Aristotle and the Origins of Evil

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Abstract
Why do human beings, on Aristotle's view, have an innate tendency to badness, that is, to developing desires that go beyond and against their natural needs? Given Aristotle's teleological assumptions (including the thesis that nature does nothing in vain), such tendency should not be present. I argue that the culprit is to be found in the workings of rationality, in particular in the (necessary) presence of theoretical reason. As theoretical reason requires that human beings have unlimited non-rational desires for the fine (*to kalon*), it also gives rise to a tendency to form unlimited non-rational desires for other things.

Keywords
evil; rationality; desire; teleology; human nature

1. The Problem

According to Aristotle, human beings not only commonly develop desires (appetites) for unnecessary pleasures (e.g. *NE* 7.4, 1147b25-1148a30; 7.7, 1150a16-25), but also exhibit inherent proneness to bad desires, that is desires (necessary or not) that go beyond what is good and healthy for them (e.g. *NE* 2.9, 1109b1-12). This tendency to badness is neither rare nor mild. In comments echoing Plato's pessimism in the *Republic*, Aristotle tells us that 'as a human being is the best of the animals when perfected, so he is also the worst of all when separated from law and justice' (*Pol.* 1.2, 1253a31-3). Devoid of virtue, human beings are 'the most unholy and the most savage and the worst when it comes to sex and food' (*Pol.* 1.2, 1253a35-7). In saying this, Aristotle does not mean to assert (in what would be something like a reverse Rousseaunian fashion) that human beings used to be (when in their natural state) 'unholy and savage' but that once they formed societies, their nature underwent transformation and they became civilized. On the contrary, he thinks that the constant presence and threat of law is what keeps mankind from sinking back into savagery (*NE* 10.9, 1179b32-1180a14). As he sees it, in order to prevent the inherent tendency to badness to take

over, 'the many' must 'receive corrective treatment by pain, just like a beast of burden' (*NE* 10.9, 1180a13). Like Plato, Aristotle also holds that there are indeed exceptional people whose natural (inborn) traits incline them to goodness. Such people can, in appropriate and fortunate circumstances, develop virtue and escape the inner savagery. Nevertheless, just like Plato (*Rep.* 491e), Aristotle also believes that it is precisely these people that have the greatest potential for becoming evil since their natural proclivity towards virtue also best equips them for vice (*Pol.* 1.2, 1252a33-5).[1]

But why should human beings have a pronounced tendency to develop desires that go beyond what is natural, healthy and good for them? As Aristotle sees it, human beings are so prone to badness that, in the end, mankind's actual condition is better characterized in terms of badness and unhealthiness than in terms of goodness and healthiness.[2] The question is pressing in view of the fact that, on Aristotle's view, things are arranged quite differently in the case of non-human (or non-rational) animals. Aristotle sees non-rational animals as equipped with physiological and psychological capacities that are of the right sort to enable them to live fulfilling lives as the kinds of animal they are. The psychological capacities and physiological organs of animals form well-ordered systems that are (individually as well as taken together as a whole) well-suited to fulfill the animal's natural needs (e.g. *PA* 3.14, 675b11-13). This is by no means a coincidence: nature works that way. It not only does nothing in vain but all it does has a purpose.[3] The purpose is to provide the optimal or best arrangement of the various traits or features for a given living being[4] insofar as

[1] See also *NE* 6.13, 1144b8-12.

[2] Nowhere do we find the expression οἱ πολλοί to refer to those who are good and of sound mind. On the contrary, the many are regularly characterized by both Plato (e.g. *Rep.* 431c) and Aristotle (e.g. *NE* 9.4, 1666b2) as φαῦλοι ('base'). Both Plato and Aristotle are also quite clear that οἱ πολλοί are φαῦλοι because of various deficiencies of character, primarily the fact that they are driven by (mostly bad) appetitive desires rather than reason. For an instructive discussion of the status of οἱ πολλοί in Aristotle see Garrett 1993.

[3] Aristotle does not think that everything in nature has a purpose. As he recognizes, there are by-products of teleological processes (*DA* 3.12, 434a31-2) which may but need not be put to use (e.g. bile around the liver has no use or purpose: *PA* 4.2, 677a16-18). Hence, the claim about nature not doing anything in vain should be understood as being constrained to natural processes rather than applicable to all possible outcomes or effects of such processes.

[4] It is not the case that animal organs or features are, as a matter of fact, always best at accomplishing their individual roles. Certain features can impose restrictions on the kinds of further traits that animals can, as a matter of fact, have. For example, snakes cannot have limbs because as blooded animals they cannot have more than four limbs (*HA* 1.5, 490a26-b1), but having four (or fewer) limbs would, in view of their length (which Aristotle treats as essential part of their nature), render them immobile (*IA* 708a9-13). Hence, although having many limbs (like a centipede) would be better for them (i.e. they would move better than they do now with no limbs), the fact that they are blooded precludes them from having any. On this point, see the detailed discussion in Henry 2013, 235-41.

that is, given various circumstances and constraints (biological or material), possible. As Aristotle says (*IA* 704b15-7):[5]

> (A) Nature does (ποιεῖ) nothing in vain, but always the best possible concerning each kind of living being by reference to its substantial being (τῇ οὐσίᾳ).

On Aristotle's view, living beings have the features or traits they have either because they are necessary (say, for the animal to survive) or because having them is beneficial (say, to the animal's well-being) (*GA* 1.4, 717a15-6).[6] In either case, as passage A makes clear, nature selects or provides living beings with those traits or features that it is best for them to have, given the kind of organisms that they are and the options available.[7]

As Aristotle sees it, then, every kind of animal has certain natural needs – it needs a particular kind of nourishment, a particular kind of shelter to enable it to live safely and reproduce, and it requires certain kinds of social structures. The way things are arranged in nature, it also so happens that every non-rational animal has capacities that reliably and systematically track those needs and are well suited for the kind of life it needs (*PA* 1.5, 645b14-20).[8] Importantly, this concerns not only the physical constitution of animals (in this respect, human beings are in fact not different), but also their psychological traits, their cognition and desires. Animal desires – their size, intensity and frequency – directly relate to the size and shape of their internal organs. For example, the larger stomach an animal has, the larger are its appetites (i.e. for larger amounts of food), while the more straight intestines it has, the more frequently it feels appetitive desires for food (esp., *PA* 3.14, 675b25-8). Similarly, sexual desires depend on the size and shape of the relevant organs, such as testes (e.g. *GA* 1.4, 717a13-b13). Since animals have the kind of organs (and their arrangements) they have because it is good for them to have them (i.e. it is either necessary or beneficial), it

[5] There is no shortage of passages of this sort. See, for example, *IA* 708a9-13; *PA* 3.1, 661b27-35; *GA* 1.4, 717a17-8; 2.6, 744a37-b2; or *Pol.* 1.2, 1252b2-1253a10. For detailed and contrasting discussions of the principle and the role it plays in Aristotle's philosophy, see Lennox 2001; Henry 2013; Gottlieb and Sober 2017.

[6] For a discussion of these two factors in animal design, see Leunissen 2011.

[7] This is most apparent in the *Generation of Animals* where Aristotle repeatedly argues that animals have the kind of organs or traits they have and develop them in the way they do 'because it is better' that it be so (e.g. *GA* 4.1, 766a5-10). Here I follow the view defended in Henry 2013, 241-3.

[8] There are controversies concerning the nature of Aristotle's explanation of the optimal arrangement of the capacities and organs of animals in relation to their environment. For my purposes, I do not need to enter the controversy. See Sedley 2007, 184-204; Lennox 2010; Gelber 2015.

follows that the kind of appetites they form, in consequence of having such organs, are also good for them (i.e. either necessary or beneficial).[9]

No reader of Aristotle's biological works can miss the fact that Aristotle often attributes various good and bad qualities of character to animal species (e.g. *HA* 1.1, 488b11-24). For example, he describes certain animals as exceedingly voracious or gluttonous, such as fish (*PA* 3.14, 675a19-24), dolphins (*PA* 4.13, 696b27-30) and snakes (*HA* 8.4, 594a5-6). However, the gluttony of such animals should not be understood in terms of imperfection or unhealthy, bad condition. As Aristotle reminds us, the attribution of such qualities to animals is metaphorical and done in comparing one kind of animal to another in respect of some quality and not by comparing an individual animal vis-à-vis the ideal of its kind (*NE* 7.6, 1149b24-1150a8). In other words, in attributing bad qualities to certain species (like gluttony, sluggishness or treachery) Aristotle does not mean to say that those species regularly fail to achieve their normatively correct development. Rather, these seemingly bad qualities belong to the fully developed and healthy natural states of those species.[10] Each animal kind has precisely the kind of appetites it has (whether we call them gluttonous, moderate or mild) because it is good (either necessary or beneficial) for it to have such

[9] There is one case that might be thought to be problematic, namely that of Selachians and dolphins (*PA* 4.13, 696b24-33). The 'gluttony' of these species looks like a built-in imperfection since, if left unchecked, they would perish 'on account of being quickly filled' (*PA* 4.13, 696b32). The passage is subject to a number of controversies, most notably concerning whether the mechanism that prevents the bad consequence – the fact that, given the position of their mouth, they need to turn on their back to catch their prey and in so doing let some fish escape (*PA* 4.13, 696b27-30; *HA* 8.2, 591b30-1) – is to be explained by reference to the animal's own good (e.g. Leunissen 2010, 43-7; Balme 1987*a*, 278-9 and 1987*b*, 299) or to the good of other animal species (Cooper 2004*b*, 127); and if to other animals' good whether that commits (or expresses) Aristotle's commitment to global teleology (e.g. Sedley 2010, 24). For our purposes, the important issue is whether Aristotle is really attributing to them gluttony in the sense of desire for excessive amounts of food and overeating (as is it is often assumed, say, Leunissen 2010, 44). The first thing to note is that insofar as sharks and dolphins are concerned, 'being gluttonous' is what is natural and *necessary* for them 'owing to the arrangements for the reduction of their food being very imperfect, and much of it consequently passing through them without undergoing concoction … For as the passage of food in such cases is rapid, and the enjoyment derived from it in consequence but brief, it follows of necessity that the return of appetite is also speedy' (*PA* 675a19-24). They are thus not 'gluttonous' in the way in which human beings can be said to be so but, rather, they are animals that *must* process food in a way that leads to frequent feelings of hunger. Second, their appetites are not said to be harmful *to them* in the sense of being excessive. Rather, given their hunting prowess, the 'gluttonous' nature of Selachians and dolphins would lead them to 'be sated quickly'. The most likely explanation of why 'being sated quickly' would lead to their demise is that rapid satisfaction of their hunger would result in an over-abundance of nutriment preventing digestion (*PA* 3.7, 670b6-7). In other words, it is not that they would eat too much in relation to how much they (actually) need or require to eat, but that they would eat *too quickly* for their digestion. Accordingly, their nature implements a device that prevents such quick eating, making sure that they eat at a speed appropriate to their digestive track. If this explanation is along the right lines, the Selachians' and dolphins' appetitive desire to eat is not disproportionate to their healthy need of nourishment.

[10] Here I agree with Thein 2017, 74.

appetites. In sum, non-rational animals' desires reliably track their needs and so, as a result, they desire and find pleasant what is natural and good for them. As Aristotle says, 'all animals pursue pleasure in accordance with nature' (*HA* 7.1, 589a8-9).

On this picture, then, if all goes well in a non-rational animal's development (and in nature it often, although not always, does), the animal will evolve in such a way as to provide for itself in the right way and it will live a good life of its species. Aristotle is well aware, of course, that things can sometimes go badly (*Phys.* 2.6, 196b11-32). But when they do, it is only because of some *external* circumstances (*Phys.* 2.7, 198b4-6; 2.8, 199a8-26) that impede, warp or otherwise harm a *particular* animal's development (such as injury, droughts, change of climate, invasion of other animals, abuse by human beings and so on). But *barring* such external influences, an animal will develop as it should and it will desire what it needs and what benefits it (e.g. *PA* 1.1, 641b12-26).[11] In other words, non-rational animals overwhelmingly reach (or significantly approximate) the ideal development (both physical and psychological) in accordance with their essential forms.

So why does it not work this way in the case of human beings? Why do human beings regularly develop desires that go beyond their natural needs, that are excessive and do not benefit them?[12] There is what might seem an obvious answer to this question – it is the unlimited nature of human appetites (i.e. the animal-like part of our nature) that is responsible for human propensity towards badness: 'the wickedness of human beings is insatiable … since the nature of their appetite is unlimited.'[13] One way to understand this claim as follows. It is in the nature of human non-rational desires, especially of appetites, that they are insatiable and indiscriminate when not controlled by reason. Their repeated exercise makes them grow larger and larger, that is, ever more excessive (*NE* 3.12, 1119b3-15). But this answer does not help, since the question is why nature would equip us with appetites of that (unlimited) sort in the first place.[14] Aristotle never attributes

[11] On this point, see esp. Gottlieb and Sober 2017, 252-4.

[12] Generally, I will use the expression 'natural needs' to refer to human needs insofar as they stem from the 'animal' aspect of human nature, that is, to human nutritive and reproductive needs insofar as such needs are beneficial and healthy. Of course, since human beings also have a *different* nature, namely intellectual one in virtue of which they share in the divine, they have needs related to that nature too. Whenever necessary, I will make the distinction clear.

[13] *Pol.* 2.7, 1267b1-4 (cf. *Pol.* 1257b37-1258a3). See, for example, Smith 1996, 66.

[14] In *Pol.* 1.9, 1258b37-a7, Aristotle describes the cause of the limitless pursuit of wealth (i.e. of the kind of pursuit motivated by unlimited appetites) either as lying in the preoccupation with living (τὸ σπουδάζειν περὶ τὸ ζῆν) rather than with living well (εὖ ζῆν), or in thinking that bodily pleasures constitute living well (and consequently pursuing them as such). In both cases, the initial desire (for mere living or bodily pleasure) is said to be unlimited or excessive. That is why, Aristotle claims, those who pursue it also think that they need to secure as much of the things that promote its satisfaction as possible. The limitless nature of the initial

unlimited nature to appetites of non-rational animals even as, presumably, animal appetites can also grow larger with repeated exercise. Moreover, insofar as human beings are physiologically comparable to other animals, their digestive system is not like that of particularly voracious or gluttonous animals, such as fish or snakes – but more like that of dogs or pigs, that is, moderate in comparison (*HA* 1.16, 495b24-31; 2.17, 507b18-28). Hence, from the physiological point of view, it is unclear why human appetites should be of the kind Aristotle describes, namely unlimited, indiscriminate and insatiable. Finally, given that human appetites are indeed of the sort Aristotle describes, why does nature not employ some device to curb them? For example, dolphins have (necessarily) appetites which, if they were left unchecked, could harm them. However, nature employs devices (for example, a particular shape of the mouth) to systematically contain those appetites and prevent them from causing harm.[15] One might say, then, that there is no obvious biological explanation for the nature of human appetites. And yet there should be. After all, as Aristotle asserts, we should be able to say why it is either necessary or beneficial for human beings to have such desires.

So why do human beings develop and have appetites and desires that *seem* neither necessary nor beneficial to them? Do they develop them because of some external circumstances (just as other animals do) or because of something *internal* to human nature? This is not an empirical question about the way in which some particular person (or persons) has (or have), or can, become bad.[16] It is also not a question about what constitutes a particular type of bad character, such as vice, or a question about how one can make sense of bad or evil character and behavior.[17] The question is, rather, whether there is something about the way in which human beings are (psychologically) constituted such that bad desires, and so various deviations from virtuous development, including vice, are *necessarily* always an option for them, and which, if not ruled out in some way, can very well become real in each and every one of them.[18]

desire thus explains the behavior of pursuing wealth without constraint. The question raised above concerns the nature of the initial desire: why should it be unlimited?

[15] See n. 9 above.

[16] On the nature of bad habituation, see esp. Kontos 2014 and Barney 2019.

[17] For a discussion of this issue in ancient philosophy (though not in Aristotle), see Kamtekar 2019.

[18] Stephen White argues the opposite thesis. According to his interpretation, Aristotle thinks that 'we all tend naturally to develop and acquire them [i.e. features of natural virtue]. Having natural virtue, in short, should be the usual condition, and only external interference that disrupts the normal process should hinder or prevent its development' (White 1992, 160).

A preliminary clarification is in order. In characterizing human beings as being prone to badness or evil, I avoid saying that Aristotle thought that human *nature* is bad since he clearly thought that when considered as an ideal or paradigm, human nature is good. His position (that human nature is good) is compatible with most people not being good or virtuous as a matter of fact, or with there being a need to bring about the ideal development through moral education in an appropriately governed society. It would also not be quite correct to say that Aristotle thought that human *nature* tends towards badness or evil since one can understand this claim in several different ways. On the one hand, one could mean that human beings more often than not desire what they believe to be bad or evil as such (that is, because it is bad or evil). But Aristotle did not hold this view.[19] On the other hand, one might mean that some things are objectively good or bad (or are so for human beings) and that human beings tend to find or believe (mistakenly) that that which is bad is good.[20] This is closer to what I mean but it still needs to be qualified since Aristotle did not think that it happens in all circumstances. Rather, he thought that in certain conditions (for example, in his ideal state), the opposite is true – at least for some people.[21] My question can be usefully

[19] Almost no philosophers did. Some philosophers have argued that one need not be attracted to what one believes to be good (Stocker 1979; Velleman 1992) but they have not denied that an agent, in acting as she does, does not see her action as having some merit. David Sussman has argued for the possibility of 'truly perverse action' (Sussman 2019, 617) which he conceives of as one in which an agent acts for the sake of some apparent evil (say, because it is morally wrong to act that way). But even he denies that one can have 'a fundamental commitment to doing so' (618), confining the possibility of acting for the sake of the bad to particular actions. One philosopher who seems to me to have embraced such (normative) commitment to badness is the Marquis de Sade: 'il est très doux de scandaliser: il existe là un petit triomphe pour l'orgueil qui n'est nullement à dédaigner' (de Sade 1998*a*, 134). One reason behind de Sade's emphasis on our enjoyment of shocking, scandalous and outright criminal kinds of behavior (including physically harming others) is that, according to de Sade, the laws of nature give us too little freedom and so unacceptably constrain our happiness. Hence: 'loin de remercier cette nature inconséquente du peu de liberté qu'elle nous donne pour accomplir les penchants inspires par sa voix, blasphémons-la, du fond de notre coeur, de nous avoir autant rétréci la carrière qui remplit ses vues; outrageons-la, détrisons-la, pour nous avoir laisse si peu de crimes à faire, en donnant de si violents désirs d'en commettre à tous les instants' (de Sade 1998*b*, 885). Although one could argue that even de Sade justifies evil behavior by an appeal to something thought to be good (freedom, happiness), his position is not that what one generally or conventionally thinks is bad is in fact good but, rather, that freedom and happiness requires embracing the evil aspects of human desires as such (i.e. as evil and contrary to laws of nature and morality) since it is only then that their satisfaction brings freedom and happiness.

[20] Here I refer both to conditions in which people have mistaken views about what is good (as vicious people do) as well as conditions in which they find some things attractive (say, because of pleasure) despite believing them to be bad otherwise (as uncontrolled people do).

[21] On some views, Aristotle (or Plato) could be indeed thought to hold that human nature is bad. For example, Eric Schwitzgebel writes that a 'trait is natural to an individual just in case it arises in that individual through a normal process of development in a normal, nutritive environment, rather than as a result of injury, acquired disease, malnutrition, or (especially) external imposition' (2007, 148-9). On his view, Plato and Aristotle could be thought to think that human nature is bad, provided that the adjective 'normal' is understood in a

understood as trying to get at the explanation of how it could be that human nature needs those special conditions to flourish and even in those it flourishes only in select few. It is thus a question not only about the character-state vice (*kakia*), but about the origin (and possibility) of the particularly human (innate) tendency to bad or harmful desires.[22] On Aristotle's view, the presence of such desires characterizes various non-virtuous states of character,[23] including vice,[24] beastliness,[25] self-control, and lack of control.

One can usefully contrast the problem I want to address with a set of problems that arise from tensions between Aristotle's general teleological commitments and his descriptions of animal physiology. One such problem concerns the tension between Aristotle's teleological principles on the basis of which one might think that no deformity should ever happen (since 'nature does nothing in vain') and Aristotle's acknowledgment of the fact that the development of an individual animal can end up in the animal's being deformed, or otherwise less than ideally developed. Aristotle solves this problem by locating the cause of the deformity in the material cause. The animal form or nature fails to achieve its full completion due to the resistance of the material cause (*GA* 4.4, 770b9-17).[26] In other words, the animal is deformed due to circumstances that are *external* to its nature (such as unfavorable environmental conditions). An even more serious problem concerns the existence of whole animal kinds that are deformed. A deformed kind or species implies a regularity in the production of a given deformation that should not occur: in the framework of Aristotle's

roughly descriptive sense (as that which is prevalent as things stand) or in a socially normative sense (as that which is considered as appropriate in a society).

[22] As far as I am aware, there has not been any sustained discussion of the question I raise in the literature. Even the recently edited volume on the topic of evil in Aristotle (Kontos 2018*a*) contains no paper that addresses it (which can, however, be explained by its somewhat different focus). The question is raised, in a slightly different form, by Thomas Gould who sees that the existence of bad desires offers 'a threat to his [i.e. Aristotle's] analysis of the nature of all motion as inevitably aimed toward a true good' (Gould 1971, 455). He asks: 'What is it that enables us to say of men alone … that some of their strivings are good and some bad?' (452). Gould's own solution is, however, difficult to discern, although it is clear that he thinks it has to do with rationality always presenting two or more options for action. Besides the vast literature on virtue, lack of control and to some extent vice, scholars have mostly concentrated on Aristotle's discussion of the metaphysical nature of badness in *Metaphysics* 9.9. See, for example, Beere 2012, 325-52; Katz and Polansky 2006; Reeve 2018; or Goldin 1993.

[23] Kontos 2014 contains a valuable discussion of the topology of the non-virtuous states in Aristotle, concentrating on their particular intellectual components.

[24] That the vicious agent has bad desires is a common ground for interpreters who might otherwise disagree about further aspects of Aristotle's account of the vicious agent. See Müller 2015*b*, Nielsen 2017 and Barney 2019.

[25] Beastliness has not been the focus of much discussion, but see now Kontos 2018*b* and Pearson 2018.

[26] For a discussion of cases of this sort, see Johnson 2005, 198-204.

teleological principles deformations of nature are intelligible only as exceptions. It is not necessary for my purposes to enter the complex nature of this problem and the debates that surround it. However, it is worth emphasizing that, even in this case, the source of deformity is found in something external to the animal's nature. In other words, the animals (of a given kind) are deformed because they do not develop or use their organs in accordance with their own nature. In fact, their nature functions as the norm in relation to which one can judge the animal as deformed.[27]

The problem I raise is different from either of these issues since there is no evidence that Aristotle thinks that human beings are (as a species) deformed. Nevertheless, unlike all other animals, they regularly end up with desires, habits, and mindsets that are not natural for them (since they are neither necessary nor useful) and can even be (and often are) detrimental to their own well-being. In a way, this is a more difficult problem for Aristotle's teleology since it would appear that there is a case in which nature works perfectly well but nevertheless creates something fundamentally flawed. For the sake of brevity, I call it the Problem of Ethical Imperfection (PEI).

2. Method and Plan of the Paper

In general terms, the cause of PEI is not a mystery. Since, on Aristotle's view, the primary difference between human beings and animals is the presence of the capacity for thinking, it is plausible to suppose that the answer will have to with the effects of rationality on other human psychological capacities, and in particular on (non-rational) desires. This hypothesis can be given the following justification. Aristotle thinks that the capacities of living beings are distributed among the various species in a way that forms an ordered, developing series: each higher kind of living beings has a set of capacities that differentiates it from the lower kinds while also possessing all the lower capacities. The lower capacities, when possessed by the higher order beings, are not vestigial (as nature does nothing in vain). They remain necessary for the functioning of the living being that has them and, in fact, are necessary for the functioning of the higher capacities (*DA* 2.3, 414b29-415a12). Consequently, they are present in an appropriately *modified* form so as to become integrated with, and supportive of those higher capacities.[28]

[27] For a discussion of this issue, see Witt 2012 and Stavrianeas 2018.

[28] For a philosophical defense of what might be taken to be the contrary view, namely that even in human beings the lower perceptual capacities are constitutively independent of rational capacities, see Burge 2010. It is not entirely clear that Burge's view is in fact contrary to Aristotle's since Aristotle does not hold that human perception is dependent on rational or conceptual capacities (which is the kind of thesis that Burge counters) but, rather, that its function and cooperation with rational capacities in a living being necessitates appropriate modification.

This can be illustrated by the case of the nutritive soul in plants and animals. On Aristotle's view, plants have only the nutritive capacity, but animals have both the nutritive and the perceptual capacity. Insofar as plants' nutritive requirements are concerned, it is sufficient for them to take in nourishment as it is already concocted in (and by) the earth by their roots. Hence, they have no need for digestive track, producing no food waste (*PA* 2.3, 650a21-5 and 2.10, 655b32-5). The more complex animal bodies however require more heat (i.e. more than plants) in order to maintain their appropriate functioning (*GA* 2.1, 732a32-b12; *PA* 4.10, 686b21-687a1).[29] Since vital heat comes from food (*Spir.* 473a3-14), animals need different (more potent) sources of food than plants, namely suitable organic ingredients (i.e. other animals or plants) which they locate and identify through perception. These ingredients must then be converted (through a process of digestion) to the kind of thing (i.e. food in the sense of the final product of digestion) that they can use for nourishment. In this way, they produce heat that is appropriate to maintain their functioning as animals (*PA* 3.10, 672b14-19).

Despite the differences just described, the nutritive capacity in both plants and animals fulfills the same function (*DA* 2.4, 416a20-1) and so can be characterized by the same general definition as 'a power such as to maintain its possessor as such' (*DA* 2.4, 416b18-19). Nevertheless, since animal nutritional requirements differ from those of plants, their nutritive capacity is quite different too. For example, it involves the presence of the digestive track and it is integrated with sensory organs that locate and identify the appropriate sources of food. In view of this 'teleological nesting'[30] of the soul's capacities, it seems reasonable to suppose that the presence of the capacity for thinking, in addition to nutritive and perceptual capacities, will necessitate appropriate modification of the lower perceptual capacity as this must be appropriately integrated with the capacity for thinking so as to enable and support its functioning. Since desires (or, at any rate, non-rational desires) are tied to the perceptual capacity (*DA* 3.7, 431a11-14), it is also reasonable to suppose that they too are modified in a way that is appropriate for their (teleological) subordination to the capacity for thinking.

But although this much is clear, it is not clear why the addition of the capacity to think should result in human desires becoming prone to deviation from what is natural and good for

[29] On this issue, see Freudenthal 1995, 58-68.

[30] 'Teleological nesting' is a term coined for Aristotle's 'serial' analysis of the soul by Corcilius 2015, 42. See also Evans 2011.

human beings.[31] If one thinks of cognitive and conative capacities as tied to the continuing successful survival and optimal functioning of a given animal (i.e. to its natural needs), then one might suppose that this is so independently of the complexity or the kind of those capacities, that is, independently of whether the cognitive capacities are rational or non-rational. Hence, even if one supposes that human perceptual capacities differ from animal ones insofar as they need to be appropriately integrated with the human capacity to think, one need not thereby also suppose that such modification necessitates any change in the basic framework in which those capacities operate, that is, in their connection to (human) natural needs.

The primary goal of the paper is thus to identify the crucial moment in which (or the crucial reason why) human desires become (or are) separated from human natural needs. Several issues complicate the task. First, Aristotle distinguishes three different kinds of human thinking – productive, practical and theoretical (e.g. *Meta.* 6.1, 1025b25-6) – each having a different and distinct form and purpose. Hence, in order to find an answer we need to examine each kind of thinking and its connection to desires and natural needs. The problem is that in order to do so, we need to consider the requirements that each kind of thinking imposes on human nature that (unlike the nature of a fully developed actual human being) does not yet exhibit PEI. Otherwise we would not be in any position to identify PEI's cause. Second, there is a textual problem: there is no particular passage (or passages) in which Aristotle raises or addresses PEI in a sufficiently explicit way, nor is there a particular, manageable and appropriately related set of passages that, once connected by a hypothesis about how they are to be interpreted together, could give us an answer.

A skeptical reader might feel that, at this point, one should give up. Although it is possible to raise PEI in relation to Aristotle's views, there does not seem to be an obvious interpretative move to answer it. Moreover, it might seem that even if one were to find an answer, it would be at

[31] Many scholars subscribe to the view that human non-rational cognition and desires are different from animal cognition and desires and that the difference has to do with the presence of intellect. However, when it comes to specifying what that difference is, it is not uncommon that they stay at the level of general statements to the effect that reason (conceptually) informs perception. For example, Eve Rabinoff says that 'human perception is informed by intellect (*nous*) … by situating perception within a non-perspectival framework' (2015, 298). By this she means that we can see one and the same object as fulfilling many different functions or roles that we can conceptually articulate. As she says: 'when I see a tree I see it as a tree, but I also see it as a shade-giver, or a jungle gym for children, or paper, or a fruit-bearer, or an object of inquiry' (305). But this does not tell us anything about human perception's distinctness from animal perception. It does capture the fact that human beings apply concepts to their perceptual experience. But such application might well be the work of intellect as it relates to perception, leaving perception *as such* unaffected. Rabinoff's thesis is thus compatible with human perception being just like animal perception, the difference being simply that we use intellect to make further or more nuanced sense of what we perceive.

best an Aristotelian answer but not Aristotle's. However, I would like to persuade the reader that we can work out an answer on Aristotle's behalf and can do so by a combination of a particular philosophical method combined with standard exegesis of textual evidence. The result might be an answer that is indeed more Aristotelian than Aristotle's (in the sense that it is not an answer he explicitly gives), but that is nevertheless philosophically and historically illuminating. As I will argue, the solution can shed considerable light on the way in which Aristotle (and those in antiquity who shared his assumptions about rationality) conceived of human nature. It can also offer an account of the cause of evil (or, at any rate, of ethical or moral deviations) that is significantly different from the usual ways of locating the cause of human evil in either free will or embodiment.[32]

Now Aristotle not only distinguishes three different kinds of reasoning but also maintains that these three kinds of reasoning stand in certain relations to one another: productive thought is ruled by practical thought (*NE* 6.2, 1139b1-6), and practical thought is, in turn, subordinate to theoretical thought insofar as it issues commands for its sake (*NE* 6.13, 1145a6-11). Given Aristotle's thesis about the hierarchical relationship between the three kinds of reasoning and his general thesis about the 'teleological nesting' of the soul's capacities, we can adopt a variation of a method that Paul Grice called 'creature construction' (Grice 1974-75, 36). The idea is to construct a sequence of kinds of human being by additions of different types of thinking in the hierarchical order suggested by Aristotle (productive, practical, and theoretical). The basis for construction (Section 3 below) is a condition in which a human being, if one like that were to exist, would be a non-rational animal. I call this (incomplete) kind of being *Homo Animalis*.[33] This basis serves to identify the principal connection between cognitive and conative capacities and natural needs as those relate to the continuing successful survival and optimal functioning of a human being

[32] Free will for example in Augustine, *Confessions* 7.3.5. Embodiment as an answer can be found in Plato's *Timaeus*, according to which the origin of evil is in the disorderly motions brought about by matter (i.e. it is the result of soul becoming embodied). This allows for the presence of bad or depraved desires since at least some of the motions (which include passions) are not directed at any particular good. On Plato's account of the emergence of non-rational desires as a necessary result of the soul's embodiment in the Timaeus, see Carpenter 2008 and Johansen 2008, 137-59. See also Vlastos 1939 who initiated much scholarly discussion of this cosmological tradition. There is also a theory suggested in the *Laws* 10 and the *Phaedrus* according to which the source of evil is *pleonexia* originating in (the non-rational element) in the soul. This view was made subject of scholarship by von Wilamowitz-Moellendorff 1919. For more recent discussions, some of which try to bridge the two traditions by bringing into considerations also passages from the *Statesman* and the *Philebus*, see Nightingale 1996; Carone 2005; Wood 2009; Dixsaut 2013, 201-16.

[33] *Homo Animalis* is Heidegger's term for human being when thought of as 'one being among others' (*Letter on 'Humanism'* 155). I am not using the term quite in the way Heidegger did.

conceived of as yet lacking reason. In constructing further kinds of human being, our task will be to observe whether the addition of reason (in any one of its forms) requires a principal modification of this connection.[34]

In Section 4, I construct a human being (*Homo Faber*) who in addition to non-rational cognition (i.e. perception) possesses productive rationality whose purpose is to enable human beings to survive and function. As I argue, the possession of only the capacity for productive thinking leads to deficiencies that violate Aristotle's dictum that 'nature does nothing in vain' (NIV). These deficiencies necessitate the addition of both practical rationality and theoretical rationality. In Section 5, I construct a human being (*Homo Prudens*) who possesses both productive and practical rationality. As we will see, *Homo Prudens* is also deficient in ways that violate NIV and so requires the addition of theoretical rationality. In Section 6, I go on to discuss *Homo Sapiens* who possesses all three kinds of rationality. As I argue, the addition of theoretical thought not only completes human beings as animals capable of survival and optimal functioning (without violating NIV) but also necessitates principal modification to our perceptual faculty and, ultimately, causes our desires to decouple from our natural needs. In section 7, I then offer my solution to PEI.

3. *Homo Animalis*

Non-rational animals are living beings that employ perception to keep themselves alive and procreating (*DA* 2.3, 414a31-3). They need perception since, unlike plants, which take already

[34] There is a remarkable (though not entirely parallel) ancient precedent for the procedure in Cicero, *De Finibus* 4.38 and 5.40. In his account of Antiochus' views on ethical development and happiness, Cicero imagines that a vine, whose well-being is first cared for by a vine-keeper, acquires first sensation and, in the next step, also human mind. As he argues, the addition would preserve the lower functions, integrating them with the new ones and the plant would start caring for the well-being of the new whole (rather than just either for the old, original parts or only the new ones): 'But imagine that the vine acquired senses, and so a degree of desire and self-motion. What do you think it would do then? Surely it would seek by its own endeavours to procure for itself the same results that had previously been sought by the vine-keeper? But notice that now it would have also acquired a sense to protect its senses and the capacity to desire that they afford, as well as any other organs it may have developed. So, in adding these new features to those it already had, the vine would not have exactly the same objective as the vine-keeper did. It would want to live in accordance with its newly acquired nature. Hence its highest good will be similar to what it was before, but not the same. It will be seeking not the good of a plant but the good of an animal. Now what if it had not only be given senses but also human mind (*animus hominis*)? It must be the case that its original features would still be there, in need of care. But these later additions will be of far more value, and most valuable of all will the finest components of its mind. In fully realizing this aspect of its nature, it will attain its end, its supreme good. After all, intellect and reason are by far the outstanding elements. Let this represent the limit of all that is desirable. Starting from an initial natural affection, we have ascended many steps to reach the summit, the combination of full bodily integrity with the perfection of reason' (*De Finibus* 5.40, trans. R. Woolf). Thanks to Naly Thaler for the reference.

concocted nourishment from the earth by their roots (*PA* 2.3, 650a21-5), they need to engage in locomotion in order to find nourishment and partners to reproduce (e.g. *DA* 3.12, 434b1-8).[35] Perception provides animals with the recognition of items relevant to their nutritive and reproductive needs and, in turn, motivates them to pursue or avoid them depending on whether they are perceived in a pleasant or painful way (*De Sensu* 436b13-437a4). It is thus a cognitive power that is by its nature tied to the animal's needs. In fact, as Aristotle tells us, the life of all non-rational animals is entirely focused on those needs (*HA* 8.1, 589a3-5):[36]

> (B) The life of animals, then, may be divided into two parts, procreation and feeding; for on these two all their efforts and life concentrate.

Since Aristotle places nourishment and reproduction at the center of non-rational animals' lives, is he committed to saying that these activities are what makes their lives worthwhile? Although he does not address the issue explicitly, his theory does not imply such commitment. The highest and best *ergon* (i.e. function or distinctively characteristic activity) of non-rational animals is perception (*DA* 2.2, 413a25-b2; 2.3, 414b1-4; *Somn.* 2, 455b23-5; *NE* 9.9, 1170a16). If perfect performance of one's *ergon* makes life good, then non-rational animals do not live worthwhile lives if they merely grow and reproduce (as plants do), or even simply perceive. Rather, their lives must aim at and (regularly) achieve perfected perceptual activities of the appropriate sort for the kind of living beings that they are. This means achieving perceptual pleasure that arises from engaging in the appropriate (for a given animal kind) activities of procreation and nourishment, in particular tactile and gustatory pleasure.[37]

[35] Although stationary animals (such as polyps or sponges) do not engage in locomotion, they nevertheless engage in movements or behaviors (such as extending the tentacles or contracting the body) that are related to their survival and nourishment and that can be explained only by tactile perception of something in a pleasant or painful way.

[36] See also *GA* 1.4, 717a21-2.

[37] This conception of animal well-being is compatible with Aristotle's startling and controversial claim that most (if not all) plants and animals are, ultimately, for the sake of human beings (*Pol.* 1.8, 1256b6-26). One can hold that human beings are the apex users of the natural world while at the same time also holding that they should not diminish the well-being of other living things beyond what is necessary and natural. After all, if human beings were to systematically prevent the full actualization of other biological forms, they would render the perfect arrangements of nature vain. Such uses of living beings would be unnecessary and unnatural, and Aristotle describes them in precisely in those terms. For a discussion, see Johnson 2005, 229-37.

In order for animal perception to fulfill its function, animals need (1) to reliably form appropriate desires on the basis of what they perceive and (2) to have the appropriate means or instruments for obtaining what they desire. Concerning (2), Aristotle takes great care to show that non-rational animals not only have those instrumental parts that are necessary for them in order to survive and reproduce (*DA* 3.9, 432b21-6), but that they have them in such a way that these instruments are perfectly suited for those animals that have them for precisely the purposes that they need them. Thus non-rational animals are equipped with instruments that are, insofar as their abilities are concerned, the best for the purposes of their survival and reproduction (*PA* 661b27-32):

> (C) A general principle must be proclaimed, which will be useful not only in this case but also in many others that will be discussed later. Nature gives each organic part, both offensive and defensive, either alone to those that can use it or more to those who can use it more, and most to those who can use it best, whether it be a sting, or a spur, or horns, or tusks, or anything of that sort.

But mere possession of the right sorts of instrument would not enable animals to survive and reproduce. They also need to be capable of finding, recognizing and pursuing what they need. Hence, if non-rational animals are to successfully live and procreate, they need to be so constituted that they find pleasant just those things that are good *for* them, that is those things promote and support their life-functions, including growth and reproduction. If that were not so then, given that they are *not* cognitively capable of determining what is good for them on any other grounds than the feelings of pleasure and pain, there would be no guarantee that they could survive and procreate.[38] That is why Aristotle tells us that 'what is according to nature is to every animal agreeable

[38] In *DA* 3.3, Aristotle states that 'to be deceived' (ἠπατῆσθαι) is a state that 'belongs more to animals and their soul continues in it longer' (427b1-2). This statement has been thought to be problematic. If one translates τὸ ἠπατῆσθαι as 'being in error', one might immediately worry that Aristotle means that animal cognition errs more often than it gets things right. As Victor Caston points out, if this were true, it would make animals badly adapted to survival (1996, 27 n. 20), contrary to what Aristotle says elsewhere. Caston suggests that we tweak the translation so as to avoid the comparative sense. In that case, Aristotle would be saying that error is 'particularly endemic to animals', which is (perhaps) an easier statement to fit into Aristotle's philosophy. But we can preserve the comparative if we understand Aristotle as saying that animals are more liable to being *deceived* than human beings since their cognition is less adaptive and so less able to compensate for errors. For example, if their natural environment is invaded by something foreign or artificial to it, they can be easily fooled into thinking that it is food on the basis of, say, visual similarity to their actual food. Moreover, many species of animals will not be able to correct themselves to avoid the new item, even if it is harmful to them. An example could be sea turtles who often mistake plastic bags for food (since they resemble jelly fish when floating in water) and regularly (fatally) injure themselves when trying to digest it.

(προσφιλές)' (*HA* 7.2, 590a10-11) and that all non-rational animals pursue pleasure in accordance with their nature (*HA* 7.1, 589a8-9).

Let us, then, imagine a human being of this sort, a *Homo Animalis*. *Homo Animalis* would be guided by tactile or gustatory pleasure and pain to desire what is (actually) good for her. The things that would be good for her would be precisely those things that would optimally support her life-functions, including nutrition, reproduction, perception and locomotion (*DA* 2.4, 416b17-19). Her capacity for perception would be (just like in the case of all other non-rational animals) tied to her needs – it would single out and focus on those features of things that are relevant for identifying what would satisfy her needs and desires. The problem is that *Homo Animalis* is an incomplete (and in fact impossible) being. As Aristotle reminds us, human bodies are purposefully arranged so as to best support thinking rather than perceptual activities (*PA* 4.10, 686a25-b28) and that requires modifications to the body that preclude most direct ways of food acquisition.[39] In particular, they lack instruments (such as claws, trunks or beaks) that would be suitable for direct acquisition of the things they need. Thus even as her perception reliably identifies the relevant items and she reliably forms desires for them, *Homo Animalis* lacks the kind of bodily instruments that would enable her to obtain them in a way that would not endanger her life. And since *Homo Animalis* also does not yet have reason (for which her body has been modified) which would (as we will shortly see) remedy the issue, *Homo Animalis* would not survive.

4. *Homo Faber*

Instead of possessing instruments for direct acquisition of food (like non-rational animals), human beings have hands which are 'instruments for instruments' (ὄργανον πρὸ ὀργάνων) (*PA* 4.10, 687a21). Hands are, on Aristotle's view, the perfect complement to reason. Being 'the most variously serviceable of all instruments' (687a22-3), they allow human beings to construct just about anything that they want once they have acquired knowledge or craft of how to do so. As Aristotle remarks, the eponymous character in Plato's *Protagoras* was wrong to say that human beings are not 'put together well' (συνέστηκεν οὐ καλῶς) even if they are indeed 'barefooted, naked and without a weapon to defend themselves' (*PA* 4.10, 687a25-6).[40] Although non-rational animals are equipped with instruments that they need, they can neither vary them according to changing

[39] For a discussion of Aristotle's views about human posture, see Gregorić 2005 and Thein 2017, 85-94.

[40] That Aristotle is referring to Protagoras' myth is clear from the language since in Plato's dialogue Protagoras describes human beings as 'naked, barefooted, with no bed and arms' (γυμνόν τε καὶ ἀνυπόδητον καὶ ἄστρωτον καὶ ἄοπλον) (*Prot.* 321c).

situations nor lay them aside when they do not need them. As Aristotle says, they have to do everything, including sleeping, 'with their sandals on' (*PA* 4.10, 687a28-9). In contrast, human beings only have 'instrument for instruments', and so they not only can, but in fact must vary them by situation and in doing so are incomparably more versatile than any animal: 'For the hand becomes talon, hoof and horn, as well as spear and sword, and any other weapon or instrument' (*PA* 4.10, 687a31-b4).

At its most basic level, then, reason (more than) compensates for the lack of natural instruments by allowing human beings to use hands to produce whatever instruments they need in order to survive and maintain their functioning. Aristotle's name for the kind of thought that is aimed at fulfilling this function is productive (ποιητική) thinking. It is primarily concerned with devising ways of producing things that are advantageous (συμφέροντα), beneficial (ὠφέλιμα), or useful (ἔχειν χρῆσιν) in view of our needs (χρεῖαι) (*Meta.* 1.2, 982b11-28). In its perfected state, it takes the form of craft which Aristotle describes as a 'state involving true account (λόγος) concerned with production' (*NE* 6.4, 1140a10). As he tells us, if human beings were not 'the most capable of acquiring crafts' (*PA* 4.10, 687a22), they would have to rely on luck (*NE* 6.4, 1140a17) to provide them with the instruments (or directly the things) they need.[41] Productive thinking is there to ensure the human survival without relying on something as fickle as luck. An important feature of productive thinking, as Aristotle conceives of it, is its independence from the desires and beliefs of the person who engages in it. Although one must have some reasons in order to think about how to produce or construct something, insofar as the production of that thing is concerned, those reasons play no role. Rather, it is the product itself (i.e. its relevant features) that determines how it can (or must) be constructed or produced. At least ideally, productive thinking thus proceeds through hypothetical necessity: if A is to be made, then, given what A is, B must be done (e.g. *Meta.* 7.7, 1032ab7-11).

Two related consequences follow from this conception of productive thinking.[42] First, its results (i.e. recipes how to produce something) are universal (*Meta.* 1.1, 918a13-22) – they are useful and applicable for anyone who wishes to produce the relevant products and is capable of

[41] This is, presumably, how most animals that use instruments operate – they use as instrument things that they happen to find nearby the place they need them. But they do not prepare the instruments in advance or keep them for further use. See also n. 48 below.

[42] I defend the conception of productive thinking briefly described and assumed in this section (and of practical thinking in the next section) in Müller 2019.

following the instructions about how to do so. Crafts, as both Plato and Aristotle like to remind us,[43] are teachable because they are bodies of universal knowledge. Second, productive knowledge (or craft) is motivationally inert (*Meta.* 9.5, 1048a11).**[44]** As Aristotle conceives of it, productive thinking contemplates the form of contingent things that lack internal nature from the point of view of their construction or coming to be (*NE* 6.4, 1140a11-15) and so also their destruction or passing away (*Meta.* 9.2, 1146b8-9; *NE* 5.1, 1129a16-25).[45] Hence, it is thinking (and from it resulting knowledge or beliefs) that can be put to use in more than one way. As Aristotle makes clear in *Met.* 9.2, this is the mark of rational (μετὰ λόγου) psychological powers. Unlike non-rational powers that are 'of one thing' (μία ἑνός), rational ones (i.e. crafts) are 'of opposites (τῶν ἐναντίων)' (*Meta.* 9.2, 1046b5-6). A non-rational power works always the same way, producing the same result. Consequently, whenever it is in appropriate circumstances, it will be activated and produce the result for which it is a power. A rational power, however, is productive of contrary effects and so it cannot be activated, as such, merely by external circumstances. If it were, it would produce incompatible results at the same time and that is not possible (*Met.* 9.5, 1048a8-11). There must thus be something that gives productive thinking (and so also production) a direction – whether it is to operate towards construction of its product or away from an already constructed product towards its destruction. As Aristotle says, there must be something sets it to such outcome in the particular circumstances: 'That which directs (τὸ κύριον), then, must be something else; I mean by this desire or decision (ὄρεξιν ἢ προαίρεσιν)' (*Met.* 9.5, 1048a11-2).

Let us then imagine *Homo Faber*:[46] a human being in whom productive thinking is the sole way in which reason operates in conjunction with perception. Since *Homo Faber* is *Homo Animalis* plus the (motivationally inert) capacity for productive thinking, the 'desire or decision' that would give her productive thought direction can only be one that was motivating also *Homo Animalis*, namely non-rational desire for pleasure and aversion to pain. But, unlike *Homo Animalis*, *Homo*

[43] For Plato, see, for example: *Lach.* 185b-d; *Gorg.* 514c-d; or *Prot.* 319b-c. For Aristotle, see *Mets.* 981b7-a30.

[44] But see Johansen 2017.

[45] In this respect, productive thought is similar to the study of coming to be and passing away of natural things – the study of the life-cycle of, say, lions involves the causes of both birth and growth into a healthy individual as well as of sickness, decay and death. As a kind of knowledge, craft thus grants the power to both produce and destroy.

[46] I borrow the term from Henri Bergson. However, although *Homo Faber* in the sense used here is akin to Bergson's idea insofar as she possesses 'la faculté de fabriquer les objets artificiels', she is also different insofar as she is not yet assumed to be capable 'd'en varier indéfiniment la fabrication' (Bergson 2013, 138).

Faber would use reason to construct various useful instruments and to devise clever ways to satisfy her needs. We could even say what good life for *Homo Faber* would consists in since we know what her *ergon* would be, namely ideal exercise for her distinctive capacity, productive thinking. Hence, a good life for her would have to aim at and achieve perfected intellectual activity of the right sort, namely the exercise of craft in obtaining and satisfying her needs in the best (i.e. the most pleasant) way.

Does the addition of productive thinking to *Homo Animalis* necessitate any principal modification to the connection between the cognitive and conative capacities (or to the capacities themselves) as they relate to *Homo Faber*'s needs, that is to her continuing survival and optimal functioning? *Homo Faber* needs to devise instruments, and in order to do so she needs to operate with conceptions or insights that are relevant to their construction. For example, in order to make bread, she must know how to obtain flour and how, having mixed it with water into dough, she can produce bread by heating the dough. In order to gain the appropriate insights and knowledge, her cognitive powers must provide her with the right information. For example, concerning fire, she needs to know how to safely use it as a source of heat. She thus needs more complex information and more cognitive power than *Homo Animalis*. Nevertheless, there is nothing inconsistent in supposing that *Homo Faber*'s cognitive and conative powers remain tied to her natural needs, that is, in supposing that she finds pleasant and so forms desires for just those things that are good and healthy for her and that her cognition provides her with information that is relevant to obtaining the things that satisfy those desires. Consequently, there is no reason to suppose that she would (or must) form desires that would not be tied to her needs (setting aside cases in which she would be externally induced to do so) and so no reason to change the basic framework within which her cognitive and conative powers operate.

And yet there is a fundamental problem with *Homo Faber* conceived of in this way. Let us imagine that Productikus is a *Homo Faber*, someone who can only engage in productive thinking.[47] Being hungry, he wanders through the forest in search of prey and sees a deer. Since he perceives it

[47] It is possible that Aristotle conceives of 'natural slaves' in a similar way. They are unlike animals since they can apprehend or perceive (αἰσθάνεσθαι) reason (*Pol.* 1.5, 1254b23) and they can also clearly master (when appropriately instructed) various branches of knowledge about how to make things and execute tasks (*Pol.* 1.7, 1255b21-35). But Aristotle denies them practical thinking since he denies them foresight (*Pol.* 1.2, 1252a32) and the ability to deliberate (*Pol.* 1.13, 1260a14). Nevertheless, 'natural slaves' are unlike *Homo Faber* since they can and often do form desires that are bad for them if they were not ruled by their masters. As far as the argument in this paper is concerned, then, 'natural slaves' must have more rationality that Aristotle appears to grant them.

as something that could satisfy his hunger, he desires to catch and eat it. But lacking any immediate means to do so, he must first go and make a bow and an arrow (in order to kill the deer) and a knife to help him make the deer into a meal. The problem is that Productikus will go hungry because by the time he manages to produce these instruments, the deer has had more than ample time to run away. It would again be simply a matter of luck if he were able to find and catch another deer. Obviously, then, Productikus needs to make the required instruments beforehand and have them at hand for when the right opportunity comes by. Moreover, he should keep them beyond the first use so that he does not have to make them again.[48] In other words, if productive thinking is to be effective (and not violate NIV) and Productikus not dependent on luck,[49] he also needs foresight and long-term planning.[50] Having foresight and engaging in long-term planning require, minimally,

[48] There are animals who use instruments without foresight since they neither prepare them in advance nor keep them for later (repeated) use. Jane Goodall describes complex tool-making behavior of chimpanzees that involves modifying (often with preferences for different modifications or material) sticks to catch termites. They sometimes even carry the sticks for a distance when inspecting different termite nests (Goodall 1968, 204-11). However, chimpanzees neither manufacture sticks in advance (at a time when they have no immediate need for them), nor keep the sticks long-term for repeated future use. Similarly, New Caledonian crows exhibit complex tool manufacturing skills but they do not keep their tools for future use. They however do afford their juveniles access to discarded tools for apparently learning purposes (see Holzhaider, Hunt and Gray 2010). Interestingly, sea otters are exceptional insofar as they anticipate future needs and keep tools for those anticipated occasions (see Hall and Schaller 1964).

[49] One might think that animals rely on luck in the sense that, for example, it is a matter of chance whether a lion encounters its prey at a given waterhole and even if she does, whether she will catch it. But this is not quite right. First, it would be a matter of luck (given Aristotle's view of luck in the *Physics*) if the lion went to the waterhole to drink rather than to satisfy its hunger but, being also hungry, happened to find a suitable deer there. However, lions generally stalk their prey precisely in places where the prey is likely to be. Second, lions pursue specifically those animals that they are in the best position to catch (sick, elderly or young). Third, their method of killing the prey is tied to the kinds of instruments (claws, teeth) that they have: they try and generally manage to break its neck or suffocate it rather than, for example, cause blunt trauma. The point is that insofar as the animal's (in this case lion's) objectives are concerned, its cognitive and conative capacities, and its natural hunting instruments (sharp teeth, claws etc.) *mitigate* the animal's reliance on luck to such an extent that the explanation of the animal's successful actions refers to those capacities and instruments rather than to luck. Accordingly, *Homo Faber*'s limited ability to use productive reasoning *fails* to mitigate her reliance on luck precisely because when and if she succeeds, this remains due luck. For example, it would be a matter of luck that she would find the right materials to construct a needed instrument sufficiently quickly (say, a spear) precisely when and where she would need it (i.e. that having found a prey, she would *also* happen to find the right materials). In this sense, she would be worse off than a non-rational animal that always already comes prepared for hunt.

[50] One could object that productive thinking already requires the ability to plan (since its products are, in fact, plans of construction) and so such ability and productive thinking are not really distinct. However, what is at stake is not the ability to produce a plan in the sense of a sequence of steps of construction (such as recipe), but the ability to plan according to foresight concerning one's own current and future situations. Planning of this sort – one that includes deciding when and what to produce and for what purpose is not the task of productive thinking as such (even as such ability is required for it to be effective). Insofar as we are trying to identify what, if any, modifications of *Homo Animalis*' non-rational conative and associated cognitive

a developed sense of time that includes past and future (*DA* 3.10, 433b7-10), the ability to retrieve memories at will (*HA* 1.1, 488b25-6), and recognition of oneself as having desires that are not currently felt. I will address this problem (P1) in the next section.

5. *Homo Prudens*

It was too late for *Homo Faber* to start thinking about getting the right instruments for hunting at the moment she found her prey. In fact, it would be too late to start thinking about it when she started to feel hunger. If she is to do better and overcome her dependence on luck, she must be capable of regulating her productive activities according to a long-term plan and independently of such currently felt desires. One possibility would be to act according to a plan how to attain a specific, particular goal, say a deer, and constructing the requisite instruments for that particular occasion. For example, she could construct the requisite instruments on day 1 and then use them to catch a deer on day 2. But this would be an inefficient (i.e. NIV-violating) use of her ability to plan with foresight, one that would depend on luck to an unacceptable degree. After all, she might not encounter any deer on day 2 and even if she manages to catch one, she will later need to hunt again and so would need to construct the instruments again. It seems, then, that if planning and foresight are to be put to an efficient use, the agent needs to operate with, and according to, general, long-term goals.

This is the task of *practical* thinking – it is thinking that involves planning with a view to the future (*NE* 6.2, 1139b7; *Rhet.* 1.3, 1358b8-15) so as to *reliably* achieve and sustain long-term, general goals.[51] It does so, at least partially, by regulating one's use of productive thinking and activities (*NE* 6.2, 1139a36). As productive thought is concerned with producing things that are useful (as instruments) for obtaining, attaining or performing things that satisfy our needs or desires, so practical thought is concerned with things (i.e. activities or objects) that are useful or beneficial for promoting one's desired goals (or ends). The goals, typically long-term and general, can be either specific ones, such as health or adequate food supply, or the overall goal of the agent's well-being. In the latter case, practical thinking is concerned with what is 'good and beneficial to the agent himself' or with what will 'promote living well in general' (*NE* 6.5, 1140a25-9). On a societal scale, this means regulating which crafts are studied and used (*NE* 1.2, 1094b1-5) within the city-

capacities are necessitated by the addition of productive thinking *as such*, importing the ability to plan according to foresight into the picture at this point would prevent the identification.

[51] It is sometimes suggested that Aristotle's theory of practical thinking lacks appropriate resources to accommodate planning with a view to the future. For a discussion, see Sherman 1985.

state. On an individual level, it means, among other things, planning – in view of one's current and anticipated needs – what, when, and how to produce and make use of. I will give the name *Homo Prudens* to the kind of human being who, in addition to the abilities and capacities of *Homo Faber*, is also capable of practical reasoning.

If practical thinking is to regulate the agent's actions based on considerations of long-term goals it must be capable of (1) operating independently of the agent's immediate, non-rational desires as well as (2) exerting control over such desires. Concerning (1), consider the case of Productikus – he cannot wait till he *feels* hunger to plan his food supply. He needs to plan quite independently of any feeling of hunger and, in fact, especially when he is not feeling hunger. But (2) is no less crucial. In thinking practically, the agent needs to be able to compare and evaluate her different goals and needs, and decide which of them are to be prioritized *now* and which are to be taken care of *later*. This activity inevitably gives rise to conflicts between what she feels she needs or desires now and what she thinks or believes she will need or desire in the future. For example, satisfying her hunger now might endanger her ability to satisfy her long-term desire for a steady supply of food.

If *Homo Prudens* is, then, to profit from rational calculation, she needs to be able to regulate and control her immediate desires.[52] This can be put paradoxically: our (practical) rational nature demands that for the sake of the overall better satisfaction of our non-rational desires, we often suppress those very desires.[53] Hence a human being who in addition to perception and productive thought engages in practical thinking must be capable of a form of motivation that is independent of perceptual pleasure and pain and that operates with conceptual articulations of one's non-rational desires that it needs to regulate. Aristotle calls this motivational source, sensitive to

[52] It is no coincidence that in Xenophon's *Memorabilia*, self-control (*enkrateia*) is the basis of all virtue, something without which one could not 'learn anything good or practice anything worthwhile' (*Memorabilia* 1.5.4-5). It is also one of the hallmarks of Socrates who was, as Xenophon puts it, 'so self-controlled that he never chose the pleasanter rather than the better' (ἐγκρατὴς δὲ ὥστε μηδέποτε προαιρεῖσθαι τὸ ἥδιον ἀντὶ τοῦ βελτίονος, *Mem*. 4.7.11, 8-9). On Socrates in this connection, see Devereux 1995. It is remarkable how close, in this respect, contemporary psychology tracks Ancient philosophy: 'The capacity of the human self to override its initial responses is one of the most important, powerful, and adaptive aspects of human nature. The immense flexibility and variety of human behavior can be directly attributed to people's ability to alter their responses – the essence of self-regulation. In many species, response follows directly from the stimulus and flows along well-programmed, highly regular and predictable patterns. Humans too are animals and have many of these innately prepared or well-learned responses. Yet humans can often prevent themselves from responding in these ways if the make the effort to override their initial response' (Baumeister and Vohs 2003, 201).

[53] In saying this, I am not committing myself to any particular way in which such suppression is supposed to work. For a critical discussion of the issue, see Corcilius 2008, 160-207.

calculation of time (*DA* 3.10, 433b5-11), wish (βούλησις). As he tells us, wish belongs to the calculating part of the soul (*DA* 3.10, 432b5-6) and it is aroused by thinking or judging that something is good (*NE* 3.4, 1113a23-7) rather than by perceiving something in a pleasant way. Insofar as *Homo Prudens* is concerned, however, there is an important qualification to be kept in mind. Her practical reason can only be conceived of as investigating what is good or best to do (from a long term perspective) *in relation to* the kinds of concerns that we assumed motivated *Homo Faber.* This is because, in the context of *Homo Prudens*, practical reason's primary purpose (i.e. the reason why it was added to *Homo Faber*) is to make optimal use of her productive abilities in view of her natural needs. Accordingly, although *Homo Prudens* is able to form desires (wishes) that are sensitive to rational calculation and to the judgments of goodness, the goodness at which those wishes are aimed must be understood instrumentally, that is, as conduciveness to the same (ultimate) goal that animated *Homo Faber*, namely pleasure. It is within this framework that we need to consider the addition of practical thinking to *Homo Faber*. Does it necessitate any principal modification to the connection between the cognitive and conative capacities, or to the capacities themselves? In particular does it require that *Homo Prudens'* non-rational desires (that is, desires for what she finds pleasant and aversions to what she finds painful) become untied from her natural needs (i.e. from things that are good and healthy for her)?

In order to answer the question we need to consider the way in which *Homo Prudens* engages in practical reasoning. Recall that for *Homo Faber* the impetus to think or do anything was provided by a currently felt pleasure-based desire, presumably one that was felt by her as the most urgent. Since her thinking and actions were directly dependent on her feelings, this put severe limitations on her ability to make use of productive thinking. *Home Prudens* is supposed to avoid this problem by being able to focus her mind on certain wishes (and so initiate her thinking about what to do) independently of any immediate non-rational desire. Aristotle outlines two ways in which an agent can come to think of a particular long-term wished-for goal. Though distinct, they share a common feature, namely that there is some one goal (or one standing concern) that is always, in one way or another, being engaged. The agent uses this goal as an organizing principle of her thoughts – what she ends up thinking about is, ultimately, decided by her consideration (however brief or implicit) of what matters most (or what should be prioritized) in view of her pursuit of that goal.

The first way is one that Aristotle is keen on reminding us to avoid as a great folly (*EE* 2.2, 1214b10). The agent does not choose her organizing principle (or overarching goal) by any reflection on her life as a whole and what would make it worthwhile. Rather, she elevates to that

position whatever goal or concern appears to her to be the most pressing one in a given period of her life – and what appears to her to be most pressing concern is determined by her feelings of pleasure and pain (*NE* 1.5, 1095b14-20). This is the case of the many (οἱ πολλοί) (*NE* 1.4, 1095a22-5):

> (D) For the many think that [*eudaimonia*] is something palpable and obvious, like pleasure or wealth or honor, while others think it still something else. In fact, even the same person often changes his view: for having fallen sick he thinks it is health, but having fallen into poverty he thinks it is wealth.

Although Aristotle does not explicitly explain why it is a great folly to be or to act this way, the reason is not hard to guess – it severely restricts the extent to which practical reason can succeed in providing for the overall well-being of the agent. One may succeed in some partial endeavor (say, in taking care of one's health), but one might well do so at the expense of any other goals one has, either making them harder to reach or even undermining the possibility of reaching them altogether. As the quote suggests, a person who operates in this way would pursue healthy life-style *only* when they are sick. But, of course, this would mean that, once healthy, she could easily slip back into unhealthy living and end up sick again. Moreover some ends require long-term concerted effort and dedication, and so can appear, after some time, more burdensome than attractive. An agent operating in this way would be better off than *Homo Faber* but only marginally so. Even if she plans according to long-term goals, she would often not find it attractive to stick to them since she would frequently change her views about which long-term goals matter. Moreover, there is no guarantee that, from a long-term perspective, the goal she is currently using as her organizing principle is in fact the one she *should* be using. Hence, if *Homo Prudens* were to operate in this way, she could only succeed in her endeavors as a matter of luck rather than as a matter of her effective use of practical thinking.

It is no surprise, then, that Aristotle outlines another way for organizing one's thoughts and actions, one in which one consciously postulates a particular, stable goal as the organizing principle. As he says (*EE* 1.2, 1214b7-9):

> (E) Everyone that is able to live according to his own decision should set up for himself a goal for living finely (whether honor or reputation or wealth or education) with reference to

which he will then conduct all his actions, since not to have one's life organized in view of some end is a mark of great foolishness.

The idea, then, would be that *Homo Prudens* would organize her life so as to maximize her overall satisfaction or pleasure in view of her anticipated natural needs and relevant desires. In other words, pleasure would not only be *Homo Prudens*' ultimate goal or source of motivation (i.e. the final explanation of her actions) but also her consciously adopted, general overarching goal, around which she would organize her life. We could, then, conceive of *Homo Prudens*' practical thinking in terms of what psychologists call 'temporal discounting' – essentially, the calculus of pleasure in Plato's *Protagoras.* The idea is that in deciding among alternative courses of action, one calculates the amount of pleasure for each course and does so irrespectively of the time at which the pleasure occurs (thus countering the tendency to overestimate pleasure at hand and underestimate future pleasure) and chooses the more pleasant course. Accordingly, *Homo Prudens* would use practical thinking or deliberation to devise plans so as to achieve optimal, long-term satisfaction of her needs and desires.

Does the operation of practical reason so conceived require that *Homo Prudens*' non-rational desires become untied from her natural needs? There are two points that might lead one to think so. First, *Homo Prudens* operates with an abstract conception of pleasure. Second, she will have conflicts between her short-term (or occurrent) desires and long-term plans and wishes (which will require suppression of the short-term ones). But neither of these points is decisive. Concerning the first, it seems perfectly coherent to think that the goal of *Homo Prudens* is maximization of the kind of pleasures for which she has non-rational desires and to the extent to which she desires (and anticipates desiring) them. It might be that she *could* think of a way to increase them further than she *feels* a need for them but there is no reason to suppose that the fact that she can think that means that she will also form a corresponding (excessive) non-rational desire. After all, the same holds of human beings in general – there are many things or activities that we find pleasant and can think of how we could maximize but we do not thereby also (non-rationally) desire to do so. Of course, we (i.e. full-fledged human beings) do so in *some* cases. But that means that the explanation cannot be the mere fact that we operate with an abstract conception of pleasure. Concerning the second point, the conflicts between short-term desires and long-term plans need not be understood as conflicts between bad or excessive desires of the moment and good long-term ones. Rather, sometimes one's occurrent desires, appropriate as they might be at the time, need to be suppressed in view of one's

anticipated future needs. It would be good if one satisfied one's desire now, but it will be better overall if one postpones the satisfaction.

If the foregoing discussion is along the right lines, *Homo Prudens* might seem to embody a certain ideal type of human being. She has healthy desires that correspond to her natural needs and she plans her life and productive activities so as to achieve best possible satisfaction of those desires and needs. If we were to imagine the life a community of such *Homines Prudentes*, we would imagine the life of citizens in Plato's First City.[54] As Socrates describes the city, it is not only complete, but also true and healthy (372e) since it satisfies all of its inhabitants' necessary needs (373a) (which means, as we learn later at 558d-559c, that it satisfies appetites that are by nature necessary).[55] The city manages to satisfy all those desires because it is filled with craftsmen (τεχνῖται) who produce things that are useful for the satisfaction of the basic, natural needs and do so in a way that enables the citizens to sustain their lives from a long-term perspective.

It is a well-known fact that Socrates is forced to abandon his first city. His interlocutors not only cannot recognize how justice and injustice are present in it (or if they are present at all),[56] but also insist that the First City is not really a city worthy of human life. As they see it, it should be properly called a City of Pigs (ὑῶν πόλις) rather than of people. Although people in this city live good lives since they live in peace and good health (ἐν εἰρήνῃ μετὰ ὑγιείας),[57] their lives, focused as they are on the basic physical needs for nourishment and reproduction (and the pleasures associated with them) are only fit for animals. Socrates thus must move to a city which does not have only what is necessary and natural but also what is established by convention (νομίζεται) (372d). This new city is then filled not only with craftsmen who produce things useful for the satisfaction of the basic, natural needs, but also with all sorts of 'makers' (δημιουργοί). These makers produce things that Socrates deems unnecessary (373b) since, as we also learn later, they are neither necessary for living, nor beneficial for living *well* (559a-b). Rather, they feed appetites that Socrates sees,

[54] 'First City' is Aristotle's term of choice for the City of Pigs (*Pol.* 1291a17). It might have ironic overtones as the phrase πρώτη πόλις usually means 'a leading city', whether in a geographic area or in an area of human activity.

[55] On this point, see Annas 1980, 77; Reeve 1988, 176-7; and Cooper 2004*a*, 257-9.

[56] On this point, see McDavid 2019.

[57] For a view that the City of Pigs is in fact Plato's Ideal City, see, for example, Silverman 2007. Although one need not agree with Silverman's conclusion, Socrates' reluctance to extend the development of the city beyond the first stage is significant, especially in view of his later insistence that the virtuous person should not have (or minimize) appetites for the kind of pleasures that are added to pleasures found in the First City (*Rep.* 558d-559b and 571e-572d).

correspondingly, as unnecessary (558d-9a). Unsurprisingly, Socrates describes this new city as unhealthy, inflamed (φλεγμαίνουσα) and luxurious (τρυφῶσα).

Although one might wonder why Plato thought that the First City needed to be abandoned,[58] our question concerning *Homo Prudens* is more specific: is practical thinking, as conceived so far, in a position to deliver on its promise? There are at least two reasons for thinking that it is not. First, as Aristotle tells us, 'pleasures differ in form (τῷ εἴδει)' (*NE* 10.3, 1173b27; 10.5, 1175a22) according to the kinds of activity in relation to which they arise.[59] They differ in fact so much that they can come to impede each other: pleasure derived from one kind of activity acts as pain in relation to another kind of activity (*NE* 10.5, 1175b1-23).[60] The problem is that if pleasure is to serve as the ultimate goal (or measure of goodness) for *Homo Prudens*, then pleasures must be commensurable. Although they certainly are so in some cases (e.g. when Odysseus considers whether it would be more satisfactory to exact revenge now or later), on Aristotle's account they cannot be so in general. For example, there does not seem to be a way to usefully compare (in terms of potential pleasure gains) the outcomes of securing future food supply through farming vs. training for victory in next year's chess competition vs. relaxing with a glass of wine.[61] Second, the

[58] It is remarkable that what made the luxurious city of revelers suitable for (or worthy of) *human* life was the addition of unnecessary appetites and of the (equally) unnecessary and, on Plato's view, unhealthy and harmful objects that satisfy them. On this picture, it would appear that human beings cannot have only desires that are natural, that is, good and healthy for them (at least not if they are to live *human* lives). Perhaps more precisely, it would appear that it is not possible for human beings to have healthy and good desires without the extraordinary measures (as Socrates portrays them in the *Republic*) that a society, as well as individual human beings, must take to impose control on those appetites so as to become and remain good and virtuous. And even when these extraordinary measures are in place, only few individuals can reach the full and true virtuous state in which their desires are healthy, natural, and good while the rest of the society needs to be constrained and managed by laws and punishments imposed on it by the virtuous minority of philosopher-kings. The First City is thus not only unfit for human beings but also psychologically unrealistic – human appetites, as Socrates (and Thrasymachus: see Cooper 2004*a*, 248) tells us, are prone to grow beyond what is good and necessary, exhibiting constant tendency to lawlessness, excess and savagery (e.g. *Rep.* 572b and 588c-d) and there is nothing in the First City – no system of laws and punishments (as noted already by Aristotle at *Pol.* 1290b21-1291b13 – to guarantee that they do not. As Rachel Barney puts it, the First City 'embodies the hypothesis that a city without rational rule could be moderate in its appetites' but such hypothesis is false (2001, 220).

[59] See also *NE* 1.8, 1099a11-15; 7.12, 1153a1-7.

[60] Although this concerns especially the various interactions between the two distinct branches of pleasure – pleasures associated with perceptual activities and those associated with intellectual activities (*NE* 10.5, 1176a1-5), the same holds of kinds of pleasures within each branch.

[61] Scholars often maintain that Aristotle is committed to the principle of weak commensurability, that is, to the idea that if practical reasoning involves comparison of alternatives, then it can only be successful if 'there is a common factor shared by the alternatives in terms of which they may be compared' (Charles 1984, 111). But the case of *Homo Prudens* considers (and at this stage can only consider) a stronger position, one in which pleasure presents the common measure in which any two or more options can be compared. Given the

range of pleasures that one can experience is limited by one's own capacities and character: 'the same things delight some people and give pain to others and while to some they are painful and hateful to others they are pleasant and loveable' (*NE* 10.5, 1176a9-12). Although some future pleasures or pains can perhaps be foreseen (say, if one is to enjoy playing soccer in the afternoon, one cannot eat too much for lunch), any long-term estimates are subject to changes that are either very difficult or impossible to foresee (such as possible changes in one's physical health, in one's mental capacities, or in one's political situation).

The diversity and fluidity of the forms of pleasure thus make it an unlikely candidate to allow an effective decision procedure.[62] The problem is rooted in the very function of pleasure. As we have seen, pleasure is nature's way of guiding animals, through perception, to what is *currently* good for them – what they find pleasant changes in accordance with the changes in their physical and psychological conditions and external circumstances. The diversity and fluidity of pleasure is thus essential to its being a useful guide from short-term perspective. But it severely constraints its usefulness as a principle or guide from a long-term (or even life-long) perspective. If *Homo Prudens* were to use pleasure as the criterion by which to organize the pursuit of her long-term, general goals (and so organize her life), she would not be able to do so precisely on account of that very diversity and fluidity. Even if she tried to determine which of the many sorts of pleasure would have the best chances to serve as her *stable* overarching goal, the dependence of what one finds pleasant on one's particular circumstances would make such long-term determination impossible.[63] Even the seemingly most reliable sources of pleasure do not provide the desired stability.[64]

variety and incommensurability of different kinds of pleasure, there is no guarantee that even the principles of weak commensurability could be sustained.

[62] Although Plato entertains pleasure as such a single, unified measure or criterion in the *Protagoras*, it is well-known that he leaves it behind once its nature is subjected to examination (e.g. *Rep.* 580d-7b; *Phileb.* 12d-e). For a useful discussion of the problem in Plato's thought, see the classic studies by Crombie 1962, 225-68; and Nussbaum 1986, 106-16.

[63] One could wonder whether the *virtuous* person could be guided by pleasure since she is 'lover of the fine' and what pleases her (namely, virtuous actions) is 'pleasant by nature' and so not 'in conflict' (*NE* 1.8, 1099a11-15). But Aristotle thinks that the virtuous person is an excellent judge of what is truly pleasant because she possesses a criterion of goodness that is other than pleasure and that enables her to not be swayed by the mere appearance of pleasure as the many (*NE* 3.4, 1113a29-34). This is not to deny that the virtuous person's feelings are not a better guide to action that other people's feelings. However, Aristotle certainly does not think that the virtuous person should (or even could) rely on them rather than on her reason to guide her life. For example, he certainly does not hold that virtuous actions are *always* pleasant or that the virtuous person finds pleasant *only* such actions.

[64] This is the famous lesson of the opening pages of *Rep.* 1 in which Cephalus enumerates the various benefits of wealth (330d-1e) as providing a stable, secure foundation for a good or content life only to be, as a

The problem, then, is not that pleasure is an unreliable guide to what is good – for animals, it serves its purpose perfectly well. The problem is that it is not a suitable guide to *thinking* about what is good for oneself from a long-term perspective. Despite initial appearances, *Homo Prudens* is not in a good position to use her practical reasoning to manage and organize her long-term goals so as to live well. The effectiveness of her practical thinking would be, once again, dependent on luck and so, in this respect, NIV violating. But it would be quite absurd if nature were to provide human beings with a capacity for practical thinking without enabling them to operate with a suitable criterion of goodness. Thus, although the addition of practical reason solved one problem (P1), it raised a new one. If *Homo Prudens* is to follow Aristotle's advice and 'set up for herself a goal for living finely' but if she cannot use pleasure to 'save her life' (*Prot.* 357a), she requires a source of motivation that is different from pleasure, one that would provide her with a criterion of (or guide to) goodness that is suitable for long-term thinking and planning and that will, at the same time, bear just the right relation to what is good for her (in particular, that will reflect her knowledge of what is good, as opposed to her perception of what is pleasant).

Perhaps one might think that some other (i.e. other than pleasure) conceptual articulation of one's basic needs or non-rational desires would do, for example wealth, health, safety, power, honor or reputation. The problem with this suggestion is that some things are good for us even if they do not contribute to, or even appear harmful in view of, goals of this sort. For example, it is sometimes good to preserve one's honor even if doing so harms one's health, or to increase one's power even if it harms one's reputation. So *Homo Prudens* would need a criterion according to which she would choose which one of them to pursue and when. This could be pleasure but, as we have seen, pleasure as is unsuitable for the task. Alternatively, she could simply stick to one such goal at all costs. But doing so would be arbitrary and irrational since one's circumstances can render a goal of that sort bad or harmful, either at the moment or from a long-term perspective. What *Homo Prudens* requires, if she is to use her practical thinking for its purpose, is a true and reliable guide to (or criterion of) goodness (one that would help her decide which of the long-term goals is to be pursued now and which later), not simply a guide that might bear no connection to what is good for her. If pleasure has been thought to be (at least so far) a reliable guide to what is good from a short-term or immediate perspective, goals such wealth, health, safety and so on are not suited for guidance from even such short-term perspective, much less from long-term one. *Homo Prudens* thus needs a

contemporary reader would know, ruined by bad luck – that is, by a change in the political situation in Athens (on this, see the discussion in Annas 1981, 18-21).

different kind of criterion, one that is not any of the natural goals or ends that we have encountered so far. To any attentive reader of Aristotle the identity of this other source of motivation is no mystery – it is what Aristotle calls τὸ καλόν (the beautiful or the fine).

6. *Homo Sapiens*

When we spelled out the workings of productive and practical thought, we concentrated on features or modes of thinking that were useful for satisfying our natural needs and desires (i.e. reproductive and nutritive needs). In doing so, we did not conceive of reason as doing anything on its own, as having any interest or sphere of activity independently of such needs. Rather, human natural needs were assumed to be already in place before we even constructed the first human being endowed with reason, *Homo Faber*. Reason, in its two forms discussed so far, was conceived of as an instrumental faculty aimed at efficient satisfaction of those needs. But the various problems we encountered show that reason *so conceived* is not well-positioned to do what we thought it was supposed to do even insofar as those needs and desires are concerned. It would appear, then, that the solution lies in conceiving of reason as doing something on its own, as having its own sphere of interest and activity that stands apart from our natural needs and desires.[65]

Insofar as Aristotle is concerned, there is little mystery as to what reason (on its own) seeks – it is, as he tells us, truth (*NE* 6.2, 1139a23-31). In particular, thinking *as such*, that is, theoretical thinking, seeks truth in the form of understanding provided by scientific knowledge (ἐπιστήμη). The basic contours of what this means for Aristotle are well known. To have scientific knowledge is to have the ability to explain things (or facts) in terms of causes. We explain things scientifically by showing or demonstrating how they deductively follow from first principles. The grasp of such (syllogistic) deduction just is what having the truth about a given fact or thing is. Aristotle has a great deal to tell us about how reason can arrive at such truths, in particular about how it can construct the kind of explanations it seeks by finding the right explanatory factor of a given thesis or claim (for example, that planets do not flicker is explained by their being close) (*APo*. 1.13).

Since Aristotle holds a (more or less) empiricist theory of knowledge according to which all knowledge must start with sense perception and experience,[66] it follows that, in order to be able to

[65] Some scholars believe that, perhaps unlike Plato, Aristotle came to think of reason as 'neutral instrument that can be used well or badly, rather than one whose natural tendency is in the direction of wisdom' (Sorabji 1995, 70-1). Sorabji's claim relies, at least partially, on a mistaken understanding of the nature of cleverness (δεινότης) in *NE* 6.13. I discuss the issue of cleverness in Müller 2018, 163-6.

[66] Besides *Meta.* 1.1 and *APo.* 2.19, see esp. *APo.* 1.18, 81a38-b9.

satisfy their desire to know, human beings must be capable of acquiring perceptual experience that is not tied to their needs of survival and reproduction but, rather, derived from perceiving or observing things independently of any such needs. This feature of human perceptual capacity constitutes a major difference between human beings and other animals whose perceptual systems are firmly tied to their natural needs. Aristotle helpfully gives us a picture of what would happen, from the point of view of acquisition of knowledge, if human cognition *were* confined only to those features of things that are useful for basic needs of nourishment and survival. As he portrays it (in *Meta.* 1.1 and *APo.* 2.19), both animals and human beings have the ability to recognize repeatable *patterns* in their perceptual experience (although they do so in varying degrees of complexity). For example, they can become able to reliably distinguish rabbits from other (often similar) animals; to identify things as being of the same color; or to recognize that things that smell or look certain way are not to be eaten. The structured sum of such patterns forms what Aristotle calls experience (ἐμπειρία). In the case of animals, experience is aimed at allowing them to navigate the world. It enables them to reliably identify what they should avoid and what they should pursue. From this point of view, experience is a set of memories that are structured on the basis of relevant (for one's purposes) similarities. For example, it will tell the animal that things of certain size, color and shape that behave in a certain way are to be pursued.

Now if human beings were just like other animals, the acquisition of their experience could be aimed at and constrained by the purpose of enabling them to navigate the world as they seek to satisfy their (natural) needs. Although their ability to gain and employ experience would be greatly enhanced by the fact that they can operate with concepts and formulate general thoughts (such as 'light meats are healthy') and rules (such as 'when having a headache, take a red pill'), the difference would be a matter of degree rather than of kind. As Aristotle explicitly says, human beings *could* (and in fact do) succeed in navigating the world in this way, that is, simply on the basis of experience (*Meta.* 981a13-15). In order to know what things are, however, it is not enough to have experience that can identify things in relation to one's needs. It is entirely conceivable that the features by which one identifies things in the experience-only based way have nothing to do with what the things themselves are. For example, the fact that one should eat things that are sweet and smell nice, does not necessarily reveal anything about what those things are or even about what makes them beneficial (*Met.* 1.1, 981a7-13):

> (F) For to have a supposition that when Callias was sick of this disease this benefitted him, and so also to Socrates and so in many individual cases, is a matter of experience. But to

> suppose that it benefitted all people of a certain kind, marked off according to one form, when they were sick of this disease (for example, to phlegmatic or bilious people when burning with fever), is a matter of craft.

According to this passage, a person of mere experience can formulate a number of propositions, such as 'treatment T helped Callias when he had fever'. She can, on the basis of these propositions, also form a rule: 'If people have a fever, apply treatment T.' An experience-based rule of this sort provides a quick, reliable and clear guidance to one's actions. But such experience might offer no insight into what the disease in question is (and so, in this case, into why the particular treatment is effective). Experience as tied to our natural (non-rational) needs provides little or no basis for developing knowledge (unless accidentally).

In animals, as well as in *Homo Faber* and *Homo Prudens*, the link between cognition and needs was provided by feelings of pleasure and pain which provided guidance and motivation to pursue things that were relevant to satisfying those needs. But the needs of *Homo Sapiens* are not exhausted by the natural needs of survival and procreation. They *also* include the desire to know. Since, as we have just seen, that desire cannot be satisfied if her cognition remains tied to her natural (i.e. procreative and nutritive) needs, that link needs to be modified. And indeed, on Aristotle's view, it is a peculiar feature of human beings that they can find pleasure in perceptual acts themselves, independently of the perceived object's relation to their basic nutritive needs (*Met.* 1.1, 980a22-7), whereas non-rational animals do not take pleasure in things or activities that are not linked to, or are independent from, their reproductive and nutritive needs (*NE* 3.10, 1118a19-24; *De Sensu* 443b20-444a5).

The reason why human beings find such things pleasant is precisely the fact that they by nature desire to know. The fact that human beings can find pleasure in perceptual acts themselves, independently of the perceived object's relation to their basic nutritive needs (*Meta.* 1.1, 980a22-7) is connected to their ability to acquire experience that is relevant to acquisition knowledge. The pleasure that human beings find in perceiving things in this 'disinterested' way provides motivation to sustain the relevant perception, and focuses, or, as Aristotle puts it at *NE* 1175a3, 'enhances', the cognitive activity itself. This concerns especially sensory modalities that operate through external media: seeing, hearing and smelling. In non-rational animals, these three senses are a means of

preservation (σωτηρία) of life by guiding the animals towards food and away from danger.[67] In human beings, however, they also communicate to the mind many distinctive qualities (διαφοραί) of things from which comes knowledge or understanding of both theoretical and practical things (*De Sensu* 436b21-437a3).[68] Insofar as their contribution to knowledge is concerned, Aristotle singles out especially seeing and hearing. On the one hand, as he tells us, it is through sight that we most come to know things (*Meta.* 1.1, 980a26-8) insofar as through it we recognize the form (μορφή) of things (*Top.* 2.7, 113a31-2). Presumably, this is because it is by sight that we best perceive the common sensibles, such figure, magnitude, motion or number (*De Sensu* 437a8-10). On the other hand, hearing makes a crucial contribution to knowledge since it enables us to use and communicate through speech and discourse which are indispensable for learning (*De Sensu* 437a10-15).

However, human beings need to be able to focus on not just *any* such features of things but precisely on those that make or account for what things are. This means that they need to be able to focus on those features that account for the teleological order that things exhibit, that is, for their being so ordered as to form functional unities. It is such teleological ordering that makes things what they are.[69] It is, then, not just any sights and sounds that human beings (are supposed to) enjoy but those that are related to what things are, that is, those that are related to things' being functionally well-ordered unities.[70] But the sensitivity to features related to teleological ordering of things is nothing else but sensitivity to beauty: we find those things beautiful that exhibit order, symmetry or definiteness (*Meta.* 13.3, 1078a31-b5) and these features are exhibited by those very things that are functionally well-ordered unities.[71] The sensitivity to things insofar as they are *kala*

[67] Consequently, non-rational animals enjoy them insofar as they are indicative of current or potential nutritive or sexual activity. Moreover, as Aristotle makes clear at *De Sensu* 443b20-444a5, non-rational animals are entirely incapable of enjoying sights, smells or sounds that are *not* connected (even potentially) to reproductive or nutritional activities.

[68] Thus although Aristotle attributes to many non-rational animals variety of characteristics that suggest complex forms of cognition (including qualities like sensitivity, intelligence, skillfulness, industriousness or political nature), the continuity with human intellectual abilities, including *phronesis*, should not be overemphasized, as Aristotle himself warns us at *NE* 6.7, 1141a22-8. But see Labarrière 1990.

[69] On the connections between nature, essence, unity, and teleological order, see *Phys.* 8.1, 252a11-16; *De Caelo* 3.2, 301a5-12; and *Meta.* 4.2, 1003b23-1004a9. On the connection between essence (nature) and function (*ergon*) see, for example, *Meteor.* 4.12.

[70] See, for example, *PA* 1.5, 645a21-6; *Pol.* 3.12, 1284b8-22; or 7.4, 1326a33 *ff*.

[71] There is little doubt that Aristotle connects functional or effective teleological order (that is, structural arrangement of things that conduces to their good or proper end) with beauty. For a discussion of this point

(or insofar as they exhibit such features) is a peculiarly human feature (*EE* 3.2, 1230b21-30; *NE* 10.8, 1178b32-4) – it requires the ability to focus on features of things that are not tied to reproductive or nutritive needs and so the ability to enjoy perceptual acts of seeing, hearing, and smelling in themselves.[72]

We thus arrive at a teleological explanation of human beings' sensitivity to beauty – the very human desire for knowledge and understanding requires that human perception supplies it with the right sort of information. It is because of this requirement that we are sensitive to things insofar as they are beautiful. If pleasure is the way in which nature reveals to each organism what is good for it, beauty is the way in which nature reveals itself to the inquiring observer (*Meta.* 1.1, 984b12; 5.1, 1013a22). But if human perception is sensitive to beauty, that is, if human beings find perceptual pleasure in contemplating things, then it must be the case that human non-rational (perception-based) *desires* for things insofar as those things are pleasant are *also* sensitive to things in this way. And that means that human beings experience as pleasant, and so form non-rational desires for, things that are not tied to their survival, that is, either to their nutritive or reproductive needs.

7. PEI

We have identified the crucial moment in which human (non-rational) desires become detached from human natural needs. Although this was the primary task of the paper, there is more work to be done if we are to address PEI. In particular, we still need an explanation of the unlimited nature of human non-rational desires and of their inherent tendency to excess. As we shall see, although the explanation is conventional, ultimately lying in the identification of goodness with pleasure, we are now in a better position to see its implications. We can begin by observing that human beings do not form different kinds of non-rational desire for things insofar as they are, on the one hand, pleasant in view of their nutritive and reproductive needs and, on the other hand, pleasant because

see Richardson Lear 2006. There is also little doubt that Aristotle thinks that essences of things exhibit precisely such teleological order and, hence, beauty (e.g. *Meta.* 1.3, 984b12-18).

[72] In the *Philebus,* Plato identifies as true pleasures those that arise from sights, sounds, odors and knowledge (51b-52a). In the case of sights and sounds, he says that they arise from those that are beautiful by nature (or in themselves) (51b-c). Although he classifies as true also pleasures that arise from odors (under certain conditions, i.e. when not preceded by pain), he refrains from saying that they arise from beautiful odors (51d). Aristotle, however, has no such qualms when he identifies certain odors, such as those of flowers, as beautiful (*EE* 3.2, 1231a12-13) since they are intrinsically pleasant (rather than pleasant in relation to anticipated nutrition). But neither Plato nor Aristotle ever speaks of beauty in relation taste (or flavor) and touch.

they strike them as beautiful (or otherwise attractive independently of the nutritive and reproductive needs).[73] This suggests an inherent tension in the way in which human non-rational desires are supposed to work. On the one hand, they are supposed to serve nutritive and reproductive (i.e. natural) needs and from that point of view there is (or should be) a natural limit to them, determined by what is healthy and beneficial. This concerns both bodily pleasures in which the right measure is given by health and beneficence (*NE* 3.11, 1119a15-18), as well as those pleasures that arise from things like victory, honor or wealth (*NE* 7.4, 1147b24-1148a4) in which the right measure is given by their usefulness or beneficial contribution to life (*Pol.* 1.8, 1256b26-34).

On the other hand, human perceptual, and so also desiderative, capacities must appropriately serve and supply information to the higher, intellectual faculty. But since 'everything is a possible object of thought' (*DA* 3.4, 429a18) and the desire to know extends to all of nature since 'in every natural thing there is something to wonder about' (*PA* 1.5, 645a16-17), human beings must be capable of finding it pleasant to perceive *any* possible object of knowledge (i.e. any teleologically or functionally – whether actually or potentially – arranged unity). For example, Aristotle tells us that 'there is something natural and so beautiful' in all animals (*PA* 1.5, 645a22-3) even if, presumably, not all animals are of interest to human beings as sources of food. Furthermore, since a desire to know cannot be excessive (e.g. *Pol.* 7.1, 1323b7-12) and so has no natural limit, there also cannot be any such limit in relation to desiring what is beautiful (*kalon*). If there were, it would impose a limit on the desire to know. From the point of view of perception's role vis-à-vis intellect, then, human non-rational desires cannot be constrained or limited, either by a built-in mechanism or adaptation to a particular habitat.[74]

Although this tension should be resolved in favor of the higher, intellectual function, it is not immediately obvious what it would mean for appetites to be unlimited in relation to *bodily* pleasures. In fact, it might be thought that the tension just outlined is ameliorated by the fact that bodily pleasures cannot be enjoyed beyond a certain measure or amount, namely up to the point of

[73] See, for example, *Prob.* 10.52, 896b10-38.

[74] For non-rational animals it is possible to specify their natural nutritive needs and ways of life. As Aristotle says, there are many sorts of food and so the lives of animals differ in kind, depending on the kind of food they require (*Pol.* 1.8, 1256a19-23). In general, they 'live in the way which is beneficial for getting their food, accordingly as they are carnivorous or herbivorous or omnivorous: nature has determined their ways of life so as to make it easier for them to get hold of the required food. And since the same things are not naturally pleasant to each, but different things to different ones, the ways of life of carnivorous and herbivorous animals are different from one another' (*Pol.* 1.8, 1256a24-9).

satisfying the relevant desire.[75] And yet, as we have seen, Aristotle asserts that in pursuing bodily pleasures human beings are insatiable 'since the nature of their appetite is unlimited' (*Pol.* 2.7, 1267b4). But we can now explain what Aristotle means by appetites being unlimited in relation to bodily pleasure. First, although Aristotle believes that human beings have an innate ability to (perceptually) enjoy beautiful things independently of their natural needs (such as hunger or sexual desire),[76] they nevertheless first develop desires for pleasures associated with bodily needs, and especially those associated with satisfying hunger and thirst. Even later in life, these pleasures remain more conspicuous and intense than the ones associated with perception of things insofar as they are *kala*. They remains so because they are accompanied (or preceded) by pain, generally a bodily lack in need of replenishment (*NE* 7.14, 1154a22-b20). Second, since human beings are sensitive to beauty (and in general to formal features of well-formed things), their experience of bodily pleasures can be enhanced by its presence in things that constitute sources of such (bodily) pleasures (e.g. *EE* 3.2, 1230b21-1231a26; *Prob.* 10.52, 896b22-3).

As a result, there is a tendency to identify *to kalon* with that which either directly satisfies bodily desires, or is useful and contributes to their satisfaction. A mind that is focused on bodily pleasures (as that of all young people) is naturally liable to confuse beauty with things that are sources of (and resources for) non-rational pleasure.[77] The consequences of this confusion are momentous, since the shaping of one's sensibilities (i.e. one's habituation) in relation to things that are *kala* (that is, the shaping of a sensibility that does not have any natural limit) is now driven by, and subordinate to, the enjoyment of the sort that pertains to *non-rational* needs (i.e. which are supposed to have a natural limit). In other words, the confusion of beauty with sources of bodily pleasure leads human non-rational desires to develop their unlimited nature (which is supposed to serve intellectual needs) towards bodily needs and desires. Aristotle offers a portrayal of the result of this confusion in his description of the rise of two particular objects of pursuit that correspond to the two kinds of non-rational desires he recognizes (appetite and spirit): wealth and honor.

In the case of appetite, this is the unnatural (e.g. *Pol.* 1.10, 1258b1) art or craft of the acquisition of wealth *for its own sake* (as opposed to instrumentally for the sake of things that are

[75] *Probl.* 10.47, 896a27-8; 21.13, 928a34-b22; 21.14, 928b23-929a5; 22.3, 930a24-38; 28.7, 950a14-15.

[76] The clearest example is music: *Pol.* 8.5, 1339b42-1340a5.

[77] Here it might be helpful to think, for example, of someone like Hippias in *Hippias Major* who seems completely unable to conceive of fineness or beauty in terms unrelated to his natural (pleasure-based) needs, identifying the fine with what is pleasant to perception (a beautiful girl at 287e) or useful for having a pleasant life overall (wealth at 291d-e).

necessary for life), which Aristotle portrays in *Pol.* 1.9-10. Wealth, originally an instrument to enable exchange of (useful) goods, becomes the object of appetitive desires even when, as Aristotle says, one can accumulate great wealth and yet 'perish with hunger' (*Pol.* 1.9, 1257b15-17). It is, in his view, the most absurd kind of goal since it leads to a state in which one starts to use one's every faculty and power 'in an unnatural way' (1258a10). By that he means that one starts to organize one's life so as to increase the amount of useless (or even harmful) wealth while, at the same time, failing to attend to one's actual (natural and intellectual) needs. In the case of spirit, the situation is less absurd since what becomes the object of one's desires (honor) is something which has connection to usefulness, since it is 'the sign of good reputation for doing good' (*Rhet.* 1.5, 1361a28), where 'doing good' (εὐεργεσία) refers to one's past or future beneficial contribution to preserving things of value (such as life). However, honor is still merely a token of recognition of one's good and beneficial actions and not something to be desired as such.

Although it is the addition of sensitivity to beauty (necessitated by the addition of theoretical reason) that leads to desires for honor and wealth as intrinsic goods, this is not because honor and wealth themselves possess any beauty. Their value, such as it is, is merely instrumental.[78] But in *Homo Sapiens,* due to the severing of the link between natural needs and (non-rational) desires and so due to the removal of natural limits on appetite and spirit, they can become non-instrumental objects of such desires (in the way described above). Of course, Aristotle thinks that those limits can be artificially imposed and so that one can avoid desiring wealth or honor as intrinsically good things. But this can be done only by a mind that is *trained* to discern and care about what is truly beautiful or fine (i.e. that is trained to care about knowledge of what is good) and distinguish it from (bodily) pleasure. For someone who lacks an appropriately discerning mind, however, wealth and honor remain particularly attractive as objects of pursuit. Although bodily pleasures cannot be enjoyed beyond certain measure or amount,[79] there is no limit to how much wealth or honor one can acquire. Wealth and honor thus make a 'perfect' fit for (the unlimited) non-rational desires of such a person. That is why Aristotle can say both (*NE* 3.4, 1113a30-b1):

> each state of character has its own view of what is fine and pleasant, and so perhaps the excellent person differs from others most in that he see the truth in each case, being as it were

[78] This is perhaps most clearly expressed in *NE* 1.5, 1095b23-30 (for honor) and 1.5, 1096a5-9 (for pleasure).

[79] See n. 75 above for references.

> a standard or measure of them. For the many, however, pleasure is the cause of deception since it appears good [to them] when it is not;

and also that the many 'do not even have a notion of what is fine and truly pleasant since they have not tasted it' (*NE* 10.9, 1179b15).

We have, then, arrived at the answer to PEI. Once reason was conceived of as a faculty in its own right, it imposed certain demands on human non-rational nature. These demands ultimately led to the removal of natural constraints on human non-rational desire and, hence, to their 'limitless' nature. The tendency to badness then follows as the result of the hard-to-resist confusion of goodness with pleasure. As Aristotle sees it, it is extraordinarily difficult to arrive at the proper notion of *to kalon* (at least for most people). And insofar as that is so, there is no limit to the erroneous ways in which they end up organizing their lives and, hence, their ways of life.[80]

PEI thus does not signal a flaw in otherwise perfect workings of nature. Rather, the addition of rationality to the underlying animal nature *necessarily* brings about a tendency of that animal nature to go astray. As Aristotle contends, if that part of our nature is to function appropriately, it can do so only in an appropriately artificially constructed environment of a *polis* which would impose those constraints and limits. Hence, Aristotle's thesis that *polis* is both natural and, at the same time, artificial – it is the only environment (if constructed correctly) in which human beings can appropriately satisfy their natural needs and yet it is the product of the highest craft or art, that is, of political craft.[81] Of course, it is not every *polis* that can do that. Unlike other social or political animals that invariably form appropriate communities for their particular ways of life (such as bees, wasps, or ants), most (if not all) societies formed by human beings fall short of their purpose.[82] We have seen some reasons for these deviations in the inevitable, competing (and false) claims of honor and wealth to provide the organizing values for societies, leading to the various deviant forms of government, including oligarchy, democracy, and tyranny.

I would like to close the paper with a brief note on our responsibility for having bad, unnatural or excessive desires. It might be thought that, if the account given so far is along the right

[80] Here it seems apt to quote Hegel's classic remark: 'Der Mensch erweitert durch seine Vorstellungen und Reflexionen seine Begierden, die kein beschlossener Kreis wie der Instinkt des Tieres sind, und führt sie in das schlecht Unendliche' (*Grundlinien der Philosophie des Rechts* §185: Zusatz).

[81] On the intricacies of this issue, see Pellegrin 2017*b*.

[82] On Aristotle's notion of human being as a political animal, see Kullmann 1991 as well as Pellegrin 2017*a*, 93-108.

lines, the proclivity for such desires is a necessary consequence of human psychological make-up (in particular, of the addition of rationality). And if it is a necessary consequence, it might be further thought that we cannot be held responsible for becoming vicious, contrary to what Aristotle says in *NE* 3.5. This is a difficult topic that I cannot treat here in a satisfactory manner.[83] However, it is crucial to see that, even if human beings have an inherent tendency to form such desires, *that* fact, in Aristotle's universe, does not translate into those desires (or, rather, their objects) being *natural* desires, that is, desires we are *supposed* to develop. On the contrary, in Aristotle's universe we might be thought to have a task, insofar as development of virtue (or, rather, *eudaimonia* as a life achieved through the exercise of virtues) is our natural end or *telos*, to train and educate ourselves so as to avoid developing such desires. Aristotle can claim this because he believes there is such a thing as an objective, natural *telos* of human life. If there was no such thing, it would be difficult to see how we could be blamed for developing desires for which we have, as a matter of fact, an innate proclivity. In sum, it might be that it is very difficult and so rare to develop in the right way (i.e. to become virtuous), but the difficulty does not remove our responsibility to try, as best as we can, to do so (even as it might explain our failures). We certainly cannot be blamed for the tendency to develop bad desires, but we can be blamed for not countering that tendency.[84]

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[83] But see Müller 2015*a*.

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