are reconciled:

Let us rather say that the world is like, above all things, to that Living Creature of which all other living creature, severally and in their families, are parts. For that embraces and contains within itself all the intelligible living creatures, just as this world contains ourselves and all other creatures that have been formed as visible (Tim. 30c).

But even if the model of wholes and parts can unify the epistemological, logical and ontological frameworks of how we know the world into a consistent and coherent story, there still remain some traditional paradoxes to overcome.

The first, and most serious, is the set of claims that both Aristotle and Plato level against the Theory of Forms. Plato would seem to most particularly against this formulation of the Forms under the model of parts and wholes. Even though he himself often playfully confutes this distinction, as in inverting the kinds of virtue as the parts of virtue in both the Protagoras and the Republic, he also develops the most comprehensive indictment of this analogy.

In the Parmenides, Plato raises the contradictions implicit in a spatial interpretation of universals. Parmenides, in examining the young Socrates brings out the double contradiction in formulating a spatial analog for the Forms. If a thing participates in its Form as a whole: “Then, a thing that is one and the same would be at the same time, as a whole, in many things which are separate, and hence it would be separate from itself” (131b). However, if each thing participates in only part of the Form:

“Then Socrates”, he said, “The Forms themselves would be divisible, and the things participating in them would participate in a part. No longer would an Form be in each as a whole; rather, a part of each Form would be in each”(131c).

But the suggestion that the Forms might be like daylight, is not exactly that of an unextended universal. Daylight seems to equivocate between the generic concept of a type and the ethereal model of an energy or activity. It is just this double nature that perfectly captures that liminal ground between the spatial and the conceptual, and is paradigmatic of how functional activity can provide a dimensional unity to the extended.
The ingenuity of the model of power as dimension is unique in its ability to accomplish just such a reconciliation. A higher dimension is a very special sort of "whole." Wholes are usually taken to represent the sum of their parts. If the parts are modified, the whole no longer remains. But with a dimensional magnitude such as functional or organic unity, the whole may remain immutable even as the parts suffer variation. This is the sense of what happens in the story Flatland when the sphere begins to pass through the plane. Its two dimensional shape within the plane varies and changes as the sphere adjusts its elevation. But the sphere itself does not change. A higher dimension is understood as just that kind of reality which remains invariant while its partial manifestations appear to be in flux.

The same would be true of our world if we think of time, the fourth dimension, as the "image of eternity (Timaeus)." We are complete beings in three dimensions with an "extension" into time. This means that we are "incomplete" in relationship to our fourth "power." According to the model of dimensions, this does not mean that the fourth axis does not already exist. Like in the theory of recollection, we need merely to "discover" that greater part of ourselves which "hovers" over us as our cause and real Being. The Stranger in Flatland or in the dialogues of Plato, as a self-conscious, evolved being, seems immune to the currents of accident: "Before Abraham was, I am (John 8:58)."

This model of Being as power, or dimension, finally reconciles some major difficulties implied by the separation of the Forms. The higher dimension is in some sense separate, in that it "floats" over the flux and is resistant to it, yet the other dimensions, which are affected by the flux, are somehow included within the wholeness supplied by the higher dimension. Such a peculiar relationship is exactly recalled in Plato's description of the soul's relation to body after death: "The well ordered and wise soul follows the guide and is not without familiarity with its surroundings, but the soul that is passionately attached to the body, as I said before, hovers around it and the visible world for a long time, struggling and suffering much until it is led away by force and with difficulty by its appointed spirit (Phaedo 108b)." Dimensionality is exactly the asymmetric kind of partial separation that is necessary to sustain a self-consistent efficacy for the Forms, and answer the complaints of both Aristotle and the Parmenides.

But even if we can overcome the formal difficulties with this model of induction, there remain the epistemological charge that any cognitive object retrieved through the senses can only command warrant as pertaining to particulars. Any universality or essential knowledge must be added to it via another, internal and subjective faculty.

The model of the double image of whole/universal helps to resolve this Humean Riddle also. The determination of the universal through the spatially and temporally extended conditions of the whole allows us to see how we could infer generic character from the details of physical particulars - we don't. Instead we comprehend the true functions of a species by observing the activity of any of its members "as a whole":

Now we take the human function to be a certain kind of life, and take this life to be the soul's activity and actions that express reason. Hence the excellent man's function is to do this finely and well. Each function is complete well when its completion expresses the proper virtue. Therefore the human good turns out to be the soul's activity that expresses virtue (Nic.Eth.7,10981a10-18).

The end or "telos" of the activity can emerge from seeing the activity in its completion or whole, rather than from rising from some single particular aspect. The etiological meaning of an action or function is directly derivative from its mereological context. This model makes reasonable the possibility of inducing essential forms from sensible perception:

Furthermore, one who λόγον ἔχων can make something understandable in the way it comes into its Being, how the whole fits together; he knows what it is composed of and what it contributes to, how thereby something becomes present as disposable just as it is. In this way he can provide information about beings in regard to their origin, δύναται διδάσκειν.28


28 Heidegger, p. 63.
This model of the “distributive” nature of process or activity is the basis of both Aristotle’s entelechy and Plato’s participation. To be a part of an action with a “good” end is what it means to “be” good. And the observation of such continuous wholes defies Hume’s atomization of perception. The teleological unity of an activity just is the continuity of the temporal parts within a higher dimensional whole. These functional or dynamic wholes uniquely exemplify the extra-dimensional unity which cannot be reduced to a sum of its parts.

We must yet retrieve Kant’s gauntlet about how two such irreconcilable phenomena such as images and ideas might actually be combined. We must brave the “dry and tedious dissection” and confront that “secret art residing in the deepest recesses of the human soul.” Our model of the split gaze brings us to the threshold of where such a process could occur.

Aristotle’s model of the unity of apperception goes beyond that we find in Kant. For Kant such a unity represented the formal condition whereby we can establish the conditions for the possibility of experience. The formal establishment of the possibility of a unified consciousness laid the foundation for a transcendental psychology of objective knowledge. But beyond leaving a gap between that psychology and the world, it also left mysterious the real unity possible between the radically disjunct faculties of understanding and receptivity.

With Aristotle we have a real or ontological unity of the soul. This model of reciprocally constituting faculties of the mind mutually determining the conditions of each other’s possibility stills leaves open the ontological mystery of within what kind of a soul could such processes be reconciled. And we must elaborate what the conditions for such a unity imply for the nature of that soul: “one discerns what it is to be flesh and flesh either by means of a different faculty or the same faculty differently disposed (DeAn 429b10-14).”

First, the soul that can apprehend the unity of both representations (phantasmata) and ideas (noeta) must itself be of such a nature to interpret both: “So the soul is more like the invisible than the body, and the body more like the visible? – Without a doubt Socrates (Phaedo, 79c).” But of course the soul is a principle of life for both the extended body and the unextended intellect. Abstract concepts and represented images can only be limiting slices of a faculty capable of holding both. And the power of such a faculty must necessarily command the ability to both separate and combine such objects, as well as that of selective comparisons between distinct kinds of cognitive objects.

We have here only to return to our earlier model of the complex dimensionality of our liminal selfhood. The self can only grasp such a multiply dimensioned experience, because it is itself so fashioned. It is provocative to extend Aristotle’s argument to its fullest implications, the transcendental grounding of the three dimensions of space. Five senses would indicate the possibility that the soul is instinctually conditioned to five dimensions. As Plato asserts in both the Seventh Letter and the Sophist, Being is such a fifth and knowledge, as the fourth, retains the structure of the remaining dimensions.

The spatial framework of part and whole and the discursive framework of universal and particular are each four dimensional slices of our five dimensional knower. This is why we can never completely bring our two models of knowledge into perfect alignment. Phantasia remains intuitively constrained to the four dimensions of space and time, whileNous is conditioned to the ten categories determined though the fourfold base of its tetractys. It can only be in those rare moments of the soul’s ascension to its second actuality, in the full and active contemplation of thought itself, that it finally finds its divine rest in unity.

29 Kant, p. 214.
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