

TELEOLOGY OF THE PRACTICAL IN ARISTOTLE: THE MEANING OF “ΠΡΑΞΙΣ”*

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Article info

CDD: 185

Received: 05.10.2019; Accepted: 15.10.2019

DOI: <http://dx.doi.org/10.1590/0100-6045.2019.V42N4.KC>

Keywords

Aristotle

Action

Self-Motion

Zoology

Teleology

* An embryonic version of this paper was given in Campinas in 2008. I would like to thank Marco Zingano and in particular Lucas Angioni for their patience with an unfinished draft and their questions and comments. I would also like to thank the philosophy colloquium in Leipzig in November 2017, the 2018 St. Andrew's graduate conference in ancient philosophy, the 2018 GanPh – Colloquium in Berlin, the Bochum ancient philosophy colloquium, and the philosophy colloquium at the Charles University in Prague in that same year. On all these occasions I was given opportunity to present more mature drafts of this paper. I thank all participants of the colloquia and workshops for their suggestions and comments, in particular Andrea Kern, Sebastian Rödl, James Conant, Wolfgang Sattler, Sarah Broadie, Friedemann Buddensiek, Ludger Jansen, Burkhard Reis, and Robert Roreitner. I owe special thanks to the editors, Lucas Angioni and Breno Zuppolini, for their insightful comments and suggestions.

Abstract: I show that in his *De motu animalium* Aristoteles proposes a teleology of the practical on the most general zoological level, i.e. on the level common to humans and self-moving animals. A teleology of the practical is a teleological account of the highest practical goals of animal and human self-motion. I argue that Aristotle conceives of such highest practical goals as goals that are contingently related to their realizations. Animal and human self-motion is the kind of action in which certain state of affairs that realize values are *mechanized*.

Does Aristotle have a teleology of the practical? A teleology of the practical, as I understand it, is a common teleological account of animal and human self-motion. A teleological account is an account of how a given item relates to goodness – in this case episodes of animal self-motion and human action in the broadest biological sense. Accordingly, in what follows I will refer only to such human actions as “actions” (*praxeis*) that involve self-motion in one way or the other. (This conception of ‘praxis’ excludes the activities that Aristotle calls ‘*energeiai*’ in *Met.* Θ 6, 1048^b18-36) –, while a common account is a “commensurately universal” account.¹ Commensurately

¹ *Prōton katholou*, see *Anal. Post.* I 4, 73^b25-74^a3; ^a32-^b3. The goal of such accounts is twofold, namely methodological economy (minimization of explanatory work by giving one common explanation for any given phenomenon if possible and thus avoiding of repetition, see *PA* I 1, 639^a15-^b5; 5, 644^a25-^b15, cp. *Phys.* I 1, 189^b31-32, *DA* I 1, 402^b8-10) and also to ensure the proper *sequence* of theorems: more general and therefore more basic theorems ought to be dealt with first. Aristotle’s stock example for commensurately universal accounts is the scientific account of the proposition that every triangle has a sum of angles equal two right angles (2 R). To know this proposition is to know it on a commensurably universal level. This means to know it as a proposition about triangles *simpliciter* and neither as a proposition

universal accounts are as general as possible, so as to cover a given phenomenon at its widest extension, and at the same time as specific as necessary, so as to isolate the characteristics of the phenomenon to be explained. My answer to the question will be in the affirmative. Aristotle does have a teleology of the practical that is common to animal and human action. He presents it in the sixth chapter of his work *On the Movement of Animals* (*De motu animalium*, *MA*). I shall moreover argue that his teleology of the practical is genuinely informative. Not only does it mark off practical teleology from its counterpart, something I call “strict natural teleology”, but it also provides a non-trivial teleological characterization of animal and human action. In this sense the *MA* offers a general teleological account of what animal and human *praxis* most fundamentally is. In order to state my case as clearly as I can I will start with a description of how Aristotle describes the workings of final causes in *Posterior Analytics* II 11, to then apply the general framework to the case of Aristotle’s commensurately universal teleological description of the goals of animal and human action in *MA* 6. Aristotle’s teleology of the practical is, I think, important both in its own right and in the various applications it has both within and outside of his biology.

about figures (since that would include items for which 2 R is not true like squares etc.) – nor about any specific kind of triangle like e.g. equilateral triangles. It would be unscientific to demonstrate 2 R on the level of equilateral triangles, because it would be false to say that 2 R holds *because*, or *in virtue of* the fact that triangles are *equilateral*. 2 R is true only and uniquely in virtue of the fact that triangles are triangles and not that they are figures or equilateral triangles. On commensurately universal demonstrations see Barnes 1993 ad *Anal. Post* I 4; McKirahan 1992, 171-176; Kullmann 2007, 165 sqq. also for further literature. Recent very helpful discussions include Hasper 2006, and Angioni 2016, 156-161. On the history of the interpretation see Detel 1993 II ad loc.

I. HOW DO FINAL CAUSES WORK? SCIENTIFIC EXPLANATION BY FINAL CAUSES

Posterior Analytics II 11 is one of the famous and difficult chapters of the *corpus*. In it Aristotle tries to squeeze each of the four causes into the formal straitjacket of his syllogistic apparatus for demonstrative proof. The overall argumentative goal of the chapter is to show that there are scientific demonstrations for each of the four causes. Its method of procedure is roughly inductive. Aristotle goes through the four causes in turn and shows by way of examples how each can be displayed as the middle term of a demonstrative syllogism (94^a20-24). Now the case of the final cause (94^b8-26) has presented interpreters with considerable difficulty. For it appears that the example Aristotle there gives violates a rule he himself had established in the beginning of the chapter. The rule says that the causal item that drives the explanation has to be stated in the middle term of the demonstration (94^a23-24). However, the passage on the final cause gives the impression as if Aristotle states the causally explanatory item in the major term of the demonstration. Naturally, therefore, discussions of the passage in the literature focus on the question of how the rule about the middle term does or does not apply to the case at hand.² I won't say anything about this question here. I shall instead focus on the particular way in which Aristotle speaks about his example

² Aristotle's somewhat enigmatic remarks about the "transposition of the propositions" in 94^b21-23 seem to indicate that he was well aware of the difficulty and suggested a solution to it. See the commentaries of Ross, Barnes, Detel ad loc., and Leunissen 2007, 158-168. For in my view attractive suggestions of how to understand the passage, see Kullmann 1974, 281-284, Johnson 2005, 52-56, and, most recently and elaborately, Peramatzis' contribution in this volume.

of final causation, the famous digestive walk after dinner. I will look at the example and extract from it Aristotle's general analysis of how final causes do their work independently from the question of how to square this with the formal framework of his syllogistic theory. As will turn out, Aristotle thinks that every instance of final causation necessarily involves a certain number of structural features. I shall argue that, for Aristotle, understanding these structural features is tantamount to understanding the workings of final causes. Here's the passage.

T 1 And for all things that have 'the for the sake of something' as a cause [the scientist should demonstrate them thus, KC] – e.g. Why does he walk about? – In order to be healthy. (...): walk after dinner *C*, the foodstuffs' not remaining on the surface *B*, being healthy *A*. Suppose that making the foodstuffs not remain on the surface at the mouth of the stomach holds of walking about after dinner, and that it is healthy. *B*, the foodstuff's not remaining on the surface, is thought to hold of walking about, *C*, and *A*, healthy, of *B*. Then what is responsible for *A* – the goal – holding of *C*? – It is *B*, not remaining on the <stomach's> surface. And this is as it were an account of *A*; for *A* will be rendered in this way. Why does *B* hold of *C*? Because being in such a state is what being healthy is. (*Anal. Post.* II, 11, 94^b8-21, transl. Barnes, modified³)

³ Ὅσων δ' αἴτιον τὸ ἔνεκα τίνος – οἷον διὰ τί περιπατεῖ; ὅπως ὑγιαίνει. (...) περίπατος ἀπὸ δείπνου *Γ*, τὸ μὴ ἐπιπολάζειν τὰ σιτία ἐφ' οὗ *Β*, τὸ ὑγιαίνειν ἐφ' οὗ *Α*. ἔστω δὴ τῷ ἀπὸ δείπνου περιπατεῖν ὑπάρχον τὸ ποιεῖν μὴ ἐπιπολάζειν τὰ σιτία πρὸς τῷ στόματι τῆς κοιλίας, καὶ τοῦτο ὑγιεινόν. δοκεῖ γὰρ ὑπάρχειν τῷ

This is an account of how one ought to display final causes in science. Aristotle uses a particular example – a digestive walk after a meal – and attaches letter symbols to the items that constitute the teleological relations to be demonstrated. This procedure makes it clear that the particular items of the example stand in for elements of a general structure that can, and according to Aristotle also *should*, be applied to all cases of demonstration of teleological causation. He distinguishes three such *structural elements of explanations by final causes*. They are: the goal, that which I will call the “realizer” of the goal, and the efficient (or productive) cause of that realizer:

- A: health (the goal).
- B: having food removed from one’s stomach (“is as it were an account of A; for A will be rendered in this way A.” B “is” or, more precisely, “realizes” A in the obtaining circumstances; the realizer).
- C: walking about (efficiently causes B “making the foodstuffs not remain”; the productive cause).

Regarding the relations that hold between these three items, the passage makes the following statements:

A holds of B

περιπατεῖν τῷ Γ τὸ Β τὸ μὴ ἐπιπολάζειν τὰ σιτία, τούτῳ δὲ τὸ Α τὸ ὑγιεινόν. τί οὖν αἴτιον τῷ Γ τοῦ τὸ Α ὑπάρχειν τὸ οὐ ἔνεκα; τὸ Β τὸ μὴ ἐπιπολάζειν. τοῦτο δ' ἐστὶν ὥσπερ ἐκείνου λόγος· τὸ γὰρ Α οὕτως ἀποδοθήσεται. διὰ τί δὲ τὸ Β τῷ Γ ἔστιν; ὅτι τοῦτ' ἔστι τὸ ὑγιαίνειν, τὸ οὕτως ἔχειν. Cp. *Met. Z 7*, 1032^b5-10.

(“health in these circumstances means [‘is realized by’] having food removed from one’s stomach”)

B holds of C

(“having food removed from one’s stomach in these circumstances means [‘is brought about by’] walking”)

A holds of C

(“health in these circumstances means walking”)

This causal structure already allows us to make the following statements about final causation and the structural items it involves. Final causes (*A*) work not by *doing* things or by undergoing processes – this is the job of efficient causes – but by having other things doing or undergoing processes for *their* sake. More specifically, final causes are causes only of the *goodness* (and hence also of the desirability) of the things that take place for their sake. As we will see in a moment, this is so because final causes of the genuinely explanatory kind are themselves intrinsically good and are therefore able to in a way transmit their goodness to other items. Now the other things which take place for the sake of the final cause are either physical states of affairs or objects that “mean” *A* in the given circumstances (*B*), or they are efficient or productive causes of such physical states of affairs or objects (*C*), and only *thereby* also productive causes of *A*. Thus, we can say that *B* and *C* are *good*, but *only because*, and *to the extent in which*, they contribute towards *A*’s existence⁴ *B* and *C* are in this sense hypothetically good: they are good only insofar as, and only

⁴ Cf. *EE* 1218^b16-24, *NE* 1096^b10-14, 1140^b11-20 (= T 4), 1143^a32-^b5.

to the extent in which, they are causes of *A*'s existence.⁵ Aristotle doesn't have a word for the realization- relation (it seems, though, that the above expression "as it were an account of *A*; for *A* will be rendered in this way" comes close to it; the point is that *in the given particular circumstances* Aristotle can say that *A* "will be rendered" by *B* because this is what it is to be *A* in these particular circumstances, as e.g. the removal of a cancerous tissue can "be" health in the particular circumstances as they obtain in a cancerous patient).⁶ It is important to note, however, that Aristotle conceptualizes both the realization-relation between *A* and *B* and the efficient causal relation between *B* and *C* in *teleological* terms: *B*, for Aristotle, exists *for the sake* of *A*. And the same goes for *C* which exists for the sake of *B* and via *B*

⁵ NE VIII 9, 1151^a16-17: *hōsper in tois mathēmatikōis hai hypotheseis* (cf. GA II 6, 742^a28-32 for an analogous, but also different, distinction between goals in the case of the generation of animals. On this passage, see Gelber, 2018). Note that this is by not a *reduction* of the final to the efficient cause, as *A* remains the only item in the series that is explanatory of goodness.

⁶ I would like to thank Lucas Angioni for making me aware of his in this respect very similar notion of "identificação circunstancial" in regard of the means end – relation in Aristotle's ethics. The idea is to understand realization in a highly context-sensitive way as identical with the universal goal *in the particular circumstances as they obtain in the specific situation*: "Enfim, há uma identificação circunstancial entre fim e meio. Quero dizer o seguinte. Naquela circunstância singular (mas não necessariamente em nenhuma outra), o fim, que fora descrito de modo vago, ser temperante etc., torna-se idêntico ao meio, que é plenamente determinado porque envolve singulares." (2009, 201, cp. also Leunissen 2007, 162: "Part of what it means to be healthy in this case is to be in a condition in which the food is not floating at the surface of the stomach." However, Leunissen's interpretation of the workings of final causal explanations are different from the one proposed here).

also for the sake of *A*. This is going to be important in what follows.

The fact that Aristotle formalizes the relation between the items in the major premise in the same terms in which he formalizes the relation of the items in the minor premise (“belonging to” paraphrased by me as “means”) might seem problematical. For one might ask whether the common framework of the belonging to – relation doesn’t fail to distinguish between what in reality are two crucially different relations. For “*A* realizes *B*” and “*B* is produced by *C*” look very different. That worry, however, would be ill motivated. For even if it is true that *A* holds of *B* because of the realization - relation in which *B* stands to *A*, and that *B* holds of *C* because of the production -relation in which *C* stands to *B*, this does not take anything from the alleged fact that *B* stands in the same for the sake of – relation to *A* as *C* stands to *B*. The “for the sake of” relation seems consistent with more specific relations that hold among its relata. What seems important for Aristotle is that both *B* and *C* contribute towards *A*’s existence. This, given *A*’s intrinsic goodness, makes both of them being “for the sake of” *A* (and thus derivatively good), even if it is true that *B* is derivatively good in virtue of realizing *A*, and *C* in virtue of producing *B*. This, at any rate, seems to be what Aristotle is thinking.⁷

⁷ As is clear from passages such as *EE* II 6, 1218^b16-24: “That the goal is the cause of the things subordinate to it is shown by the order of teaching. One demonstrates that each of the subordinate things is good by having first defined the goal, since that for the sake of which is a cause. For example, since being healthy (*bugiainein*) is this here, then this other thing will necessarily conduce to it. And what is healthy (*to bugieion*) is the cause, in the efficient sense (*bôs kinêsan*), of health (*bugieia*), but it is the cause of the latter’s existence, not of its being good. Furthermore, nobody demonstrates that health (*bugiea*) is good (*agathon*), unless he’s a sophist and not a doctor (...).” (transl.

With this three-place structure of teleological elements – the goal, the realizer, and the productive cause – in place, we can move on to the ontological status of the main item in that structure, namely the goal. What do goals (\mathcal{A}) have to be like in order to be genuinely explanatory? As I will argue now, Aristotle thinks that goals, in order to fulfill their explanatory and causal task, have to meet two conditions: intrinsic goodness and universality. To make my point as clearly as possible, I will have to move beyond *Anal. post.* II 11 to a passage in chapter 24 of the first book of the *Posterior Analytics*.

T 2 Again, we seek the reason why up to a certain point, and we think we know something when it is not the case that it comes about or exists because something else does – for in this way the goal and limit is already ultimate. E.g. with what purpose did he come? In order to get the money. And that in order to pay back what he owed; and that in order not to act unjustly. Proceeding in this way, when it is no longer because of something else or for the sake of something else, we say that it is because of this as a goal that he came (or that it is the case or came about), and that then we best

Inwood/Woolf, slightly altered). The moral is that \mathcal{A} causes the goodness of B , because B causes \mathcal{A} 's existence. Now in the above example this holds for both, B and C , even if their respective contributions towards \mathcal{A} 's existence differ from each other. Note that in the *EE* I 6 passage just quoted Aristotle moves freely between “being healthy (*bugiainein*)” and “health (*bugieia*)”. I think the same goes for our digestive walk example in **T 1**. See below.

know why he came. (*Anal. Post.* I. 24, 85^b27-35⁸)

According to this passage, final causes of type *A* are genuinely explanatory – and thus can end series of why-questions as the items for the sake of which other things take place – just in case they themselves are good but *not* good for the sake of something else. In this sense they are good for their own sake (*intrinsically good*). Such intrinsic goodness applies only to goods of type *A* but not to the things and processes that are hypothetically good, i.e. whatever is good in virtue of the fact that it contributes towards the existence of *A*-type goods. Aristotle says here explicitly that final causes can ground teleological explanations only when they are intrinsically good.⁹

⁸ Ἐτι μέχρι τούτου ζητοῦμεν τὸ διὰ τί, καὶ τότε οἰόμεθα εἰδέναι, ὅταν μὴ ἦ ὅτι τι ἄλλο τοῦτο ἢ γινόμενον ἢ ὄν· τέλος γὰρ καὶ πέρας τὸ ἔσχατον ἤδη οὕτως ἐστίν. οἷον τίνος ἕνεκα ἦλθεν; ὅπως λάβῃ τὰργύριον, τοῦτο δ' ὅπως ἀποδῶ ὃ ὠφείλε, τοῦτο δ' ὅπως μὴ ἀδικήσῃ· καὶ οὕτως ἰόντες, ὅταν μηκέτι δι' ἄλλο μηδ' ἄλλου ἕνεκα, διὰ τοῦτο ὡς τέλος φαμέν ἐλθεῖν καὶ εἶναι καὶ γίνεσθαι, καὶ τότε εἰδέναι μάλιστα διὰ τί ἦλθεν. See also *DA* I 3, 406^b7-10: “that which has it in its essence to be moved by itself must not to be moved by something else, except coincidentally—just as what is intrinsically good or good because of itself cannot be good because of something else or for the sake of something else.” (οὐ δεῖ δὲ ᾧ τὸ ὑφ' ἑαυτοῦ κινεῖσθαι ἐν τῇ οὐσίᾳ, τοῦθ' ὑπ' ἄλλου κινεῖσθαι, πλήν εἰ μὴ κατὰ συμβεβηκός, ὥσπερ οὐδὲ τὸ καθ' αὐτὸ ἀγαθὸν ἢ δι' αὐτό, τὸ μὲν δι' ἄλλο εἶναι, τὸ δ' ἐτέρου ἕνεκεν.)

⁹ He says this even though in his example in **T 2** he doesn't spell out what the ultimate final cause is supposed to be. My best guess is that he is thinking of justice as a general value commitment on the side of the agent (τοῦτο δ' ὅπως μὴ ἀδικήσῃ· καὶ οὕτως ἰόντες, ὅταν μηκέτι δι' ἄλλο μηδ' ἄλλου ἕνεκα ...). A further question, which I cannot address here in any detail, is the place of

Hypothetical goods, by contrast, cannot do this. They are unable to ground in a genuinely explanatory way why other things are good. They are derivatively good, and therefore only goals of the type *A* can ground the goodness of what takes place for their sake (*B* and *C*) in a satisfactory and *ultimate* way (ἔσχατον, cp. *EE* II 1, 1219^a10-11), i.e. in such a way as to require no further grounding by the goodness of some other item. *A*-type goals, therefore, are best thought of as Aristotelian teleologically first things.¹⁰ They are the *principles* of goal directed processes and generally of everything that has a goal. Note here that the intrinsic goodness of *A*-type goals may only be *relative* to (or, if you like, conditioned upon) the entities whose ultimate final causes they are: what is intrinsically good for us may not be intrinsically good for fish (*NE* VI 7, 1141^a22-23). What is intrinsically good may vary in accordance with the kind of essences a given entity happens to have. Intrinsic goodness thus may well be species-relative. Indeed, Aristotle even says that in natural science teleological explanations should be restricted to goodness that is relative to the being (*ousia*) of the object under investigation.¹¹

eudaimonia in teleological hierarchies of the above kind. In *NE* I 1, 1097^a30-b⁵ Aristotle seems to imply that *A*-type goals aren't ultimate goals (because we desire them not only for their own sake but also for the sake of *eudaimonia*). Let me just briefly flag here that I think that intrinsic goodness is good enough to ground such teleological hierarchies (i) and that *eudaimonia* does not constitute a goal that is *teleologically autonomous* from the intrinsic goals mentioned in that passage for Aristotle (ii). I thank Lucas Angioni for urging me to address this question. I discuss it more extensively in an unpublished paper on Aristotle's conception of the *prakton agathon*.

¹⁰ Cp. *EE* I 6, 1218^b24.

¹¹ *Phys.* 198^b3-9: καὶ διότι βέλτιον οὕτως, οὐχ ἀπλῶς, ἀλλὰ τὸ πρὸς τὴν ἐκάστου οὐσίαν.

The second criterion for genuinely explanatory final causes of type *A* is universality. It is mentioned in passages like the following from the common books of the *Ethics*:

T 3 The intellect related to demonstrations is concerned with the first and unchanging terms, while in practical matters intellect is concerned with the last term, which can be otherwise, that is, with the minor premise. For these last terms are the first principles for achieving the goal, since universals are arrived at from particulars. We ought, then, to have perception of these, and this is intellection. (*NE VI 12, 1143^b1-4*)¹²

Here, Aristotle describes the structure of practical thinking by contrasting it with the supposedly better-known structure of deductive scientific proof. While in deductive proof the intellect is responsible for grasping universal, unchanging, and invariant first principles – typically definitions of the essence of a given scientific domain like, for instance, numbers in the case of arithmetic –, practical intelligence requires, in a way, the inverse: the practical intellect is chiefly concerned with identifying the right particulars, i.e. changing and contingent things which are perceptible, because it is these particulars that are going to be the first starting points (principles) in the process of the production (or the realization) of the practical goal. The person with a good practical intellect, the practically wise person, knows how to do the right things. Her intelligence

¹² καὶ ὁ μὲν [νοῦς] κατὰ τὰς ἀποδείξεις τῶν ἀκινήτων ὄρων καὶ πρώτων, ὁ δ' ἐν ταῖς πρακτικαῖς τοῦ ἐσχάτου καὶ ἐνδεχομένου καὶ τῆς ἐτέρας προτάσεως: ἀρχαὶ γὰρ τοῦ οὗ ἕνεκα αὐταί· ἐκ τῶν καθ' ἕκαστα γὰρ τὰ καθόλου. τούτων οὖν ἔχειν δεῖ αἴσθησιν, αὕτη δ' ἐστὶ νοῦς.

will therefore extend to the particular things that will be instrumental to realizing her goals. These goals Aristotle here calls universals. So, while the role of the intellect in deductive scientific proof is to grasp universal and unchanging principles, practical thinking, at least insofar as it is concerned with the realization of practical goals, is concerned with relevant particulars as first steps towards the achievement of practical goals.¹³ This shows that Aristotle thought of practical goals as universals. But why did he do so? I think an answer can be found in the immediate sequel of the passage in **T 2** quoted above.

T 4 (cont. T 2) And if it is no longer so because something else is so, then we know to the highest degree. And then it is also universal. Hence universal demonstrations are better. (*Anal. Post.* I. 24, 86^a2-3)¹⁴

Final causes of the genuinely explanatory type *A* are, as we have seen, intrinsically good. Aristotle says that such intrinsic goals, due to their immediate goodness,

¹³ There are many passages in Aristotle that support the claim that he thinks of practical goals as universals. In his ethical writings, he calls the goals of action universals several times, see *NE* III 2, 1110^b31-1111^a1, VI 6, VII 7, 1141^b14-22, VIII 4, 1146^b35-1147^a7, ^a31-34, ^b9-17. Practical universal principles, he says, are given to us by our moral virtues, *NE* VI 5, 1140^b16-20; VIII 9, 1151^a14-19.

¹⁴ εἰ δὲ τοῦτο μηκέτι διότι ἄλλο, τότε μάλιστα ἴσμεν. καὶ καθόλου δὲ τότε· ἢ καθόλου ἄρα βελτίων. Universals quite generally are causally explanatory to a higher degree than particulars, and because of this universal demonstrations are more explanatory as well, see *Anal. Post.* I 24, 85^b23-27. For a discussion of why highest values have to be universals in Aristotle, see Corcilius 2011, 119-121.

correspond to the highest degree of knowledge on our end as to why a given item is good. The thought seems to be that to know first good things, due to their immediate goodness, is to know better why these things are good than in the case of things that are good only mediately and in virtue of something else that bestows its goodness on them.¹⁵ Now it might seem that, for Aristotle, since the intrinsic goodness of a given item is a feature incompatible with variability (intrinsic features cannot be variable features of one and the same entity), and since the features of sublunar particulars, just as the sublunar particulars themselves, are variable and contingent, no sublunar particular can be intrinsically good. It is always possible to meaningfully ask whether any given particular is good or not.¹⁶ But if particulars cannot be intrinsically good, intrinsic goods must *qua* their intrinsiclity pertain to a different ontological class than *B* and *C*, which, as we have seen, are either particular things, particular states of affairs, or processes or types of such particulars. *B* and *C* can be good, but they can be so only mediately and hypothetically, namely *via* putting intrinsic goods into existence, while they, should they fail to do this, immediately cease to be good. Hence, sublunar particulars cannot take the place of intrinsic goods, and the only candidate class remaining in

¹⁵ *Anal. Post.* I 24 pursues the goal of showing that the so-called commensurate universal demonstrations are better than particular demonstrations. This might suggest that he is talking about universal propositions and not about universal causes in this chapter. However, in this chapter Aristotle argues for the superiority of commensurate universal demonstrations *on the grounds* that universal causes, due to their intrinsiclity, are explanatory to a higher degree than particular (or less universal) causes (*Anal. Post.* I. 24, 85^b23-27). See also below, fn. 20.

¹⁶ These are strong claims. I cannot argue for them here, but I take it that they are familiar to readers of Aristotle.

Aristotle's ontology of sublunar items is universals. I think this is confirmed by Aristotle's use of language in this regard. In the domain of human action, he often (not always) refers to *A*-type goals by way of singular abstract universal expressions such as, for instance, "health", "honor",¹⁷ while his references to *B*-type goals are typically either by way of descriptive expressions (cp. above **T 1** "food not remaining on the surface of the stomach"), or he refers to them paronymously with expressions which are derived from the *A*-type goal ("this healthy thing", "what is healthy").¹⁸

¹⁷ Not, however, in our digestive walk example in **T 1** but see following fn.

¹⁸ Not always, though. At times Aristotle can be somewhat careless, see previous footnote. One might object to the above interpretation of **T 4** that the passage makes a point about the *proposition* that expresses the final cause in a demonstration, and not about the causal item itself. In that case, what would have to be universal is not the final cause as such but the proposition that expresses the final cause, and this would be compatible with the idea that there are token cases of teleological processes that do not necessarily require universal first causes. Such an interpretation would certainly be in line with the overall goal of the chapter. However, the example Aristotle is concerned with in **T 4** is the explanation of a singular event (going to some place in order to get money). So "universal" in this case is highly unlikely to refer to a plurality of instances of that same event. There is certainly no law-like connection between going somewhere and getting one's money. It is much more likely that the passage is concerned with an agent's value commitment (which is a commitment to a universal) that disposes her to act in similar ways in similar situations. Still, as we will see below, even in the case that the passage should make a point about the universality of the proposition that is expressive of the final cause, that proposition would have to express a final cause. And that final cause would have to be a universal, since for Aristotle only universals are capable of ending series of for the sake of –

T 2, **T 3** and **T 4** all make the familiar point: one may ask what the goal of a given course of action is; however, *once* one seriously asks this question, one is committed to the possibility of there being a genuine and meaningful answer. Now, for Aristotle, a genuine answer to the question what the goal (or the “point”) of a given course of action is requires a definitive and non-preliminary answer to the “for the sake of what” – question. The point in **T 4** seems to be that in order for *this* to be the case, the answer will have to be given in terms of a *universal intrinsic goal*. For failing to specify such a universal intrinsic goal would mean either interrupting a series of why-questions arbitrarily (for suppose someone states a particular as an answer, then the question “and for the sake of what is *this* good?” can be asked always still again, as a series of particulars offers no reason as to why the questions should stop with any of them), or one has to continue to give preliminary answers *ad infinitum*, with the result that in both cases the question why the course of action is good will not be answered in a satisfactory way. Only intrinsic and universal goals are capable of answering the question why something is good in the required ultimate (*eschaton*),¹⁹ i.e. genuine and satisfactory way, because only they can put an end to a possibly looming regress of “for the sake of what” – questions.²⁰

questions. See below.

¹⁹ *Eschaton* in **T 2** (85^b29-30) clearly has the meaning of “highest” “most universal” and not the meaning of “ultimate particular” (that is has e.g. in **T 4**). For the usage of the term in the sense of “ultimate universal goal” see also *Top.* VI 8, 146^b10-12; *EE* II 1, 1219^a10-11; *Met.* B 2, 994^b9-12; Δ 16, 1021^b20-30; 17, 1022^a4-6; *Phys.* II 2, 194^a28-39.

²⁰ For a different but related argument in which Aristotle grounds the goodness of contingent things (particulars) in eternal and in universal items, see e.g. *GA* II 1, 731^b24-28.

Putting the two criteria of intrinsic goodness and universality together, the following picture of a *threefold structural framework for teleological explanation* emerges:

A: a universal intrinsic goal (*A*-type goal)

B: a valuable physical object or state of affairs
capable of being brought about (*B*-type goal)

C: a productive act

I suggest that this threefold structural framework consisting of *A*, *B*, and *C* (“*A-B-C* – structure” in what follows) corresponds to *necessary* structural components of any teleological explanation of processes and doings in Aristotle. This means that any genuine explanation by way of final causes, to be genuinely explanatory, requires three items that respectively play the roles of *A*, *B*, and *C*; otherwise, the explanation is not going to be genuine. To be sure, such explanations can involve a greater quantity of intermediate goals and productive actions. There are no obvious limits to the complexity of teleological phenomena. There may be numerous intermediate steps in *B* and in *C*, as for instance in complex and collective actions, such as the landing on the moon or other long-term processes and collective projects. The claim is only that, regardless of how many intermediate steps are involved, any genuine explanation by way of final causes will have to exhibit the *A-B-C* – structure.

The elements that make up that structure have the following features:

- *B* realizes *A* and exists for its sake. Recall that Aristotle does not speak of realization but consistently conceives of the relation between *A* and *B* in teleological terms. *B* is whatever

thing or state in the physical world that can be brought about and that corresponds to goal *A* as its realizer, as for example, if health should be the relevant *A*-type goal, *B* might be the removal of a cancerous tissue in a patient. As we know from *Metaphysics Z* 7, 1032^b6 sqq., the fact that *B* realizes *A* is grounded in the fact that *B* either “has a part of” *A* or has something upon which a part of the goal will follow (*hepetai*) and this either immediately or by way of a series of steps (*dia pleionón* ^b26-28). It is not easy to determine what “having a part of the goal” could mean in this context. But I think it is safe to say that in this context “part” is whatever last realizable thing within the power of an agent that precedes the actual achievement of the *A*-type goal as its physical bearer. In ^b32 Aristotle speaks of it as “matter” (*hylē*) but a little later in 1033^a1-2 he speaks of it as *logos* and in ^a3 also of form (*eidos*). In any case, *Met. Z* 7 explicitly allows that the *B*-type goal only *lead* to the realization of the *A*-type goal without realizing it immediately.

- *C* produces / efficiently causes *B*. In our chirurgic example this corresponds to the movements of the surgeon who removes the cancerous tissue with her scalpel and thus produces the goal state as it is defined by *B*.
- *B* and *C* together account for the existence of some *A*-ish thing, albeit not *as A* (i.e. as an intrinsic goal), but of some particular thing that has *A* as a property (expressed, typically, paronymously, as e.g. in “healthy”). Thus, the

removal of the cancerous tissue in the patient will make the patient healthy again – not that she is “health”. Similar things may be said about the removal.

- *A* bestows its goodness on *B* and *C*, but only to the extent in which *B* realizes *A*, and to the extent in which *C* produces *B*. In this sense the efficient causal (or productive) order of things corresponds to their teleological order. It is in virtue of, and to the extent in which, *B* and *C* realize and produce *A* that they are to be called good. It is to the extent that they are conducive in making *A* a physical reality that they receive their own positive value from *A*'s intrinsic goodness.
- Thus, *B* and *C*, if taken in isolation from the teleological context provided by *A*, are neither good nor bad. This, by the way, seems to hold across the board for Aristotle. Without a teleological context by some *A*-type goal that make them good, actions, movements and states of affairs in the physical world are neither good nor bad. *A*-type goals, and only *A*-type goals, ground goodness in the physical world.
- Given that, due to *A*, *B* is good as well, and given furthermore that it provides the standards of success and failure for *C* – we measure the performance of *C* by seeing whether its *terminus ad quem* corresponds to *B*, and to what degree, – *B* may be regarded as a goal as well (a *telos*, cp. e.g. *NE* I 5, 1097^a25-28), but, to be sure, only in the subordinate,

mediate and hypothetical sense of hypothetical goods. In what follows, therefore, I will refer to *B* and the things that take its place within the *A-B-C* – structure as “*B*-type goals”.²¹ *B*-type goals are the concrete physical states of affairs that we aim at as the immediate results of our productive actions. They correspond to *C*'s *terminus ad quem*.²²

In short, for Aristotle, the scientific teleological explanation of all phenomena with final causes requires three structural elements: an abstract universal goal (*A*) that grounds their goodness, a physical realizer (*B*) in the form of a thing or state of affairs whose physical existence is achievable by some productive action, and that productive action itself (*C*). To know how these elements relate with respect to any given teleological phenomenon is to know, and therefore to be able to demonstrate, its final cause. Now let's look at how Aristotle sees this general teleological structure at work in the case of basic animal and human action in his *De motu animalium*.

²¹ Note that this threefold framework does not conflict with other more fine-grained distinctions Aristotle draws between goods (*agatha*), as, e.g., that between *timia*, *kala*, *dunameis*, and *ôphelima* (cp. *EE* VIII 3). More specifically, Aristotle's claim that all but the latter class of goods are choiceworthy / good *per se* is not incompatible with the hypothetical status of *B*-type goals. This is because the notion of *per se* goodness in that context is contingent upon virtuous agents. So in these cases he can call a hypothetical good *G* (for example wealth, the paradigmatic instrumental good) a good *per se* because the *spoudaios* is going to make good use of it. This does not at all conflict with the above framework.

²² See *MA* 6, 700^b15-16 which says that the endpoint, *perus*, of animal self-motion is its *telos*.

II. APPLICATION OF THE FRAMEWORK: ARISTOTLE'S TELEOLOGY OF THE PRACTICAL

Aristotle's *De motu animalium* is devoted to the investigation of the *common cause* of all kinds of animal locomotion (*MA* 1, 698^a4). "Common cause" (*koiné aitiá*) refers to the common moving cause²³ of all kinds of animal locomotions such as walking, swimming, flying, crawling and the like. With this, as turns out later in the treatise, Aristotle has in mind not only movements of the animal from one place to another but also voluntary movements of the limbs such as raising one's arm.²⁴ This extraordinary broad scope of the its subject matter makes it that the treatise argues on an unusually high level of zoological abstraction. Swimming, walking etc. are very different from one another, while the animals that perform these different kinds of self-motions pertain to different zoological genera such as land-dwelling quadrupeds, birds, insects, and fishes.²⁵ But notwithstanding their heterogeneity Aristotle offers one and the same causal explanation for all these different, and indeed heterogeneous, ways of locomotive animal actions. This is his account of the common cause of animal self-motion in the *De motu animalium*. Since it is meant to cover the common cause of all kinds and varieties of animal self-motion, his investigation in the *MA* may be seen as offering a common causal account of animal and human *praxis* (as far as the biological aspects of human action are concerned). Now, interestingly, in the course of that

²³ *MA* 6, 700^b9-13.

²⁴ Most notably in chapter 4, 700^a21-25, and in chapter 11.

²⁵ Cp. The high level of biological abstraction involved in the commensurate universal discussion of the locomotive parts of animals is the topic of a methodological discussion in *PA* I 1, 639^a13–b5.

investigation, Aristotle also offers a *teleological* account of the highest goals of animal and human self-motion by asking what practical goals must be like so as to be able to motivate animals and humans to act. This happens in the immediate sequel of his discussion of the psychic factors that contribute to animal self-motion, namely desire (*orexis*) and cognition (*nous*). For convenience, I divide the passage in three sections:

T 5 (a) Therefore, the object of desire and the object of thought impart motion first; not, however, every object of thought, but the goal among the things that are *practical*. (b) Because of this, that which imparts motion among the goods is of this sort, and not everything noble: for it imparts motion insofar as something else is for its sake, and insofar as it is a goal of the things that are for the sake of something else. (c) And we have to put also the apparent good in the place of a good, and the pleasant, since it is an apparent good. (*MA* 6, 700^b23-29)²⁶

Section (a) draws the conclusion of the previous passage (700^b17-24) by stating that the objects that correspond to the generic psychic capacities “cognition” (*nous*) and

²⁶ (a) ὥστε κινεῖ πρῶτον τὸ ὀρεκτὸν καὶ τὸ διανοητόν, οὐ πᾶν δὲ τὸ διανοητόν, ἀλλὰ τὸ τῶν πρακτῶν τέλος. (b) διὸ τὸ τοιοῦτόν ἐστιν τῶν ἀγαθῶν τὸ κινουῖν, ἀλλ’ οὐ πᾶν τὸ καλόν· ἢ γὰρ ἔνεκα τούτου ἄλλο καὶ ἢ τέλος ἐστὶν τῶν ἄλλου τινὸς ἔνεκα ὄντων, ταύτη κινεῖ. (c) δεῖ δὲ τιθέναι καὶ τὸ φαινόμενον ἀγαθὸν ἀγαθοῦ χώραν ἔχειν, καὶ τὸ ἡδύ· φαινόμενον γὰρ ἐστὶν ἀγαθόν.

“desire” (*orexis*)²⁷ are causally prior to the corresponding psychic capacities. Aristotle’s reasoning here is based on his doctrine that the objects of cognition are “causes of what they are about”, i.e. that these objects not only constitute the content of cognition but are also the efficient (triggering) causes of the acts of cognition (see *DA* II 7-12, *Met.* XII 7, 1072^a26-28). This allows him to conclude that the objects of cognition and desire “impart motion first”. In the next step, however, Aristotle qualifies this result. Not every object of desire and cognition impart motion to the animal as a goal but only those objects whose realization lie within the power of the animal, i.e. goals that are “doable” or “practicable” for it (*praktón telos*). This makes it clear that Aristotle is here thinking of the objects of desire as *goals*. His qualification of the motivationally relevant goal as *praktón telos* is meant to exclude that class of objects of desire that we may strive for but that are not practical. He has to introduce this qualification because at least we humans can desire things which we cannot attain. An example is the wish that a given athlete may win the competition, which usually is beyond our grasp, another example is the wish for immortality, which is impossible (*NE* III 5, 1111^b22-24). Practical goals, by contrast, are goals the realization of which we somehow deem within our power. If we didn’t somehow think or assume that we can bring them about they would not move us to act. A

²⁷ In the *De motu animalium* “cognition” (*nous*) and “desire” (*orexis*) are terms of art specifically designed to capture with a common term all psychic capacities that are relevant for animal self-motion across the different genera of animal self-movers. They have been defined in the immediately preceding passage in 700^b17-23 as comprising all forms of cognition (perception, thinking, *phantasia*) and all forms of desire (appetitive desire, *thumos*, and rational desire). The same common terminology for all self-moving animals has already been introduced in the discussion of the psychic principle of self-motion in *DA* III 10, 433^a10 sqq.

further example of a non-practical goal is Aristotle's deity (*MA* 6, 700^b29-35) and whatever else is intrinsically noble (*kalon*) and a goal, but not within the sphere of things that can be done or brought about either by us or without qualification.²⁸ Section (a), I think, shows clearly that, in our passage, what Aristotle is concerned with is the *goals* of animal self-motion. He says that only realizable goals (goals we deem as within our power) are motivationally relevant, or, as he puts it, capable of "imparting motion" to animal and human agents. Section (b) then offers a teleological description of such practical goals, by saying what it is that makes practical goals the kind of goals capable of motivating humans and animals to act. It is important to note here that this description is *teleological*, in spite of the fact that Aristotle says that the goal of animal self-motion "imparts motion". He is not concerned here with the efficient cause of animal self-motion (this is the topic of the first half of chapter 7 of the *MA*²⁹) but rather with the particular features that the goals of animal self-motion exhibit and that make it that they are capable of motivating agents to act. The first thing to note in (b) is that in describing the practical goal Aristotle is making use of the

²⁸ See *EE* 1217^a34-35. *DA* III 10 has a discussion of the practical good (*praktōn agathon*) in the course of which Aristotle says that it is the kind of good that can be otherwise (433^a29-30, cp. *NE* VI 2, 1139^a3-12). This is an ontological way of contrasting eternal goals from those goals the realization of which lies within our power (for this contrast see also *Met.* Λ 5, 1071^b1-3, XIII 3, 1078^a31-32, *EE* I 8, 1218^b4-11).

²⁹ See the statement in 701^a33-36: "In this way animals are impelled towards moving and acting, with desire being the proximate cause of their movements (*eschatê aitia*), which (desire) comes about either through perception or through *phantasia* and thought." "This way" refers to the passage on the so-called 'practical syllogism' in chapter 7.

term “noble” (*kalon*), which, if used in teleological contexts, is his preferred word for intrinsic goods.³⁰ This strongly suggests that section (b) makes a point about the *A*-type goals of animal and human self-motion. It talks about the intrinsic universal goals of animal and human self-motion. I quote the relevant passage in (b) again:

T 5 (b) (*MA* 700^b25-27): Because of this, that which imparts motion among the goods is of this sort, and not everything noble (*kalon*): it (the practical goal) imparts motion insofar as something else is for its sake (i), and insofar as it is a goal (*telos*) of the things that are for the sake of something else (ii).

Aristotle describes the goal of animal self-motion as a particular kind of goal next to other intrinsic goals (which of course implies that he thinks of the practical or “realizable” goal of animal self-motion as an intrinsic good, a *kalon*, as well). There are, then, practical intrinsic goals (*A*-type goals) that motivate animals and humans to move *as final causes*.³¹ Next Aristotle specifies what these goals must be like so as to be capable of doing that. He says, somewhat opaquely, that practical *A*-type goals motivate animals and

³⁰ See Bonitz, *Ind. Ar.* s.v. καλός, 360^a1-7.

³¹ The teleological character of the passage in (b) has not been well understood by most modern interpreters. Exceptions are: M.P.-Morel’s commentary on the passage (2013, 110, fn. 32), which seems to imply a teleological reading, and Michael of Ephesus, who doesn’t comment directly on our **T 5**. However, his comments on *MA* 6, 700^b29, where Aristotle compares the highest goals of animals self-motion with the goal of eternal celestial motion, seem to imply that he thinks of Aristotle’s discussion in **T 5** as concerned with the question of how the goal of animal self-motion imparts motion *as a goal* (p. 114, 9-17).

humans to act just in case that there is something “other than A ” that exists for A ’s sake (i), and that A is also the goal of this something “other” (ii).

It seems to me that (i) is a restatement and further elucidation of the condition on practical A -type goals that they be *realizable* by some B -type goal. An A -type goal, in order to motivate animals and human to act, as we have seen in discussion of section (a), has to be realizable. This, I think, is certainly part of the point (i) makes. However, the way in which Aristotle describes this condition provides us with an independent description of what realizability means in the domain of the practical. Since he, as we have already seen, doesn’t have a term for realizability apart from what he says in **T 1** (namely that there must be some object or physical state of affairs that in the given circumstances is “as it were an account” of A , and that A “will be rendered” in this way), the formulation in (i) “insofar as *something else* is for its sake” seems not only a viable expression for realizability but also an informative one. For with this formulation Aristotle makes it a condition on the A -type goals of animal and human action (“ A ” in what follows) that they are realizable by some physical state of affairs B which exists for the sake of A , and that B should be “something else” than A , i.e. that B should not relate to A by way of sameness. This rules out cases in which B is not “something else” than A . This further condition, I take it, is crucial for the teleological description of the domain of the practical in **T 5**. For what Aristotle does here is excluding cases of what I call *strict natural teleology*. I use the expression “strict natural teleology” because Aristotle certainly doesn’t want to exclude animal action from the class of natural events that happen for the sake of an end. So, on a broader conception, animal self-motion certainly belongs to natural

teleological phenomena for Aristotle.³² Strict natural teleology, as I understand it, by contrast, excludes animal and human self-motion, because in it *A* and *B* are not “something else” but of the same essence. Take the following natural teleological process: roots of a chestnut tree grow towards a source of nourishment, say, a watery spot in their immediate surroundings. In this case the nourished tree will be the realization (*B*) of its own natural form (*A*, a particular type of vegetative essence or soul, which in this case is the chestnut essence), while the process of growth of the chestnut tree into its own essential form will be *C*. Here, *A* and *B* are of the same essence, because living substances are in an important sense identical with their souls (which are their essences and natures). Saying that *A* imparts motion as a practical *A*-type goal under the condition that there is “something else” than *A* that realizes it, therefore, isolates cases in which *B*, though existing for the sake of *A*, has an essence which is different from *A*. In such cases, *B* will be a *means* to *A*. This contrasts starkly with the strict natural teleology that is operative in the growth of the chestnut tree, whose growth and other vital activities we would not describe as a means to its soul. With (i), then, Aristotle makes it a condition for the teleology of animal and human action that *A*-type and *B*-type goals relate not in the strict natural way, which is to say that their respective essences are different from each other (*B* is “something else” than *A*).³³ This, I think,

³² The different *praxeis* that animals exhibit are one of the major differences (*diaphorai*) by which Aristotle wishes to group his collection of facts about animals in his *Historia animalium* (HA I 1, 487^a14-488^b11).

³³ Aristotle says many times that actions are for “the sake of something else” and, I suggest, what he means by this expression is that there is a non-identity in essence between *A*-type goals and that which is done for its sake (see NE III 5, 1112^b33 (αἰ δὲ

explains the “instrumental” characteristics of the voluntary doings of animals and humans: they bring about their highest practical goals in ways that are not naturally attached to them; they *mechanize* them.³⁴

Condition (ii) is not difficult to decipher. To say that *A* has to be the goal of the things that are for the sake of something else, *B*, is to require that the *B*-type goals of animal and human action be actually caused / brought about *by A's causality*. That is to say ultimately *because A* is intrinsically good for the agent. With (ii) Aristotle wants to exclude cases in which condition (i) is met because some physical state of affairs happens to realize a given practical *A*-type goal but without having been brought about by an agent for whom *A* is an intrinsic goal. (ii) thus excludes the

πράξεις ἄλλων ἔνεκα, cp. *Met.* Λ 10, 1075^b8-10, *DA* I 3, 407^a23-25). It does not make good Aristotelian sense to say both, that (i) a living substance performs its life-functions for the sake of its soul and (ii) that these performances are for the sake of “something else”.

³⁴ That the doable / realizable (*praktōn*) is twofold / ambiguous between the for the sake of which and that which we do for its sake is said in *NE* I 3, 1096^b7-14, *EE* I 7, 1217^a35-39 (διχῶς λέγεται τὸ πρακτόν); 8, 1218^b16-24, cf. *De cael.* II 13, 293^b 6-7 (ἡ δὲ πράξις εἰ ἐστὶν ἐν δυσί, ὅταν καὶ οὗ ἔνεκα ἢ καὶ τὸ τούτου ἔνεκα). See also *NE* III 4, 1111^b27, VIII 10, 1151^a35-^b2, *EE* II 10, 1226^a7-17, 1227^b36-40 and elsewhere. Occasionally, Aristotle can say also with respect to non-intentional natural processes that they take place for the sake of something else. The examples in these passages make it clear, however, that he likewise has in mind processes in which *B* and *A* differ in essence; the difference is that these action-like processes occur within larger-scale processes that do exhibit a structure of strict natural teleology (*GA* II 6, 742^a28-^b8. On different kinds of ends in the *GA*- II 6 see Gelber 2018, 67-72).

incidental causation of *B*-type goals, i.e. it excludes chance events (*ta apo tukhês*, cp. *Phys.* II 5).³⁵

Conditions (i) and (ii), taken together with the further condition established in the immediately preceding passage in (a) according to which the object of desire and cognition is what “moves” the animal, isolate a *minimum teleological account of animal and human action*. On that account, animal and human action are self-movements that realize *A*-type goals by somehow *mechanizing* them, i.e. by bringing about physical states of affairs *B* that realize *A*-type goals because of their goodness, while standing in non-natural and hence also more or less variable relations them.³⁶ This, I suggest, is the most fundamental biological meaning of “praxis” in Aristotle.³⁷

³⁵ Where is *C* in the above account? *C* corresponds to the self-motion of the animal / human, and is not mentioned in this passage of the *MA*. This, I think, is as it should be, given that the passage in **T 5 (b)** is about the motivating goals of animal self-motion, and *C* is not part of the account of the *goal*. *MA* explains *C* as the *effect* of the desire for *B* (which, ultimately, happens because of *A*).

³⁶ More or less. Despite all its variability, we do of course find quite a bit of regularity in animal and human behavior. However, Aristotle’s point seems to be merely that the intrinsic *A*-type goals of animal behavior, even in cases which exhibit a high degree of regularity, do not *have* to be realized by always the same physical states of affairs (*B*). So, in principle, whatever the *B*-type goals an animal is used to work with, they *could* be replaced with something different. This is not what he seems to think of strict natural teleological processes.

³⁷ If the above is correct it follows that, in addition to what is said about the ontological structure of *energeiai* vs. *kinêseis* in *Met.* Θ 6, 1048^b18-36, *energeiai* also differ from *kinêseis* in that the latter exhibit the *A-B-C* - structure, whereas *energeiai* like thinking or seeing in human beings seem to exhibit a simpler structure, corresponding to the performance of an *A*-type goal without

The more or less variable relation, which according to **T 5** has to obtain between the *A*- and the *B*-type goals of animal and human action, may explain why Aristotle seems to think that in the domain of the practical general regularities cannot provide ultimate teleological explanations. Statements of the form ‘All *B*s are *A*’ (e.g. “all pleasant things are good”) cannot explain, at least not in an ultimate and genuinely explanatory way, *why* all *B*s are *A*; in practical matters, argues Aristotle, one could always go on to meaningfully ask (and answer) the question *why* a given *B* is supposed to be the realizer of a given intrinsic practical goal *A*. This is not so in strictly natural teleological processes where *A*’s definition coincides with the definition of *B*’s essence. There can be no question about whether the chestnut tree is invariably the realizer of the chestnut tree soul in Aristotle’s biology. But in the case of animal and human action this is different, which is presumably why Aristotle emphasizes that the goals of human action have to be stated in the form of abstract singular universals. He says more than once that explanations as to why we pursue things ought to state *A*-type goals in terms of abstract singular universals like, e.g., “health”, “pleasure”, and not in terms of collective nouns like “the pleasant” (= “everything that is pleasant”). This is, I think, reflects the fact that the highest *A*-type goals of animal and human action are *values*:³⁸ “Hence, it is what is best or ultimate that should be stated, e.g. that appetite is not for the pleasant (*bêdu*) but for pleasure (*bêdonê*): for it is for the sake of this that we choose what is pleasant as well.” (*Top.* VI 8, 146^b10-12³⁹). We still can ask in

mediation by a *B*-type goal (i.e. *A-C*). Of course, the analysis of such structures would fall outside of Aristotle’s natural science.

³⁸ See Corcilius 2011, 119-121.

³⁹ ῥητέον δὴ ἢ τὸ βέλτιστον ἢ τὸ ἔσχατον, οἷον τὴν ἐπιθυμίαν οὐχ ἡδέος ἀλλ’ ἡδονῆς· ταύτης γὰρ χάριν καὶ τὸ ἡδὸ αἰρούμεθα.

a meaningful way for the sake of what we choose pleasant objects. This can only be the case if it is not clear from the outset that we choose pleasant objects for the sake of pleasure (which indeed we sometimes don't). A similar point is made in the *Protreptikos* (B 66, 2-5): "For whenever of two things one is choiceworthy on account of the other, that very thing is better and more choiceworthy on account of which also the other is choiceworthy, e.g. pleasure (is better) than what is pleasant, and health (better) than what is healthy; for these latter are said to be productive of them.⁴⁰ Values can be realized by the things we do for their sake, but the things we do for their sake are not their *natural* equivalents. There are no invariable physical equivalents of values such as pleasure or health. Values relate to their realizers not as genus and species but by way of teleological hierarchies such as canvassed in **T 1**. And because of the contingent relations in which values stand to their physical realizers (taken as what *they* are), it would make good sense for Aristotle to state *A*-type goals in terms that detach them from their *B*-type goals. This at least would explain why he insists that *A*-type goals should be stated in terms of singular abstract nouns ("pleasure") and not in terms of natural kinds ("the pleasant"). If we wanted to construe an analogue of "pleasure" vs. "the pleasant" for natural kinds then this would be unmotivated. For it is true for Aristotle to say, for example, that animals exist for the sake of their

⁴⁰ ὅταν γὰρ δυοῖν ὄντοι θάτερον διὰ θάτερον αἰρετὸν ἢ βέλτιόν ἐστι τοῦτο καὶ μᾶλλον αἰρετὸν δι' ὅπερ αἰρετόν ἐστι καὶ θάτερον, οἷον ἡδονὴ μὲν τῶν ἡδέων, ὑγίεια δὲ τῶν ὑγιεινῶν· ταῦτα γὰρ ποιητικὰ λέγεται τούτων (cp. *Anal. Post.* I 1, 72^a29-30). See also *Top.* III 1, 116^a23-28: τὸ μὲν γὰρ ἐν γένει τῷ ἀγαθῷ, τὸ δ' οὐ, καὶ τὸ μὲν ὅπερ ἀγαθόν, τὸ δ' οὐ, and 116^b8-12: καὶ τὸ φύσει τοῦ μὴ φύσει, οἷον ἡ δικαιοσύνη [is more choiceworthy] τοῦ δικαίου · τὸ μὲν γὰρ φύσει, τὸ δ' ἐπίκτητον.

souls. But unlike the case of pleasant objects it wouldn't be a meaningful question whether any particular set of animals indeed exists for the sake of their souls.

So much for Aristotle's teleology of the practical. Finally, in section (c) of **T 5** Aristotle adds a brief teleological discussion of the apparent good (*phainomenon agathon*):

T 6 (cont. T 5) **(c)** And we have to put also the apparent good in the place of a good, and the pleasant, since it is an apparent good. (*MA 6, 700^b23-29*)⁴¹

Apparent goods can be actually good but they may also fail to be actually good. But since they may fail to be actually good, they do not qualify as *A*-type goals (which are invariably good). We have seen that, in order to do their explanatory work as final causes, *A*-type goals have to be universal and intrinsic goals for a given agent (there are no bad universals for Aristotle). Apparent goods, which may not be actually good, therefore *cannot* play the explanatory role of *A*-type goals (but of course *A*-type goals can also *appear* to be good, which might be also the reason why Aristotle mentions the apparent good in this context). There is good reason, then, for thinking that apparent goods can only "take the place" of *B*-type goals. This is reflected in Aristotle's choice of words in (c). He says about the apparent good that it can stand "in the place of a good" instead of "in the place of *the* good" and "the pleasant" (= what is pleasant, i.e. pleasant things) instead of "pleasure". Thus Aristotle speaks collectively about *things* that are good, and not about pleasure as a value (see *Top.* VIII VII 8,

⁴¹ (c) δεῖ δὲ τιθέναι καὶ τὸ φαινόμενον ἀγαθὸν ἀγαθοῦ χώραν ἔχειν, καὶ τὸ ἡδύ· φαινόμενον γὰρ ἐστὶν ἀγαθόν. Cp. *Met.* Δ 1, 1013^b25-28, *Phys.* II 1, 195^a24-26.

146^b10-12, *Protr.* B 66, 2-5 quoted above). This has the consequence that, even though animal and human agents can be, and often in fact are, wrong about the goodness of particular things or states of affairs they desire, they *cannot err* about the values that they thereby most fundamentally pursue. *A*-type goals are genuinely intrinsic goods. The workings of the *A*, *B*, *C* – structure of animal locomotion imply that even in cases in which an apparent good (a *B*-type goal) is not in fact good for them, locomotive animals and humans subjectively deem them good (desire them) *only because* there is some *A*-type goal they *thereby* seek to pursue. Fundamentally, all creatures can't help but to desire what is intrinsically and invariably good for them.

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