

Philosophy and the Cave Wall

Plato and Kant on the form of the given

Would the mind's escape from the body be a good thing? This question might arise for anyone who sees a distinction in our human nature between *thought* and *sense*. Why might one wish for such an escape? And what might warn one against such a wish? Compare these two different ways of approaching the question, each formulated by Kant:

The inclinations themselves, as sources of need, are so far from having an absolute worth, that to be altogether free of them must be the general wish of every rational being.

(Kant, *Groundwork*, 428)¹

Here, sensible appetites and aversions are a regrettable *encumbrance*. Of course, the annihilation of bodily needs is just a "wish"-- these impositions of nature are truly inescapable for us as long as we live in this body. But who hasn't felt this wish, in moments of frustration, struggle, or frailty? Just as the addict can see his own addiction as something to regret, as something worth being free from, we may all sometimes see the demands our own bodies seem to make on us as regrettable, and as unfortunate. Socrates spoke of this kind of wish in the *Phaedo*, when he explained to his friends that a philosopher looks forward to death-- the soul leaving the body-- as the greatest of blessings.

But here is another take on the question:

The light dove, cleaving the air in her free flight, and feeling its resistance, might imagine that its flight would be still easier in empty space.² It was thus that Plato left the world of the senses, as setting too narrow limits to the understanding, and ventured out beyond it on the wings of the ideas, in the empty zone of pure understanding. He did not observe that with all his efforts he made no advance-- meeting no resistance that might, as it were, serve as a support upon which he could take a stand, to which he could apply his powers, and so set his understanding in motion.

¹ Kant is more subtle in other works. "The inclinations, in themselves, are good" (*Religion within the Limits of Reason Alone*). Nevertheless, they do not enable our cognition of the Good itself.

² Is there such a thing as empty space? The dove thinks so. Kant will argue that mind is absent from no place in the world ("the sum of possible experience"): it is an ideal plenum, so to speak.

(Kant, *Critique of Pure Reason*, A5/B8)

Here sensibility could be thought of as a *resource*, a help that makes knowledge possible for the mind. The wish of the thinker to be released from sense is mistaken, because it fails to see how, if realized, this would mean the withdrawal of that resource, the abandonment of that crucial gift. Notice how Kant relates his own thinking to Plato explicitly in the second passage, and implicitly in the first.

Kant seems to be divided. In the practical sphere, where action is concerned, sense can be an obstacle, or at least an encumbrance. But in the theoretical sphere, where knowledge is concerned, Kant is in fact a champion of sensibility. Ultimately, according to Kant, it is only when we understand the epistemic resource provided by sensibility that we can see how necessary, universal knowledge of the world around us is possible. Kant aims to carry out a previously unattempted task for philosophy: to unfold the principles of sensibility. Philosophy, Kant claims, must not sprint ahead to the realm of pure reason, to what seems to it maximally intelligible. Rather, it can and must make intelligible what is not intelligible on its own— the senses. When explicated, this would be a kind of wisdom unavailable to the mere mathematician or scientist, and unheard of by the metaphysician: a philosophical apology of sense, what Kant calls a ‘transcendental aesthetic.’

Getting to read Plato and Kant every few years in an alternating cycle, it has come to seem to me that perhaps Plato, for one, *did* contemplate such an account. To see this thread in Plato, I will consider tonight passages from two great dialogues: the *Republic*, and its sibling, the *Timaeus*.

Kant himself turns our attention in this direction by identifying Plato as the beginning of his own philosophical tradition, one that asks first and foremost: how is knowledge possible? The example of mathematics, Kant claims, convinced Plato that we have access universal, necessary truths not derived from sense experience—what Kant calls *a priori* knowledge. Socrates is often occupied with this sort of knowledge, as in the slave-boy’s recollection of true geometrical judgments he was never taught. To explain this sort of knowing, Socrates sometimes invokes purely intellectual, so-called *forms* of what is known. The pure forms somehow come to have sensible images of themselves, in our minds and in the world. That is, they are somehow participated in, or received, and it is by means of their reception that the world can be known for what it is. But how is this reception into the sensible realm possible? The problem of human knowledge, of how the given can be known, is therefore always also the problem of sensible receptivity.

The lecture has four parts. We will trace a path of inquiry into receptivity through Book VI of the *Republic* (section 1), and then into the *Timaeus* (section 2), where I hope to show how Plato's thinking reaches a kind of culmination in the account of the so-called 'receptacle'. In the third section of the lecture, we'll compare the Platonic approach to the problem with Kant's account of space in the Transcendental Aesthetic of the *Critique of Pure Reason*. We might then be in a position to judge whether Plato and Kant are really philosophical brothers-in-arms, as Kant suggests (section 4). We will *not* discover that Plato and Kant held the same doctrines. Plato's dialogic writings protect us from ascribing "doctrines" to his writings at all. Nevertheless, philosophers—even philosophers who disagree with each other-- might be colleagues in so far as they are moved by the same questions, and the same problems. It is this comradery under a question I hope to examine in Kant and Plato tonight.

The Path Upward is not the Path Downward

In Book VI of Plato's *Republic*, Socrates asks his conversation partners to imagine a line divided into two unequal sections, each of which is divided again into two subsections (509d7 ff). Then both faculties of the soul and the objects of these faculties are mapped onto the line: the two main sections correspond to sense and understanding; the realm of sense, of what *seems to be*, is divided into bodily things, and their images; while the realm of the understanding, of what *is*, is divided into what Socrates calls the "mathematicals," or the learnable things, and what he calls the "ideas," or the forms. The philosopher's authentic activity is knowing the forms, which he or she achieves by what Socrates calls "dialectic." The category of the mathematical, by the way, might be much broader than what we would mean by 'mathematics,' embracing anything that can be universally known or demonstrated: not only music and mechanics, but perhaps also several natural sciences, and even language arts like grammar and general logic-- the mathematical, taken together, serve as the topics of our tutorials and labs.

The realm of the sensible is known by experience. Enough familiarity with the solid structures we use as houses lets a carpenter repair and construct. His or her colleague within the sensible realm is the artist who expertly paints images of the same houses that the carpenter constructs. But many aspects of housebuilding follow from geometry, which grasps universal principles about figures. The knowledge of *these* belongs to the understanding. Here we can see laid out three personages, three psychic activities, and three sorts of object: the

painter, making images of houses by artistic imitation; the carpenter, putting his or her body into motion to bring those same houses into being as solid structures; the geometrician, demonstrating the necessary, universal figurative principles governing the house's structure. The painting is an image of the roof's eaves, which in turn can be thought of as images of angles. These angles can be seen "only by thought," and raising ourselves to the level of the mathematics reveals that human beings can have contact with universal, necessary truths beyond convention and passing opinion. They give us purchase on the truth beyond experience.

But Socrates follows his construction of the divided line by posing two "reservations" to his interlocutors about mathematical knowledge. The first is that its objects are taken as "assumptions" by the thought that knows them. Geometry, for example, like all other particular sciences, must simply assume that mathematical figures exist, and are therefore available for study. It has no account of what sort of existence they have, and whether this existence has a cause or source. Second, geometry will always be at least partially immersed in sensibility, since it must always make use of sensible images in its demonstrations. In Socrates' account, philosophy will emerge as a possible kind of knowing that could transcend these two "reservations."

Let us consider the reservations in turn. Socrates complains that the mathematics are not truly "first principles" or beginnings, but "assumptions" But how does he know this? True, geometry does not explain how its angle exists, but could this not be a consequence of the figure's ultimate priority? It can't be explained by geometry, because it can't be explained at all: it is a first principle. This is a tempting defense of mathematical supremacy. (when mathematicians call themselves 'platonists', sometimes I think this is what they mean.) But consider carefully the difference between self-evidence and assumption: an assumed premise is not self-evident, because it leaves unsettled what sort of being *on its own* the object may have apart from me, who assumes it. As long as it remains an assumption, a geometrical angle, though it seemed to be real to us, might turn out to be a sort of illusion. Perhaps the reality of things is that spaciousness is not real at all, that nothing is linearly extended, and no two lines are spread out from each other in an angle. While this is perhaps disturbing to contemplate, it is not a possibility the geometer can rule out. There is nothing about the angle that renders its non-existence self-contradictory, and by hypothesis, geometry does not understand the figure's reality to be guaranteed by some higher source. Geometricians like Euclid and Lobachevski do a great service for knowledge by identifying certain principles as unproved "postulates" or "assumptions." But even they leave unarticulated, and therefore unexamined, the whole host of presuppositions that underlie their objects. The question, 'how do angles exist?' is not

nonsensical, and remains. The geometer, while he or she might ask this question from time to time, cannot answer it from within his or her own science.

The second reservation is, I think, more subtle. Just as geometry couldn't "extricate" itself from its own assuming, it also can't pull itself out of the very sensibility it is so proud of rising above. Socrates' speech, with all its talk of higher and lower, here might sound like it is assuming a kind of low-class uncleanness about sensibility. Or maybe he is exploiting the thumotic character of his interlocutor Glaucon, who will be pleased to look down on the uppity mathematicians who are still enmeshed in the dingy senses. But if we are not so hastily thumotic, we might wonder what is so damning about mathematics' return to the senses. Is Socrates' second reservation not itself an unreasoning prejudice against embodiment?

In fact I think Socrates is onto something very important here. Mathematics begins by seeking an object more knowable than what presents itself to the senses. But when it demonstrates necessary truths about these objects, it finds it must turn back to sensibility to construct images of what it wants to know.³ We all know this from our study of Euclid and his successors (even Lobachevski): no board or no paper, or no imaginary field in one's mind, then no demonstration of the proposition. We think the universal we desire to prove on our own, but we turn to the board to manifest what we think about this universal, and the board helps us along, making room for the instantiation of the figure, keeping things apart from each other, letting them abide next to each other, sorting the different directions— left, right, back and forth. It is as if the board, or rather, space itself, were a partner in the demonstration. This means that geometry's very scientific character is dependent upon sensible conditions. But these sensible conditions are not understood by geometry, and indeed, *are never brought into examination by it*. We might not find this situation humiliating, but we should find it intellectually unsatisfying. The point is not so much that sensibility contaminates, but that for all its crucial contribution to knowing, it remains unintelligible, a silent partner in the sciences.

Socrates proposes that philosophy can rise above mathematics' limits. "Reason may take hold" of mathematics, he says, not as "assumptions", but as "stepping stones," examining from what higher principles they might proceed, by means of "dialectic." This philosophical kind of knowing, as an extension of geometrical inquiry, would answer the question 'how do angles exist?' by discovering genuinely self-evident truths upon which angles depend. In this sense, its objects would not be assumptions, and it would escape the first reservation about mathematics. The second reservation would also be escaped, because the dialectical ascent

³ [It is not only geometry that turns back to sensibility, but arithmetic as well. Counting needs an extended field in which successive moments can be distinguished. For Kant, this is time.]

upon the grounds of mathematical knowing would move towards fully intelligible objects of reason. Its accounts would move from reason to reason, with nothing but reason in between. In other words, it would never descend back into sensibility's manifestations to demonstrate, but would ['hypothetically'] infer the conditions it was after. Philosophy, like seminar, will not need to use the board.

As wonderful as these philosophical successes might be if realized, Socrates' proposal raises some crucial questions not addressed explicitly in the *Republic*. Remember the concern involved in the second reservation, that mathematics requires the use of sensible images. If this "use" involves epistemic contributions from sensibility not understood by mathematics, these contributions will not be any better recognized by a purely eidetic, dialectical philosophy. Rather, they will be transcended, as the mere circumstances of a lower form of knowing, perhaps not worth the attention of reason unencumbered. In this presentation of philosophy, we are encouraged to assume that sensibility is not, in fact, an epistemic resource. If the contributions to knowledge come wholly from 'above', so to speak, from reason alone, then this is perhaps a safe assumption. But a lover of wisdom would rather not beg this question.

The image of the divided line is followed by the image of a cave, in which we are born chained to our sensible experience, which plays before us like shadows cast by models of real things outside of the cave. In this allegory, knowledge indeed comes 'from above': the naturally true is imitated in the figures manipulated in the cave, and these are imitated in the shadows they cast. But throughout the allegory is an unexplicated factor: each sort of knowable generates an image *in* some receiver— the forms of the true objects are received into the materials used to construct their likenesses, and the likenesses themselves on the cave wall that receives their shadows. Without these receivers, no chain of imitation is possible. Following the allegory, without the cave wall, no sensible experience is possible. But of what is the wall *itself* a depiction? Whatever it is, is it of a nature to contribute to the kind of knowing we have in our experience of the world? Socrates' allegory might distract some readers from such a question with its narrative of "turning-around." By pointing the aspiring philosopher 'upwards' towards reason's resources, rather than 'downwards' towards the nature of sensibility, he is leaving at least one big question on the table.

If the path upwards were pursued, what would the Socratic philosopher discover about the first principles of geometric "assumptions"? A first step still within mathematics might be the discovery that figures can be taken as images of ratios— for examples, the pentagon as a spatial flowering of the uncalculable mean and extreme ratio, and the circle, of the transcendent ratio called 'pi.' But these so-called "irrational" or "mute" ratios themselves might turn out to be

approximations of rational, speakable— that is, arithmetic— ratios. The very first mathematical principles from which figures are derived would then be numbers, whose first still-mathematical principle might be the unit, or that by which we call something one. Now, a dialectical inquiry into the possibility of numbers-- and indeed the possibility of the unit-- might lead to purely intelligible forms such as the Same itself, the Other itself, and the One itself. This ascent leaves space behind as a sort of encumbrance. Of course, space itself is not accounted for in such a philosophical ascent. The givenness of figures, that they are outside of us, and the receptivity of both the world around us and our own imaginations to the spatial images of ultimately rational principles, is not itself given an explanation. The silent partnership of the cave wall has been left silent.

The Turn to Bastard Reasoning

Eric Salem once proposed in a lecture on Socrates' allegory that the account of the cave *wall* is not given in the *Republic*, but rather might be sought in part in the *Timaeus*' account of the receptacle. I want to follow his suggestion here, and so we now turn to the *Timaeus*.

In the dialogue's introductory section, Socrates asks to hear about his idea of a beautiful city, which had been elaborated in speech the day before, but this time set in motion, at war. His request might already indicate an interest in just what was left unexplored above: in motion, in the realm of becoming, the beautiful city will need to come down off its seat in intellectual heaven, and show how it might be given in the world of change. But it will not be Socrates who takes this path downward. Rather, the title character Timaeus speaks for the remainder of the dialogue. Before the city in motion can be discussed, however, Socrates and his interlocutors decide they want an account of the *nature* of the humans who will make up the city. Moreover, they want an account of the whole, moving cosmos in which these humans emerge. The remainder of the dialogue is accordingly cosmological, and then anthropological (the political question is postponed). Timaeus' very first step in pursuing his cosmology is to offer a fundamental distinction familiar to Plato's readers: the sensible world, he says, must be distinguished from the purely intelligible model of which it is an image. The intelligible admits of no motion, is eternal, and can never have come to be at all— it simply *is*. The sensible comes to be, and Timaeus pictures this coming to be as the result of a divine constructive "craftsman" (*ho demiourgos*) or "framer" (*ho synistas*). He narrates how this power might have constructed a

harmonious image in imitation of the perfect model, making use of mathematical figures and ratios familiar to the sciences of astronomy and music.⁴

Timaeus' cosmos, at this point, is like a mathematician's diagram. Compare Ptolemy's mathematical astronomy. Its theories do not speak of *where* or in *what* the motions of the stars occur, but rather only of the stars' motions' knowable ratios, demonstrable in diagrams. In this way, the question of the nature of the space that receives the world-image might not arise for the merely mathematical cosmologist.⁵ But several steps into the narration, Timaeus points out a problem. The divine maker constructed these mathematical models as somehow imitations of what is best—that is, as imitations of the intelligible original. But it doesn't seem that this procedure—imitation of the best—is sufficient to account for the whole cosmos. On the contrary, Timaeus claims that the world as it is comes to be not simply from the intellect's grasp of the good, as his story had been assuming, but also from what he now calls "necessity": by what, if it exists, *has* to be the way it is. Where does this necessity come from? Despite the fact that the mathematical arts and sciences (like Ptolemy's) are filled with insights into what is necessarily and universally true about corporeal nature, none of them can give a deduction of this necessity's origin. For example, none of the cosmologists, Timaeus points out, have given an account of how the medium of natural change—the elements of bodies-- have come to be in the matter in which they are.⁶ To theorize a changing cosmos, mathematical diagrams alone, unhindered by necessity, will not be sufficient.

What is needed, Timaeus proposes, is a "new beginning," a "retreat" to a new principle, a "third kind" of being, making sense of the world's receptivity as such for the knowable forms. Timaeus calls this principle "the receptacle", a co-eternal origin alongside the intellect's model of the cosmos. Not the model itself, nor its constructed image, it is precisely that into which the model is received.

With the introduction of his "third" principle, Timaeus is in fact clarifying a fundamental *dualism* about knowledge. The relation of original to image so dear to Socrates leaves out of account a *second* origin for the image, in receptivity itself. The world as it appears is different from its origin— this is the Socratic proposal. But that its origins are *two* is Timaeus' thesis— by

⁴ Geometry and arithmetic provide a science of ratio in general; but astronomy and music turn to appearances to discover which *particular* ratios and figures form a harmonious whole, either of heavenly motions, or of musical scales. Timaeus borrows the particular ratios and figures of the latter two sciences.

⁵ At this stage, time is given as "a moving image of eternity." It is the outcome of ratio-metric mathematical principles, not a container in which they have being. This approach is unlike Timaeus' conception of space.

⁶ If successful, an account of necessity would perhaps stave off the allegation that corporeal becoming is nothing but an unintelligible flux.

adding his “third kind”, he uncovers that second origin, and reveals the apparent world as what he calls a “*syntaxis*”: a combination of heterogenous sources. The multifarious shifting from stability to instability and back again that constitutes the mortal world will take place *in* the receptacle; but the discovery of this principle reveals that it must have been there all along, providing space even for the relatively unchanging motions of astronomy.⁷ With the receptacle, astronomy can be taken as no longer merely mathematical, for its objects are not merely diagrammable ratios. Rather, they are now natural bodies with a place in the cosmos. Their astronomy belongs to physics.⁸

Timaeus warns his audience that an account of the receptacle will be “strange and unusual,” because the object of study is “difficult and obscure.” His warnings indicate to us that an entirely new sort of theorizing will be taking place: for unlike the eidetic model, the receptacle is not itself intelligible. And unlike the visible world, it does not appear to the senses. If we have only intellect and sense at our disposal, with what will we know that which is in itself unavailable to either? In one of the strangest passages in Plato (the 4th passage on the handout), Timaeus tells us that the receptacle not only “shares in the intelligible in a most perplexing and hard-to capture manner”— but is “graspable by a bastard sort of reasoning, with the aid of *insensibility*” (52a8).

The claim seems to be that the principle unavailable to our two faculties, sense and thought, will be revealed through a perverse deployment of those very same faculties. Why “bastard”? Wherefore base? This term suggests that in pursuing this account, reason will not be occupied within reason’s own, high territory of the purely intelligible, but with the supposedly baser realm of the sensible. The account to be developed takes the forms to have been mired in the sensible realm, and attempts to understand precisely their adulterated existence. Reasoning will be trying to make sense of what is not its own.

And why “insensibility”? How could that help? The idea here could be that the inquiring subject has to somehow scrutinize the nature of his or her own sensible experience, while shutting out the material influence of the sensible object. Insensibility here is a sort of deep abstraction. Regard the curtains behind me, but become insensible to their color, their solidity, their texture, perhaps even their particular magnitude [*imagining FSK here*]. What emerges for us then is “seen dimly” as if in a “dream,” Timaeus says.

⁷ Timaeus implies that the heavenly motions of astronomy are not eternal, but rather only an “image” of eternity. The demiurge remarks that “all that is bound together can be dissolved” (41b1).

⁸ The receptacle belongs to “the account of the whole” 48d5, and “is...before the birth of Heaven.” 52d4

As he proceeds, Timaeus' retreat reasons backwards towards the "nature" or "*eidos*" of the receptacle. That is, he infers what it would have to be like, in order to fulfill its role as the field in which the visible manifests. It can have no sensible qualities, since it must be able to take any of them on. Similarly, it cannot be pictured or diagramed, since it is the ground of all possible diagrams. It can't be drawn on the board, since it is what makes the board available in the first place. This is what it is *not*, but what can be said positively about it? Timaeus calls it the "*chora*," the space or room in which the world appears. He also calls it a neutral "molding stuff" for the world, and even a "wet-nurse", and "mother." This sequence of metaphors draws out a sense of the formal and causal power of the receptacle. The receptacle thus somehow nourishes, or pours life into things, sustaining them. These metaphors indicate how far from "empty" the receptacle is, even in itself. We might often think of space as sheer void, waiting indifferently to be filled by perceptible items.⁹ But Timaeus' space is teeming with potential life, waiting, not indifferently, but expectantly, to give birth. It is perhaps neither full, nor empty, but according to its eternal priority, the source of either of these spatial dispositions. When it gets filled by forms, it gives them the room to manifest themselves. When it gets filled by void, it holds open the room in which no forms are. Compare the blackboard: where the diagram is not drawn, indeed, in the crucial zones between the parts of the diagram, the board is not merely empty of inscription, but spread out in its blankness.

The receptacle's radical priority to experience further suggests that is matter only in a metaphorical sense.¹⁰ For it is not literally "stuff" in the sense we know from experience— after all, it is "molded" both into our solid, present objects *and* into the absent spaces between them. It is thus not a source of nourishment for the world in a material sense, but perhaps rather in a formal sense. That is, it "nourishes", so to speak, the sensible givenness of things by sustaining them as spatial.

Timaeus offers one more, especially puzzling metaphor: he calls the receptacle a "winnowing basket." Change in sensible things, he points out, comes to be through *contact* between differences. The hot next to the cold, the dry next to the moist— we might add: negative charge around positive charge, north magnetic poles across from south, or 'masses' in a gravitational field. These different "powers", whatever they may be, "jostle" each other, and thereby produce change. Over time, these changes generate the apparently structured world which we observe. These change-inducing juxtapositions, these jostlings, do not happen through tools of arrangement, as if parts were separated and pushed together with a hoe and a

⁹ Lucretius' void. Interesting that Lucretius is such an *unmathematical* thinker.

¹⁰ Aristotle and Plotinus both take the Receptacle to be "matter."

rake. Rather, the parts *themselves* act on each other, like grains in a winnowing basket.¹¹ The basket merely provides the venue in which this jostling can transpire— it is a passive sort of tool that does nothing more than make the reciprocal influences of the worked-upon matter possible, by providing them the *room* for juxtaposition. The six directions of space— left, right, back, forward, up and down— act like the grid of a basket, sorting the tendencies of material things into different directions, giving them a stage on which they can come upon their brethren.

Does Timaeus' story of the receptacle serve as the 'missing' account of receptivity— missing, that is, from the picture of Socratic philosophy in the *Republic*? Recall that part [of] the vocation of philosophy described there, to ascend to the intellectual first principles of the mathematical sciences' own starting places, would leave unexamined the non-intellectual first principles of sensibility, that is, of the receptivity in which the knowable images come to be. On the other hand, Timaeus' oddly named "receptacle", which has resonances in Greek of "reservoir" or "harbor," represents receptivity as a cognitive resource. The name indicates the epistemic purposiveness of the "third kind": the receptacle provides a welcoming cosmic hospitality for the forms, so that they may be known by us in their images. Timaeus follows his account of the receptacle with an extended speculation about the solid geometry of the elements. Certain propositions about the elements— how many there could be, how they would act upon each other, and how they could change into each other— are derivable *a priori*, since they arise from the demonstrably necessary geometrical character of the solids. These speculations have hypothetical—perhaps fanciful—beginnings. But the necessity involved in the geometry of his hypotheses generates an *a priori*, synthetic natural science.¹² Timaeus' procedure suggests that any mathematical natural science of matter will ultimately rest upon a story about the receptacle as an ultimate condition of the possibility of extended, sensible being. Is this foundational story satisfactory as a philosophical account?

¹¹ But doesn't the "sieve" itself move? I can only make sense of this in an extremely analogical way. We might be reminded here of a passage from Plato's *Parmenides*, in which the elder philosopher proposes that the One— the very highest principle of all being— is both at rest, and in motion (146a). It is at rest, so to speak, Parmenides claims, because it doesn't ever depart from being fully in itself. But it also is in motion, so to speak, because it always is in other things, making each of them one thing. The metaphysical participation of things in the One can be thought of as a kind of flowing motion of it outwards, into them. Could this conception help us interpret Timaeus' winnowing basket? The receptacle's motion is not a locomotion, but a "change" in which it takes on a form it doesn't have in itself. In so far as the spatialization of these forms has consequences for how they evolve, it is as if the 'change' of the receptacle imparts further changes to the things in it.

¹² Cf thinkers like Kepler, Maxwell, Rutherford—anyone who imagines a model, derives necessary conclusions from it, and compares these with the appearances.

Timaeus warned his audience at the start that any cosmology of a becoming world would not be knowledge, but only a “likely story,” in so far as what *becomes* is not what *is*, but only its *likeness*. Philosophy seeks to rise to what *is*, and discover knowledge of the eternal there. Accordingly, Timaeus’ mathematical chemistry of the elements is not wisdom about the highest things. Socrates of the *Republic* would agree. Now, the receptacle, as the neutral field of change, can itself neither change nor come to be. However, Timaeus seems to suggest that as the eternal mother of becoming, the receptacle is itself approachable only under the guise of [a] likely story. This in part justifies his copious use of metaphor in its account. Metaphor becomes the handmaiden of ‘bastard reasoning’, with which we can articulate in speech what is not *in itself* intelligible. The conjunction of several metaphors— space, mother, nurse, matter, basket— raises the problem of thinking the thing coherently, since its metaphorical predicates are not simultaneously compatible. But beneath this interpretive problem is a deeper paradox: the account treats the receptacle as an eternal, self-subsistent thing, even though it is not, by hypothesis, a *being*. This double-speak renders the account of that which underlies all becoming even more mythic— “not less, but more *likely*” (48d3) -- than the playful speculations about shapes and growths that make up the rest of Timaeus’ physics. This paradox, that the receptacle is both beyond becoming and other than being, runs through Plato’s adventure along the path downward. Accordingly, the hoped-for account of the cave wall turns out to be, in Plato’s treatment, deeply enigmatic.

The Form of Outer Sense

Kant’s life’s work, it seems to me, was an attempt to demythologize philosophical enigmas. Where receptivity is concerned, he’s on the case. He begins in the *Critique of Pure Reason* with a distinction in kind between *thought* and *sense*. In the dialogues, thought was understood as the faculty that grasps the universal, which *is*, while sense grasps the particular, which merely *seems* or *becomes*. One of Kant’s innovations is to add to these correlations the proposal that while thought in us is *active*, sense is *receptive*. Kant names the study of the principles of knowledge belonging to thought a ‘Logic’ – the study of *logos*. He names the study of the principles of knowledge belonging to sensibility an ‘Aesthetic’-- the study of *aesthesis*. (Note that Kant’s ‘aesthetic’ has nothing directly to do with the beautiful.) An empirical aesthetic would investigate the particular senses we happen to have, and what features of the world they give us access to: color, odor and taste, sound, temperature, as well as shape, size, and duration. Perhaps what we read in Book II of Aristotle’s *De Anima* could be considered an

empirical aesthetic. A *transcendental* aesthetic, on the other hand, would investigate sensibility as such, rising past or transcending the particularities our equipment for sensation.

This new science's object comes into view in two stages (described in the 5th passage on the handout): first, Kant claims that we must "isolate sensibility by taking away everything from it which the understanding thinks through its concepts." In the second step, we "separate off from sensibility everything belonging to its impressions." The first move resists the claim of monist thinkers like Leibniz, for whom the distinction between sensibility and understanding is a difference in degree— that is, sense is merely the obscure end of the spectrum of human representation, whose clear and distinct end is called understanding. For Leibniz, there is accordingly only one path for philosophy: towards the higher principles of the intellect, for there is properly speaking no heterogenous epistemic contribution from sensibility itself. Taken as an interpretation of the divided line, we can see that Leibniz's Socratic conception must hold that there is no philosophical theory of the cave wall.

Kant's interest, on the other hand, is not unlike the dualist Timaeus', for whom givenness must be traced back to a second principle. Timaeus proposed his receptacle as the ultimate ground of the givenness of things, as the reason why things can be given to the senses at all. This question reappears in a new guise in Kant's account of "sensibility," defined as receptivity— not, to begin with, the receptivity of the world for intelligible forms, but the receptivity of our own mode of knowing; the openness, one could say, of our minds for things as given.

In its second step, the transcendental aesthetic clears out from intuition what Kant calls the "matter" of sense, leaving nothing but the "form." Kant claims there are two sorts of sense for us: space, the form of "outer sense", and time, the form of "inner sense." Kant's space, in this respect, like the receptacle, is invisible, inaudible, and impalpable. Taken together, these two steps reveal an object not properly available to either the understanding or to sensation. Rather, the philosopher must abstract from the matter of things sensed outside of us to the form of their being "outer" at all. The underlying precondition for juxtaposition, extension, and orientation is not any spatial thing, but space itself— or perhaps better, spatiality. This spatiality is not thought up by us, and is not derived from experience. It is the form or ultimate pre-intuition of whatever *could* be given as 'outside.' This form itself is a "*pure manifold*"— not merely many, like the spatial stuff of outer sense, but the ordered, stuff-less multiplicity of orientations in which sensations are always given, and to which they cannot themselves contribute. Recalling the warnings of the difficulty of the inquiry voiced by Timaeus, Kant tells us in the introduction of his

book that “it may be that we are not in a position to distinguish [the form of knowledge] from the raw material, until with long practice of attention we have become skilled in separating it” (B1-2).

This ultimate priority of space ahead of all outer things means that, like the receptacle, it cannot have come to be. And on precisely the grounds of this priority does space make necessary knowledge of the outer world possible. Our geometrical demonstrations draw their necessity from the way the pre-intuited field in which they are inscribed or imagined determines those inscriptions and images. Thanks be to the board, where we may draw our figures. But greater thanks be to space, which opens out to make room for the board, and opens out for our imaginations to spread and discover what must follow from what among our figures. It is essentially one, embracing all particular spaces. It is both given, in that we do not spontaneously think it at all, and infinite, in that no bounds can be set for its magnitude. It is empty, in that it is the container or receptacle for all sensible content, and unremovable, in that we cannot imagine it away.

Timaeus introduced the receptacle, not as an aspect of particular material things, but as a single underlying whole which pre-exists them, so that it may *receive* them. This seems to be what Aristotle, for one, was most at pains to resist about Plato’s Timaeian conception— for the later thinker, the places of things, along with their shape and their magnitude, are accidents of their individual existences: a thing is *in* a place as the contact boundary of what surrounds it. There is no whole receiver, only a nested series of surrounding containers. Hume’s argument reaches a similar conclusion: no impression comes to us without some spatial magnitude, he claims, and so space itself is only a subsequent abstraction made possible by the accumulation of spatial particulars. Kant, filling in argumentation absent from his ancient comrade Timaeus’ account, argues that the nature of spatiality requires independent singularity and wholeness. For, each particular place is bounded only in so far as these boundaries are *between* spatial regions. That is, bounded spaces are always “limitations” of the same one space. Just as what receives limitation must be *priori* to the result of its limitation, so divisions into particular places presuppose the field which they limit. Accordingly, larger spaces cannot be assembled originally out of smaller ones, and so space is not an aggregate; it is rather, Kant claims, a “*totum*” (B466), preceding the particular parts we may carve out of it.

Recall also how Timaeus brought in the receptacle as an additional “kind” to ground his mathematical science of material nature. Kant seems to have agreed that the nature of geometrical knowledge of things required a heterogenous, spatial source of knowing; indeed, he thought the necessity of mathematical sciences was the strongest evidence for his sense/thought dualism. He points out that geometrical demonstration, for example, reveals that

necessary predicates about figures cannot be derived out of their concepts by analysis, but must rather be synthesized or constructed out of the intuited figures. That the third side of a triangle is shorter than the sum of the other two does not fall out of the concept of what a triangle is, but only from the determination of the sensible field in which we inscribe triangles. The blackboard must play its role. Kant here is taking Socrates' second reservation about mathematics— that it could not extricate itself from sensible conditions— as decisive evidence that sensibility is, after all, an epistemic resource, and that human knowledge is dual.

Idealism

Taking up the torch of 'bastard reasoning,' Kant finally explains the unacknowledged source of scientific knowledge of sense objects, by reasoning back to the invisible, non-intellectual condition of sensibility. This condition, however, is— unlike Timaeus' receptacle— *not* a self-subsisting, eternal being, but a mere form of our own sensibility. It is *in* us, not in a psychological sense, as if it were a figment of each thinker's mind, but in a metaphysical sense, as a feature of our knowledge of things, and not of the things as they are in themselves. Space is not 'in our heads'— indeed, our heads are *in* space. But space is 'in' our own, human knowing of things, such as our knowledge of the heads in this room.

The radically blank 'non-thing' that is space, therefore, does not exist in itself. Kant writes (this is on the handout) that those who "maintain the absolute reality of space" as "subsistent...(which is generally the view taken by the mathematical students of nature),... have to admit [an] eternal and infinite self-subsistent non-entity, which is there, yet without being anything real, only in order to contain in itself all that is real" (A39/B56). He was probably thinking of Newton here, but the description fits the deep cosmology of the Timaeus, as well.¹³ As we saw, Timaeus' *chora* made knowledge possible, but only by way of an existence which is neither *being* nor *becoming*. Like Timaeus, Kant infers that there is a determining source of knowledge in receptivity. But to elude the paradox, Kant makes clear that this source, space, *is nothing but* an epistemic condition. The receptivity, and thus the receptacle— the form of outer sense—, *is ours*. This position of sensibility— both subjective and essentially sharable— may be more familiar to us from the realm of thought. That is, when we think a concept together, each

¹³ The receptacle is eternal, but Timaeus never calls it infinite. This is perhaps because qua unformed, it has no quantity. What did Newton mean by calling space "empty" in the *Principia*? In the *Optics*, Newton writes that space is "the sensorium of God."

one of us shares the same universal in our thought. The mind's concept is not a psychological event, but a form or standard. According to Kant's account, mind is present in sensibility, as well. The space of things is not a psychological feature of their images in our minds, but rather a necessary feature of how they can *known* by beings like us. This is what Kant means by "the transcendental ideality of space."

Kant does declare his form of outer sense to be "empty," which might make us think it is pure, void extension. Where is the living, expectant energy of Timaeus' receptacle? We might say that its energy has been idealized. The expectancy, the power to hold the shape of what will come to be in it— that is, the *maternal* power of space— this is in Kant's space as well. But we can now see this power as life-like, precisely because it is a power of the mind. Space as the form of intuition is not a null void, but a manifold field ready for knowledge to be generated in. The pure manifold, the cave wall, is alive, because it is sensibility.

Kant's journey down into sensibility has none of the metaphorical images of Timaeus'. On the contrary, it strikes a scientific pose, where Timaeus' story was only "likely." Kant speaks in his own voice as philosophical inquirer, rather than through a fictional character whose own relation to philosophy is obscure. Kant's account appears *first* in his book, as the starting place for a looming system, where Timaeus' appears as a "revision" or "retreat" part-way through a narrative. The highly metaphorical, fictive frame of the receptacle might suggest that the receptacle as described is a poetic manifestation of knowable principles, according to which what is transcendently ideal (space) is depicted as if it were real, in itself, but in a likeness, in a *mythos*. This would certainly not be the only time Plato has characters speak in a metaphorical mode, rendering as material what cannot properly speaking exist in that way. Such a depiction generates paradox, as we have seen, and this paradox raises questions about subjectivity and the knowability of the world that Plato was content to leave as questions. By demythologizing the receptacle, showing that it is not an alien, quasi-divine being *outside* of us, but rather a constitutive principle *within* us all, pulling the depiction out of the poetic sphere of the 'likely', Kant gives himself the opportunity to answer these questions. Whether his answers are satisfactory, is a question for us.