CHAPTER 6

Mind and Motion in Aristotle

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The actuality of perception is spoken of as similar to contemplation. There is, however, a difference. (*De an.* II.5, 417b19–20)

IN HIS DISCUSSION of νόησις in the *De anima*, Aristotle allows that an individual with an established, articulated conceptual repertoire can think at will, or, as he says, "Having [so] wished, one is able to contemplate (βουληθεὶς δυνατὸς θεωρεῖν)" (*De an.* II.5, 417a27–28). Similarly, Aristotle holds that knowledge apprehends universals, whereas sense perception senses individuals (*De an.* II.5, 417b23; cf. *Po. An.* I.31, 87b37–88a7), and that consequently we can move ourselves to think in a way we cannot move ourselves to perceive. "Universals," he says, "are in a sense in the soul itself—that is why thinking is up to one, whenever one wishes (νοῆσαι μὲν ἐπ' αὐτῷ ὁπόταν βούληται)" (*De an.* II.5, 417b23–24). This much may seem phenomenologically apt. If one knows the paradox generated by the Russell set, one can call it forth to consciousness at will: part of what it means to possess a concept is to stand in some intentional relation to it such that one can apply or employ it in appropriate circumstances and at will.

Although by itself plausible, the claim that one can think at will is in need of qualification. After all, how could Aristotle regard it as a necessary condition of actually knowing some proposition *p* that one can actually contemplate *p* (or apply concept *c*) whenever one wishes? One might wish to contemplate the Russell set but be precluded from doing so because one is too hungry to think, too busy preparing lecture notes, or otherwise engaged expounding the liar paradox. Aristotle is himself aware that some such qualification is necessary; indeed, he explicitly notes that his view must be modified: "Whenever someone is in this condition [namely, of

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possessing some set of concepts], he actively exercises his knowledge and contemplates, so long as nothing prevents him (ἐάν τι μὴ κωλύῃ)" (*Phys.* VIII.4, 255b3–4). Here Aristotle allows, as he should, that it is possible for us to be in possession of some concept even though we are hindered or prevented from actively using that concept, so that our willing may in some cases be ineffectual. He holds, then, that intellectual agents are noetic self-movers—that we can bring about our own intellectual activity so long as we are not hindered from doing so.

Aristotle approaches the issue of concept possession with the right sort of caution. On the one hand, he recognizes what must be a minimal adequacy condition of concept ascription:

> *S* has a concept *c if and only if* $(\exists R)$(*R* is a propositional attitude and *S* stands in *R* to proposition *p* [...*c*...]).[1]

Still, he insists that it is possible to have concepts that we may not be able to access at will. As he notes, it seems a datum of experience that we are sometimes hindered in using the concepts we possess. We would therefore be mistaken to insist, without qualification, that possessing concept *c* is sufficient for applying it at will. The minimal adequacy condition Aristotle recognizes falls short of any such commitment, since it does not require of intellectual self-movers that they be in a position to make their propositional attitudes occurrent at will.

[1] Aristotle sometimes suggests that nondiscursive thought is possible, where this would include thinking of a concept nonpropositionally. See, e.g., *Meta.* Θ.10, 1051b27–1052a4, and *De an.* III.6, 430b26–31. Several commentators have doubted the cogency of this position as well as the textual evidence in Aristotle. See esp. Sorabji (1982) and Lloyd (1969–70). By contrast, I believe that Aristotle does commit himself to the possibility of nondiscursive thought and that there is nothing philosophically suspect about this commitment. If I am right, however, Aristotle cannot be committed to this minimal adequacy condition as stated: nondiscursive thought allows for the possibility of standing in an intentional attitude to a simple intension unembedded in any proposition. Hence, in the case of nondiscursive thought, *S* can have a concept without satisfying a necessary condition of the minimal adequacy condition. This complication should be noted, but need not undermine our attributing the minimal adequacy condition to Aristotle: (1) we can regard it as obtaining in all but nondiscursive cases; or more directly, (2) we can emend it to read:

> *S* has a concept *c if and only if* $(\exists R_i)$ $(\exists R_p)$((R_i is an intentional attitude and *S* stands in R_i to *c*) and (R_p is a propositional attitude and it is possible for *S* to stand in R_p to proposition *p* [...*c*...])).

This will have the effect of allowing for nondiscursive thought without abandoning the force of the minimal adequacy condition. The revised condition simply allows that one could stand in an intentional relation to some intension without its being embedded in a proposition, while insisting that *S* has the right sort of acquaintance with that intension only if *S* can employ that intension in propositions. It therefore captures the purport of the minimal adequacy condition, and allows Aristotle a commitment to nondiscursive thought compatible with the reasonable minimal adequacy condition he evidently accepts elsewhere in the *De anima*.

This seems correct.[2] When one knows the paradox generated by the Russell set, then one knows it whether or not one happens to be thinking about it at the moment. We are inclined to say that one knows in different senses when one is thinking about it and when one is otherwise occupied: we fasten on a distinction between dispositional and occurrent knowledge, and so implicitly think that different senses of "know" are required for describing one's knowledge before and during actual contemplation. Aristotle agrees, but explicates the distinct senses of "know" in terms of first and second actualities:

> When the intellect has become each thing in the way [that] one actually knowing is said to (this occurs whenever one is able to exercise [his ability to know] through himself), even then he is in a way in potentiality, but not in the way he was before learning or discovering. (*De an.* III.4, 429b5–9)

One can actually know something, but nevertheless remain "in potentiality in a way" (δυνάμει πως), since one can know something without actually contemplating it at the moment. In such a case, Aristotle holds, a person is in a state of first actuality (actuality$_1$). When one who actually$_1$ knows begins contemplating, one actually knows in the sense of a second actuality (actuality$_2$). Presumably someone who actually$_2$ knows is no longer in any way in potentiality (qua knower of the proposition in question); at least the contrast drawn at *De an.* III.4, 429b8–9, would seem to have this import.

Aristotle must think knowledge is an especially clear case of his distinction between first and second actualities, since he readily uses it as an illustration of other initially more obscure cases (for example, of the way in which the soul is the first actuality of the body, at *De an.* II.1, 412a20–25). He may be right: our distinction between dispositional and occurrent knowledge appears to map fairly cleanly onto Aristotle's distinction between first and second actuality, and insofar as we have a handle on this

[2] When Aristotle accepts as a necessary condition of concept possession that one must be able to employ the concept in relevant circumstances by making appropriate discriminations, he embeds his analysis of concept possession in the larger context of his capacity-based approach to philosophical psychology. From this perspective, Aristotle's account very closely resembles Gareth Evans's treatment of Russell's Principle (roughly, that someone cannot make a judgment about an object without knowing which object the judgment is about [Russell 1912, 58]). As Evans develops and defends Russell's Principle, a necessary condition of mental reference is having "discriminating knowledge" (Evans 1982, 90), which in turn requires our employing or relying upon a "fundamental idea" (107) of the object in question. Strikingly, Evans understands the having of a fundamental idea not in the descriptive-theoretic context of complex thoughts structured out of intensions: "I should prefer to explain the sense in which thoughts are structured, not in terms of their being composed of several distinct elements, but in terms of there being a complex of the exercise of several distinct conceptual *abilities*. Thus, someone who thinks that John is happy and that Harry is happy exercises on two occasions the conceptual ability which we call 'possessing the concept of happiness'" (101, italics as found). See also Geach 1957, chs. 5 and 14.

distinction in epistemic contexts, we may be licensed to extend it to analogous phenomena in nonepistemic settings.

To this extent, then, Aristotle's conception of noetic self-motion may seem both phenomenologically apt and theoretically well-founded. The caution he exercises in characterizing concept possession and intellectual willing evidently captures a minimal adequacy condition for concept possession that respects the fact that we are not in every instance at liberty to make use of the concepts legitimately ascribed to us. Even so, Aristotle's attitude is peculiar in several important respects. To begin, he holds two principles that are not obviously compatible with one another. First, he holds a principle of intellectual willing:

> [IW] Actual thinking is subject to the will. (*De an.* II.5, 417a27–28)

But he also suggests that whenever one has satisfied the minimal adequacy conditions of concept possession, actual thinking occurs so long as nothing prevents it. He also seems to hold, then, a principle of intellectual actualization:

> [IA] Relative to some context *C*, an antecedent sufficient condition for *S*'s actively thinking *p* is *S*'s possessing the concepts constitutive of *p*.[3] (*Phys.* VIII.4, 255b3–4)

According to [IA], intellectual agents move directly toward contemplation once they possess the requisite concepts. *Phys.* VIII.4, 255b3–4, states that an intellect in possession of some set of concepts actually thinks "so long as nothing prevents" him (ἐάν τι μὴ κωλύῃ).

1. WILLING CONTEMPLATION

Here Aristotle's account of noetic self-motion takes on a perplexing hue. To begin, [IA] appears perverse in its own terms. One would hardly think that, having acquired the concepts necessary for appreciating the paradox generated by the Russell set, *S* will necessarily contemplate that paradox unless hindered. This yields a picture of intellectual agents such that they are equipped with a set of concepts whose members each has its own exigency to be the object of present contemplation, a picture where discrete items of actual$_1$ knowledge perpetually war with one another for the coveted actual$_2$ status.

[3] Given the possibility of nondiscursive thought, this principle, too, will need to be revised. Like the minimal adequacy condition, [IA] can be admitted with the proviso that *mutatis mutandis* a revised principle will suffice; consequently, this complication can be ignored for the present discussion. For the balance of the discussion I will ignore the issue of nondiscursive thought, and will treat Aristotle's views on noetic self-motion primarily at the level of propositions rather than at the level of concepts.

Proposition [IA] further suggests that the comfortable mapping of Aristotle's distinction between actual$_1$ and actual$_2$ properties and states onto our distinction between dispositional and occurrent properties and states may be ill-advised. Glass is fragile, which means, in part, that glass has the dispositional property of being such that it will shatter when an object of sufficient mass, weight, and velocity collides with it. Similarly, if someone believes that snow is cold, she will likely respond affirmatively if asked whether snow is cold, will dress warmly when she has the desire to stay warm and the belief that she must go out into the snow, and so forth. Although perhaps not occurrently thinking that snow is cold at t_1, we are nevertheless for these reasons justified in attributing to her, at t_1, the dispositional belief that snow is cold. Minds, according to [IA], do not exhibit quite this kind of dispositionality. Minds are more like dammed bodies of water that flow into motion as soon as the barriers are removed. Just as water will flow down a canyon so long as nothing hinders it, so minds actually contemplate so long as nothing prohibits them.

If so, [IA] threatens to remove actual contemplation from the province of the will, and so seems to undermine Aristotle's own reasonable commitment to [IW]. If someone with an articulated conceptual repertoire can think whenever she wishes, she should not, in virtue of her very concept possession, be so situated as to contemplate whenever she is not hindered from doing so. If his conception of noetic self-motion requires that she is, Aristotle will have some difficulty explaining how noetic self-motion is noetic *self*-motion. He will need minimally to explain how intellectual agents differ from naturally constituted entities, which exhibit precisely the propensity toward complete actualization here ascribed to intellects.

I will argue that Aristotle's analysis of concept possession, together with his conception of νοητά as unmoved movers, offers a way of explaining his account of noetic self-motion such that: (1) intellectual agents are appropriately regarded as *self*-movers, because (2) while standing in a suitable intentional relation *R* to νοητά is not sufficient for actually contemplating those νοητά, *R* nevertheless provides a causally salient condition for actual$_2$ thinking; consequently (3) Aristotle can consistently maintain both [IW] and a suitably qualified version of [IA]. This suitably qualified version of [IA] also circumvents the perversities implicit in the unrestricted version.

I have identified two problems: first, [IA] seems perverse in its own terms; and second, [IA] threatens any robust or interesting version of [IW]. These two problems are related, and jointly foist a dilemma on Aristotle. The first problem follows from Aristotle's evidently stating a sufficient condition where one expects only a necessary condition. Realizing that one can appropriately be said to possess a concept even when precluded from using it, Aristotle does more than merely note as a proviso that one cannot actually think when hindered. Instead, he rather oddly says something much stronger: he claims that as long as one is not hindered, one contem-

plates whenever one is an actual$_1$ knower. The language of *Phys.* VIII.4, 255b3–4, seems unambiguous here. Adding the indices for types of actualization, we have: "Whenever one is in this position [of being in actuality$_1$], if nothing hinders [one], one moves into actuality$_2$ and contemplates (ὅταν δ' οὕτως ἔχῃ, ἐάν τι μὴ κωλύῃ, ἐνεργεῖ καὶ θεωρεῖ)."[4] Hence, he suggests not only that not being hindered is a necessary condition for moving from first to second actuality, but also that it is sufficient.

It is precisely this sufficiency that notifies us of a problem in Aristotle's thought. In virtue of this commitment, Aristotle seems to make intellectual agents passive spectators of their own cognition. This is not a mere slip on Aristotle's part: in *Phys.* VIII.4, he draws a crisp analogy making intellectual agents move toward second actuality the way stones move toward the ground:

> It must be inquired how light things and heavy things are moved to their [proper] places. The reason is that they naturally move towards a certain position; and this is what it is to be light or heavy, the former being determined by an upward and the latter by a downward tendency. As we have said, a thing may be potentially light or heavy in many ways. Thus when a thing is water it is in a sense potentially light, but when it has become air it may still be potentially light; for it may be that through some hindrance it does not occupy an upper position, whereas if what hinders it is removed, it becomes actually [light] and rises ever higher. How something changes into a condition of actuality is similar: thus one who knows contemplates at once, unless something definite prevents [him]. So, too, what is of a certain quality extends itself over a certain space unless something definite prevents [it]. The thing in a sense is and in a sense is not moved by one who moves what is obstructing and preventing its motion—e.g., one who pulls away a pillar or one who removes a stone from the wineskin in the water is the coincidental cause of motion; and in the same way the rebounding ball is moved not by the wall but by the thrower. So it is clear that in none of these cases does the thing move itself, but each contains within itself the source of motion—not of moving something or of causing motion, but of suffering it. (*Phys.* VIII.4, 255b13–31)

If in all these cases—including contemplation—one contains a source of motion only in the attenuated sense that one is so constituted to suffer

[4] There is, however, a question as to whether Aristotle means to take ἐνεργεῖν and θεωρεῖν transitively. I have translated them intransitively because the text does not supply objects. Still, these may well be implicit. If they are taken transitively, perhaps Aristotle's point will be best paraphrased as: "Whenever one has mastery over some set of concepts, one actualizes and contemplates them so long as one is not hindered from doing so." The force of the verbs will differ, but the problem about self-motion will remain, or become even more pointed. On this account, agents consistently try to contemplate the propositions in their conceptual repertoire, and succeed whenever they are not prevented by some manner of hindrance.

motion (τοῦ πάσχειν) unless hindered, then one is hardly a self-mover. How, then, can Aristotle hold that someone in possession of a set of concepts can think at will? Moreover, how can he differentiate, as he wishes to differentiate elsewhere, ensouled entities from artifacts on the ground that artifacts do not have sources of motion within themselves? For example, after using an ax to illustrate the principle of homonymy in *De an.* II.1, Aristotle remarks: "But as it is, it is an ax; for it is not a body of that sort . . . [it is not] a natural body of a particular kind, one having a source of motion and rest in itself" (*De an.* II.1, 412b15–17). In short, if we are noetic self-movers, how can Aristotle maintain in speaking of water, wine, rebounding balls, and minds, all quite generally, "that it is clear that none of these things moves itself (ὅτι μὲν τοίνυν οὐδὲν τούτων αὐτὸ κινεῖ ἑαυτό, δῆλον)" (*Phys.* VIII.4, 255b29)?[5]

Why should Aristotle liken concept actualization to processes that he explicitly regards as processes of entities incapable of self-motion? One possibility would be that in the *Physics* Aristotle is worried about self-movers, and especially about the possibility of regarding human intellectual agents as bona fide self-movers that do not depend for their motion on the causal agency of influences outside themselves. This would be a legitimate worry, and one that might induce Aristotle to view himself as having to choose between two equally unattractive horns of a dilemma:

1. Either minds move from first to second actuality by themselves or they do not.
2. If not, then contemplation is not subject to the will, and is not, in any interesting sense, up to us (any more than it is up to a rock to fall when the pillar on which it is resting is moved).
3. If so, minds are noetic self-movers, and must be capable of setting themselves into motion (in which case we have something of a mystery).
4. Hence, either contemplation is not up to us or we have something of a mystery.

This heuristic dilemma charts the options available to Aristotle.

[5] Furley (1978, reprinted in this volume) suggests a restriction. Aristotle, he argues, never offers a general rejection of self-motion. "The reference of the pronoun [viz. τούτων at 255b29]," he maintains, "is to inanimate natural bodies only—'the light and the heavy' (255b14–15). Nothing is said or implied about animals. Nor does the *analysis* of self-movers into a moved part and a moving part imply that there is no such thing as a self-mover" (7). Furley's suggestion would be welcome, but it cannot be right: (1) the referent of the pronoun is unlikely to extend as selectively backward as Furley suggests, and there is nothing in the text suggesting the restriction he supplies; (2) although right to claim that the analysis of self-movers as composites does not entail that there is no self-motion, Furley's restriction ignores the protracted comparison between minds moving from first to second actualities and natural bodies whose propensities are realized when hindrances are removed; and so most importantly, (3) Furley disregards Aristotle's commitment to [IA] in the passage.

2. APPROACHES TO THE DILEMMA

Aristotle might want to reject the first horn of this dilemma. We have already seen that, in effect, he can. For although [IA] threatens [IW], there is certainly no formal contradiction between them. It is therefore open to Aristotle to hold both. He can hold, for example, that willing ourselves from actually$_1$ to actually$_2$ knowing is really nothing more than a form of permitting ourselves to be moved from actually$_1$ knowing to actually$_2$ knowing.[6] Willing, on this approach, will then consist in removing those barriers under our control, thereby allowing ourselves to be coincidental causes of our own contemplation, in the way that we would be coincidental causes of wine's pouring out of a wineskin by removing the stone, or of a stone's falling by removing the pillar upon which it rests (cf. *Phys.* VII.4, 255b26). Conversely, we might focus on some concept or set of concepts by setting up barriers to *all* concepts beyond the desired subset; to will the actualization of some concept will consist, then, in stifling all others. Although this may seem at best a misdescription of the actual process of contemplation, and at worst a theory-driven expediency, it would provide for Aristotle a way of denying the first horn of our heuristic dilemma, and would therefore permit him to hold both [IA] and [IW]. It would provide for him a way of denying the first horn by allowing us a role in our own contemplation, a role that rocks, for example, cannot play in their falling. They cannot set up or remove hindrances; we can. Accordingly, although we are not wholly autonomous self-movers—we do not move from first to second actualities altogether by ourselves—we can will our own contemplation. Here we are unlike dammed water in that we can will the floodgates open.

This approach is unacceptable for a series of related reasons. There are, first of all, the reasons already given, namely, that it is both phenomenologically peculiar and expedient in the worst sort of way. More importantly, this approach hardly seems faithful to Aristotle's considered views in the *De anima*. There he wants to hold, for example:

> When the intellect has become each thing in the way [that] one actually knowing is said to (this occurs whenever one is able to exercise [his ability to know] through himself). (*De an.* III.4, 429b5–7)

Here Aristotle seems to suggest not just that one can think by willing oneself into the appropriate context, but that one has the resources in oneself: one can think, as he says, δι' αὑτοῦ—through oneself.[7] It is hard

[6] Leibniz is sometimes driven to an analogous point about the divine intellect (de Careil 1854, 22).

[7] Hicks glosses δι' αὑτοῦ as: "without further instruction, unaided" (Hicks 1908, 484). This strikes me as correct but not yet sufficient, since Aristotle will still need to explain the

to see how Aristotle could make it a distinguishing feature of actually$_1$ knowing *p* that one can—through oneself—actually$_2$ know *p*, and nevertheless hold that the only way an actual$_1$ knower could prevent herself from actually$_2$ knowing is by constructing barricades of some sort. In holding that one who actually$_1$ knows can bring herself to know in the fullest sense, Aristotle evidently supposes that one can *act* to bring it about that one knows in the fullest sense without merely acting to bring that result about coincidentally by putting oneself in a position to *suffer* in such a way that the result is brought about by forces essentially beyond one's own control. An intellectual agent is more than a rock capable of removing hindrances to its free-fall (cf. *Phys.* VIII.4, 255a7).

Moreover, even if we were willing to acquiesce to the peculiar, counterintuitive account of intellectual willing required by this approach, we would in the end merely have traded the first horn of the dilemma for the second. The account of intellectual willing introduced in the end does require a form of intellectual self-motion, at least insofar as it requires of νοῦς the autonomous ability to set up or remove barricades. How νοῦς could do this, by itself (δι' αὑτου), remains a mystery. Hence, this attempt to rebut the first horn of the dilemma merely invites us to consider the force of the second horn.

Finally, by considering the second horn, we can focus more clearly on [IA], the principle that relative to some context *C*, an antecedent sufficient condition for *S*'s actively thinking *p* is *S*'s possessing the concepts constitutive of *p*. [IA] looks questionable; it seems just to make us passive spectators of our own contemplation. Hence, a rejection of it commends a rejection of the second horn—in other words, a suggestion that we are noetic self-movers. We should therefore look to the second horn of the our heuristic dilemma to see if we can make some sense of our being noetic self-movers.

In short, if it is true that as long as one can think whenever one wishes to think, and if it is true that we have in ourselves principles of motion and rest, then we would do considerable violence to Aristotle by opting to reject the the first horn. He seems rather to want to insist that we are after all self-movers, and that there is an account of self-motion that makes this altogether nonmysterious. As Furley points out,[8] despite the analogy between minds and natural bodies, Aristotle wants to make it a *condition* on self-motion that it pertain exclusively to living things: "It [having one's motion through oneself] is a characteristic of life and of living things" (*Phys.* VIII.4, 255a7).

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conditions under which one moves from actual$_1$ to actual$_2$ knowledge, even if this occurs without the aid of any instructor.

[8] Furley [1978], 3, this volume.

3. MENTAL CAUSATION IN THE *EUDEMIAN ETHICS*

As a first approach to Aristotle's rejection of the second horn of our heuristic dilemma, it is worth considering a perplexing passage from the *Eudemian Ethics* in which Aristotle offers a peculiar regress about thinking in the midst of his discussion of the role luck (τύχη) plays in causation. The regress appears rather impressionistically, and in any case is not crisply drawn. It is given in the following passage:

> The question might be raised: is luck the cause of this very thing—of desiring what one should or when one should? Or will luck in that way be the cause of everything? For it will be the cause both of thinking and deliberating; for a man who deliberates has not deliberated already before deliberating—there is a certain ἀρχή. Nor did he think, after thinking already before thinking, and so on to infinity. Intelligence, therefore, is not the ἀρχή of thinking, nor is counsel the ἀρχή of deliberation. So what else is there save luck? Thus everything will be by luck. Or is there some ἀρχή beyond which there is no other, and this—because it is essentially of such a sort—can have such an effect? But what is being sought is this: what is the ἀρχή of change in the soul? It is now evident: as it is a god that moves in the whole universe, so it is in the soul; for, in a sense, the divine in us moves everything; but the starting-point of reason is not reason but something superior. What then could be superior to knowledge and intelligence but a god? (*EE* VIII.2, 1248a15–29)

The dialectical argument to which Aristotle responds (streamlined for the present purposes) seems to be:

1. Every mental event is caused.
2. If every mental event, e.g., every instance of thinking, is caused by another event of that same type, then the causal ancestry of my thinking p at t_n includes my having had some other thought q at t_{n-1}, and so on into infinity.
3. This consequent of (2) is impossible.
4. So, it is not the case that every mental event is caused by another event of that same type.
5. If (4), then some mental events are caused by luck.
6. So, some mental events are caused by luck.

Now, Aristotle rejects (6), but accepts (1), (2), (3), and hence (4); he therefore rejects (5). But his rejection of (5) consists in an affirmation that there is "something divine" in us, and that this something accounts for our being able to originate thought of our own accord.

Although answering to a number of similar passages in Aristotle where we are alleged to have a bit of the divine in us (e.g., *EN* x.7, 1177a13–17, b27–31), this remark seems to trade an *explicandum* for a *res occulta*:

what is the divine in us, and more importantly, *how* does it account for our noetic self-motion? This I take to be the difficult question for Aristotle, and not one I see adequately addressed in the *Eudemian Ethics*.

Even so, the *Eudemian Ethics* does place constraints on the form an adequate solution will need to take. The "divine in us" to which Aristotle appeals in blocking the regress is, I take it, merely analogous to the Prime Mover of the universe and nothing more. So we are left to determine how it is analogous. Here the principal point of analogy would seem to be precisely that the mind *is* a self-mover, and so contains not only an internal ἀρχή of its own motion, but an internal ἀρχή of a special sort, namely, one that is an ἀρχὴ τῆς κινήσεως in a way analogous to the way in which the Prime Mover is an ἀρχὴ τῆς κινήσεως. Hence, any satisfactory account of the mind's self-motion will need to posit an internal ἀρχή of thought (and so, remotely, of intentional action) that is properly regarded as an unmoved mover.

So, the import of the *Eudemian Ethics* regress for Aristotle's account of noetic self-motion seems to me significant but limited: significant, because it carries a reasonably clear commitment to noetic self-motion, but nevertheless limited, because it never specifies how "the divine in us" is to be understood. Aristotle makes no attempt in the context of this regress to characterize our capacity for self-motion, and indeed makes no effort to characterize the way in which we are legitimately regarded as having internal ἀρχαί that are the unmoved movers of human acts.

4. UNMOVING MOVERS

The *Eudemian Ethics* passage just considered is not unique in holding that the Prime Mover is not the only unmoved mover. Aristotle quite regularly holds that contingent beings can be unmoved movers as well. In *Phys.* VIII.5, for example, Aristotle analyzes the causal sequence involving a man's hitting a stone with a stick by suggesting that "the stick moves the stone and is moved by the hand, which is moved by the man, but he is not moved by anything else" (*Phys.* VIII.5, 256a6–8). So the man is an unmoved mover in this causal sequence. Nor is this an isolated instance: in his account of animal locomotion, Aristotle quite regularly posits the existence of contingently existing unmoved movers. Indeed, Aristotle claims quite generally that everyone will say, if asked, that the cause of motion, the ἀρχή, is what moves itself (*Phys.* VIII.5, 257a27–30).

This may seem arresting. Does Aristotle, in so speaking, mean to hold that the sublunar world is populated by an infinite number of discrete origins of motion, by an infinite number of uncaused causes? This might seem analytic: an unmoved mover simply is an uncaused cause—a cause of

some event that itself lacks any antecedent sufficient condition. Such an interpretation would treat Aristotle as a radical indeterminist, one whose analogy between minds and God would be quite literal, with the exception that the minds existed contingently rather than necessarily.

This is not his view.[9] "Unmoved mover" does not simply *mean* uncaused cause. Something that moves, a κινοῦν, is not a mover in an intransitive sense, but a cause of motion; something μὴ κινούμενον is not something uncaused, but rather something not *moving*, that is, something not in motion. Hence, when Aristotle says that there are unmoved movers in the sublunar world, he means only to say that there are causes of motion that are not themselves in motion. So, for example, the man moving the rock is an unmoved mover of the causal chain *not* insofar as some one event locatable in him is uncaused; rather, he is a moved mover insofar as some event locatable in him moves without itself being in motion.

We can see, then, how minds can be noetic self-movers: they can be the causes of their own action if they incorporate events that are unmoved movers, that is, events that cause motion even while they are not themselves in motion. Aristotle thus needs to locate this sort of cause in the movement from actual$_1$ knowing to actual$_2$ knowing. This, then, will enable Aristotle to provide an account of the ways in which minds are noetic self-movers, an account that responds to the second horn of our heuristic dilemma by explicating an intelligible version of noetic self-motion. This will also provide a way of understanding our original [IA] in such a way that it does not render us passive spectators, driven to contemplate by factors beyond our control.

5. [IA] RECONSIDERED

The constraints on an adequate response to the second horn of our heuristic dilemma are clear. One needs an account of noetic self-motion such that (1) unmoved movers are internal to the soul, and (2) those same unmoved movers are the ἀρχαί of moving from first to second actualities by being unmoved movers in the sense of being movers that move without themselves moving. An unmoving cause is presumably in a certain way static, capable of imparting motion without itself engaging in motion, even though there may be an antecedent sufficient condition for its existence.

Aristotle provides such a cause in his analysis of νόησις, namely, the universals or νοητά that function as the contents of thoughts. In two important, related passages he claims: "Universals are in a sense in the soul itself—that is why thinking is up to one, whenever one wishes (νοῆσαι μὲν

[9] See Sauvé 1987.

ἐπ' αὐτῷ, ὁπόταν βούληται)" (*De an.* II.5, 417b23–24); and similarly, "Within the soul the faculties of knowledge and sensation are potentially these objects, the one that is knowable and the other that is sensible. They must be either the things themselves or their forms. The former is of course impossible: it is not the stone which is in the soul, but its form" (*De an.* III.8, 431b26–29). In each of these cases, Aristotle locates a formal cause of thinking, as "in the soul" (ἐν τῇ ψυχῇ) and as something that therefore should meet our first desideratum. There is, however, a question about this "bold phrase," as Ross calls it.[10] In what sense can νοητά be said to be "in the soul"?

Aristotle hardly seems justified in asserting that νοητά are in the soul. If two poeple both think *that the ball is green*, then the proposition they believe is the one picked out (on Aristotle's account at any rate) by the genuinely referring singular term *that the ball is green*. The νοητόν to which they equally stand in the belief relation will therefore simply be this proposition.[11] Νοητά would therefore seem to be shared or shareable, whereas something's being "in the soul" would seem to entail its being a subjective entity at least in the minimal sense of being indexed to its bearer.[12] In the ontology of the *Categories*, individual bits of grammar are nonsubstance particulars, where this requires minimally that they are indexed to their individual bearers, and so depend upon them for their existence; Socrates' knowledge of grammar is not and could not be Callias's knowledge of grammar, even though they might know the same grammar (*Cat.* 2, 1a29–b3).[13] If νοητά are objective, it is hard to see how they are "in the soul"; yet if νοητά are subjective, it is hard to see how they can serve as propositional contents in the way required of them by the theory Aristotle propounds in the *De anima*.

Aristotle evidently feels this or some similar tension. He does not baldly assert that universal νοητά are in the soul. Rather, he says that universals are "in a sense" (πώς) in the soul, where the πώς fairly clearly serves to qualify the force of his claim (cf. *Meta.* H.6, 1045b21).[14] By flagging the

[10] W. D. Ross 1961, 237.

[11] There is some disagreement among commentators about the ontological status of νοητά in Aristotle's semantic theory, and even about whether he has a semantic theory in any way recognizable by the contemporary philosophy of language. For this sort of doubt, see Irwin 1982, 243 n. 3; and Kretzmann 1974, 7. I assume here without argumentation, and contrary to Irwin and Kretzmann, that Aristotle offers a recognizable semantic theory, and one that should be recognized as such by the contemporary philosophy of language. (Our difference is in part due to disagreements about Aristotle's commitments, but also in part due to competing conceptions of the philosophy of language.)

[12] I have in mind objectivity and subjectivity in precisely the sense employed by Frege (1956).

[13] For a discussion of this topic, see Heinaman 1981.

[14] Hicks (1908, 359, note to 417b23) suggests: "By πώς, as we shall see hereafter, he means

difficulty of claiming without qualification that universals are in the soul, Aristotle seems to want to suggest that they have some existence independent of the intellect, as indeed he should if he thinks that the objects of thought are constituted by forms (*De an.* III.4, 429a27). The force of their independent status can to some extent be inferred from the context in which Aristotle offers judgment:

> Being affected is not simple. In one case, it is the destruction of something by its opposite, but in another rather the preservation of a potentially existing being by an actually existing being which is similar to it, in the way that potentiality can be similar to actuality. For the one having knowledge comes to contemplate, and this is either not an alteration or a different type of alteration (for the development is into itself and into actuality). For this reason it is not right to say that what thinks is altered when it thinks, any more than it is right to say that the builder alters when he builds. Hence, what brings [about a change] from what is potential into what is actual in the one who thinks and exercises judgment is not instruction, but is by rights called by some other name. Whoever learns and receives knowledge [by being brought] from potentiality [into actuality] by someone who is in actuality and is capable of instructing should either not be said to be affected or there are two types of alteration, one a change to states of privation and the other to dispositions (ἕξεις) and [to a thing's] nature. In the case of the perceptive faculty, the first change comes about from the parent; when it is generated, it has perception in the same sense as knowledge, and its actuality is spoken of as similar to contemplation. There is, however, a difference, because what is productive of its actuality is external, the object of sight and of hearing, and similarly for the remaining objects of perception. The reason is that actual perception is of particulars, but knowledge is of universals; and these are in a way in the soul. For this reason, thinking is up to one, whenever one wishes, but perception is not up to one, for the object of perception must be present. (*De an.* II.5, 417b2–26)

The argument suggests that, on Aristotle's view, it is precisely because a νοητόν is universal that it is "in the soul"; its being in some sense shareable is part of what makes it subjective in the requisite sense.

δυνάμει." He cites *De an.* III.7, 431b20–22, where Aristotle claims that the soul is the same as its perceptive and intellective objects. The passage is of minimal help, however, since Aristotle reintroduces the same hedge: "Knowledge is in a sense (πώς) its objects, and sensation its objects." Rodier (1900, 2: 261) agrees with Simplicius (*In de an.* 124.25) in holding that the πώς merely restricts the universals to part of the soul, νοῦς. Rodier thinks this is confirmed by *De an.* III.7, 429a27, but this is unlikely to be the entire explanation. Even if correct as far as it goes, Rodier and Simplicius's view does not respond to the dilemma in the text. Alexander (*De an. man.* 85.11) comes nearer the mark: he notices the πώς, and attempts to explain it in part by suggesting that universals exist in the intellect only as κοινά.

This may seem odd, but the context helps to explicate why Aristotle should think this way. At *De an.* II.5, 417b12–18, Aristotle distinguishes between two distinct kinds of alteration: (1) to states of privations, and (2) to a thing's stable dispositions (ἕξεις) and to its nature. The second kind of alteration is a perfection or completion of an activity or process. Such "alteration," Aristotle insists, either is sui generis or is simply not genuine alteration at all. This is why a housebuilder serves to illustrate Aristotle's point: although evidently engaging in all manner of changes when going about the business of building a house, a housebuilder does not change qua housebuilder when building.[15] A housebuilder does not change qua housebuilder precisely because he has a stable disposition (ἕξις), which permits him to engage in the activity of housebuilding directly, and at will. By analogy, a thinker does not change, qua thinker, precisely because mastery over some body of knowledge is a stable state of the thinker himself.

If this is correct, then there is a sense in which νοητά are internal to the soul: although a νοητόν, qua νοητόν, is universal and so is shared or shareable, a thinker standing in an intentional relation to a given νοητόν is in a stable state, a state that is appropriately called a state *in* the soul. Two housebuilders can know the same body of propositional knowledge, the body constitutive of housebuilding; nevertheless, each can be said to have that knowledge "in the soul." The sense, therefore, in which a νοητόν is "in a sense in the soul" is this: a thinker standing in an intentional relation to a given νοητόν will necessarily have a ἕξις, a stable state of that individual's soul, essentially indexed by that νοητόν.[16]

[15] I here disagree with Heinaman (1985, 154), who holds that Aristotle's point cannot merely be that housebuilding is an alteration of the second sort, on the ground that "housebuilding is not a change of kind [2] in the housebuilder because it is not a change *to* a state in the housebuilder but the actualization of a state of the housebuilder" (italics as found). I understand the phrase ἐπὶ τὰς ἕξεις καὶ τὴν φύσιν to mean, in paraphrase, a change "concerning a thing's permanent disposition and nature," where the ἐπί need not mean, as Heinaman suggests, a change in the housebuilder from a lack *to* the acquisition of a certain ἕξις. I therefore also disagree with the conclusion he reaches: "The distinctions drawn in *De Anima* II.5, then, fail to explain why Aristotle says that the housebuilder is not altered when he builds a house." On the contrary, it is precisely his distinction between types of alteration that allows him to hold that housebuilding and, by extension, thinking are not alterations in the primary sense, or, if we wish to legislate that only alterations in the primary sense are alterations, are not alterations in any sense.

[16] Cf. note 2 above. Notice, however, that Aristotle will allow capacities to be individuated by their objects, and so, presumably, the capacities required for individual concept possession will be individuated by their individual concepts. (Hamlyn [1959] doubts whether Aristotle embraces the account of capacity individuation invoked here. Hamlyn's doubts are adequately met by Sorabji [1971].) If this is so, Aristotle mutes the *purely* capacity-based account of concept possession Evans adopts, in favor of a mixed account that preserves the core idea that concept possession requires capacities of certain sorts without identifying concept possession with a bald capacity for discrimination. This seems desirable, since it will permit Aristotle to deploy his account even where concepts are necessarily co-extensive.

Aristotle's claim that νοητά are internal to the soul is, consequently, initially explicable, and helps provide him a way of meeting our first constraint. He can justifiably treat νοητά as, in a sense, internal to the soul. Will the νοητά also count as ἀρχαί and as unmoving movers?

On one reading of Aristotle's semantic theory, the answer to the second question will surely be yes. Νοητά are abstract entities of a definite sort, and as such are not susceptible to motion. They are therefore unmoving. Are they also movers? They are not sufficient conditions of thought. But they may nevertheless be movers in the sense that they are INUS conditions in Mackie's sense (insufficient but necessary components of unnecessary complexes of sufficient conditions).[17] Such conditions are the salient features of causal conditions, such that without them, there would be no effect. What is the relevant effect in our case? A moving from first to second actuality, and so to a state of contemplation. And clearly such conditions are necessary. If we recall our earlier minimum adequacy conditions of concept possession, this becomes clear:

> *S* has a concept *c* iff $(\exists R)$(*R* is a propositional attitude and *S* stands in *R* to proposition *p* [...*c*...]).

If there is no νοητόν, there is no noetic attitude.

If this is correct, such conditions can be internal ἀρχαί, again not in the sense of being identifiable sufficient conditions. These will necessarily incorporate background conditions and, as Aristotle rightly notes, the removal of hindrances. Still, as the causally salient component of the INUS conditions, the νοητά will be formal causes, and so properly regarded as the sources of motion in noetic activity.[18]

If so, Aristotle can hold that noetic self-motion is possible, and is subject to the will. But he will have to emend [IA]. As introduced, [IA] held that relative to some context *C*, an antecedent sufficient condition for *S*'s actively thinking *p* is *S*'s possessing the concepts constitutive of *p*. Aristotle will need instead to hold a revised version of [IA]:

> [IA*] relative to some context *C*, itself a sufficient condition for *S*'s thinking *p*, an antecedent necessary condition for *S*'s thinking *p* is *S*'s possessing the concepts constitutive of *p*.

[17] See Mackie 1965.

[18] Formal causes, as formal causes, are not debarred from being efficient causes as well. Aristotle frequently enough allows the formal, final, and efficient causes to pick out the same state of affairs. See, e.g., *De an.* II.4, 415b8–12, where Aristotle allows a formal cause also to be a source of motion: "The soul is a cause and principle of the living body. These are spoken of in three ways, and the soul is a cause similarly in each of the three ways already distinguished: the soul is the cause as the source of motion, that for the sake of which, and as the substance of an ensouled body." (See also *De an.* II.4, 415b21–22; *Meta.* A.3, 983a26–b4; Δ.2, 1013a24–b3; and *PA* I.1, 641a19–34.)

This revised principle is wholly consistent with our principle [IW], that moving from actual$_1$ to actual$_2$ knowing is subject to the will. Incorporating as it does only a necessary condition, [IA*] does not bypass the will, and so allows that thinking is up to us. [IA*] certainly does not explain Aristotle's views on the mechanism of willing. It does, however, provide a place for discussing such a mechanism within the context of Aristotle's theory of intentionality, and in particular within the context provided by his analysis of the role played by formal causation within that theory.

Thinking is up to us, but not entirely up to us. Behind the rather obvious thought that we can be precluded from thinking by all manner of hindrances, both external and internal, lies the less obvious thought that intentional states are essentially relational, and so necessarily tied to objective contents. Even so, because one fastens on objective contents intentionally rather than causally, thinking is up to us in a way that other essentially relational states (including, most notably, αἴσθησις) are not. Aristotle recognizes in the *De anima* that thinking, alone among all essentially relational psychic states, is up to us. Perhaps this recognition comes to nothing more than an awareness of the irreducibly intentional character of mental phenomena. This may be so; but if it is so, it likewise comes to nothing less.