

## Articles

### Aristotelian Perception and the Hellenistic Problem of Representation\*

David Glidden

Antiochus' *Canonica* may be the source for Sextus' sweeping history of epistemology found in book vii of *Adversus Mathematicos*, judging from Sextus' occasional reference to Antiochus in the course of presenting this history. The syncretic story presented there oddly places the Aristotelian, Peripatetic perceptual theory midway between the Epicureans and the Stoics as a transitional doctrine. This brief moment in the history of philosophy is well worth attending to, for it may suggest how it is that Aristotle's views on perception have been so variously interpreted. Over and above the question of any particular interpretation, there have been as well two different ways of approaching the Aristotelian corpus down through the ages. One is primarily exegetical and is found in the textual commentators, whose own philosophic prejudices occasionally color, all the same, how it is they propose the text should be read and understood. The other is purposefully philosophical and is to be found in Hellenistic, Medieval, Renaissance, and modern presentations, all concerned in this case with analyzing independently the nature of perception and especially with evaluating its epistemic authority, turning to Aristotle for guidance. It is this second approach which the following passage in Sextus manifests:

For on the one hand perception (αἴσθησις) is moved (or is affected: κινεῖται) by perceived things (τῶν αἰσθητῶν). On the other hand, when this movement in perception is evident (or actual: ἐνέργειαν for ἐνέργειαν), there comes about a kind of affect in the soul [i.e., an experienced motion: κίνημα] in those living things which are stronger and better able to move themselves, which they call memory and impression (φαντασία), with memory belonging to the experience (πάθος) of the perception and impression being of the perceived thing which produced that experience in the perception. (*M* vii 219)

The language used to describe the view Sextus explicitly attributes to Aristotle, Theophrastus, and the Peripatetics in general, bears some affinity with what we can read in the *De anima* and *Parva Naturalia*, although Sextus interestingly employs the Hellenistic term κίνημα in place of Aristotle's κίνησις (movement or

change). As we shall see, this change of vocabulary testifies to the syncretic nature of Sextus' source as the Aristotelian position becomes assimilated into its Stoic counterpart.

Two distinct organic processes are described in this passage, as part of a physiological, causal theory of perception. In the first place, perceived things in the world cause the appropriate changes in the perceiver, resulting in a perception of those selfsame perceived things. There follows a secondary physiological process consequent upon this first κίνησις, yielding a lingering affect which constitutes both a memory and an impression. It constitutes a memory in so far as this lingering affect is what it is for the subject to store the experience. It constitutes a φαντασία, because that impression is simply enough what is remembered—namely, an impression of the thing which produced that κίνημα in the first place, as it was perceived. There is, as the medievals would have it, both a subjective and an objective aspect to this selfsame κίνημα. Depending upon how long such an affect lingers, that memory remains along with its particular φαντασία. Memories and remembered impressions, then, can both be roughly contemporary with the initial perceptual experience, so that the φαντασία and the perception are co-extensive, that is, being of the same perceived thing, or else the φαντασία of that perceived thing might remain remembered long after that object has ceased affecting the body's sense organs but as long as its κίνημα remains.

The difference between the two physiological processes Sextus describes, following Aristotle, is just that αἴσθησις, or perceiving, is nothing but undergoing one kind of κίνησις, while φαντασία is nothing but undergoing another kind of process, which Aristotle also calls a κίνησις, with Sextus' source preferring κίνημα. So understood, this passage offers an abbreviated sketch of the physiology of perceiving and memory, one which carries with it incidentally the epistemic consequence that what is perceived and what is remembered—namely, αἰσθητά or φαινόμενα—are states of the world or, more precisely, how the world appears to be. It is never suggested that what the perception or appearance is of is only a state of mind, although the perceiving and the remembering are obviously themselves states of mind, here identified physiologically. As such this is not much of a physiological theory, for the κινήσεις invoked are not further described, neither by Sextus nor even by the Aristotelian texts themselves for that matter. This sort of naive, physiological handwaving reminds me of those mind-body theorists in the 1960s who invoked 'C-fibres firing' to stand in for whatever it might be which constitutes neurologically what it is to feel pain. The important point, then, was not the richness of their physiological theory but just that some physiological state was what it was to be in that state of mind. So if we understand this passage in Sextus physiologically and interpret the Aristotelian doctrine it describes accordingly, it is probably of little use to press the doctrine much further to find out what kind of materialism it might be (identity theory, reductionism, functionalism) and what kinds of causal laws it might sustain. Those kinds of metaphysical considerations are best not worked up from the depths of physiological detail, even a cursory physiology, although they can of course be brought to bear on such matters from the visionary heights of an overarching theory. The trouble or virtue with Aristotle is that his theory of soul, which is really a theory of what it is to live, is so overarching that it does not easily admit to such contemporary metaphysical categories without distortion. Whatever physiological details we can find in the Aristo-

Aristotle, I would think, are of more interest to historians of physiology than philosophers of mind. Here the κινήσεις Aristotle adumbrates may tell us a great deal.

Without even going into anatomical detail at all one can already anticipate something of the kind of physiological theory it would be which would employ κινήσεις as the operating mechanism. To effect the transmission of information concerning colors seen, sounds heard, and the whole variety of sensory experience, kinetic patterns would have to organize themselves into distinctive outlines or forms. Like waves in wave theory such distinctive κινήσεις would be carried along in the particular media which would transmit such patterns. The distinctive patterns of change transmitted in this way would enjoy a certain shape, which in principle at least could be mathematically articulated, as velocity and frequency can be in wave theory. As a result, a medium such as water would enjoy its own distinctive character, or form if you will, by being the cold, moist liquid it is; and at the same time that same water could incidentally carry along through it the distinctive pattern or form of a particular sound, not carrying the sound along in the way in which a piece of foreign matter can get suspended in a liquid, since the transmitted sound is literally a form without matter, but rather carrying it along silently, the way in which a pebble tossed into a pond transmits distinctive waves across the waters until they reach the shore. Of course, such kinetic patterns would not be literally wavelike on this model, because the transmitted εἶδος would not in turn be reducible to features of the material composing the medium. In addition to a medium with which to transmit them, these patterns of kinetic change would in the course of things require something to set them going (in this case, something to make a sound) and something to receive them (the human ear, for instance). The tricky part of such a kinetic theory would be to explain anatomically how the ear, for instance, captures the selfsame sound made at the source. One obvious suggestion is that the ear contains a medium of its own which simply reduplicates by means of the eardrum the same wavelike form transmitted to it. And one can find a similar explanation for all the other sense organs and what it is they each perceive, although hearing and sight would appear more readily explicable in terms of external and internal media receiving and transmitting wavelike forms than the senses of touch, taste, and smell.

This bare sketch of perceptual physiology traced out along the lines of kinetic patterns has a certain elegant simplicity, at the cost of anatomical detail especially. Anatomists today would wish to know what happens after these wavelike forms get reduplicated in the resonant media of the eye's vitreous liquid (the κόρη) and the inner chamber of the ear. This story has yet to be written, although it has progressed, at least in the case of cats, down into the striated columns of cells in cortical area 17. Strictures against human vivisection continue to constrain what can be observed, especially if one would like to follow these κινήσεις further into the mechanism, into the memory and what Aristotle calls φαντασία. Interestingly, a physiological kinetic theory of perception is at its best at the surface of the sense organs, exploring the transmission of the forms of perception only up to the point where further explanation becomes anatomically uncomfortable. This is fortunate for Aristotle, since his kinetic theory loses its lustre exactly at that point of anatomical detail.

Physiologists and behaviorist psychologists who study perception along the lines of kinetic theory acknowledge that things are perceived this way, that colors are seen,

their theories set out to explain, the details of the separate sensory processes attract their attention, leaving the end accomplished largely unrefined in philosophical terms. The two questions—how an organism perceives and what an organism perceives—are rather different, although they each bear consequences for each other. Given the limits of anatomical knowledge and experiment, pursuing the first question typically leads to a rather general account of perceptual discrimination where the objects of perception are the objects the organism responds to within the limits of its perceptual apparatus. What is so described are noncognitive recognitions, what Dretske once called nonepistemic seeing, such as an amoeba responding to the light, a wolf to an odor, or a baby to a color. By itself, the kinetic theory tries to explain how it is the organism responds to the sensual forms it is able to recognize, how man or dog can hear a certain pitch, how man or ape can see a certain color. There is no reason why the processes described cannot be lawlike, simply for the reason that what is perceived is uninterpreted. Epistemologists of perception are typically not interested in things perceived this way, except perhaps as part of a developmental account which explains where kinetic perceptual discrimination leaves off and cognitive perception begins, when the organism begins to perceive with discrimination, picking and choosing what aspect of the stimulus it deigns to respond to. Without going into this further, the point I wish to make here is that simple kinetic perceptual theory typically carries with it the incidental epistemic consequence that the objects of perception are features of the world apparent to the organism which the organism recognizes without interpretation, without cognition, and anatomically. These are not the objects of perception which interest the philosopher of knowledge.

If Sextus' source is correct to describe Aristotle's theory of perception and memory as a kinetic one along the lines I have suggested, and that is a question I do not propose to examine here, then what Aristotle has to say about perception would seem to have little epistemic value. Before we pursue this point and the remaining portion of Sextus' discussion, it will prove useful to consider the metaphysical value of such a kinetic theory, for it is robustly realistic. The relationship envisaged by a kinetic theory between reality and recognition is uninterpreted, unstructured by any conceptual scheme. It is simply one element of reality, the organism, responding to another element, the perceptual stimulus, just as the iris automatically adjusts the size of the pupil in response to the brightness of the light. When anything goes wrong with this automatic process, the failure is not a failure of interpretation but a failure in the mechanism. Consequently, sense organs are for the most part infallible in what it is they are designed to recognize. Now, epistemologists in this century have usually been so concerned with expounding and then refuting various forms of representational realism that the alternative, direct realism, has remained relatively inarticulated. Years ago, J.L. Austin suggested that this was an empty dichotomy. Perhaps it has proven to be from the point of view of a cognitivist theory of knowledge. But from the metaphysical point of view of kinetic theory and possibly from Aristotle's viewpoint as well, realism is the only game in town.

On the one hand, αἰσθητά are states of the world the organism recognizes and responds to, even if some of those states are dated and remembered. But on the other hand, what is seen and the impressions we retain are not themselves simply the properties of the things we have seen and remembered, that is, the things we have biologically responded to. Rather, the objects of perception involve us in their

descriptions as well. Perceived things are not simple substances, nor are they the essential properties of such substances, nor are they coincidental features either that these substances retain in their own right. The apple's color we see, as opposed to the pigmentation of the apple itself, is the αἰσθητόν. It is in the world, but not of the world, as it were. Robustly realistic as it is, kinetic perceptual theory makes this plain, for what the organism responds to are not the things in themselves by themselves but instead the ability of those things, whatever they are, to set the characteristic forms agoing in the medium, which repeat themselves according to the same form in the organism's flesh, the inner ear, the vitreous liquid of the eye. The formula of the pattern is, of course, not itself the object of perception, but the things we do perceive this way are something different from what Aristotle calls the essential or even coincidental properties of substances and composites.

This sort of realism is not what Roy Wood Sellers would have called naive, which is more a conceptual category than a metaphysical one anyway. It is more like what Locke would have called nominal realism, following Aristotle, or what Putnam seems to mean by internal realism. Objects of perception and real substances, αἰσθητά and ὄντα, establish a division of reality between the ways things are by themselves and the way things appear to animals to be. According to kinetic theory this is emphatically not a division between reality and our representations of it. It is only a division between the complex states we are physically able to respond to, being physiologically constructed the way we are, and those simple substances or composites which would continue to remain in a world without perceivers. Kinetic theory, as I have described it, is of little interest to epistemologists concerned as they are with cognitive representation, of little importance to theorists of the mind-body problem, of some importance to antiquarians of perceptual physiology, and of considerable importance to traditional metaphysicians, because of the way it divides reality between the apparent world of perceived things and the unseen but not unknown reality of substances, composites and their properties. With its emphasis upon how we physiologically perceive and remember, kinetic theory cleaves the world into a visible, phenomenologically apparent part and the unseen reality which causes the world to look that way to animals equipped the way they are. But we must first approach what is primary in nature through what is familiar in our experience of nature.

I must confess that so far I have been rather coy about the kinetic theory, describing it in ways which will be familiar to the student of Aristotle's *De anima* and *Parva Naturalia*, but without going so far as to insist upon it as an interpretation of his texts. To defend such a theory as an authentic interpretation of Aristotle's own writings would require considerable articulation, annotation, and argumentation well beyond the scope of this paper. Here I am only concerned with a much neglected passage in Sextus, a passage which may provide a foundation for a fresh approach to Aristotelian perceptual theory. So, instead of turning back to Aristotle's own writings at this point, let us continue with Sextus' synopsis:

For this reason, they say, the κίνημα of this sort is analogous to the trace of a footstep (τὸ ἕχνοσ), and just as that—I mean the trace of a footstep—comes about by something and from something—by something as by the imprinting of the foot, from something as from Dion—so too the κίνημα of the soul mentioned earlier comes about by something, as by the experience of the perception (τοῦ

περι τὴν αἰσθησὶν πάθους), and from something, just as from the perceived thing to which it also preserves a certain likeness. (*M* vii 220)

At this point in his presentation Sextus' source is concerned with the secondary physiological process consequent upon the initial κίνησις which constitutes perception—namely, the lingering κίνημα which is a remembered impression. All that has changed from the immediately preceding passage which also mentioned the two aspects of such a κίνημα—the subject's undergoing the experience, having it, physiologically storing it on the one hand and on the other hand his κίνημα being an impression of something—all that has changed is the added analogy to the trace of a footstep, a mnemonic analogy going back to Plato's *Theaetetus*, for instance, but as old as any extant discussions of memory in the Greek speaking world, from Aeschylus' *Choephoroi* to the time of Hippias and continuing as part of the discussion of mnemonic technique down through the ages to Cicero and Augustine and beyond, continuing to this day.

Exactly how this κίνημα preserves a certain similarity to its corresponding αἰσθητόν like the trace of a footstep is a conundrum as riddling as the seal and the sealing wax in Plato's waxed tablet. A seal not only makes a physical impression on the wax morphologically similar to the way the seal is designed, but the impression made in this way also represents the same thing the seal signifies—say, the Glidden family crest, such as it is. There is both a physical impression and a symbolic representation. Now Sextus' source seems to suggest both these aspects of a mnemonic trace, when he says that the κίνημα is both made by something and is from something, like the trace of a footstep. As an interpretation of the physiology of a kinetic theory this is reasonable enough, although it treats the form of the κίνημα as if it were a static template, a physical impression, rather than the formula or shape of a dynamic pattern. Yet even Aristotle, for that matter, is similarly tempted to use this image, at least as a way of describing the physiological impression made on the sense organ (*De an.* 424a17–25, 434b29–435a10). The trouble is that in addition to representing the κίνημα as a physical impression made by something, according to Sextus' source the κίνημα takes on a purely symbolic function as an interpretation of what appears, as an impression of something or from something. It becomes an object in itself, a symbolic object, an epistemic content, even if the presentation of such a symbol also has a physical cause made by something outside.

When Electra sees the traces of her brother's feet in the sand, the physical impressions she sees represent Orestes. Footsteps can symbolize Orestes this way because of Electra's privileged knowledge. She knows how to read the symbol, how to decode the marks on the ground. Similarly, Cebes can think of Simmias upon seeing Simmias' cloak, because that cloak has acquired symbolic value for Cebes. Now once Sextus' source describes the remnant motion in the soul as like the trace of a footstep, creating the impression that the footstep which made that trace came from Dion, it seems that the κίνημα itself becomes the subject of cognitive inspection, that it acquires a symbolic value relative to the subject's privileged knowledge: in short, the κίνημα itself becomes a representation, since it is more than just the physiological process which constitutes the remembered experience of something. It is also a mental impression representing some symbolic value, giving content to that experience. A physiological process may literally form an impression, but it is up to the

subject to give that impression some significance, just as one appries a trace in the soul as having come from Dion.

What is important here is not that one metaphysical entity, a mental impression, comes to substitute for something else, Orestes' footsteps in the sand, for instance: presumably one cannot even attend to a κίνημα as such; it cannot literally be an object of inspection the way footsteps in the sand can be. What is important is that once Electra sees a footprint, Orestes appears to Electra's memory as filtered through her representation of him. Electra still experiences the appearance of Orestes' footprint, all the same, except the Orestes she thereby experiences in her φαντασία is what that trace represents to her as her brother's mark. One way of putting it is that the analogy with the traces of footsteps in Sextus' source suggests that remembered impressions lose their automatic identity by becoming interpreted experiences. And it is for this reason, apparently, that Sextus says the remembered impression preserves only a certain similarity to the causal source it is from in the real world. We see a trace in the sand and it is from Dion. But the cognitive impression we form concerning where that trace is from only approximates Dion as he really is, since that impression depends upon our preconceived experience to articulate itself.

Ostensibly, Sextus' source does not extend the ἔχνος analogy to the primary physiological process of perception but only to the secondary process of remembered impression, in describing Aristotle's views. This suggests that the kinetic theory of perception I have outlined, one which is noncognitive, uninterpreted, applicable to all animals from amoebae to men is said to remain true of Aristotelian αἰσθησις, so that the perceived object, the αἰσθητόν, continues to be just something in the world which the organism is physically able to respond to. Apparently, only creatures advanced enough to have a memory and to represent things to themselves acquire experiences which enjoy an epistemic content. The kinetic theory only then and there becomes transformed into an epistemological theory of representation at this level of remembered impressions, or so Sextus' source understands Aristotle. From its aspect as a physiological experience the κίνημα preserves a certain morphological similarity to its composite cause. From its aspect as a φαντασία, a remembered impression, the κίνημα is about something, or has some content, which is similar to what produced the experience in the first place. Now according to the kinetic theory of perception that aspect of the κίνησις which is about something just is the αἰσθητόν. What is perceived is automatically identified with what caused that perception, barring failures in the mechanism. With the φαντασία, apparently, it is different. Although the remembered φαντασία is not just any representation of the original experience, for it preserves some similarity to its source, it is still some representation of its source. It is not the automatic recognition the way an αἰσθησις is of its αἰσθητόν.

The bifurcation which Sextus' source suggests between αἰσθησις and φαντασία might well be a plausible interpretation of Aristotle's views. Yet I think it is not an accurate account of the difference between αἰσθησις and φαντασία as Aristotle would have described it. To see why we need only continue with the passage:

Again, this κίνημα which is called memory and impression has in itself a third and different κίνημα which supervenes, that of a rational impression (τὸ τῆς λογικῆς φαντασίας), which occurs and remains according to judgment and choice, which κίνημα is called thought and intelligence (διάνοιά τε καὶ νοῦς). To take an

example, whenever someone is struck by an evident experience of Dion, he experiences some perception and is changed. But because of this perceptual experience, a kind of φαντασία of it comes about in his soul, which we said earlier was a memory and like the trace of a footstep. Now from this φαντασία, in turn, a φάντασμα [i.e., a representation he experiences] just like generic man (τὸν γενικὸν ἄνθρωπον) is willfully (ἐκουσίως) painted up and composed by him. But this kind of κίνημα of the soul the Peripatetic philosophers term thought and intelligence depending on its different applications. (*M* vii 221–222)

What we have here, it turns out, is a fully sketched out rendering of what Michael Frede aptly calls Stoic developmental psychology. Sextus' source, presumably Antiochus, has carried his syncretic ambitions so far as to assimilate Aristotle's perceptual psychology to its Stoic successor, the conceptualist psychology of rational and cognitive impressions, of προλήψεις and propositions, of intensional representations. The effect Antiochus achieved was not merely to make old Aristotle look modern but also to dignify the Stoic position as a fully articulated version of what Aristotle had in mind all along, even if Antiochus may also have been led astray by the Stoic vocabulary found in Peripatetic commentators, and even if, on the other hand, Antiochus had had a copy of Theophrastus' *De sensibus* to look at. The passage we read in Sextus makes an effort to translate the Aristotelian theory into its Stoic counterpart, calling νοῦς what the Stoics called cognitive impressions (φαντασία λογικαί: cf. D.L. vii 49–54). As part of his own Stoicized developmental story, Antiochus portrays Aristotle's νοῦς as emerging from φαντασία and φαντασία, in turn, as arising from αἴσθησις, here understood noncognitively. By contrast, Aristotle himself prefers to distinguish these three faculties by the different portions of reality they separately attend to, rather than their developmental role in human psychology.

Sextus' synopsis raises the question: How modern was Aristotle? From our present advantage we are not surprised when we look to the 19th century and see Franz Brentano interpreting Aristotle's psychology in ways which neatly coincide with his own interests in intentionality and conceptual structures. Although it is certainly interesting to read Aristotle this way, it may not be exactly the way Aristotle would have wished. In this century philosophers continue to be interested in those epistemic dilemmas posed since the days of Descartes and more recently in the cognitivist psychology which currently dominates the study of perception. Such interests affect our reading of Aristotle's psychological works in the questions we ask and the answers we discover, in much the same way that Antiochus' Stoic syncretism affected his synopsis of Aristotelian αἴσθησις and φαντασία. Yet what we most want to know today of Aristotle's perceptual theory is somewhat similar to what Sextus' source also wanted to find out: namely, at what point in perception does conceptual, cognitive representation begin, according to Aristotle?

This question of the emergence of cognitive apprehension was of obvious interest to the Stoics, who begin their account at its most primitive level with the noncognitive perceptual discriminations of animals. The Stoics then project a gradually progressive structuring of experience, giving rise to conscious impressions and then to represent-



from experience but fashioned by the mind on its own, albeit at the behest of nature. In his account of Aristotelian perception, Sextus' source sees a similar transition from behavioral discrimination to intentional representation, locating this emergence to consciousness at the level of memory and φαντασία, on the way to the fully intentional rational representations of thought and intelligence, what the Stoics call φαντασία which are λογικάί, what Sextus' source says the Aristotelians term διάνοια and νοῦς. According to this interpretation of Aristotle, αἴσθησις—as the kinetic theory suggests—is strictly uninterpreted and noncognitive, the way an amoeba can see the light and a worm can feel the dirt. Only those animals which enjoy memory and φαντασία (the ability to be impressed with something, so to speak) emerge onto the threshold of consciousness, by acquiring their own point of view regarding their experience, the way traces in the sand take on for some a symbolic significance.

In perceptual epistemology a developmental approach is certainly one alternative but there are others as well. A second suggestion is that genuine perception must be cognitive from the very beginning, so that in order really to perceive something an organism must not merely react to some stimulus, the way the iris responds to brightness or an amoeba to light for that matter, but must also interpret that stimulus under some aspect it seizes upon, that it is food it touches, for instance. On this cognitivist approach there is nothing automatic about perception in the way reflexes are automatic. Among contemporary philosophers, Fodor, for instance, inclines toward this view. A third alternative is that strict perception is never cognitive at all, that it is a separate module of the brain, totally distinct from the cognitive impressions one might form about what it is one is epistemically seeing, so that the bent stick continues to look bent even after we know it isn't. In our post-Cartesian era this is the most controversial of the three alternatives, one that Gibson was accused of aspiring to and Dennett apparently hopes for, as part of a general pogrom against intentionality. Like Antiochus before us, we interpreters of Aristotle naturally enough want to know which of these alternatives best approximates Aristotle's theory of αἴσθησις and φαντασία. But as historians of philosophy we should also seek to know whether any of these alternatives will do for Aristotle, whether Aristotle was ever asking this sort of question, as relevant as it may be to his theory of perception.

Let us consider Aristotelian αἴσθησις first, taking up the case of φαντασία after that. Over and above Aristotle's separate discussions of the operations of the separate senses variously found in his psychological and zoological writings, there are certain general formulae found in the *De anima* which have focused the debate, to the effect that the sense or sense organ is potentially what the perceived object is actually, that the perceived object is somehow in the sense or sense organ during the act of perceiving, that the sense or sense organ receives the form of the perceived object without its matter, and that the sense or sense organ undergoes a kind of alteration upon perception. Those who prefer a cognitivist interpretation of these formulae need only understand the εἶδος Aristotle speaks of accordingly, as some received content, although they hasten to add that this received content, or intentional species, is a representation compelled upon the perceiver by the process of perception. Those who prefer a noncognitivist interpretation need only construe the εἶδος as the transmitted form of the mechanism, the vehicle of a kinetic theory, the pattern which triggers the recognition of some αἰσθητόν. The former interpretation has long dominated the

literature in this century, but it has a much longer history, notably going back to Brentano, who in turn derived it from medieval scholastics, in particular Albertus Magnus and his pupil Thomas Aquinas. The kinetic, purely mechanical interpretation has most recently enjoyed something of a revival since the days of Antiochus, but it was most notably taken up in the seventeenth century by Descartes, whose *Optics* ridiculed the scholastic contention that intentional species could literally be transmitted to the perceiver. It seems that Descartes, like the good Renaissance humanist he was, took up the purely kinetic, mechanistic account he saw in Aristotle, substituting for Aristotle's κίνησις a more contemporary mechanism, wires and fibres which he called *le baton de l'expérience*. For Descartes, cognitive, interpretive perception would only come about for human beings after the psychological perceptual process had been completed, a mechanism the bodies of human beings shared with other animals.

Although I am convinced the purely kinetic account of Aristotelian αἴσθησις has stronger textual support, I will not argue the issue here. Each side certainly has its detractors. The chief disadvantages of the cognitivist interpretation are these: as an interpretation of Aristotle, it would seem to require either that all animals should enjoy such cognitive perceptual appreciation (something Fodor would almost welcome, all the same) or else that Aristotle badly overstates the generality of his thesis. Such an interpretation would seem to ignore the physiological tone of Aristotle's discussions. Indeed, those who see things this way argue that the κινήσεις Aristotle persistently talks about must be taken with a grain of salt or perhaps metaphorically. On this view, the infallibility Aristotle attributes to our apprehension of ἴδια αἰσθητά becomes strained, alternating between being a kind of epistemic *deus ex machina* or else being a much weaker claim than it first appears. The central advantage of this thesis is that it makes Aristotle's account of αἴσθησις readily comprehensible to our own epistemic interests.

Correspondingly, the chief disadvantage of the kinetic interpretation is that it seems to trivialize Aristotle's portrayal of perception into a purely physiological one, which becomes increasingly unacceptable as we move into book 3 of the *De anima*. Surely, it is said, Aristotle must have thought more about the thoughts contained in our perceptual impressions, especially those common to the senses and incidental to them. Obviously, I am not especially sympathetic to this objection. Suffice it to say here, that others are. What I take to be the central advantage of the purely kinetic interpretation is that it presents a very powerful, though general, account of the physiology of perception which would apply to all animals, although the focus is clearly on human anatomy. That there are fluid patterns of change transmitted through media which effect the ability of organisms to respond discriminatively to their surroundings is a profound hypothesis. And if we chastize Aristotle for being epistemically naive, we can at least praise him for being so astute about the mechanism of perceiving.

The reason I wish to refrain from taking up this one side to the dispute is that the thought occurs to me that both sides may each have their merits because the questions we are asking of Aristotle may not be questions he was really concerned with, that the division between cognitive representation and mechanistic transmission may possibly be too modern for Aristotle to have delineated, that possibly this contrast had not presented itself prior to the time of the Stoics. I am suggesting that the only way one could sustain a rigid distinction, such as Descartes maintained, between the mech-

anism of perceiving and the cognitive representation of what is perceived, would be if one already had some understanding of the intentional character of representation. There is no reason to think Aristotle had thought about cognition this way, although there is every reason to think the Stoics had. When we turn to Plato, for instance, and to those passages where we would expect to find a discussion of this question—I have in mind, for example, the discussion of perception at *Theaetetus* 184–186 and the ensuing analogies of the waxed tablet, the aviary, and the dream—we turn away disappointed. It is not that both Plato and Aristotle had nothing to say about issues relevant to the intentionality of portrayal. Rather, I maintain, they did not see how perception, recognition, and understanding were themselves involved in such matters. If I am correct about this, and it is hard to know how one could go about precisely proving such a thesis, then it is not surprising that so much of what Aristotle has to say about αἴσθησις strikes us as involving the question of representation, not just the matter of mechanism. The εἶδος which transmits the kinetic wave also seems to us to be the intentional species human beings, but certainly not fish, apprehend. It would also not be surprising that the Stoics and their sympathizers, who had sorted out these issues more exactly, might then have read Aristotelian αἴσθησις purely kinetically. But this may not be a good historical reason for us to read Aristotle this way. Aristotle simply may not have devised his physiological account of αἴσθησις so as to exclude the possibility that what animals perceive and especially what humans perceive, for that is his emphasis, may also be self-consciously perceived as well. The formulae of the *De anima* do leave open the possibility that the form physiologically received is in the company of its epistemic twin, the intentional form perceived.

When we turn next to what Sextus' source describes as the second physiological process of perception, that of memory and φαντασία, indecision between alternative interpretations becomes 'profound', as in *'De profundis ad Te clamaui'*. From what we have already seen in Sextus, Aristotelian φαντασία is said to be something transitional between the mechanistic κίνησις of perception and the fully cognitive impressions of the mind. Indeed, Aristotle himself says something quite similar in *De anima* iii 3 when he places φαντασία midway between perception and thought. And whatever Aristotle might have meant when he said that only animals with memory or a sense of time enjoy φαντασία as well, no one seems to have seriously maintained, at least in recent years, that φαντασία just is, on the one hand, a physiological process in the animal's soul and, on the other, some αἰσθητόν the animal noncognitively responds to, with a time delay built into the process. Interestingly enough, Epicurus seems to have held a theory somewhat like this, when he invented ἐπιβολή τῆς διανοίας to play the role of φαντασία, where the mind itself acts as a sense organ responsive to flimsy atomic structures of fantastic shapes to which it is selectively sensitive, although the mind must be immediately responsive to such structures or not at all. So much the worse for Epicurus. One reason no one sees to take such an interpretation of Aristotle seriously is that the work φαντασία does for him ranges from spinning out our dreams to the tentative impressions we form that things at least look to be of a certain sort. Such impressionism seems plainly cognitive on its face, though not reasoned out the way our thoughts are, when they tell us that things cannot be the way they sometimes seem. So we continue to have the φαντασία that the sun looks to be a foot across, even though we do not believe it for a minute.

It does not seem at all inappropriate, then, to compare a somewhat similar

for Aristotle with the symbolic significance read into the trace of a footstep. All the same, scholars do differ on the degree of significance they place on such an image. Some would have a φαντασία be a mnemonic mental picture, as if one looked at the κίνημα with the mind's eye and that was what one saw lingering in one's consciousness. Even if we tidy this up a bit, so that what the φαντασία is of is no longer the κίνημα itself and no longer a mental image but some αἰσθητόν previously perceived and interpreted, the point of such a claim would still remain that there is something almost pictorial in what appears, that looking at a φαντασία is as if one were seeing something in a picture, something the viewer seizes upon because of the significance it has for him. Others would have a φαντασία enjoy an almost propositional content, embracing everything and anything that might impress one as seeming or appearing to be the case. Those who take up the pictorial side of this debate emphasize the physiological connection φαντασία has with αἰσθησις, as a lingering sense impression. Those who take up the quasi-propositional viewpoint emphasize the thematic connection between φαντασία and thought. But if we compare this debate with the story told by Stoic developmental psychology, it is easy enough to fathom the point of contention—namely, How far along the road to what the Stoics called a cognitive impression are we to categorize Aristotelian φαντασία? Sextus' source and those who pursue the pictorial approach would place it relatively early along the path, leaving for διάνοια or νοῦς the place for fully cognitive impressions. Others would allow Aristotelian φαντασία the run of the road, extending all the way to the end which Aristotle himself even calls φαντασία λογιστική.

I simply wish to point out that once we see the developmental character of this dispute concerning Aristotelian φαντασία, we might well be suspicious of its historical application. Stoic cognitive impressions may enjoy enormous authority, but they are all the same highly intentional, thoroughly interpretive, conceptual cognitions. And if Aristotle's φαντασία strikes us as slipping and sliding along the path of conceptual development, not keeping to a defined place, a specific degree of interpretation and conceptualization, the answer might well be that we have placed Aristotle on the wrong road to begin with, and this mistake may be part of the explanation why his theory of φαντασία strikes us as being so hard to locate. As odd as it might seem to us, conceptualization enjoyed no defined role in Aristotle's psychological scheme of things. A gain, this is not to say that Aristotle did not write passages which strike us as highly relevant to the issue of ideas. But if we pursue those passages in the hopes of achieving some systematic analysis we are bound to be disappointed.

Even in his psychological works, Aristotle's orientation was not epistemology but ontology—the nature of the soul, the nature of perception, φαντασία, thought. Αἰσθησις grasped hold of the reality of those sensibles which affect our bodies the way they do, the pale Socrates, the red-looking apple. Thought grasped the simple εἶδη which composed the way things are in themselves by themselves, the nature of substances, their properties, accidents, *differentiae*. Φαντασία grasped hold of something in between αἰσθητά and ὄντα. If this indeed was Aristotle's orientation, then the path he took us on runs across the epistemic direction which interested the Stoics, Descartes, and ourselves. For Aristotle φαντασία plays its most important role in accounting for the mechanism of desire and action. It also explains how our desires and actions may be inappropriate and misfire, because things are not always as they

seem. It is readily understandable how the Stoics might take up this part of Aristotle's tale and weave it into their own story of conceptual development. Yet I do not believe that was what Aristotle was up to, although obviously much that he does say about φαντασία can suit its new role exceedingly well.

Let me, in closing, offer a final hypothesis, explaining why Sextus' source regarded Aristotle as a transitional figure midway between the Epicureans and the Stoics. If what I have written elsewhere about the Epicureans is correct, as part of their obsessive empiricism they rigorously separated αἰσθητά from νοητά, even going to the extreme of converting Aristotelian φαντασία—the stuff dreams are made of—into simply another form of perceptual recognition, and the perception they characterized was virtually nonconceptual, vigorously realistic. If, on the one hand, Aristotle's kinetic theory of perception has much to do with the corresponding physiology of Epicurean perception, which preferred a stream of individual templates to the moving wave of a patterned form, Aristotle's account of φαντασία, on the other hand, would seem to offer to a Stoicized historian a ready alternative to Epicurean αἰσθησις, one which blended perception with conception, yielding up cognitive impressions.

University of California at Riverside

\*This paper was first presented at a conference on Aristotle's *De anima* organized by Mary Louise Gill at the University of Pittsburgh. I am grateful to other participants too for their suggestions, especially Jim Bogan, Alan Bowen, and Myles Burnyeat, as well as to Frank Lewis and the editors of this journal. I also wish to acknowledge a Younger Humanist Fellowship from the N.E.H. which first got me started on this topic in 1973.