

## Sensing and the Sensitive Mean in Aristotle

by Sheilah O'Flynn Brennan

THERE CAN BE no doubt that the sensitive mean plays as important a role in Aristotle's philosophy of sensing as does the ethical mean in his doctrine of the virtues. J. I. Beare, one of the translators of the Oxford edition of Aristotle, states emphatically: "For Aristotle this doctrine of *μεσότης* is of cardinal importance in the theory of sense-perception. Without understanding it we must fail to grasp his explanation of how *αἴσθησις* apprehends form without matter."<sup>1</sup> What this mean consists in, however, and how it relates to the reception of form without matter, are not easily determined either from Aristotle himself or from his commentators.

The purpose of this paper is to take another look at the sensitive mean. The first part of the article will deal chiefly with the nature of the sensitive mean. We shall, to begin with, examine Beare's own rather detailed account as it appears in his scholarly work *Greek Theories of Elementary Cognition from Alcmaeon to Aristotle*. Beare's interpretation, it may be noted, is in substantial agreement with that of several Aristotelian scholars, among others, R. D. Hicks, W. D. Ross, and J. A. Smith. There appears, however, to be certain radical weaknesses in this interpretation and they will constitute the second topic of consideration. Thirdly, an alternative understanding of the mean will be suggested. In the second part

<sup>1</sup> J. I. Beare, *Greek Theories of Elementary Cognition from Alcmaeon to Aristotle* (Oxford, 1906), p. 232.

of this article, we shall examine the mean considered as the principle of the reception of form without matter.

Though this paper will disagree with Beare's understanding of the sensitive mean, it is in full accord with his statement of the significance of the mean. Most certainly the mean is central to Aristotle's theory of sensation. It is thanks to the mean that the sense can be acted upon, moved, and altered—all key concepts in Aristotle's philosophy of sensing, and, we might add, of his philosophy in general. Moreover, a point which Beare did not make—and could not, given his conception of the mean—is the particular way in which the mean makes possible a certain “being acted upon” (τὸ πάσχειν) that distinguishes the sentient, even on the physical side, from mere bodies, and sensation from merely corporeal transformations. It is this “being acted upon,” moreover, that constitutes the physical stimulation required for the psychic act of sensing. The mean, then, for Aristotle, is what on the physical side allows the sentient being to rise above the purely bodily and attain to cognitive activity, and the more perfect the mean, furthermore, the more perfect is the sense precisely as a cognitive faculty. It is also by comparison and contrast with the way the sense is acted upon in sensing that Aristotle establishes his theory of the intellect. The mean, consequently, is a link between Aristotle's philosophy of corporeal nature, as given in the *De Generatione*, and his psychology. Hence, though the physical constitution underlying the mean is examined by Aristotle partly in terms of certain outdated physical and physiological theories, and to this extent is mostly of historical interest, nevertheless, as manifesting certain general philosophical principles and as part of a whole tissue of philosophical doctrine, even this aspect should not be neglected. Indeed, the proper understanding of any part cannot but throw light on the whole. Finally, as this study will attempt to show, an understanding of the mean, like many Aristotelian concepts, pre-

supposes a knowledge not only of how Aristotle saw things, but of how he expressed them, i. e., of how he used words when philosophizing. The doctrine of the sensitive mean, indeed, is most representative of a peculiarly Aristotelian mode of thinking and speaking. To become acquainted with this mode is to go a long way toward comprehending the essence of Aristotelian philosophy.

# I

Let us turn now to Beare's account of the sensitive mean.

A sensory organ in its primary conception, is that part of a living animal in which the faculty of apprehending form apart from matter appears. This faculty depends on the constitution of the organ: no part can be such an organ unless it occupies the position of a *mean* between the qualities which are extremes in the scale of sense to which it refers.<sup>2</sup>

Furthermore, the mean implies that the organ "must not itself have any of the qualities [of its object] in any determinate degree, but only in such a way as to be relatively, e. g., cold as compared with a hot object, hot as compared with a cold."<sup>3</sup> "The organ of touch is not absolutely, or *per se*, hot or cold, or hard or soft, but a mean between all pairs of differences coming under either category."<sup>4</sup> Likewise, "the *κόρη* is *per se* of no particular colour, but holds the mean between any two colours as well as between the extremes of black and white."<sup>5</sup>

On the physical side, the mean depends on the proportion in which all four elements are combined in the organ:

This *μεσότης* . . . is, on its physical side, derived from the proportion in which the *στοιχεῖα* are combined in the organ. In every organ the four elements, earth, air, fire, water, are combined. These elements are endowed with the fundamental contrary qualities of heat, coldness, fluidity, solidity, which are so related as to produce in the elements a fundamental community of nature, whereby their *μειξίς* is possible. In virtue

<sup>2</sup> *Ibid.*, p. 224.

<sup>3</sup> *Ibid.*, pp. 224-25, footnote.

<sup>4</sup> *Ibid.*, p. 241.

<sup>5</sup> *Ibid.*, p. 235.

of this community they are capable of affecting, and being affected by one another. The same qualities and elements form *αἰσθητά* as form *αἰσθητικά*. When, therefore, a given *αἰσθητόν*, e. g. a certain temperature, affects its *αἰσθητικόν*, e. g. when a warm object affects the sense of touch, what happens is this: the *θερμὸν* of the object works upon the organ, producing in the latter an *ἀλλοίωσις* by which the temperature of the organ gradually becomes assimilated to that of the object. This physical *ἀλλοίωσις* is the *sine qua non* of perception; when it is complete, then *τὸ αἰσθητήριον ἐνεργεῖ*: then we perceive the object as hot. But it is not *qua* fire internal (in the organ) and external (in the *αἰσθητόν*) that organ and object come into the relation of patient and agent; it is rather *qua* containing contrariety.<sup>6</sup>

The mean, thus understood, is a basic requirement not only in the case of touch, but in that of sight as well. It is a general condition for all sensing. Speaking of sight as an example of sensing diverse species within a genus of sensible quality, Beare says:

This power . . . it possesses in virtue of being a *μεσότης qua* standing in a middle character between both extremes—white and black—or between any other pair of different species or different colours in the scale, so that it can relate itself to either at the same time as to the other. It is a *λόγος* or ratio in the sense that it involves in its organ a *λόγος τῆς μίξεως* of the physical elements which constitute its *αἰσθητά* and therefore is capable of taking the 'form' of any of them indifferently.<sup>7</sup>

For Beare, consequently, the mean is a middle character relative to extremes within a sensible province, and derived from the proportion of the mixture of the four elements within the organ. This mean is common to all senses and a necessary condition for all sensing. For what happens in sensing is this: the object, composed of the same elements as the organ but related to it as contrary, acts on the organ to produce the same logos, or proportion, as is found in the object itself. All

<sup>6</sup> *Ibid.*, pp. 238-39.

<sup>7</sup> *Ibid.*, p. 232.

sensing, indeed, is an alteration (*ἀλλοίωσις*) of the organ by the object. The potentiality of the sense, then, on the physical side, lies in this capacity of its elements to assume a particular *logos* under the influence of the object. The organ, moreover, must be susceptible to being affected by contraries or “pairs of differences” within the province of its sensible object, otherwise it would not have the ability to discriminate; hence the sense must have a middle character, must be a mean. Finally, it is thanks to this mean that sense can receive form without matter, for by taking on the same *logos* as that of the object, the organ reproduces the form of the object. This, according to Beare, is precisely what Aristotle means by the reception of form without matter. It is to be seen as opposed to the Empedoclean theory of sensing, according to which the physical object as such, and not just its form, was taken in by the sentient.<sup>8</sup>

Beare's account of the sensitive mean is entirely within the mainstream of Aristotelian scholarship. R. D. Hicks is in full agreement.<sup>9</sup> For J. A. Smith, translator of the Oxford edition of the *De Anima*, the *λόγος* that Aristotle speaks of in *De Anima II* (424a31) is translated as “the equipoise of contrary qualities,” and the *μεσότης* (424a5) as a “neutral point.” In a footnote, the mean is explained as “what possesses two contrasting qualities in equipoise; what is so placed may be so related to more than one pair of contraries.” Philip Wheelwright translates *μεσότης* as a “state of tension between opposite qualities.” And Ross' account runs as follows: “To be sensitive to the whole range of these qualities the organ must itself be characterized by a mixture of them in which neither extreme too much preponderates. The sense is thus a mean or ratio. . . . The ratio in which the contraries are

<sup>8</sup> *Ibid.*, p. 233. Cf. also p. 238.

<sup>9</sup> Cf. R. D. Hicks, *Aristotle De Anima* (Cambridge, 1907). There is even explicit reference to the *λόγος τῆς μελέως*, cf. p. 414, note to 424a 4, 5.

combined in the object must be to some extent different from the ratio of their combination in the organ. Thus the hand does not perceive as hot or cold what has the same temperature as itself."<sup>10</sup>

Though Beare's explanation is magnificently consistent within its limits, it must be judged less than satisfactory. Not only does it not account for certain difficulties inherent in the Aristotelian doctrine, but it appears to give rise to more problems than it solves. I would like to point out three of the more obvious difficulties connected with Beare's interpretation.

First of all, Beare's statement that the sense organ is like the organism in general, and any other compound body, in that it is made up of a mixture (i. e., a chemical compound) of all four elements, seems to be in contradiction to those passages where Aristotle asserts that certain sense organs are made up of one element only, *viz.*, those that are affected by the object indirectly through an external medium. Aristotle states quite explicitly that the organ of sight is constituted of water, the organ of hearing of air, the organ of smell of either air or water.<sup>11</sup> Now the ear, for instance, insofar as it is formed of flesh, is admittedly composed of all four elements, since this is Aristotle's theory of flesh. But what Aristotle seems to be saying is that the part of the ear which gives it its sensitivity, i. e., its power of apprehending the object, at least from the physical point of view, is the relatively unmixed air lodged within the convolutions. For Beare, however, not only would every sense organ be made up of all four elements, but all four of them in a mixture would be essential for sensing in every case.

A second difficulty is connected with the conception of sensible qualities as active powers. Though in the Aristotelian

<sup>10</sup> *Aristotle* (New York, 1964), p. 137.

<sup>11</sup> Cf., e. g., 425a3-6, 438a13-15, 438b19-21. Unless otherwise indicated the references to Aristotle are in the *De Anima*.

scheme of nature, bodies act on and alter other bodies because they are all composed of the same elements and each is characterized by the elemental active and passive qualities which predominate in the mixture, nevertheless it is distinctly due to the *tactile* qualities that this interaction occurs. The tactile qualities are the qualities that differentiate the elements and belong to bodies as such; they are the active and passive qualities in virtue of which bodily interactions take place. Consequently, in Beare's account, though the example of the organ of touch being affected by a hot object seems acceptable enough, since here we are dealing with the elemental qualities, when we try to apply this to the sense of sight, for instance, we are immediately in difficulty. For to produce its effect in the sense organ, as Beare presents it, color would have to be considered as an active elemental quality, which in Aristotle's point of view it patently is not. Sound would present even greater problems. Indeed, in this case, there appears to be no question of an alteration (*ἀλλοίωσις*) at all—at least as far as the physical side of sensing is concerned—since the effect of the object on the sense is of a mechanical order, i. e., local movement. The only alternative would be to reduce all sensation to touch, a possibility rejected by Aristotle in no uncertain terms.<sup>12</sup>

A third point: What can this neutral character consist in for the senses other than touch? It seems reasonable enough to maintain that the organ of touch is naturally neither hot nor cold, but at some middle point, so that it can be affected by both hot and cold. However, how is this middle character to be taken in the case of sight? Must we maintain that the organ of sight is naturally some color in between white and black, some "neutral shade"? But what could this be? And would it mean that sight is blind to that "middle" color, just as touch does not sense what is of the same temperature as

<sup>12</sup> *De Sensu*, 442a30-b3.

itself? Whereas the insensitive point in touch is recognized by Aristotle, an insensitive point in sight finds support neither in Aristotle nor in common experience.

Clearly Beare's account of the mean is unsatisfactory.<sup>13</sup> I suggest that the basic weakness of Beare's interpretation lies in his attempt to give an entirely univocal sense to the sensitive mean. It is to be remarked that three of the five times that Aristotle refers to the mean in the *De Anima*<sup>14</sup> it is in relation to touch. (The other two times<sup>15</sup> he is referring to the *sensus communis*, which is a mean in a special way—but that is another topic altogether.) Now whereas Beare appears to take the mean, precisely as it is presented in these texts, to be, without variation, the necessary condition for all types of sensing, I would suggest that Aristotle in these texts is considering the mean as a necessary condition specifically for the sense of touch. Is this to say that the mean as such is to be found only in the case of touch? Aquinas apparently took this to be the case.<sup>16</sup> There seems, however, to be sufficient indication that the concept of mean as used by Aristotle in some sense is applicable to the other senses as well. I would offer by way of suggestion that in its strongest sense, it is peculiar to the sense of touch, but in a weaker sense it could signify something essential to all senses as such.

<sup>13</sup> There are other difficulties. For instance, Beare's identification of sensing with *ἀλλοίωσις* leads him into the impossible position of maintaining at the same time that (1) when the sense organ is like the object initially, there cannot be perception because *ἀλλοίωσις* cannot begin, and (2) when the organ is like the object at the completion of the *ἀλλοίωσις*, that is the moment of perception. Cf. *op. cit.*, pp. 226-28, 239, 241. It would seem that if perception is the possession of form, it is not *ἀλλοίωσις*; if it is *ἀλλοίωσις*, it is not the possession of form, but process to form. Beare, it appears, would wish to have it both ways. As we shall see, this difficulty arises only if we fail to note certain distinctions that Aristotle himself makes concerning sensing as *ἀλλοίωσις*.

<sup>14</sup> 424a5, 424b2, 435a23.

<sup>15</sup> 431a11, 431a19.

<sup>16</sup> In *II De Anima*, 11, n. 547-48.



The procedure of using words in a stronger, stricter or basic sense and a weaker, broader or derived sense, is, of course, fully in accordance with the Aristotelian method. Aristotle's philosophy abounds in the use of words having different but related and graded meanings. Examples are: 'matter,' 'form,' 'nature,' 'movement,' 'substance,' 'being,' to name but a few. Such words pull together into a unity a multiplicity of inter-related concepts, a unity, moreover, that for Aristotle is not purely arbitrary but reflects something of reality, e. g., a real similarity or a causal relationship. One word which throughout this article has been associated with the mean, "to be acted upon" (*τὸ πάσχειν*), is used by Aristotle to point up similarities running through the inanimate and the animate, through all the various psychic functions, through activities ranging from elementary transformation to the functioning of intellect. "Alteration" (*ἀλλοίωσις*) is another word of similar, though less extensive, range. Would it, therefore, be surprising to find that, even within the more limited scope of sensation, certain words will refer to realities which are in some respect, but not in every respect, the same? This, I suggest, is the case for 'the mean.'

Let us take a closer look at the three passages in the *De Anima* where Aristotle speaks of the mean. It is to be remarked that in the first (423b26-424a11) Aristotle starts off by specifying the object of touch: "The tangible qualities are the distinguishing qualities of bodies as such, i. e., those which differentiate the elements, hot and cold, moist and dry, about which we have spoken before in our work on the elements." From this statement he leads on to the notion that the sense organ must be potential to these qualities, since sensing is a sort of being acted upon, and thence he goes to the mean: "We have no sensation of what is as hot, cold, hard or soft as we are, but only of what is more so, hence the sense is a sort of mean between the sensible extremes." In the second passage (423a33-

424b4), it is again a question of touch and the tactile qualities: plants, though they are affected by tangible objects, do not sense because they do not have a mean. In the third passage (435a20-435b4), Aristotle is showing that the animal body cannot consist of a single element and the reason he gives is that the organ of touch cannot consist of one element: "The animal body could not be composed of any one of these elements [other than earth]. Nor could it be composed of earth alone. For touch is as it were a mean between all tactile qualities, and its organ is receptive not only of all the differentiating qualities of earth, but also of hot, cold, and all other tactile qualities." He adds that it is because plants are composed of earth that they do not sense.

From these texts we learn (1) the organ of touch, like any sense organ, must be potential to its object, (2) the objects of touch, the tactile qualities, are the qualities of bodies as such, the differentiating qualities of the elements, (3) to be potential to these qualities the organ of touch must be a mean, (4) as a mean and receptive to all tangible qualities, it cannot be composed of any single element.

I suggest that (3) is a conclusion derived not merely from (1) but from (1) and (2) together. That is, the sense of touch must be a mean, not merely because it must be potential to its object (as must any sense), but because the object to which it must be potential consists in the differentiating qualities of the elements. The reason is as follows: Since the objects of touch are the qualities of the elements as such, and since the organ, as a body, must be made up of one or more elements, the organ must itself have at least some of the qualities that are included within the province of its object.<sup>17</sup> To this extent, it is not potential to its object, cannot be acted upon by it, and cannot sense it. It can be potential to a quality, only if it is itself of the opposite quality. That is, to be

<sup>17</sup> This was noted by Aquinas. Cf. *In II De Anima*, 11, n. 547-48.

potential to hot, it must be to some degree cold, and to be potential to cold, it must be to some degree hot, and likewise for hard (dry) and soft (fluid). This implies that to be potential to all the tactile qualities, it must be neither of the extremes, but something in between. In other words, not only must it be related to its object as to a contrary, but it must be related as contrary to a whole range of contraries. Thus it must be a mean. Only as a mean is it open to a range of differences within its sensible province and hence only insofar as it is a mean is it discriminative. Now, one further point: the organ can be a mean with respect to all the tactile qualities only if it is composed of *all* the elements. Thus the plant, being too earthy, does not have a mean and is not receptive to a range of both hot and cold. Although Aristotle at 435a20 makes the more modest claim that the organ of touch cannot be constituted of a single element, it is obvious that the middle character could result only from a balanced mixture of all four elements. Besides, elsewhere,<sup>18</sup> flesh, which is the organ-medium of touch, is explicitly given as being composed of a balanced mixture of the four elements. That the organ of touch must be a mean and, as such, composed of all the elements, consequently, *is a necessity imposed by its particular object insofar as the tactile qualities are the qualities of the elements as such*. The mean, in this sense, should be regarded, then, as a peculiarity of the sense of touch and not as a common feature of all the senses.

Indeed, with the other senses, there is no necessity for such a mean, for (1) their objects are not qualities of bodies as such, and hence not all bodies need have such qualities, and (2) their objects are not the active and passive qualities in virtue of which bodies interact. Because of (1), the sensitive organ can be such as to be of itself lacking in the quality altogether, though receptive of it. Because of (2), sensing would essentially involve no alteration in the organ as far as the elementary mixture

<sup>18</sup> Cf., e. g., *De Gen. et Cor.*, 334b20-23.

is concerned; hence the sense would have to be acted upon by its object in some other way than by elemental interaction.

With this in view, let us look at the sense of sight. The object of sight is color. Because color is not an active elemental quality, it does not act on bodies as such nor on the sense organ as a body, such as a tangible quality would do. However, as Aristotle sees it, it is of the nature of color to affect the transparent,<sup>19</sup> which is itself colorless.<sup>20</sup> (Since color is not a quality of bodies as such, not all bodies need be colored.) Color can thus affect air and water, as transparent, not as elemental, bodies.<sup>21</sup> What would be required of a sense organ insofar as it could be affected by color, consequently, would be that it be constituted of some transparent element. Thus, for Aristotle, the part of the eye in virtue of which it senses is made up of water, while the medium through which the object affects the organ is air, which also is transparent.

Somewhat the same situation would hold true for hearing. Sound produces no elemental transformation. Moreover, it is not a characteristic of bodies as such. Indeed, it is not a quality inherent in a body at all—though the capacity to produce sound, Aristotle tells us, presupposes certain qualities.<sup>22</sup> Sound involves a mechanical movement produced in the air and requires for its reception in the organ, not a mixture of elements, but a quantity of relatively unmixed and relatively motionless air.<sup>23</sup>

As for taste, it is clear that, as a kind of touch, it must involve changes within the elemental mixture of the organ. However,

<sup>19</sup> 418b1.

<sup>20</sup> 418b27, In *De Sensu*, 439a12-b19, Aristotle makes certain additions to this account: All bodies contain the transparent, the limit of which is their color; air and water have no definite color since they have no definite boundary. The theory of the *De Anima*, however, remains essentially unchanged.

<sup>21</sup> 418b6-9.

<sup>22</sup> 419b5-9.

<sup>23</sup> 420a3, 420b10-12, 418b27.

precisely as taste, it bears a special susceptibility to flavor, and in connection with this, Aristotle does maintain that water as the recipient of flavors is itself flavorless.<sup>24</sup> The case of smell is somewhat obscure in Aristotle, but insofar as odor is very closely associated with taste,<sup>25</sup> it appears, though it is not explicitly stated, that its recipient must be taken to be itself odorless.

In the case of the senses other than touch, consequently, for the organ to be susceptible to its object, it need not have "a middle character" (Beare), "an equipoise of contrasting qualities" (Smith), "a state of tension between opposite qualities" (Wheelwright), "a mixture of qualities in which neither extreme too much preponderates" (Ross). Such is necessary only when the organ in itself must possess some quality contained within the province of its object, as is the case with touch. For sight and hearing, and, it appears, for smell and taste as well, the organ is completely lacking in the quality that constitutes the object, and is by its nature potential to the whole range of its object—without, moreover, any middle insensitive point. This being the case, these organs, at least in their sensitive part, need not be seen as a mixture of elements or a *λόγος τῆς μείξεως* (Beare). Indeed, they must not be seen as such, since on such a mixture, the sensible qualities in question, not being elemental powers, could have no effect.

It must be noted that Beare does try to put his theory into accordance with these texts where Aristotle explicitly states that the senses which operate through a medium are composed of simple elements. Beare actually refers to the simple element within the sense as an "essential constituent" of the organ. However, he interprets it throughout merely as a prolongation of the medium, actually calling it an "internal" or "subjective

<sup>24</sup> *De Sensu*, 441a4.

<sup>25</sup> *De Sensu*, 442b27-443a21.

medium," which though necessary, is distinct from the "point of sense."<sup>26</sup>

It might appear that if the mixture of elements must be rejected as an essential requirement for sensing in general, so must the logos, and also the mean. Aristotle, however, unequivocally states that the sense is a logos.<sup>27</sup> But can there be a proportion where there is only a single element? As we have seen, for Beare, the logos is basically the ratio of the mixture of elements which constitute the organ, and, no doubt, the word is often used by Aristotle to mean just that: the proportion of an elemental mixture. However, when Aristotle uses the word in the context of sensation, he is obviously thinking about the range in the capacity of the organ. The sensitivity of the organ, i. e., its ability to be affected, extends from high to low sounds, hot to cold, light to dark, etc., just as do the sense objects themselves. That each sense involves a definite range is indicated, for Aristotle, by the fact that excess in the object is injurious to the sense. On this proportion of high sound to low, hot to cold, bright to dark, etc., is based the capacity of the sense to discriminate. Moreover, just as the different sense qualities within a province involve, for Aristotle, a proportion between the extremes,<sup>28</sup> so must the sense, either potentially, or, when it is sensing, even actually. This proportion in the sense, however, as we have seen, does not entail a proportion of elements, except in the case of touch.

<sup>26</sup> *Op. cit.*, p. 242, also pp. 79, 80, 85. In a footnote on p. 248, Beare again recognizes the water or air in an organ to be "the ingredient essential for its function," and attempts to reconcile this with his theory of the λόγος τῆς μελέτης by pointing out that the function of the organ depends on "the λόγος or ratio which either [air or water] bears to the other elements in the organ." However, it is not air or water in a mixture, i. e., in a chemical compound, that allows for the functioning of the senses in question. It is air or water as relatively pure. The other elements are unnecessary for the reception of form in the case of senses other than touch.

<sup>27</sup> 424a28, 424a32, 426a27-b8.

<sup>28</sup> Cf. *De Sensu*, 440b18-21.

But now the mean, must it be considered inconceivable apart from the mixture? For Beare, the answer is most definitely affirmative. "The requisite *μεσότης* of sense could not subsist in one single uncompounded element."<sup>29</sup> If this is the case, we should have to conclude that the mean is a peculiarity of touch. And, indeed, Aquinas seems to take it as such. However, Aristotle does appear to associate the mean with sensing in general. In the first of the three passages mentioned earlier in which he speaks of the mean,<sup>30</sup> though he refers in his explanation to the sense of touch, he concludes that "the sense" is a sort of mean. And a few lines further down, while still on the topic of the mean, he refers to the sense of sight, though he does not explicitly state that sight implies a mean. It is to be noted as well, furthermore, that Aristotle speaks of the mean in conjunction with the common sense. All this seems to point to a more extended use of the word.<sup>31</sup> Is there, however, in Aristotle, another sense of "mean," besides that associated with mixture?

We may take a hint from the way Aristotle uses the word "mean" in the *De Generatione*. In that treatise, he uses the word two ways: (1) with reference to a mixture of elements in which the contrary qualities modify one another and are brought to a mean,<sup>32</sup> and (2) in conjunction with matter, speaking of matter as a mean between contraries.<sup>33</sup> In the first case, the word appears to signify more or less the same thing as it does when used with reference to touch. However, the sense in which "mean" is attributed to matter would appear to be applicable to the senses other than touch, for just as matter is potential to contrary elemental qualities because of itself it has

<sup>29</sup> *Op. cit.*, p. 199.

<sup>30</sup> 423b26-424a11.

<sup>31</sup> Hicks maintains that Aristotle does generalize. Cf. *op. cit.*, note to 424a4, p. 414.

<sup>32</sup> 334b28.

<sup>33</sup> 332a35.

no quality, so the senses other than touch are potential to contrary sensible qualities (each within the province of its object) because of themselves they are entirely without these qualities. Thus it could well be maintained that insofar as they are susceptible to contraries in one way or another, all the senses are means. It is a peculiarity of touch that in order to be a mean in this sense, it must also be a mean as embodying a balance of contraries. Indeed, a mean relative to contrariety *in the object*, rather than to contrariety within the constitution of the sense organ itself, would appear to be what is truly essential to sensing. It is quite possible, consequently, that Aristotle does intend a mean (though not an equipoise of contrasting qualities) to be a necessary condition for all sensing. The mean, thus interpreted, would constitute the adjustment of sense organ to sensible, allowing the organ to be acted upon in ways that surpass the capacity of bodies engaged in merely corporeal interactions.

Looking back on the difficulties associated with Beare's interpretation of the mean, we can now see that they have been resolved in the course of the discussion. Indeed, it has been shown that, for Aristotle, (1) the senses other than touch (and taste as a sort of touch) can be constituted of one element and yet be a mean; (2) color, sound, smell, and also taste can affect the senses even though they are not active elementary powers; (3) there is no need to introduce a "middle character" in the case of the senses other than touch, and consequently there would be for them no such thing as an insensitive point.

It must be noted that the root of all these difficulties is Beare's conception of sensing as *ἀλλοίωσις*. As we have seen, it is in terms of *ἀλλοίωσις* that the mean is explained. The *De Anima* does, of course, positively state that sensing is an *ἀλλοίωσις*. Also Beare's understanding of *ἀλλοίωσις* is undoubtedly in keeping with the Aristotelian doctrine as given in the *De Generatione*. But that precisely is where the fault



lies, for, in the *De Anima*, Aristotle allows that sensing is an ἀλλοίωσις, but only with very significant qualifications.<sup>34</sup>

In this latter work, we are told<sup>35</sup> that sensing is an ἀλλοίωσις and involves τὸ πάσχειν to the extent that it must be brought into act by an external sensible object which assimilates the sense to itself. However, Aristotle is careful to point out, it differs from the ἀλλοίωσις that characterizes elemental transformations (as treated in the *De Generatione*) in that the transition into actuality is not a transition from one contrary state to another and does not involve being acted upon by a contrary agent. The sense does not become something other than itself but merely becomes itself in actuality. This actuality is at once the possession of the sensible quality of the object and an activity (ἐνέργεια), an activity, moreover, which, we are told elsewhere,<sup>36</sup> is not a movement or process to an end but an end in itself.

Now what Aristotle is talking about here is, quite obviously, not sensing in its physical dimension, but the psychic act of sensing. Beare, however, identifies the ἀλλοίωσις of sensing with the *physical* changes that take place in sensing. Furthermore, he takes ἀλλοίωσις throughout in the strict sense of the *De Generatione*,<sup>37</sup> without even averting to the fact that, for Aristotle, this sort of ἀλλοίωσις takes place only under the agency of the *tactile* qualities as such. But there are absolutely no grounds whatever for this identification in the doctrine of Aristotle. As we have seen, touch alone involves in the physical

<sup>34</sup> That is why Aristotle can both affirm that sensing is ἀλλοίωσις τινος and later deny that it is ἀλλοίωσις (i.e., when taken without qualification). He has not changed his mind as Hamlyn suggests. Cf. Hamlyn's article, "Aristotle's Account of Aesthesis in the *De Anima*," *Classical Quarterly*, N.S., no. 1 (1959) 6 ff.

<sup>35</sup> 416b32-417b28.

<sup>36</sup> *Meta.*, 1048b17-35. Cf. also *De Sensu* 446b25, *De Anima* 431a5-10.

<sup>37</sup> Beare does indicate, however, that the action is not reciprocal, though he gives no reason why it should not be. Indeed, for touch, one would have to maintain that the physical action would have to be reciprocal.

organ an *ἀλλοίωσις* in the strict sense of the *De Generatione*. Hearing appears to involve no *ἀλλοίωσις* at all on the physical side, the change being of a mechanical nature. As for sight, its physical dimension entails no interaction between contraries, no elemental transformations, no transitions to contrary states. Its mean does not present itself as a contrary to various extremes of sensible qualities, but merely as a potential recipient. And the same could be said, it appears, for smell and taste. True, the physical change might still appear to fit the somewhat broader definition of *ἀλλοίωσις* of *Physics* V and VII, where *ἀλλοίωσις* is given (1) as a movement (*κίνησις*) with respect to a sensible quality but not necessarily a tactile one, and (2) as a movement not only from one contrary to another, but also from the privation to the possession of a quality.<sup>38</sup> But it is certainly not with this broader sense that Beare is working. Besides, in the specific case of sight, the physical change could not be termed an *ἀλλοίωσις* even in the broader sense. Indeed, because of the association with light, the effect of the visible object on the organ is considered by Aristotle to be instantaneous,<sup>39</sup> and consequently, insofar as it involves no temporal process, the change is not even, strictly speaking, a movement (*κίνησις*). If the physical change can be said to be an *ἀλλοίωσις* at all, therefore, it would have to be in a very diminished sense indeed, and very far removed from the *ἀλλοίωσις* characteristic of the basic workings of nature analysed in the *De Generatione*.

Consequently, whereas for Beare *ἀλλοίωσις* is the very key for understanding sensing in Aristotle, it must be affirmed that *ἀλλοίωσις* in the strong sense in which Beare uses it can be found only in the case of touch, and there only in the physical changes that the organ undergoes under the activity of the object-agent. The psychic change, indeed, consists in the transi-

<sup>38</sup> *Phys.*, V, 225b2-5, 226a25-30, VII, 244b2-248a10. For *ἀλλοίωσις* restricted to the tactile qualities, cf. *De Gen. et Cor.*, II, 331a11.

<sup>39</sup> *De Sensu*, 447a8-12.

tion from potential to actual sensing (though it presupposes, of course, the physical stimulation of the object along with the physical change in the organ), and as such it is an *ἀλλοίωσις* only in a very modified sense. As far as the psychic side of sensing is concerned, moreover, Beare's account is most inadequate. Indeed, he feels he has done justice to Aristotle's doctrine of sensing by pointing out that the *ἀλλοίωσις* involved in sensing is explained in terms of form and not in terms of absorption of matter. The psychic or mental aspect, in his account, is either identified with the possession of form, or else not explained at all.<sup>40</sup> But on this topic we shall have more to say in the second part of this study.

What is clear in all of this is that whereas Aristotle recognized and attempted in his fashion to account for fundamental differences in the various ways of sensing, Beare's interpretation tends to reduce all to univocity. The peculiarities of touch become the universal conditions of all sensing. In Beare's account of the Aristotelian doctrine, touch emerges as model, or as more than model, for Beare insists on seeing in Aristotle an underlying tendency, "despite verbal protests," to regard all the senses as modifications of touch.<sup>41</sup> However, if any sense plays the role of model in the Aristotelian scheme, it is the one that manifests in the highest degree the perfection of sensing as cognitive activity—sensing, indeed, for the Greek, is first and foremost a type of knowing. And that distinction, most assuredly, belongs not to touch but to sight. Whereas touch is important as the most basic sense, presupposed by all the others, and as the one sense absolutely essential for animal life,<sup>42</sup> sight

<sup>40</sup> Beare maintains that "the distinction between form and matter" seems to be "the key to that between psychological and non-psychological," *op. cit.*, p. 216. We shall argue in part II of this article that this claim is unacceptable.

<sup>41</sup> *Op. cit.*, p. 230. Cf. also p. 200.

<sup>42</sup> 434b9-435b26.

is without doubt the most important cognitively.<sup>43</sup> And precisely as such, it is the furthest removed from the purely physical interactions at the base of nature. With sight, as Aristotle conceives it, the physical changes attain a refinement that far surpasses the ordinary activities of nature, and passivity approaches as close as matter can allow to the status of pure receptivity. To produce this particular psychic activity, it appears that nature is strained to its limits. It is sight that heads Aristotle's treatment of the particular senses, and each sense in turn that comes after can be seen as falling short, in one way or another, of the perfection manifested in sight. At the end of the list, with touch, we come finally to the psychic power that is inextricably rooted in the purely corporeal workings of basic nature.

Instead of univocity, therefore, we find that, in Aristotle, *ἀλλοίωσις*, and with it *τὸ πάσχειν*, assume many meanings, different but related, according as they are used in different contexts. Even within the limited scope of the psycho-physical realm of sensing can be traced a gradation of meanings, relating backward to the purely physical world of nature and, at least for *τὸ πάσχειν*, serving in turn as points of reference for a yet, more attenuated meaning applicable to an order entirely beyond the natural, the sphere of intellect.<sup>44</sup>

## II

We must turn now from the discussion of the nature of the sensitive mean to a consideration of the sensitive mean understood as a principle of the reception of form without matter. The Aristotelian passage principally concerned is that running from 424a16 to 424b4. We shall recall that Beare insists on the essential connection between the reception of form without matter and the mean: "Without understanding [the *μεσότης*]

<sup>43</sup> *Meta.*, 980a21-28, *De Anima*, 429a3.

<sup>44</sup> 429a10-18, 429a30-b6, 429b23-430a2.

we must fail to grasp his explanation of how αἴσθησις apprehends form without matter." For Beare, the reception of form without matter is what distinguishes sensing from purely physical effects (by which he means purely mechanical effects) which involve the taking in of physical objects in their material reality, that is, the reception of matter rather than form.<sup>45</sup> With sensing, on the contrary, form apprehends form. Form he takes to be the λόγος τῆς μείξεως of the organ. It is precisely because this logos is a mean, he tells us, that the organ can be acted upon and assume the form of any of its objects. Thus sensing consists in ἀλλοίωσις,<sup>46</sup> which is the reception of form, not matter, and the mean is its necessary condition.

Note that the reception of form without matter is taken by Beare to mean the reception of the form alone without the matter of the object, that is, the form alone rather than the whole physical object. This is the most common interpretation<sup>47</sup>—though it is not, as we shall see later, the only one. The reception of form alone, moreover, is frequently opposed not only to *receiving* both form and matter, but also to *being affected by* both form and matter. The source of the association between receiving form and matter and being affected by form and matter appears to be a short passage several lines below Aristotle's initial statement that sensing always involves the reception of form without matter. "It is now clear," it runs, "why plants do not feel, although they have a part of soul and are affected to some extent by objects touched, for they become both cold and hot; the reason is that they have no mean, no first principle such as to receive the forms of sensible objects (δέχεσθαι τῶν αἰσθητῶν), but are affected with matter (μετὰ τῆς ὕλης)." <sup>48</sup>

<sup>45</sup> Cf. *op. cit.*, pp. 217, 224, 226, 233.

<sup>46</sup> Cf. *ibid.*, pp. 238-39.

<sup>47</sup> This interpretation goes back to Themistius.

<sup>48</sup> 424a33-b4.

Concerning this passage, two points are to be made: first, most translators and commentators explicitly take the case of the plant to be an instance of *not* receiving forms apart from matter, i. e., an instance of receiving forms *with* matter, that is, with the matter of the object. The gist of the passage would be: All sensing is the reception of form without matter; but plants cannot receive form without matter (because they do not have a mean), and therefore they cannot sense (cf. Beare, p. 226; the translations of Smith, Hicks, Wallace, Tricot; Ross, *Aristotle De Anima*, p. 32, pp. 265-66). Second, that plants are affected *μετὰ τῆς ὕλης* has been taken to mean that the plant, unlike the sense organ, is "*affected* by the matter at the same time as the form." (Hett's translation, italics mine; cf. also the translations of Smith, Hicks, Wallace; Ross, *Aristotle De Anima*, pp. 114-15, 264-66.) Not receiving forms apart from matter, i. e., receiving forms with matter, is thus explicitly associated by most Aristotelian scholars with being affected by matter as well as by form.

Let us address ourselves to each of these points in turn. First of all, as previously noted, the reception of the form without the matter is generally taken to mean the reception of the form of the object rather than the whole object, form and matter together. In the light of this interpretation, it seems reasonable to assume that the inability of plants to take in the form alone implies that they must take in some matter when affected by the hot and the cold. Beare unequivocally states this to be the case.<sup>49</sup> But what is to be understood by this? Beare adds nothing by way of explanation. D. W. Hamlyn confesses perplexity concerning this point: "But how are plants affected by the matter as well? Presumably they take in some kind of matter (e. g. moisture) when warmed."<sup>50</sup> But is this not true also of the warming of the sense organ? If not, how is the reception of the

<sup>49</sup> Cf. *op. cit.*, p. 226. Cf. also Hicks, *op. cit.*, p. 419, note to 424a34.

<sup>50</sup> This is Hick's view. Cf. *op. cit.*, p. 419, notes to 426b1 and 424b3.

form (the heat) without the matter to be interpreted, unless Aristotle means that the sense organ becomes warm without taking in any hot matter? But how does this come about? Aristotle's account of sense-perception remains in this respect mysterious."<sup>51</sup> In other words, for Hamlyn, not only is it mysterious how the plant receives matter along with the form, but also why the sense organ does not take in matter as well as the form, that is, how precisely they are to be distinguished in this respect.

There is, of course, one obvious way in which plants do take in the whole substance of the object, and that is in nutrition. This has led some expositors, such as Ross,<sup>52</sup> to see Aristotle's statement about the reception of form without matter as pointing up the difference between sensation and nutrition within the Aristotelian doctrine. But with this interpretation one has lost all association with "being affected" (*τὸ πάσχειν*) which is obviously an important idea in the passage. Indeed, unlike the sense organ which is passive, the nutritive power as such, being active, is not *affected* by the object at all, either by the form or the matter; rather the object (the nutrient) itself is affected in order to be converted into the living body.<sup>53</sup> But surely the aim of the passage is to explain why plants do not sense *even though they are affected* by sensible qualities. One's attention is being brought to two different ways of *being affected*: being affected so as *to become* hot and cold, and being affected so as *to sense* hot or cold. To take Aristotle's intention to be that of distinguishing sensing from the nutritive activities is to miss the whole point of the passage.

This leads us to the second of the two points mentioned above: Plants are taken *to be affected* not by form alone, but by form

<sup>51</sup> D. W. Hamlyn, *Aristotle's De Anima, Books II and III* (Oxford, 1968), pp. 114-15.

<sup>52</sup> Cf. *Aristotle*, p. 137.

<sup>53</sup> 416a35-b5.

and matter *together* (μετὰ τῆς ὕλης). It is because they are affected by both form and matter that they receive both form and matter, and that is why they cannot sense, since sensing is receiving form without matter. This appears to be the way the passage is understood by the translators and commentators mentioned above. We have already seen that the conception of the plant as *receiving* matter along with form when affected by the tangible object has led to some significant difficulties. And now we must add that the idea of the plant *being affected* by matter appears to be even less intelligible. Indeed, according to the Aristotelian conception of τὸ πάσχειν, can anything be affected by the *matter* as such, as distinct from the form? <sup>54</sup> Are not things always acted upon or affected by *forms*, or at least by such formal principles as qualities or elementary powers? True, bodies are affected by bodies, not, however, in virtue of the matter, but by reason of the active qualities of the agent bodies.

Perhaps it would not be doing violence to the Aristotelian mode of expression to speak of being affected by the matter of a thing in order to emphasize that the agent is such precisely as a mixture of elements, that is, precisely in virtue of its elemental qualities. But even this subtlety does not solve the difficulty, for although *possibly* one might say in such a case that the plant is affected by the matter, one could not say that it is affected by *form and matter together*, for the simple reason that what the plant is affected by is the tactile quality, i. e., the elemental power, and by that alone, and the quality, in the above case, is already covered by the term "matter." Thus, to say that the plant is affected also by form would be superfluous, and wholly unintelligible. Moreover, to add to the difficulty, what the *sense organ* is affected by is likewise the tactile quality, and that alone. The logical question then is: Wherein lies the

<sup>54</sup> Cf. *De Gen. et Cor.*, 335b30: "It is characteristic of matter to be acted upon, i. e., to be moved."



difference? However one looks at it, even if one *were* to understand the plant as taking in matter as well as form, it does not appear to make sense at all to speak of the plant as *being affected* by matter together with form.

It seems clear that, in the Aristotelian scheme, the sense organ and the plant alike must be taken as being affected by and receiving the form alone, and in this respect, moreover, they do not differ from the inanimate body.<sup>55</sup> But if such is the case, the reception of form without matter, though it would distinguish the Aristotelian from the Empedoclean account of sensation, would not, within the Aristotelian framework itself, explain why plants cannot sense or, more generally, distinguish sensation from any other form of ἀλλοίωσις, even the most corporeal.<sup>56</sup> In other words, the apparently specific characteristic of sensing turns out to be not specific at all and the passage concerning the plant and the function of the mean remains a mystery.

The question that must now be asked is whether Aristotle could have meant something different by the reception of form without matter? An alternative meaning, indeed, is presented in the commentary of Thomas Aquinas<sup>57</sup> and accepted by the Oxford translator, J. A. Smith.<sup>58</sup> The difference between the reception of form with matter and without, Aquinas tells us,

<sup>55</sup> Hicks maintains that for Aristotle plants take in material when warmed or cooled and comments that A. does not say anything which would "justify us in assimilating what takes place in plants to the case where τὸ πάσχω, as well as τὸ ποιοῦν, is lifeless." But why should he presume there has to be a difference?

<sup>56</sup> It is to be noted that, for Aristotle, purely mechanical movement is not the most corporeal type of change.

<sup>57</sup> In *II De Anima*, 12, nn. 551-54.

<sup>58</sup> Cf. his translation of the *De Anima* in *The Works of Aristotle* (Oxford, 1931), footnote to 424a24. Though he explicitly states that it is always the form that acts and is received, it is to be noted that he still translates ἀλλὰ πάσχειν μετὰ τῆς ὕλης (424b4) as "the affection is an affection by form-and-matter together."—This second interpretation of the reception of form without matter it appears, goes back to Philoponus.

is to be found in the *way* in which the form is received. The form is received with matter if the recipient is materially disposed to the form in the same way as the agent, as happens in elemental interaction. The form is received without matter when the recipient's material disposition is different from that of the agent's, in which case the recipient becomes like the agent in form but not in matter. This is how the sense receives the form from the object. In the sensible thing, he adds, the form has an "*esse naturale*," whereas in the sense, it has an "*esse intentionale et spirituale*." This distinction is further clarified by an earlier passage in the commentary,<sup>59</sup> where Aquinas states that, under the influence of the object, the sense undergoes at once two different types of change: an *immutatio naturalis* and an *immutatio spiritualis*. And the latter is identified as that by which the form is received in the sense organ *per modum intentionis*, i. e., in a cognitive way.

Just what is involved in this distinction between the two ways of receiving forms is not immediately clear. It could, for instance, be considered in the light of other distinctions made in the first part of this study. It was noted there that for all the senses but touch the stimulation of the organ involves the reception of form without the *ἀλλοίωσις* of elemental transformation. Thus the eye, for example, can take on the color of the object without becoming like the object as far as its material constitution is concerned, just as, in Aristotle's analogy, the wax receives the imprint of the gold or bronze, but not as gold or bronze. The eye, consequently, would become like the object in form but not in matter.

This way of understanding the reception of form without matter, though it has much to commend it, does not appear to be entirely acceptable. For one thing, the reception of form without matter, according to this interpretation, would be given neither as a distinguishing nor as a universal characteristic of

<sup>59</sup> *Op. cit.*, n. 418.

sensing. It would not distinguish the sense organ from mere bodies, since as Aristotle himself later points out, the air outside could be similarly affected, but the air at most becomes sensible, not sensing.<sup>60</sup> It would not be the general characteristic of sensing that Aristotle explicitly states it to be, since it would exclude touch insofar as the tactile organ does become like the object in material constitution, though not, of course, necessarily identical. Moreover, it is specifically in the context of the tactile qualities (in the passage on plants) that our problem concerning the reception of form without matter comes into prominence. Consequently, this interpretation appears to be neither acceptable nor useful.

There is, however, another way of understanding Aquinas' account. What Aquinas could well be doing is making the distinction between the physical and psychical-cognitive sides of sensing and taking the reception of form without matter to refer only to the latter. His words "*esse intentionale et spirituale*" would appear to substantiate this view. Though it must be admitted that this understanding of Aquinas is not without problems,<sup>61</sup> nevertheless, I am inclined to think that this is the distinction he has in mind. In any case, the question we must ask ourselves is whether the distinction between the physical and psychical sides of sensing can prove to be of any help in understanding Aristotle and disentangling the difficulties with which we are presently concerned. I think it can. The

<sup>60</sup> 424b4-20.

<sup>61</sup> It is difficult, for instance, to understand what Aquinas can mean by a form being in the medium *per modum intentionis* (n. 418). Also, it is not at all evident where we are to locate those physical changes associated with the senses other than touch. According to the distinction in n. 418, they would certainly go under the heading of *immutationes naturales*. However, as far as the other distinction is concerned, they do not appear to belong under the receptions of form with matter, since they do not involve elemental transmutations and assimilation of patient to agent with respect to material constitution, and neither do they seem to belong under the receptions of form without matter, for reasons given above.

psychical-cognitive dimension of sensing, I suggest, could be understood to be not merely the reception of the form without the matter of the object, but also *the holding of this form in disassociation from the sentient's own material constitution*. In other words, the form would be held apart from matter, both the object's and the recipient's. Thus by the reception of form without matter, Aristotle would be distinguishing the status of form as object for a sentient subject from its status as quality of a material substance.<sup>62</sup>

This distinction, moreover, would have the further advantage of explaining sensing as an *ἐνέργεια*. We recall that unlike the vegetative operations which are simply *ἐνέργεια*, sensing for Aristotle essentially involves both *τὸ πάσχειν* and *ἐνέργεια*. To sense is *πάσχειν* precisely insofar as a reception of form is involved. But whereas merely bodily changes entail on the side of the recipient *τὸ πάσχειν* only, sensing is also an *ἐνέργεια* "of the soul." That this *ἐνέργεια* is not merely the physical change initiating from the object-agent and taking place in the sense as passive recipient is apparent from several passages in Aristotle. In the introductory section on sensing in the *De Anima*,<sup>63</sup> Aristotle compares sensing in act to the activity of the builder, not to the actualization of the material. As secondary actuality, it is compared to intellectual knowing. In the passage at the end of Book II where, after having treated the

<sup>62</sup> W. D. Ross has this to say about the point in question: "It is only if reception of form means *awareness* of form that it is a true description of perception; and the description of the organ as becoming *qualified* by the form of its object is irrelevant. The phrase 'receptive of form' covers a radical ambiguity" (*Aristotle*, p. 137). The last sentence undoubtedly commands our assent. Indeed, according to the interpretation proposed, it is just this ambiguity that Aristotle clears up by the addition: "without matter." And, it is suggested, he makes this addition precisely in order to distinguish the *awareness* of form from "becoming qualified by form." As for the description of the organ as "becoming qualified by the form," that would be irrelevant only if the physical stimulation is irrelevant. One might say that his description is false or mistaken, but not that it is irrelevant.

<sup>63</sup> 416b32-418a6.

particular senses, he returns to a consideration of sensing in general, he points out that sensing is not the same as merely being affected.<sup>64</sup> And finally, as we have seen, in the *Metaphysics*,<sup>65</sup> sensing is presented not as the type of activity that involves movement to an end, but as that type which is an end in itself. Consequently, though it is abundantly clear from those passages where Aristotle treats the individual particular senses that sensing *does* entail physical change, passage to form, movement initiating from the agent but occurring in the patient, nevertheless, it is also obvious that sensing for Aristotle is not to be wholly identified with this sort of change. What else is involved, I submit, is the sustaining of form without matter, and I propose that this is precisely what the essential *ἐνέργεια* of sensing consists in. It is to be noted that even this *ἐνέργεια* involves *τὸ πάσχειν*, for the active holding is at the same time the receiving, since it presupposes the continued activity of the object. Consequently, to the activity of the object there corresponds a double passivity: the reception of the form with matter resulting in the physical organic changes, and the reception of form without matter resulting in the psychic-cognitive activity.

In the light of this interpretation, the troublesome passage on the plants does begin to make sense. Aristotle, indeed, would be saying that plants cannot sense because although they are affected by tactile forms, they do not hold the form in disassociation from their own matter. Thus Aristotle no longer appears to be making the un-Aristotelian statement that plants, when affected by tangible objects, are affected by matter and take in matter; or to be saying that the difference between the sentient and the plant consists in the ability to receive the form without the matter of the object-agent; or to be merely distinguishing the sensitive from the nutritive power. What he

<sup>64</sup> 424b4-20.

<sup>65</sup> *Meta.*, 1048b17-35.

does appear to be doing is distinguishing sensing as a special way of being affected by and receiving forms.

Nevertheless, the central problem of part II of this article still remains unsolved: What, if anything, has the mean to do in all of this? Indeed Aquinas, too, appears to connect the mean with the reception of form without matter.<sup>66</sup> However, as I see it, the mean cannot, in any interpretation, be the principle of receiving forms apart from matter. Its function is simply to allow the organ to be physically affected by a range of sensible qualities. What, then, is to be made of Aristotle's words: the plant does not sense because it does not have *a mean, a principle of receiving the forms of sensible objects but is affected with matter*? Is the mean not presented here as the principle of receiving forms without matter? Indeed, this is how it is generally understood, as we have seen. It might be pointed out, against this interpretation, that Aristotle at this point is not after all explicitly designating the principle in question as a principle of receiving forms *without matter* but merely as a principle of receiving *sensible* forms, and this, as we have seen, the mean most certainly is. Although this argument would corroborate my own point of view, I do not think it is correct. True, the principle is not explicitly characterized as a principle of the reception of form without matter; nevertheless, insofar as plants are affected "with matter" precisely because they do not have this principle, the principle must be such as to provide the capacity to be affected by and receive forms without matter. Even so, I do not think that Aristotle is saying that the mean is what allows for the reception of form without matter. The reason is that, in my opinion, "the mean" and "the principle for receiving forms of sensible things" in the text of Aristotle are not to be identified. Indeed in the previous pages of the *De Anima*, *ἀρχή* has been used to mean soul (which for Aristotle, of course, is the principle of all the activities of life), and

<sup>66</sup> *Op. cit.*, n. 557. Cf. also n. 850.

this, I believe, is what it means here. The principle of the reception of sensible forms without matter, operating within the sense organ and constituting it as such, would be the sentient soul. This interpretation, besides being in conformity with Aristotelian usage, puts the passage into a more meaningful balance. Aristotle would be saying: Plants cannot sense because, although they are affected by tactile qualities, they do not have a mean, and although they have a part of soul, they do not have the sentient soul. Thus the mean would appear to furnish the requirement on the physical side, i. e., the condition which allows the organ not merely to be physically affected, but to be physically affected by a range of contrary sensible qualities, while the sentient soul, as the principle of receiving forms without matter, would be what ultimately accounts for the psychic activity of sensing.<sup>67</sup>

It must be noted in addition that even if one were to understand the reception of form without matter according to the first interpretation as merely the reception of the form alone without the matter of the object, the mean still could not be considered as the principle of the reception of form without matter. Indeed, in such a case, any body with or without a mean is susceptible to the reception of form without matter. Nor could the mean be so considered if the reception of form without matter were understood as a physical reception of form but without elemental transformation (the case of senses other than touch). Whereas the former interpretation was too general, the latter is too specific. For it excludes touch, and it is precisely in the context of the tactile qualities that the mean is linked with the reception of form without matter to distinguish sentient from plant.

The Aristotelian sensitive mean, consequently, must be considered as a purely physical condition characterizing the sense

<sup>67</sup> Of course the soul as first actuality is also the principle of the physical disposition of the organ.

organ as such. It alone cannot explain the reception of form without matter or sensing as a psychic-cognitive activity. Beare, we have seen, sets out to explain how sensing in Aristotle is to be distinguished from purely physical change, but ends up identifying sensing with what in Aristotle is the most corporeal of all changes. And thus the Aristotelian *tactile* mean, instead of marking the merely physical condition required for a living body to be capable of the lowest level of conscious life, becomes, for Beare, the essential and universal condition for all sensing.

*University of Notre Dame,  
Notre Dame, Indiana.*