

Science et sensation : Speusippe et le *Théétète*

(T1) Sextus Empiricus, AM 7.145-146 (trans. R. Bett)= F75 Tarán: "But Speusippus (since some objects are perceptible, others intelligible) said that the criterion of intelligible things was knowledgeable reason, while that of perceptible things was knowledgeable sense-perception. And he supposed knowledgeable sense-perception to be the kind that has a share in truth by way of reason. Compare the flute-player's or the harpist's fingers, which have a technical activity, yet not one that is perfected directly in the fingers themselves, but one that is completed by means of shared training in connection with reasoning. Or take the musician's sense, which has an activity capable of grasping what is in tune and what is out of tune, yet it does not develop on its own, but results from reasoning. In the same way, knowledgeable sense-perception, too, naturally gets from reason a share in knowledgeable practice with a view to unerring discernment of the underlying things".

Σπεύσιππος δέ, ἐπεὶ τῶν πραγμάτων τὰ μὲν ἐστὶν αἰσθητά, τὰ δὲ νοητά, τῶν μὲν νοητῶν κριτήριον ἔλεξεν εἶναι τὸν ἐπιστημονικὸν λόγον, τῶν δὲ αἰσθητῶν τὴν ἐπιστημονικὴν αἴσθησιν. ἐπιστημονικὴν δὲ αἴσθησιν ὑπέιληφε καθεστάναι τὴν μεταλαμβάνουσαν τῆς κατὰ τὸν λόγον ἀληθείας. [146] ὥσπερ γὰρ οἱ τοῦ αὐλητοῦ ἢ τοῦ ψάλτου δάκτυλοι τεχνικὴν μὲν εἶχον ἐνέργειαν, οὐκ ἐν αὐτοῖς δὲ προηγουμένως τελειουμένην, ἀλλ' ἐκ τῆς πρὸς τὸν λογισμὸν συνασκήσεως ἀπαρτιζομένην, καὶ ὡς ἡ τοῦ μουσικοῦ αἴσθησις ἐνέργειαν μὲν εἶχεν ἀντιληπτικὴν τοῦ τε ἡρμωσμένου καὶ τοῦ ἀναρμόστου, ταύτην δὲ οὐκ αὐτοφυῆ, ἀλλ' ἐκ λογισμοῦ περιγεγονυῖαν, οὕτω καὶ ἡ ἐπιστημονικὴ αἴσθησις φυσικῶς παρὰ τοῦ λόγου τῆς ἐπιστημονικῆς μεταλαμβάνει τριβῆς πρὸς ἀπλανῆ τῶν ὑποκειμένων διάγνωσιν.

Cf. Lucullus (porte-parole d'Antiochus d'Ascalon) dans Cicéron, *Académiques* II, 20 (trad. J. Kany-Turpin) : « Quand nous ajoutons l'entraînement et la technique, de manière que notre œil soit retenu par la peinture, notre oreille par les chants, qui ne remarque le pouvoir des sens ! Que de figures les peintres voient dans les ombres et dans les reliefs, mais que nous ne voyons pas ! Que de choses nous échappent en musique, mais qu'entendent les gens exercés dans cet art ! Au premier souffle d'un joueur de flûte, ils disent "C'est *Antiope*" ou "C'est *Andromaque*", alors que nous n'en aurions pas même le soupçon »

Cf. *Philèbe* 56a (trad. Delcomminette) : « Tout d'abord, la musique en est pleine [de pratiques stochastiques], elle qui ajuste la consonance de ses instruments non au moyen d'une mesure, mais en la conjecturant grâce à la pratique, et de même l'art de l'aulos tout entier, qui traque la mesure correcte de chaque note en la visant alors qu'elle est en mouvement, de sorte qu'il comporte un grand mélange de manque de clarté, mais peu de fermeté ».

Théétète 163b (trad. M. Narcy) : "A condition de nous en tenir proprement, Socrate, à ce que nous en voyons ou entendons, nous dirons que nous le savons: dans un cas en effet, la forme et la couleur, nous dirons que nous les voyons et que nous les savons dans l'autre cas, l'aigu et le grave, nous dirons l'entendre et le connaître en même temps; mais ce que les maîtres d'écriture et les interprètes enseignent sur ces matières, nous dirons qu'en voyant et en entendant nous ne le sentons ni ne le savons ».

Théétète 206a-b (trad. M. Narcy) : « tu as fait jusqu'au bout ton apprentissage [des lettres] sans rien apprendre d'autre que les éléments, en t'essayant à distinguer, à l'œil ou à l'oreille, chacun en soi et par soi, pour que, dits ou écrits, leur position ne te trouble pas (...) Et dans l'apprentissage du cithariste, avoir poussé cet apprentissage, ce n'est pas autre chose qu'être capable de suivre la mélodie note par note, sachant à quelle corde appartient chacune »

(T2a) Aristote, *APo* 2.13. 97a6-11= F63a Tarán (trad. P. Pellegrin) : (0) οὐδὲν δὲ δεῖ τὸν ὀριζόμενον καὶ διαιρούμενον ἅπαντα εἰδέναι τὰ ὄντα. καίτοι (1) ἀδύνατόν φασι τινες εἶναι τὰς διαφορὰς εἰδέναι τὰς πρὸς ἕκαστον μὴ εἰδόμενα ἕκαστον· (2) ἄνευ δὲ τῶν διαφορῶν οὐκ εἶναι ἕκαστον εἰδέναι· (3) οὐ γὰρ μὴ διαφέρει, ταὐτὸν εἶναι τοῦτο, οὐ δὲ διαφέρει, ἕτερον τοῦτο.

(0) Il n'est en rien besoin que celui qui définit en divisant connaisse tous les étants. Pourtant, certains disent (1) qu'il est impossible de connaître les différences d'une chose par rapport à chacune des autres sans connaître chacune des autres, et (2) qu'il n'est pas possible de connaître chaque chose sans en connaître les différences ; (3) car ce qui ne diffère pas de quelque chose lui est identique, alors que ce qui en diffère est autre que lui.

Interprétation par récurrence: "(i) you cannot know how X differs from Y without knowing Y; and (ii) if you do not know how Y differs from other things, you do not know Y" (Barnes 1993, p. 246, but see above all Falcon 2000, p. 403-405).

(T2b) Les objections d'Aristote à Speusippe en *APo* 2.13, 97a11-20 (J. Barnes' transl.) : ‘Now, first, this is false : one thing is not different from another in virtue of every difference. There are many differences between things which are the same in form — though not differences in respect of their essence or in themselves. Next, if you take the opposites, i. e. the difference, and assume that everything falls here or here, and if you assume that what you are seeking is in one of them, and you know this one, then it makes no difference whether you know or do not know the other thing of which the differences are predicated. For it is clear that if you continue in this way until you come to items of which there is no longer a difference, you will have the account of the essence...’

(T3) Philopon (F63d Tarán) sur l'objectif de l'argument de Speusippe en *APo* 2.13: ἀναιρῆσαι καὶ τὴν διαίρεσιν καὶ τοὺς ὁρίσμούς. **Eustratius** (F63e Tarán): τὴν ὁριστικὴν ἐπειρᾶτο ἀνελεῖν καὶ δεῖξαι ἀδύνατον τὸ ὀρίζεσθαι. **Commentateur anonyme sur *APo***, CAG 13,3.584.17 Wallies= F63b Taran: "Eudemus says this is Speusippus' opinion that it is impossible to define any being without knowing all beings" (Σπευσίππου ταύτην τὴν δόξαν Εὐδήμος εἶναι λέγει τὴν ὅτι ὀρίσασθαι ἀδύνατόν ἐστί τι τῶν ὄντων μὴ πάντα τὰ ὄντα εἰδότα) >>> voir l'analyse de l'argument dans le tableau, page 3.

(T4) Aristotle, *Met. Z.2*, 1028b18, trans. Ross-Barnes= F29A Taran : ἔτι παρὰ τὰ αἰσθητὰ οἱ μὲν οὐκ οἴονται εἶναι οὐδὲν τοιοῦτον, οἱ δὲ πλείω καὶ μᾶλλον, ὄντα αἰδία, ὥσπερ Πλάτων τά τε εἶδη καὶ τὰ μαθηματικά δύο οὐσίας, τρίτην δὲ τὴν τῶν αἰσθητῶν σωμάτων οὐσίαν, Σπεύσιππος δὲ καὶ πλείους οὐσίας ἀπὸ τοῦ ἐνὸς ἀρξάμενος, καὶ ἀρχὰς ἐκάστης οὐσίας, ἄλλην μὲν ἀριθμῶν ἄλλην δὲ μεγεθῶν, ἔπειτα ψυχῆς· καὶ τοῦτον δὴ τὸν τρόπον ἐπεκτείνει τὰς οὐσίας... “Some do not think there is anything substantial besides sensible things, but others think there are eternal substances which are more in number and more real, e.g. Plato posited two kinds of substance — the Forms and the objects of mathematics — as well as a third kind, viz. the substance of sensible bodies. And Speusippus made still more kinds of substance, beginning with the One, and making principles for each kind of substance, one for numbers, another for spatial magnitudes, and then another for the soul; and in this way he multiplies the kind of substance...”. Cf. A.10, 1075b37= F30 Tarán about the “episodic” universe of Speusippus.

(T5) Ps.-Iamblichus, *Theologoumena Arithmeticae*, pp. 82, 10 – 85, 23 De Falco= F28 Tarán, F122 Isnardi-Parente: Ὅτι καὶ Σπεύσιππος [...] βιβλιδίον τι συντάξας γλαφυρὸν ἐπέγραψε μὲν αὐτὸ **Περὶ Πυθαγορικῶν ἀριθμῶν**, ἀπ' ἀρχῆς δὲ μέχρι ἡμίσεως περὶ τῶν ἐν αὐτοῖς γραμμικῶν ἐμμελέστατα διεξεληθὼν πολυγωνίων τε καὶ παντοίων τῶν ἐν ἀριθμοῖς ἐπιπέδων ἅμα καὶ στερεῶν περὶ τε τῶν πέντε σχημάτων, ἃ τοῖς κοσμικοῖς ἀποδίδονται στοιχείοις, **ιδιότητος αὐτῶν καὶ πρὸς ἄλληλα κοινότητος, ἀναλογίας τε καὶ ἀντακολουθίας**, μετὰ ταῦτα λοιπὸν θάτερον τὸ τοῦ βιβλίου ἡμῖς περὶ δεκάδος [...]. λέγει δὲ τὸν τρόπον τοῦτον περὶ αὐτῆς· ‘ἔστι δὲ τὰ δέκα τέλειος [...]. **πολλὰ γὰρ ἴδια ἔχει, ἃ προσήκει τὸν οὕτω τέλειον ἔχειν, πολλὰ δὲ ἴδια μὲν οὐκ ἔστιν αὐτοῦ, δεῖ δὲ ἔχειν αὐτὰ τέλειον**. πρῶτον μὲν οὖν ἄρτιον δεῖ εἶναι, ὅπως ἴσοι ἐνῶσιν οἱ περισσοὶ καὶ ἄρτιοι καὶ μὴ ἑτερομερῶς· [...] ἔτι δὲ ἴσους ἔχειν χρὴ τοὺς πρῶτους καὶ ἀσυνθέτους καὶ τοὺς δευτέρους καὶ συνθέτους· **ὁ δὲ δέκα ἔχει ἴσους, καὶ οὐδεὶς ἂν ἄλλος ἐλάσσων τῶν δέκα τοῦτο ἔπαθεν ἀριθμός**, πλείων δὲ τάχα [καὶ γὰρ ὁ ἰβ' καὶ ἄλλοι τινές], **ἀλλὰ πυθμὴν αὐτῶν ὁ δέκα· καὶ πρῶτος τοῦτο ἔχων καὶ ἐλάχιστος τῶν ἐχόντων τέλος** τι ἔχει...’

τὸ μὲν γὰρ ἐν στιγμῇ, τὰ δὲ δύο γραμμῇ, τὰ δὲ τρία τρίγωνον, τὰ δὲ τέσσαρα πυραμῖς· ταῦτα δὲ πάντα ἐστὶ πρῶτα καὶ ἀρχαὶ τῶν καθ' ἕκαστον ὁμογενῶν. [...] ἐν τε ἐπιπέδοις καὶ στερεοῖς πρῶτά ἐστι ταῦτα· στιγμὴ γραμμῇ τρίγωνον πυραμῖς· ἔχει δὲ ταῦτα τὸν τῶν δέκα ἀριθμὸν καὶ τέλος ἴσχει. [...] καὶ μὴν καὶ ἐν τοῖς σχήμασι κατ' ἀριθμὸν σκεπτομένῳ [ταὐτὸ] συμβαίνει·

Aristotle, *Posterior Analytics*, trans. and comm. by J. Barnes, Oxford, 1994 (2nd edition)

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CAG 13, 3, 584, 20-585, 1 (my translation)	<i>Theaetetus</i> 208c7-208e5 (trans. McDowell)
δεῖ τὸν ὀρίζομενόν τι εἰδέναι τὴν πρὸς τὰ διαφέροντα αὐτοῦ πάντα διαφορὰν· < οὗ μὲν γὰρ μὴ διαφέρει τι, τούτῳ ταυτὸν ἐστίν, οὗ δὲ διαφέρει, ἕτερον = (3)¹ > To define something, one must know the difference in relation to all the things which differ from it. For indeed what does not differ from something is the same as this thing, and what differs from something is other than this thing.	[third meaning of <i>logos</i> =] τὸ ἔχειν τι σημεῖον [εἰπεῖν] ὅ τῶν ἀπάντων διαφέρει τὸ ἐρωτηθέν. What most people would say: being able to state some mark by which the thing one is asked for differs from everything else (...). Well, about the sun, if you like to take that as an example, I imagine you'll accept as adequate that it's the brightest of the heavenly bodies that go round the earth. (...) Well, let me tell you why I said that.
τὸν δὴ ὀρίζομενόν τι ὡς διαφέρει τῶν ἄλλων δεῖ εἰδέναι αὐτοῦ τὰς διαφορὰς αἷς τῶν ἄλλων διαφέρει· (3) => (2) So to define something as differing from other things, one must know its differences, those through which it differs from the other things.	ἔστι δὲ ὅπερ ἄρτι ἐλέγομεν, ὡς ἄρα τὴν διαφορὰν ἐκάστου ἂν λαμβάνης ἢ τῶν ἄλλων διαφέρει, λόγον, ὡς φασί τινες, λήψῃ. It was to bring out what we were saying just now: that if you get hold of the differentiation of anything, by which it differs from everything else, then some people say you'll have got hold of an account,
μὴ γὰρ εἰδὼς τις τοῦτο καὶ τὸ ταυτὸν ἕτερον καὶ τὸ ἕτερον ταυτὸν ἡγήσεται. οὕτως δ' οὐδ' ἀποδώσει τὴν οἰκείαν τινὸς οὐσίαν· ἂν γὰρ οὕτω τύχη, οὐδὲν κωλύει τὸν ἀποδιδόμενον λόγον κοινὸν εἶναι καὶ ἄλλων τινῶν. Because, someone who does not know this will hold both what is the same to be other and what is other to be the same. But in this manner, he will not explain the proper essence of the thing. Because, if this happens, nothing prevents the account explained to be common also to some other things.	ἕως δ' ἂν κοινοῦ τινος ἐφάπτη, ἐκεῖνων πέρι σοι ἔσται ὁ λόγος ὧν ἂν ἡ κοινότης ᾖ. Whereas as long as you grasp something common, your account will be about those things to which the common quality belongs (...).
ἀλλὰ μὴν ἀδύνατον τὴν πρὸς τινα διαφορὰν τινος εἰδέναι μὴ εἰδὼτα κάκεῖνα ὧν τὸ προκείμενον διαφέρει = (1) But it is in fact impossible to know the difference of something in relation to something [else] without knowing these things from which the intended object differs.	
δεῖ ἄρα πάντα εἰδέναι τὸν ὀρίζομενόν τι = (0), καὶ γὰρ καὶ τοῦτο <ὁ> ὀρίζεται ὁ ὀρίζομενος (πῶς γὰρ ἂν αὐτὸ ὀρίσαιο;) καὶ τᾶλλα πάντα ὧν ὡς ἕτερον ὃν αὐτὸ ὀρίζεται. Therefore, to define something, one must know all things. For, in fact, to define, one [must know] that thing which is defined (for how could one define it [otherwise] ?) and all the remaining things, than which [this] thing is defined as being other.	Ὅς δ' ἂν μετ' ὀρθῆς δόξης περὶ ὅτουσιν τῶν ὄντων τὴν διαφορὰν τῶν ἄλλων προσλάβῃ, αὐτοῦ ἐπιστήμων γεγινώς ἔσται οὗ πρότερον ἢν δοξαστής. And anyone who, along with a correct judgement about any of the things which are, gets hold of its differentiation from everything else as well, will have come to have knowledge of that thing, of which previously he had judgement.

¹ This second sentence is between brackets in the the CAG edition and omitted by Taran in 63b.