

THE STRUCTURALISTIC ASPECTS IN ARISTOTLE'S THEORY OF ΑΙΣΘΗΣΙΣ AND ΑΝΤΙΛΗΨΙΣ

Aristotle builds up an empirical-associationistic psychological theory which suggests that mind is a compound of elemental processes which are interrelated by τάξις τινά ¹. In other words, in order to describe the various psychological κινήσεις Aristotle has elaborated his theory of aesthesis and antilepsis in a manner similar to that presented by modern structuralists ².

Aristotle takes sense impression ³ as the simplest psychological unit, which is the outcome of the interaction between the sense organs and the stimuli coming from the sensible objects. This interaction is signified by the verb αἰσθάνεσθαι ⁴, that is, the initial phase of ἀντιλαμβάνεσθαι. Next comes the formation of clusters or groups of sense impressions which result in the φαντάσματα, or, to use Titchener's word, «perceptions». The founder of structuralistic psychology, G. B. Titchener, has defined «perceptions» as selected clusters of sense impressions :

Perceptions are selected groups of sensations—these perceptions have meaning ⁵.

Titchener's «perceptions» are what we could call percepts or mental images, and

1) *De Memoria et Reminiscentia*, 452a 4.

2) G. B. Titchener, *A Textbook of Psychology*, MacMillan, 1910.

3) *Posterior Analytics*, Book II, Chapter 19, 100a : αἰσθησις ; *De Anima*, 424 a 19 : αἰσθητῶν εἶδος ; *De Memoria et Reminiscentia*, 450b 30 : εἰκῶν. Aristotle uses both αἰσθησις and εἶδος as the primary psychological units in his structuralistic descriptions. The term εἰκῶν could be taken as a simple unit only in cases that a perceiver perceives holistically. It seems that Aristotle allows a sort of Gestalt perception. However, he basically uses simple units such as ἕδια or κοινὰ or αἰσθησις and εἶδος which refer to the primary and secondary percepts or the first outcomes of the sensus communis.

4) *Parva Naturalia - De Sensu*, 436 b 9 : *De Memoria et Reminiscentia*, 451 a 5 ; *De Anima*, 427 a 19—20.

5) G. B. Titchener, *A Textbook of Psychology*, p. 367.

Aristotle names them φαντάσματα, of the διανοητικῆ ψυχῆ¹. The difference here is one of terms². Furthermore, the «perceptions» or φαντάσματα by selec-

1) *De Anima*, 431 a 15 ; 432 a 9—14 ; *De Memoria et Reminiscentia* 450 b 29. Also, Titchener's perceptions and Aristotle's phantasmata in *De Anima* and *De Memoria et Reminiscentia* can be identified with ἐμπειρία, a term which Aristotle uses in his *Posterior Analytics*, 100 a 7 and *Metaphysics* A 980 a 28.

2) In fact, the term perception which corresponds to the Greek word αντίληψις is hard to find in Aristotle's treatises. The various translators have translated the Aristotelian words as they thought most suitable in their translations as general wholes. Consider, for example, the translations made by R. D. Hicks and J. Smith. For the first, perception is the Aristotelian αἰσθητικόν (*De Anima*, 417 a 6) ; for the latter, it is αἰσθησις (*De Anima*, 414 a 28 ; 417 a 3), αἰσθητικόν (*De Anima*, 415 a 17), and αἰσθάνεσθαι (*De Anima*, 415 a 18 ; 417 a 10). And differences are found not only between the two translations, but within the same translation, the same Aristotelian psychological terms being different in different cases. The following table is quite indicative :

Terms in Greek	Reference to D. A.	Translation by R. D. Hicks	Translation by Smith
1. αἰσθησις	413a23	sensation	perception
αἰσθησις	417a3	sense	sense
αἰσθησις	417a3	sensation	to perceive
αἰσθησις	417a5	sensation	sense
αἰσθησις	417a12	sensation	sense
αἰσθησις	417a32	sensation	sense
2. αἰσθητικόν	415a17	sensitive	perceptive
αἰσθητικόν	417a6	the faculty sensible perception	sensitive
αἰσθητικόν	417b16	sensitive	to possess sense
3. αἰσθητὸν	415a22	sensible	perceptible
αἰσθητὸν	417b21	other senses	sensory powers
4. αἰσθάνεσθαι	415a18	sensation	perceiving
αἰσθάνεσθαι	417s10	to have sensation	«perceive»
αἰσθάνεσθαι	417a13—14	sensation	to be sentient

Needless to say, this is a problem which could be better solved by a specially trained philosopher in co-operation with a psychologist. But we might ask

tion could structure more general φαντάσματα and concepts. Φαντάσματα and «perceptions» are appropriate for structuralistic descriptions, but this is not enough. Structures presuppose structuring, a *process* of selecting among the primary psychological units and synthesizing them. For this Aristotle has introduced κίνησις ¹, whereas Titchener speaks about «the whole *process* ². No doubt, both κίνησις and process indicate the active character of aesthesis and antilepsis. However, the pressing question is how this structuring occurs. I would appear to say that Aristotle offers, as an empiricist, a kind of mechanical explanation ³. He believes, we might suppose, that the entire edifice of the simple and synthetic psychological structures is realizable by virtue of the «mechanical» principles of association such as similarity, contradiction and contingency. Aristotle, of course, uses mechanical principles in order to show how the operation of recollection occurs; ⁴ and though he does not explicitly state anywhere in *De Anima* that the same principles make the selections and syntheses of the various psychological elements for the formation of psychological structures, nonetheless, the suggestion that he presupposed the same mechanical principles for building up his elementalistic structures could be supported by the following arguments:

(a) He clearly says in the *De Memoria et Reminiscentia* ⁵ that the mnemonic movements are related to one another in the *same manner as the objective facts are related*; they have, he observes, the same order of succession as the object or facts because they *derive from*, and represent, them. Now, if the

whether confusing terminology is due to Aristotle himself, or to the scholars and translators who either are not quite familiar with modern psychological terminology, or want to impose on Aristotle views which perhaps were not his. At any rate, since we nowhere find the term ἀντίληψις in Aristotle—that is, the Greek equivalent of the English «perception», I would suggest that only what Aristotle calls «phantasmata» or «mental images» could justifiably be looked upon as identical with structuralistic «perceptions».

1) *De Memoria et Reminiscentia*, 450b 28: ὅταν ἐνεργῆ ἡ κίνησις; 451a 5: ἐγγινομένων ἡμῖν ἐν τῇ ψυχῇ . . . κινήσεων; *De Anima*, 429a 2; 431a 7; 432a 17—18; *Posterior Analytics*, 100a: «develops».

2) G. B. Titchener, *A Textbook of Psychology*, p. 367.

3) This might be concluded from his *Posterior Analytics*, 99b—400b 15. However, it is not to be disregarded that Aristotle introduces Active Nous as an intervening outside agent which is contrary to this suggestion. But Aristotle's platonizing views of active Nous is a notion which can hardly fit in his psychological theory expounded in *De Anima*, *Parva Naturalia*, and *Posterior Analytics*.

4) *De Memoria et Reminiscentia*, 451b 17: ὅταν οὖν ἀναμνησκώμεθα, κινούμεθα τῶν προτέρων τινὰ κινήσεων, ἕως ἂν κινηθῶμεν μεθ' ἣν ἐκείνη εἴωθεν. διὸ καὶ τὸ ἐφεξῆς θηρούμεν νοήσαντες ἀπὸ τοῦ νῦν ἢ ἄλλου τινὸς καὶ ἀφ' ὁμοίου ἢ ἐναντίου ἢ τοῦ σύνεγγυς, διὰ τοῦτο γίνεται ἡ ἀνάμνησις· αἱ γὰρ κινήσεις τούτων τῶν μὲν αἱ αὐταί, τῶν δ' ἅμα, τῶν δὲ μέρος ἔχουσιν ὥστε τὸ λοιπὸν μικρὸν ὃ ἐκινήθη μετ' ἐκεῖνο (*Italics mine*).

5) *Ibid.*, 452a 5: ὡς γὰρ ἔχουσι τὰ πράγματα πρὸς ἄλληλα τῷ ἐφεξῆς, οὕτω καὶ αἱ κινήσεις καὶ ἔστιν εὐμνημόνευτα ὅσα τάξιν τινὰ ἔχει, ὥσπερ τὰ μαθήματα· τὰ δὲ φαῦλα χαλεπῶς (*Italics mine*).

sense-impressions are the sensible εἶδη ἄνευ τῆς ὕλης ¹ or, to use Aristotle's wax-analogy, are like the traces of the signetring ², then we could justifiably infer that the same laws posited by Aristotle in recollection operate in the organization of the various psychological elements, primary or synthetic ;

(b) Recollection is a kind of regressing-motion (κίνησις) which starts from the ending points of the organizing psychological powers, namely from their results already stored in the form of traces, and—following the backward path—reaches objects which are not present ; and if we have in this Aristotelian regressing-movement ³ the three associationistic principles of similarity, contradiction and contingency operating, this immediately suggests that in the progressing-motion, that is, in the progressive build-up of the psychological elements, the same path is followed (in the opposite direction, however) and the same mechanical principles are applied.

(c) Finally, it could be maintained that associationism implies structuralism ; for, if it is true that according to Aristotle the organization of the psychological units, phantasmata and even of synthetic wholes, depends on the principles of associationism, in the manner suggested, then we might legitimately ask on what materials do these principles operate ? Do they operate in a vacuum ? But undoubtedly, a certain material is needed—the primary units, the phantasmata, etc., upon which the principles may operate. In other words, by following the reverse path it is shown that associationism implies structuralism. Structuralism, on the other hand, which is a variant of the philosophy of empiricism in psychology, sees experience as having an autonomic existence, independent of the subject, and governed by a self-sufficient system of associations, and, further, as imposing itself directly on the human mind ; from which it follows that structuralism too implies associationism. In short, even the principles of associations derive from the outside «τάξιν» ⁴ of things, and their establishment, like a habit, is due to the repetition-factor ⁵.

Aristotle, however, even if he himself provided material and principles to the philosophical system of empiricism and consequently to the psychological trend of structuralism, does not present a rigidly consistent and static psycholo-

1) *De Anima*, 424a 19.

2) *De Memoria et Reminiscentia*, 450a30—450b : ἡ γὰρ γινόμενη κίνησις ἐνησημαίνεται οἷον τύπον τινὰ τοῦ αἰσθήματος, καθάπερ οἱ σφραγιζόμενοι τοῖς δακτυλίοις. (*italics mine*).

3) *Ibid* , 451b 16—23.

4) *Ibid.*, 452a.

5) *Metaphysics*, 980b28—981a5.

gical doctrine. As I have shown ¹, he talks always about κίνησις in the organism, «action», and so forth. There is always *movement*—that is, the *active elaboration* of the simple or synthetic psychological elements—present. The subject is not passive. Organism and environment interact one upon another, they are participating, or, better, cause the perceptual activity.

Π Ε Ρ Ι Λ Η Ψ Ι Σ

Διὰ τῆς παρουσίας ἐρέυνης δεικνύεται ὅτι ὁ Ἀριστοτέλης παρουσιάζει εἰς τὴν ψυχολογίαν τοῦ τὰς βασικωτέρας ὀργανωτικὰς ἀπόψεις, ὅπως αὐταὶ χρησιμοποιοῦνται σήμερον ὑπὸ τῶν θεμελιωτῶν τῆς λεγομένης Δομικῆς Ψυχολογίας (structuralism). Ἀκολουθεῖ τὴν ἰδίαν μὲ αὐτοὺς ἱεραρχικὴν σειρὰν εἰς τὴν οἰκοδομὴν τῆς ψυχολογίας του, ἥτις ἄρχεται ἀπὸ τῶν ἀπλῶν ψυχολογικῶν στοιχείων, δηλ. τῶν ἀρχικῶν ἐντυπώσεων προερχομένων ἐξ ἐκάστου αἰσθητηρίου ὄργανου, καὶ καταλήγει εἰς ὀργανωμένας ομάδας ἐσωτερικῶν ἐντυπώσεων, αἱ ὁποῖαι πλέον ἔχουν ἀποκαθαρθῆ καὶ ἀποτελοῦν συνθέτους ἐννοίας. Τὸ παρὸν συμπέρασμα ἔχει βασιθεῖ ἐπὶ μιᾶς συγκριτικῆς ἐρέυνης τῶν κειμένων τοῦ Σταγειρίτου καὶ αὐτῶν τοῦ θεμελιωτοῦ τῆς Δομικῆς ψυχολογίας G. Titchener.

Ἐν τούτοις, παρότι ὁ Ἀριστοτέλης ἐκκληροδότησε εἰς τὸν ἐμπειριοκρατισμὸν καὶ κατὰ συνέπειαν εἰς τὴν Δομικὴν Ψυχολογίαν ὑλικὸν καὶ ἀρχὰς πολυτίμους (ιδὲ π. χ. εἰς τὸ «Περὶ Μνήμης», 451β17 τοὺς τρεῖς συνειρμικοὺς νόμους : (α) «ἀφ' ὁμοίου» (β) «ἐναντίου» καὶ (γ) «σύνεγγυς») δὲν εἶναι καθόλου προσκεκολλημένοι εἰς μίαν στατικὴν ψυχολογίαν. Ἡ Ψυχολογία του εἶναι *δυναμική*. Αἱ δομικαὶ του περιγραφαὶ (κυρίως εἰς τὰ Ἀναλυτικὰ Ὑστερα, 100α—100β, «Τοπικά», «Μεταφυσικά» καὶ «Περὶ Μνήμης») ἔχουν χρησιμοποιηθῆ δι' ὀργανωτικοὺς λόγους, οἵτινες θὰ διευκολύνουν τὸν ἀναγνώστην του εἰς τὴν καλυτέραν κατανόησιν τῆς θεωρίας του.

1) «An Examination of Aristotle's Theory of Perception», ΠΛΑΤΩΝ vol. 19 (Parts 37/38), 1968. Also, see *De Anima*, 408b15—18 : τοῦτο δὲ μὴ ὡς ἐν ἐκείνῃ τῆς κινήσεως οὐσης, ἀλλ' ὅτε μὲν μέχρι ἐκείνης, ὅτε δ' ἀπ' ἐκείνης, οἷον ἡ μὲν αἴσθησις ἀπ' ἐκείνης ἐπὶ τὰς ἐν τοῖς αἰσθητηρίοις κινήσεις ἢ μονάς.