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Dynamic Modalities and Teleological Agency *Plato and Aristotle on Skill and Ability*

Tamer Nawar

Three important claims are made in *Republic* I concerning the nature of skill or expertise (*technê*) and certain kinds of ability or power (*dunamis*): (a) that skills or the abilities constitutive of skill have a certain ‘two-way’ nature;¹ (b) that the possessor of skill cannot fail to bring about what they intend or attempt; and (c) that skills or expertise are directed towards some good. These claims are discussed in some detail by Plato and seem to play an important role in Aristotle’s account of *technê*, but it is not clear precisely what these claims amount to, why they might be deemed plausible, or to what degree Plato or Aristotle are in fact committed to them. In this chapter, I aim to clarify these claims and the attitudes adopted towards them by Plato and Aristotle and thereby further our understanding of dynamic modalities and teleological agency in the thought of Plato and Aristotle. To this end, I first (Section I) clarify and explain the precise claims being made in *Republic* I, which arguably offers the most detailed surviving treatment of these claims prior to Aristotle. I then (Section II) examine how Aristotle incorporates and adapts the relevant claims in developing his own account of skill and ability.

I Plato’s Republic on *Technê*

What has come down to us as the first book of the *Republic* centres on a discussion of the nature of justice. While the conversation focuses on justice, the interlocutors assume or make several claims about *technê* that

¹ It is nowadays often claimed that abilities have a two-way nature such that *x has the ability to φ iff x has the ability to refrain from φ-ing*. E.g., ‘So, if “*p*” stands for “read”, *Cx-p* means “*x* can omit reading” . . . A fundamental law of ability-logic seems to be this $Cxp \leftrightarrow Cx-p$. Ability to and to omit are reciprocal’ (von Wright 1976: 391). Such claims are often traced back to Aristotle. While there is something to this (see below), as we shall see in this chapter, Plato and Aristotle understand the two-way nature of abilities in ways that differ significantly from this modern understanding.

merit the attention of those interested in ancient views of ability and skill or expertise.

I.A Two-Way Skills

In examining Polemarchus' views concerning justice, Socrates claims that being skilful or clever (*deinos*) has a certain 'two-way' nature. The person who is cleverest or most skilful at hitting is proficient not only at hitting, but is also the cleverest or most skilful at guarding against being hit (*Rep.* 333e3–4). Equally, the person who is clever or skilful at guarding against illness is also proficient at producing it (333e6–7), and the same applies to the person who is a good guard of a camp (333a1–3) in so far as the skilful guard is also a skilful thief (334a5). It seems that the 'two-way' nature of *being skilful* (*deinos*)² should be glossed as follows:

(Two-Way Skills) if x is skilful at ϕ -ing, then x is proficient at ϕ -ing and x is proficient at ψ -ing (where ϕ -ing and ψ -ing are opposites).

It is not entirely clear what (Two-Way Skills) amounts to or why it should be deemed plausible because, although the examples in the *Republic* suggest that 'being proficient at ϕ -ing' amounts to being able to ϕ well, precisely how the relevant 'opposite' activities should be understood is less clear. Moreover, it is not entirely clear whether Plato's Socrates is putting forward this claim about the two-way nature of being skilful merely dialectically or not in *Rep.* I, whether this claim is meant to hold of *technai* quite generally or to what degree this claim is taken as true in other dialogues. However, given the importance Aristotle gives to similar claims (see Section II.A), the claim merits explication and there seem to be several ways of understanding what (Two-Way Skills) amounts to depending upon how one construes the nature of the relevant 'opposite' activities.³

² Isocrates closely associates being clever or skillful (*deinos*) with possessing a *technè* (e.g., *Antidosis* 33, 35, 117, 230; cf. *Prt.* 312d5–e2).

³ Plato speaks of opposites (*enantia*) in various ways. In general, it seems that opposites may be: contradictory, which are such that everything must be one or the other but cannot be both (e.g., white and not-white) (cf. *Rep.* 491d4–5);

polar contraries (e.g., *enantiotata*, *Prt.* 331d5), which are exclusive and partially exhaustive in so far as although *not* everything must be one or the other, everything that instantiates some more general quality must be one or the other or somehow in between (*Symp.* 201e10–b5; *Prt.* 346d1–3);

contraries, which are such that nothing can be more than one of them in the same respect at the same time, etc. but are not mutually exhaustive (e.g., white, red, green, blue, black) (*Rep.* 436b6–37c10).

In the *Protagoras*, it is suggested that opposites in the relevant sense, seemingly (ii), come in pairs such that each only has one contrary. Thus, for instance, the beautiful only has one contrary: the

One way of attempting to elucidate the notion of opposite activities focuses upon the fact that each of the examples adduced in the *Republic* involves *guarding* (*phulattein*). Accordingly, one might think that in (Two-Way Skills), ϕ -ing and ψ -ing are such that if ϕ -ing and ψ -ing are opposites, then one activity is (or involves) guarding against the other. On this understanding, if someone is skilful at hitting (or poisoning, infiltrating a camp), then that person is able to, for example, hit well *and* able to effectively guard (i.e., ‘guard well’) against being hit. Thus understood, the possessor of skill is an effective *doer* and an effective guard against ‘being done to’. In so far as there are and always have been bruisers as well as featherweights, the claim is not especially plausible and, at best, it seems to only apply to a fairly circumscribed set of activities (for instance, it is unclear how there could be relevant guarding activities in the case of training horses, doing sums, making shoes and many other cases).

The degree to which (Two-Way Skills) is assumed elsewhere in Plato’s dialogues is not clear. However, we do seem to be presented with similar views and other ways of understanding the two-way nature of skill elsewhere in Plato. For instance, the *Hippias Minor* seems to offer *two* other ways of elucidating the notion of ‘opposite’ activities. On the one hand, in the course of discussing whether those who err intentionally are better than those who err unintentionally in the latter part of the *Hippias Minor* (373c7ff), it is suggested that ϕ -ing and ψ -ing are opposites when there exists some one activity (e.g., running) such that ϕ -ing is doing that activity well (e.g., running well) and ψ -ing is doing that activity badly (e.g., running badly) (or vice versa) (*Hp. Mi.* 373d5–7). Thus, for instance, the wrestler who falls intentionally is more skilful than the one who falls unintentionally (*Hp. Mi.* 374a1–3), the soul that misses the target intentionally is better at archery (375a7–b2), and the person who intentionally brings about bad results for the body is better at medicine (375b4–7).

On the other hand, earlier on in the dialogue, it is initially suggested that the person who is most able to tell the truth about certain things is also best placed to speak falsely about those things because both effectively speaking the truth and effectively speaking falsely require knowing the truth (*Hp. Mi.* 366e3–67a5). (The person who wishes to speak falsely but doesn’t know the truth is not able to effectively speak falsely because they might unintentionally speak truly.) If one equates speaking truly with

ugly. Equally, the good only has one contrary: the bad. The high has only one contrary: the low (*Prt.* 331d1–33c9, 338a8–b1).

speaking *well* and speaking falsely with speaking *badly*, one may perhaps see this as offering the same account of opposite activities as is offered later on in the dialogue. However, it seems more natural to say that what is being assumed here is that ϕ -ing and ψ -ing are opposites when they are activities that bring about contradictory or polar contrary products. According to this suggestion, the ϕ -ing and ψ -ing constitutive of two-way skills are activities that bring about contradictory or polar contrary products. Such a suggestion finds support in the fact that sometimes *technai* are spoken of as being *set over* these kinds of ‘opposites’ or having these kinds of ‘opposites’ as their objects.⁴ Thus, for instance, although the object of medical skill is sometimes said to be simply bodily health (e.g., *Chrm.* 165c8; cf. *Phdr.* 270b4–9), other times it is claimed that medicine is *set over* or *directed at* health and illness (e.g., *Chrm.* 170e5–71a9) (with something similar applying to several other *technai*).⁵

Taking skill to have a two-way nature in this manner seems most plausible if we focus on the close connection drawn between *technai*, *measurement* and attaining the right balance,⁶ and if we suppose that the relevant ‘contrary’ states are *polar contraries* (see above) and determinates of some determinable (cf. *Tht.* 186a9ff; *Tim.* 61c3ff; *Soph.* 243d8–e6). Thus, for instance, suppose – as many of the ancients did – that *health* and *illness* are determinates of some determinable(s)⁷ and that health (one determinate) is determined by the body being at the right temperature (or having the right balance of cold and hot) while illness is determined by the body being at the wrong temperature.⁸ In order to be skilful or clever at healing, one needs to be proficient at both cooling the body down (when it is too hot) and heating the body up (when it is too cold) (cf. *Phdr.* 268a8–b7). This line of thought is not explicitly developed in much detail, but it may explain the thought that skill has a two-way nature in the relevant sense. Simply put, *skill* would require both the ability to manipulate the

⁴ Plato often has Socrates claim that *technai* are *about* (*peri*) objects or *set over* (*epi*) objects (e.g., *Grg.* 449d2ff; *Chrm.* 168b2–3; cf. *Grg.* 464b4; cf. *Rep.* 477d1ff), but the nature of this *aboutness* is somewhat fluid. Sometimes it seems like the object of an expertise is an activity that comes about through its exercise (e.g., *Grg.* 449d2–4), other times it is something more like the subject matter or set of facts in the world that the *technè* is directed towards (e.g. *Grg.* 451c1–5).

⁵ Cf. *Chrm.* 166b1–3, 174c2–3; *Rep.* 438c6–e9, 523e1–24a3; *Soph.* 253a8–b3.

⁶ E.g., *Rep.* 349b1–50c11; *Plt.* 285a3–4; *Prt.* 356e8–57c1; *Phlb.* 55e1ff; *Plt.* 260a9–b1, 283c3–84a3.

⁷ Plato, *Symp.* 186d5–e3; *Rep.* 444d3–5; *Tim.* 81e6–82b7; *Phdr.* 268a8–b7; Aristotle, *Ph.* 204a34–b3, 210a20, 246b3–6; *GC* 324a15–19; *PA* 648b2–10; cf. *DA* 408a1–3; *Metaph.* 1032b26–29; 1173a23–28; Hippoc. *Loc. Hom.* 9, 46; *Vict.* 3; *Nat. Hom.* 2.

⁸ The same story could be told if instead of the contraries *cold* and *hot*, there is simply *heat*, as Philolaus apparently supposed (*Anon. Lond.* 18.8–29). A similar story can presumably be told concerning the humours (cf. Hippocrates, *Nat. Hom.* 4; Aristotle, *Ph.* 246b3–6).

determinable so as to produce one determinate (e.g., health) *and* also the ability to manipulate the determinable so as to produce the contrary determinate (e.g., illness). An agent who could only cool bodies down or only heat them up would not be proficient or skilful.

I.B The Modal Profile of Skill

The second relevant claim in the *Republic* concerns the modal profile of skills and abilities. After Thrasymachus enters into the conversation, he puts forward his account of justice, according to which ‘justice is nothing other than the advantage of the stronger’ (*Rep.* 338c2–3),⁹ and voices commitment to the following claims: (a) an action is just *iff* it is advantageous to the ruler(s) of the *polis* in which the action was performed (*Rep.* 338e1–39a4); (b) if an action is or involves obeying a ruler, then that action is just (*Rep.* 339b9–11, c10–12, d5–10, e4); (c) that rulers are capable of making errors and thus may enact laws which do not benefit themselves (*Rep.* 339c7–8, d5–9). On the basis of Thrasymachus’ agreement to these claims, Socrates points out that obedience to laws that were erroneously established (i.e., erroneous because they do not benefit the rulers) will result in actions that are – per (a) – not just (because they are not beneficial to the rulers) and simultaneously – per (b) – just (because they are or involve obeying the rulers). To escape the contradiction, Thrasymachus amends (c) and claims that, speaking precisely, no ruler ever errs and ‘no craftsman ever errs’ (*Rep.* 340e2–3).

Thrasymachus’ views concerning the infallibility of practitioners of a *technê* have attracted significant opprobrium (e.g., Annas 1981),¹⁰ but relatively little in the way of detailed discussion or explanation. However, it is worth taking a closer look at what Thrasymachus actually says:

[1] When someone makes an error in the treatment of patients, do you call him a doctor in regard to that very error? Or when someone makes an error in calculation, do you call him a calculator in regard to that very error in calculation? I think that we express ourselves in words that, taken literally, do say that a doctor or a calculator, or a grammarian errs. However, I think that each of these, insofar as he is what we call him, never errs. Accordingly, according to the precise account – and you are a stickler for precise accounts – no craftsman ever errs. [2] For it is when his knowledge abandons him that he who goes wrong goes wrong – when he is not a

⁹ For discussion of what this claim amounts to, see Nawar 2018: 361n3.

¹⁰ For a detailed discussion of the relevant scholarly literature, see Nawar 2018.

craftsman. So that no craftsman, wise man, or ruler makes a mistake then when he is a ruler. (*Rep.* 340d2–e5, trans. Reeve)

In [1], Thrasymachus suggests that when a practitioner of a *technê*, for example, a doctor, makes a mistake, the practitioner is not a practitioner with respect to that mistake. This concerns what an ability (*dunamis*) (which is constitutive of the relevant *technê*) is responsible for and what is constitutive of the actions produced by a practitioner's ability or capacity. The thought here seems to be that a *technê* of ϕ -ing, or the ability (*dunamis*) constitutive of the *technê*, manifests itself only in ϕ -ing. If one's action does not amount to ϕ -ing, then that action does not count as a manifestation of one's *technê* or ability (cf. *Rep.* 341c10–d4; Aristotle *Metaph.* 1046b6). However, in [2], Thrasymachus makes clear that not only are errors *not* to be considered the manifestations of the relevant *technê* (as was claimed in [1]), but that a practitioner's *possession* of the *technê* is incompatible with error and that errors indicate that the relevant *technê* has *abandoned* the practitioner at the time of their error.¹¹ That is to say, if a person errs (i.e., makes an attempt to ϕ that does not result in successfully ϕ -ing), then they did not possess the relevant *technê* or the relevant ability (constitutive of a *technê*) at the time of (cf. *Rep.* 340c7) their error. Thus, Thrasymachus holds or assumes:

(Technical Ability) if *S* has the ability (constitutive of a *technê*) to ϕ at *t*, then if *S* were to attempt to ϕ at *t*, then *S* would ϕ at *t*.

To see how infallibility of the relevant kind is a consequence of (Technical Ability) consider some relevant case, such as that of a gymnast and their relevant ability (e.g., to somersault). If one has the gymnastic ability to somersault, then – according to (Technical Ability) – one would somersault if one were to attempt to. If a person were to attempt to somersault and fail, then that person would *not* have the gymnastic ability to somersault at that moment in time.

Three points about Thrasymachus' views deserve particular attention. First, although Thrasymachus' claims about the infallibility of *technê* have usually been rapidly dismissed by modern readers, claims like (Technical Ability) are not without *some* intuitive appeal (similar views were assumed and put forward in several twentieth-century discussions of ability, cf. Nawar 2018: 367n18).

¹¹ This reading of the passage is expanded and defended in greater detail in Nawar 2018.

Secondly, (Technical Ability) is not idiosyncratically Thrasymachean. (Technical Ability) or views like (Technical Ability) found currency among other ancient theories of *technê*, such as those defended by the Hippocratic authors of *On the Art* and *On Places in Man*. Such authors assumed that *technai*, or at least certain *technai* such as medicine, were complete and perfected areas of rational expertise that guarantee success if they are appropriately practised (cf. Nawar 2018). Thus, for instance, in defending the efficacy of medicine against those who think its successes are due to luck, the author of *On Places in Man* claims that medical skill has been ‘completely discovered’ and does not rely upon luck and that whereas ‘luck rules itself and is ungovernable . . . knowledge is governable and successful when the one with knowledge wishes to use it’ (*Loc. Hom.* 46, trans. Craik). That is to say, medical *technê* is a complete and perfect *technê* (in much the same way that one might speak of an *ideal physics*). The doctor’s knowledge is always successful (*eutuchês*),¹² and whenever the possessor of the relevant kind of knowledge wishes or decides to act or put his knowledge to effect, it will indeed successfully come into effect. Such a view seems to assume (Technical Ability) or some view very much like it.

Equally, in arguing that no medical successes should be credited to luck (*Art* 6), the author of *On the Art* argues that medicine is such that its cure of diseases is *infallible* or *free from error* (*anamartêtos*, *Art* 9, 13; cf. *Rep.* 339c1, 340d8–e1). In elucidating what such a claim amounts to and attempting to explain away apparent medical failures, the author stresses that when attending to the success guaranteed to genuine doctors one must give attention to the doctor’s proper task (*ergasia*) and its perfection or *end* (*Art* 8).¹³ He claims that it is foolish to equate the patient not recovering with an error on behalf of the doctor because, even in the case of curable diseases, the doctor’s activity is not constituted by the patient recovering but by correctly diagnosing the illness and ‘by giving proper orders’, that is, prescribing the correct regimen for the patient to follow (*Art* 7; cf. *Plt.* 260a4–7).¹⁴ Notably, the author of *On the Art* supposes that success requires *only* ability and not also luck or favourable circumstance (and shapes his construal of ‘success’ accordingly).

¹² Here *eutuchês* has the same meaning as ‘successful’ and *tuchê* has the same meaning as ‘luck’ (i.e., it means a situation or outcome due to factors outside the agent’s control). In what follows (*Loc. Hom.* 46), the author moves between this sense of ‘luck’, and another sense wherein it means positive outcome or successful actions *even if* due to the agent. The same ambiguity occurs with ‘*eutuchia*’ in the *Euthydemus* (cf. Nawar 2017).

¹³ The true doctor will only care about the opinion of those who have rationally considered what the task of a craftsman is directed towards and relative to what it may have assessed as perfect (*Art* 8).

¹⁴ We here find important precedent for later thought about stochastic *technai* (cf. Alexander of Aphrodisias, *Quaestio* 2.16). For discussion of stochastic arts, see Tsouna (Chapters 7 and 8) and Opsomer (Chapter 11) in this volume.

Thirdly, Plato's Socrates does *not* dismiss views like (Technical Ability) out of hand and in fact appeals to such views elsewhere. Thus, for instance, while moderation (*sôphrosunê*) and *technê* are assumed to have an unerring (*anamartêtos*) nature in the *Charmides* (171d1–72a5), the *Euthydemus* offers perhaps the clearest example of Plato's Socrates appealing to such views (e.g., *Euthyd.* 280a6–b3; cf. Nawar 2017). In his exhortation to wisdom (*sophia*), Socrates claims that so long as wisdom is present, it guarantees successful action in a manner that is completely free from mistakes (such claims had earlier been made with regard to various *technai*, *Euthyd.* 279d8–e6). Moreover, it is suggested that the agent who possesses wisdom requires *only* wisdom in order to be successful. Even if luck or good fortune is not present, the agent is nonetheless guaranteed to succeed. Socrates repeats this thought, adverting to various *technai* (such as carpentry, musicianship and so on) in order to claim 'knowledge (*epistêmê*) seems to provide men not only with good fortune (*eutuchia*) but also with success (*eupragia*), in every case of possession or action' (*Euthydemus* 281a6–b4).¹⁵

Plato's Socrates is thus willing to appeal, at least dialectically, to claims like (Technical Ability). However, arguably the most explicit discussion of the modal profile of abilities occurs in the *Hippias Minor*. There Plato's Socrates articulates a view that seems similar to (Technical Ability) but is significantly more modest. Thus, in pressing Hippias on the distinction between being truthful and deceitful (and whether these are two distinct capacities or abilities or not), Socrates discusses what it is to be capable (*dunatos*) of doing something and claims:

But each person who can do what he wishes when he wishes is able. I mean someone who is not prevented by disease or other such things, just as I might say you are able to write my name whenever you wish. Or don't you say that the person in such a condition is able? (*Hp. Mi.* 366b7–c4)

¹⁵ Some readers have suggested that to explain Socrates' views in the *Euthydemus* one should take him to have in mind so-called internal-successes: actions that meet certain success criteria purely in virtue of their internal features (rather than their results). Thus, for instance, while the expert striker will not always score when he shoots (this would be an example of external-success), he does – the thought goes – always hit the ball well (e.g., with good aim). The proponents of such views have not put forward any textual support for this suggestion, but it is attractive and – as we have seen above – something very much like this was suggested by the author of the *On the Art* in attempting to defend medicine from apparent failures (*Art* 7–8). However, even if we suppose that the agent's actions are internal-successes, a problematic gap remains. Putting to one side whether, for example, the archer will hit her target or not, why suppose that she will always make a good shot? What fills this gap is (Technical Ability) or a view very much like it. For detailed discussion, see Nawar 2017; 2018.

Here, Socrates suggests that the capable person is one who can do what they attempt to do *unless they are prevented*. That is to say:

(Ability*) if *S* has the ability to ϕ at *t*, then if *S* were to attempt to ϕ at *t*, and *S* were not prevented from ϕ -ing, then *S* would ϕ .

(Ability*) allows that preventative factors may *mask* one's ability without eliminating one's ability. (The precise scope of the claim is not clear; it may hold of abilities in general instead of merely the abilities constitutive of *technai*.) In explicitly making allowances for preventative factors and not clearly excluding luck, (Ability*) is more modest (and more plausible) than (Technical Ability). The person with gymnastic ability who fails in their attempt to somersault *need* not lack ability at the time of their failure so long as their failure was due to their *being prevented*. Precisely how *being prevented* should be characterised is not entirely clear, but it seems *not* to be limited to factors extrinsic to the agent since *illness* is cited as a preventative factor.

I.C Directed at the Good

The third relevant claim about *technê* in the *Republic* is that a *technê* is not 'value-neutral' but is instead directed at what is advantageous or good and, more precisely, what is advantageous or good for its object(s). Socrates puts forward this claim in rebutting Thrasymachus' views concerning justice and ruling (*Rep.* 341b3–43a4; cf. Xenophon, *Memorabilia* 1.2.32). The claim is sometimes thought to be held by Plato's Socrates or perhaps even Socrates himself in *propria persona* (and is sometimes even thought to be central to some of Plato's thought about *technê*). However, although there is reason to think the arguments Socrates offers on behalf of the altruistic nature of *technê* are stronger than often supposed (cf. Barney 2006; Nawar 2018), one should remember that the relevant claims in the *Republic* are put forward in a *highly dialectical context*. Socrates aims to show that, due to Thrasymachus' own claims about the perfect nature of *technê*, Thrasymachus himself should be committed to the view that *technê* aims at the good of its object (cf. Nawar 2018).

It is unclear what one may surmise about the attitudes of Plato's Socrates or Plato himself towards the claim. On the one hand, we do find that Plato's Socrates does sometimes assume that a *technê* is directed towards the good of its object.¹⁶ On the other hand, it is sometimes

¹⁶ That a *technê* is directed towards the good of its object is seemingly assumed in the *Gorgias* (e.g., 502e2–7, 504d5–e4, 511c7–12b2, 513e2–3, 514d3–16d3) and sometimes suggested elsewhere (e.g., *Euthphr.* 13a4–c2; *Lach.* 195c7–d2; *Plt.* 293a6–e5, 296c4–297b3; cf. *Soph.* 219a10–b2).

assumed that a *technê* will produce something that is good or beneficial partly or principally for the practitioner of the *technê* (e.g., *Chrm.* 164a9–b9) and, as was obvious to Plato’s Socrates, many items that seem to be the objects of *technê* – especially inanimate things – are such that it is not clear that they may be benefited by the practice of the *technê*.¹⁷

One might think that Plato’s Socrates is not committed to the view that each *technê* is directed towards the good of its object, but simply that it is directed towards some good or other or that it is somehow beneficial.¹⁸ This would seem to be supported by the fact that in the *Gorgias* rhetoric and cookery seem *not* to be considered genuine *technai* because they are *not* appropriately directed towards some good (500a7–b5, 501a3–4, e1–3; cf. *Rep.* 493a6–c8),¹⁹ and that on several occasions it is assumed that the *ergon* (‘task’ or ‘product’) of a *technê* is something of value (e.g., *Chrm.* 165c10–e2; cf. *Ap.* 22c9–d2; *Euthyd.* 288b3–93a6).

Some commentators treat the claim that a *technê* must be directed towards some good (or even the good) as central to Plato’s thinking about *technê* (e.g., Woodruff 1990). However, there are several reasons why it is not even clear whether Plato’s Socrates should be taken to be strongly or consistently committed to the view that a *technê* is directed towards the good (or even merely directed towards some good or other).²⁰ First, one might worry that there is a puzzle in reconciling the good-directed nature of *technê* (regardless of precisely how we understand the good towards which the *technê* is directed) with the *two-way* nature of *technê*. Secondly, even if we allow that, for example, weaving produces items of value, there do seem to be occasions on which various disciplines that do not obviously seem to be good-directed or beneficial seem to be viewed as being *technai*. Thus, for instance, in the *Sophist* it might seem that hunting by force (which includes piracy, enslavement and tyranny, *Soph.* 222c5–7) is recognised as being part of some relevant *technê*.

There are various ways in which these difficulties might be addressed by those who think that a *technê* is indeed good-directed. For instance, one might respond to the first difficulty by suggesting that the two-way nature of a *technê* is consistent with its being *directed* towards one of the two

¹⁷ Cf. *Euthphr.* 13a1ff; *Plt.* 261b7–8; Aristotle, *EN* 1155b27–31.

¹⁸ E.g., *Lach.* 195c7–d2; *Chrm.* 165c10–e2, 171d1–2; *Grg.* 512b1–2; *Euthyd.* 288b3–93a6; *Plt.* 293a6–e5, 296c4–97b3; cf. *Ap.* 22c9–d2; Aristotle, *EN* 1094a1–2.

¹⁹ Cookery, rhetoric and the like only aim at what is pleasant and it is not clear, in the relevant works, that pleasure is a good (*Grg.* 464e2–65a2, 500b3–5). Cookery also suffers epistemic deficiencies (*Grg.* 465a2–7, 500e4–501b1; *Phlb.* 55e1–56c6).

²⁰ Cf. Hulme Kozey 2019b.

relevant things (cf. *Rep.* 346a1–47a5), or that the two-way nature of a *technê* is consistent with it being *directed* towards the good and emphasising that, for example, good might be attained through harming as well as healing, or that it is not in any case clear that Plato consistently takes *technê* to have a two-way nature in the relevant way. Equally, one might address the second difficulty by allowing that, for example, hunting by force can be good-directed or, more promisingly, by adverting to the dialectical context of the relevant passages in the *Sophist* (with attention to *who* is making the relevant claims).²¹

The issue of how *technê* is oriented towards the good is important for understanding not only Plato's general views about *technê*, but also Plato's views about virtue (notably with regard to the so-called *technê* analogy), the guise of the good and moral psychology, sophistry and eristic and various other matters. Such issues merit their own detailed discussion (see, for instance, Roochnik 1996 and Rachel Barney's essay in this volume, Chapter 3).²² Here it suffices to note that it seems that the textual evidence in favour of Plato being committed to each *technê* being good-directed is not entirely clear and, for the reasons already noted (such as the dialectical nature of some of the relevant claims that are sometimes taken out of context), more complex than might be immediately apparent.

I have focused on clarifying three claims made in the first book of the *Republic* about the nature of skill or expertise. First, Plato's Socrates suggests that if x is skilful at ϕ -ing, then x is proficient at ϕ -ing and x is proficient at ψ -ing (where ϕ -ing and ψ -ing are opposites). The claim is treated as obvious, but precisely how that claim should be understood is not entirely clear. In the *Republic*, it seems the contrary activities are such that one is or involves *guarding against* the other. Elsewhere, notably in the *Hippias Minor*, we find it suggested that the contrary activities are such that one is doing a certain activity well and the other is doing *that same activity* badly, and we also find it suggested that the contrary activities are

²¹ I should add (cf. Nawar 2018) that determining the degree to which Plato's Socrates (or a speaker such as the Eleatic visitor in the *Sophist* and the *Statesman*) is sympathetic to the view that each *technê* is good-directed often requires clarifying the nature of *politikê*, its relation to knowing the good (which, in the *Euthydemus* is said to lead into a labyrinth, 291b7) or knowing things just and unjust (cf. *Gr.* 459c6ff), the nature of rearing (*trophê*) or providing care (*therapeuein*) (e.g., *Plt.* 275d8–e1; cf. *Gr.* 500a1, 513d1–5, 521a2ff) and their relation to *technai*, the relation of subsidiary *technai* to overseeing *technai* (cf. *Gr.* 517d6–18e1), the relation of the various *technai* to architectonic *politikê*, and the relation of *technai* to knowledge of good and evil (as at *Chrm.* 174a1off).

²² Roochnik 1996: 27–33 thinks that a notion of value-neutral *technê* may be found in Solon's Prayer to the Muses, and attributes such a conception of *technê* to Plato as well.

such that they are or involve the production or promotion of states that are *polar contraries* (and determinates of some more fundamental determinable).

Secondly, in *Republic I* we also find that Thrasymachus claims that a *technê* is infallible. This modal claim has usually been rapidly dismissed by modern readers, but the view had wider currency among ancient thinkers and its attractiveness may be better understood when we appreciate that the relevant thinkers took *technai* to be complete and perfected areas of rational expertise and that views like (Technical Ability) are not without some intuitive appeal. Plato's Socrates appeals to such views elsewhere and in the *Hippias Minor* he puts forward a similar but more modest and more plausible characterisation of the modal nature of abilities, that is, (Ability*). Thirdly, and finally, it is sometimes thought Plato's Socrates takes a *technê* to be directed towards the good in some substantive sense; however, I have suggested that the evidence on this matter is not entirely clear.

II Aristotle's Account of *Technê* and Rational Capacities

I now turn to Aristotle's account of *technê* and rational capacities or abilities. It seems that Aristotle regards claims (a)–(c) (see Sections I.A–I.C), of which *Republic I* offers the most detailed and focused extant discussion, as being part of the received wisdom of ancient thought about *technê* and several aspects of Aristotle's thought about dynamic modalities and teleological agency are, I suggest, better understood when we examine how Aristotle attempts to incorporate, adapt, or explain claims (a)–(c) while developing his own account of *technê*.

II.A Two-Way Capacities

For Aristotle, a *technê* is a capacity (*dunamis*) of a particular kind (*Metaph.* 1019a15–18).²³ Like other (active) capacities, it is 'a principle of movement or change in another thing or in a thing insofar as it is other' (*Metaph.* 1019a15–16; cf. 1046a10–11, b3–4). However, a *technê* is distinctive in being located in the part of the soul possessing *logos* (*Metaph.* 1046b1),²⁴ and in being a two-way capacity:

²³ In the *Nicomachean Ethics*, it is characterised as a *hexis* (*EN* 1140a20–21), that is, an acquired *dunamis* (cf. *Metaph.* 1047b31–35).

²⁴ More concretely, it is in the *calculating* part of the rational soul (*EN* 1139a6–15).

As regards those capacities which involve reason, the very same capacity is a capacity for contraries, but as regards the non-rational capacities a single capacity is for one thing: for example, heat only for heating, while the medical craft for both illness and health. The explanation of this is that the knowledge is an account, and the same account clarifies both the thing and the privation, though not in the same way. (*Metaph.* IX.2 1046b4–9, trans. Makin)

Aristotle here develops and elucidates the view put forward only briefly and somewhat obscurely by Plato's Socrates (who seems to offer the clearest extant parallel to Aristotle's views on this score). He takes a *technê* to be a two-way capacity for *contraries* and explicitly states it to be such (and Aristotle explicitly recognises various senses of *contraries*, e.g., *Metaph.* 1018a25–35; 1055a3–b29). In contrast, non-rational capacities are seemingly one-way or single-track capacities that manifest themselves only in one sort of activity; for instance, *heat* manifests itself only in *heating*.²⁵ Aristotle does not here discuss why non-rational capacities have a single-track nature so as to manifest themselves only in one sort of activity, but his broader views concerning how agents and patients interact seem to explain it roughly as follows.

Generally, if an agent (*x*) brings about a change in a patient (*y*), such that *y* becomes (actually) *F*, then *x* is actually *F*. The agent's form is the origin of change (cf. *Ph.* 195a11) and, in change, the form of *F*-ness is somehow conveyed from the agent to the patient (*Ph.* 3.2, 202a9–12) so that, once the agent has acted upon the patient, the agent and patient have become alike with respect to *F*-ness (*DA* II.5, 417a18–20; *GC.* I.7, 323b18–24a10).²⁶ Crucially, Aristotle generally *seems* to think that if *x* is actually *F* and *y* has the capacity to become (actually) *F*, then contact between *x* and *y* is both necessary and sufficient for the relevant change to occur (*Ph.* III.2, 202a5–9; 7.2, 244a14–b2; 8.4, 255a34–b1; *GC* 324b7–9).²⁷ As he puts it in the *Metaphysics*, 'it is necessary, whenever agent and patient approach each other so as to be capable, the one act and the other be affected' (*Metaph.* IX.5 1048a5–7).

Thus, for instance, suppose that something that is actually hot enters into contact with something that is actually cold (and potentially hot). In

²⁵ However, see *Metaph.* 1050b33–34; 1051a4–17.

²⁶ Cf. *Metaph.* 1034a21–32; 1034b14–19; *GC* 320b17–21.

²⁷ I hedge somewhat and say 'seems' as it is not entirely clear that contact is necessary (perhaps proximity might do the trick; cf. *Ph.* 260b1–5), or that contact between *x* and *y* is sufficient for *x* to affect *y*, as this is sometimes qualified by a 'nothing intervening or preventing' clause (*Ph.* VIII.4 255b4; cf. *Metaph.* 1047b35–48a8).

such cases, the relevant individuals, or their relevant capacities, are contraries (*enantia*) (cf. *GC* I.7, 324a10–24). The form of heat in the agent is the principle or origin of change and, necessarily, when the agent and patient are suitably receptive to each other and brought into contact, then the agent heats and the patient is heated (*GC* 324b7–9).²⁸ Thus, ‘heat is only for heating’ (*Metaph.* 1046b6; cf. *Rep.* 340d2–e5, 341c10–d4). When conditions are right, and two individuals with the relevant capacities stand in a suitable relation (e.g., contact), then the relevant process (in this case heating) occurs. (To be clear, just because the patient is heated does not mean that it comes to be hot.)

Rational capacities, such as *technai*, differ in several respects from non-rational capacities. First, in the case of non-rational capacities, it seems that the form *is* the capacity and the relevant origin of change, and that it is straightforwardly present in the individual. With regard to *rational* capacities, Aristotle does take the form to be the origin of change (*Metaph.* 1032b21–28; 1046a10–11) and supposes that this is somehow conveyed or transmitted to the patient (*GA* 739b12–23), and he identifies the capacity *in a way* with the form (e.g., ‘medicine is *in a way* health; house-building is the form of a house’, *Metaph.* 1070b33; cf. *GA* 734b37–35a4).²⁹ However, the form seems to be present in the agent in a somewhat different manner (much like *red* might be present in a soul thinking of red). Thus the medical practitioner has the form of health in their soul but presumably need not themselves be healthy.

Secondly, rational capacities are under the control of the agent in some suitable sense. Non-rational capacities manifest themselves when external circumstances are right. In contrast, rational capacities manifest themselves when external circumstances *and* the agent chooses.

Thirdly, rational capacities are two-way capacities. Unlike heat, which can only bring about heating (and necessarily does so when the agent and a suitable recipient are in contact), medical skill can directly bring about not

²⁸ There are some caveats. First, I focus here on the relevant salient change brought about by the active capacity, but the interactions are more complicated. Secondly, as noted, there is sometimes a ‘no prevention’ clause (e.g., nothing prevents them from interacting, *Pb.* 255b4). Thirdly, this is sometimes spoken of as a ‘transmission model of agency’ (e.g., Makin 2006: 48–49) or as ‘transference of form’ (e.g. Beere 2009), but Aristotle rarely uses this vocabulary and it is not clear that the labels (which seems more fitting to some later thinkers) are entirely apt.

²⁹ It seems that a number of identity claims are at issue: skills or crafts are identical with forms (*Metaph.* 1070b33); crafts are identical with accounts (1070a29–30); and skills or forms are identical with accounts and knowledge (cf. *Metaph.* 1032b5–6). Aristotle also claims that ‘understanding *is* an account’ (1046b7–8; cf. 1046b16–17). In so far as skills both are and *have* or *involve* accounts, and we suppose that things may not have themselves, then such remarks present a difficulty when taken literally.

just healing, but *two* things: healing and harming or health and illness (cf. *EN* 1129a13–14). Thus, we might say that if x has a rational capacity of ϕ -ing, then x can use the rational capacity to ϕ and to ψ (where ϕ -ing and ψ -ing are contraries).³⁰ Crucially, Aristotle thinks such two-way capacities ‘involve *logos*’ (*meta logou*, 1046b2, 5, 1048a3; *EN* 1140a3–5; cf. *kata logon*, 1046b22–23, 1048a2–3, 13),³¹ and it seems to be in virtue of its *logos*-involving nature that, for Aristotle, a *technê* is a two-way capacity.³²

This requires some explanation. In *Metaphysics* IX.2, Aristotle claims that the *logos* involved in *technê* is about contraries (1046b12–15). More concretely, he claims that a *logos* is about a thing – presumably the relevant form or universal (e.g., health in the case of medicine) – and its privation (1046b8–9). Furthermore, Aristotle goes on to claim: ‘the account concerns one contrary *per se*, but concerns the other contrary in a way incidentally: for it is through denial and negation that it clarifies the contrary’ (*Metaph.* 1046b12–14). Thus, the practitioner of medicine will have an account of health that positively characterises or defines what health is, and thus concerns health *per se*. However, since illness is the negation, denial or privation (cf. *sterêsis*, 1046b8–9) of health, the account of health will also thereby state what illness is *per accidens*. Thus, suppose that health is a certain balanced mixture of certain elements (cf. *PA* 648b2–10), illness will then be an *unbalanced* mixture of those elements. Furthermore, Aristotle claims not just that the relevant *logos* is of contraries, but that the *logos* ‘is in the soul which has an origin of change, so that it will change them [the contraries] both from the same origin, having connected them with the same thing’ (1046b20–22). This suggests that the *logos* will specify not just what health is, but how health and illness come about or are related to the same thing (cf. *Metaph.* 1032b3–5).

Aristotle takes the relevant *logos* to impart explanatory knowledge or understanding. The precise nature of the *logos* involved in *technê* and how the cognitive aspects of *technê* compare to the cognitive aspects of scientific

³⁰ Makin offers: ‘A capacity to ϕ is a two-way capacity if there can be exercises of the capacity in normal circumstances which are not (even *inter alia*) instances of ϕ -ing’ (Makin 2006: 43). However, at best that seems to characterise multi-track capacities, rather than specifically *two-way* capacities.

³¹ Cf. *kata ton logon*, 1046b22–23, 1048a2–3. Aristotle also claims that knowledge or understanding (*epistêmê*) is an account (1046b7–8; cf. 1046b16–17). For recent discussion of *logos*, see Moss 2014.

³² For Plato, a genuine *technê* is also characterised by possessing a *logos* (e.g. *Grg.* 465a2–5, 501a1–3). However, Aristotle explicitly grounds the two-way nature of a *technê* in its possession of a *logos*.

understanding (*epistêmê*) are not entirely clear,³³ but the explanatory aspects of *technê* seem divisible into at least two components.

First, Aristotle says a *technê* is or is constituted by cognition ‘of universals’ (*Metaph.* 981a16). This contrasts with the seemingly less general and more particularised cognition characteristic of *empeiria* (981a15–16; cf. 981a7–12).³⁴ At least part of what Aristotle seems to mean by such remarks is that *technê* seems to grant more scientifically precise cognition that tracks *natural properties*, that is, what captures facts of resemblance and the relevant causal power or difference-makers (cf. Nawar ms). Thus one with *technê* will cognise, for example, not merely that Socrates is red in the face, but that Socrates has the symptoms of high blood pressure (981a7–12).

Secondly, the person with *technê*, seemingly in virtue of having the relevant *logos*, has insight into the relevant causes and natures: ‘For experienced people know the that but do not know the why, whereas craftsmen know the why, that is, the cause’ (*Metaph.* 981a28–30). The *logos* will thereby illuminate the nature of the relevant contrary states and their grounds and causes, thereby shedding light on what produces these states. It thus seems that in virtue of having an account of what health is and how it comes about, the practitioner of medicine will also, *per accidens*, have an account of the nature of illness – which is the contrary (a negation or privation) of health – and how it comes about. The account illuminates the nature of health and the activities that promote it, and the nature of the contrary states and the contrary activities (i.e., activities that bring about or promote the contrary states). The practitioner is thereby able to impart health to a person (cause health to come about in them), and they are also able to remove health from (i.e., cause illness in) a person. Something similar holds for the other *technai*.

Finally, what determines which of the relevant contrary actions (e.g., healing or harming) an agent with a rational capacity performs (or whether they will perform any action at all) is something within the agent that controls the relevant capacity. More concretely:

Then there must be something else which is decisive. I mean by this desire or choice. For whichever it desires decisively, in this way it will act when it is in the condition to be capable, and approaches the patient. And so it is necessary

³³ The issue merits detailed discussion. Here it suffices to note that the *logos* and productive reasoning associated with *technê* can, in several important respects, be rather ‘scientific’. For discussion, see Makin 2006: 37–39; Moss 2014; Johansen 2017; Nawar ms; and Robert Bolton (Chapter 6) and Ursula Coope (Chapter 5) in this volume.

³⁴ The relevant content associated with *empeiria* must, it has been argued, have some level of generality. See, for example, Bolton (Chapter 6).

that everything which is capable in accordance with reason, whenever it desires that for which it has the capacity, and in the manner wherein it has the capacity, should act in this way. (*Metaph.* IX.5 1048a10–15)

Non-rational capacities automatically manifest themselves when they stand in a suitable extrinsic relation. In contrast, rational two-way capacities are such that a meeting of suitably receptive (prospective) agents and patients is *not* sufficient for the relevant capacities to manifest or be actualised. Instead, what determines whether an active rational capacity in the agent manifests itself, *and which way* (i.e., *which of the two contrary activities*) it manifests, is something within the agent: the agent's overarching or dominant desire (*orexis*) or (rational) choice (*prohairesis*). This controls whether a rational capacity will manifest, and which way (i.e., which of two relevant contrary activities) it will manifest. Thus, Aristotle holds that necessarily, if the agent's rational active capacity and the patient's passive capacity are suitably receptive to each and the right conditions obtain and the agent desires to manifest their capacity, then the agent's capacity is manifested.

There are two worries worth raising concerning Aristotle's conception of two-way capacities. The first worry concerns whether *only* crafts and rational capacities have a two-way nature in the manner supposed. We have seen that the two-way nature of a *technê* was grounded in its possession of a *logos*. However, if that is right, then it seems that Aristotle is committed to the view that *empeiria*, which lacks a *logos*, should *not* have a two-way capacity (or at least, if it did have such a two-way capacity, then it should be grounded in something else). The problem is that, as far as I am aware, it is not clear whether Aristotle takes *empeiria* to lack a two-way nature. In fact, he says that *empeiria* and *technê* are 'no different with regard to action' (*Metaph.* 981a12–17) which might be taken to imply that they do not differ in this regard. The second worry, which is perhaps more pressing, concerns whether all rational capacities have a two-way nature in the manner supposed. Thus, for instance, we might suppose that the builder is adept at demolishing houses, and perhaps something similar can be said of some other cases (e.g., perhaps the flute-player or the painter may put disharmony in the souls of listeners), but what about, for instance, the cobbler? Neither worry is decisive, but they are worth signalling.

II.B The Modal Profile of Abilities

I turn now to attempting to clarify Aristotle's analysis of capacities and his claim that, when conditions are right, the rational capacity controlled by desire, necessarily results in efficacious action. In *Metaphysics* IX, Aristotle

seems to think that that an appropriate specification of capacities needs to be more fine-grained than one might expect and that what is needed is either:

- (a) a more fine-grained specification of the circumstances in which a thing possesses a capacity (e.g., x does not simply have the capacity to heal, but has the capacity under certain conditions; for instance, when x is not under pressure, x has the capacity to heal, etc.); or
- (b) a more fine-grained specification of what a capacity does (e.g. x does not have the capacity to simply heal, but a capacity-to-heal-when-not-under-pressure or a capacity-to-heal-when-the-equipment-is-handly, etc.).

Aristotle initially remarks: ‘since what is capable is capable of something at some time and in some way and with however many other factors it is necessary to add to the specification’ (1047b35–48a2). However, while this calls for a more detailed specification of something, it does not make clear whether Aristotle prefers (a) or (b) or some other option (e.g., a specification of the conditions under which an ability can be *exercised*) as a way of proceeding. His later, slightly more expansive remarks are as follows:

[1] And it has [the capacity] when the patient is present and has [its capacity] in this way; and if not, it will not be capable of acting. [2] For it is not necessary to specify in addition that nothing prevent it; for it has the capacity in so far as it is a capacity for acting, and that is not in any and every condition, but just in some circumstances, in which external things preventing will be ruled out as well; for these are set aside by some of the things present in the specification of the capacity. (*Metaph.* IX.5 1048a15–21)

On a surface reading, [1] seems to claim that an individual only has the relevant capacity when conditions are right for its exercise.³⁵ That is to say, the doctor has a capacity to heal only when the patient is present and other conditions are right. In [2], Aristotle seems to be saying that an accurate specification of what a capacity does makes a ‘no-interference condition’ in the antecedent superfluous. As regards this latter, it is important to appreciate that Aristotle is almost certainly here engaging with Plato, particularly with the view articulated in the *Hippias Minor*, that is, with

³⁵ Beere 2009: 147–50 seems to take the view expressed in [1] to be that of the Megarics, but that doesn’t seem right. The Megaric view is that a thing has a capacity to act *only* when it is acting.

(Ability*³⁶). It seems then that he wishes to reject that view, but his reasons for wanting to do so are not entirely clear.

In the most detailed treatment of this issue, Makin (2006) remarks that in *Metaphysics* IX there is no decisive textual evidence in favour of (a) or (b),³⁷ but that (b) is a superior reading that better respects Aristotle's broader commitments (e.g. R: Makin 2006: 103–7, 112–24). In particular, he suggests that (a) should be rejected because it is implausible to suppose, for example, that a person has a capacity to build only when there are bricks present, and that Aristotle seems to think that capacity loss and gain is fixed solely by intrinsic features of the agent (such as their coming to have or to lose some knowledge) (Makin 2006: 113, 120–21). Instead, Makin proposes that Aristotle is *not* here discussing the conditions under which an agent possesses a capacity, but rather the conditions under which an agent is able to *exercise* their capacity (Makin 2006: 113–14). Thus, for instance, a builder might retain their capacity to build when there are no bricks present, but they would not be able to exercise their capacity.³⁸

Makin takes Aristotle to hold the following view: 'As regards two-way capacities: necessarily (if agent and patient are in the right condition and related in the right way, and the agent chooses to act, then action results)' (Makin 2006: 113). The suggestion is charitable and attractive, but it faces various difficulties.

First, Makin's 'are in the right condition and related in the right way' remark seems to be functionally equivalent to 'unless preventative conditions are present'. However, in [2] (1048a16–21), it seems that Aristotle wishes to reject any specification of an ability that makes reference to the absence of preventative conditions and thus seems to wish to reject (Ability*) or views akin to it. Secondly, if Makin is correct, Aristotle's aversion to talk of preventative conditions is not entirely consistent with his practice (Makin recognises this, 2006: 119).³⁹ Thirdly, if Makin is right, Aristotle's aversion to talk of preventative conditions is somewhat mysterious (and it is not clear to me that Makin's remarks render

³⁶ Aristotle explicitly engages with that work elsewhere in the *Metaphysics* (e.g., *Metaph.* 1025a1–13).

³⁷ Makin's two options are put slightly differently: 'What is capable is capable of something [it is capable] at some time and in some way, etc.' (which he calls 'POSS' and is seemingly similar to my [a]) and 'What is capable is capable of something-at-some-time-and-in-some-way-etc.' (which he calls 'CONT' and is seemingly similar to my [b]).

³⁸ Makin adduces *Ph.* 251b1–8 and 260b1–5, but neither is decisive.

³⁹ E.g., 'Each of these are not capable [of knowing] in the same way. One [is capable] because his genus and matter are of a certain kind; the other [is capable] because he has the capacity to contemplate whenever he wishes, so long as nothing external hinders him' (*DA* II.5, 417a26–28; cf. *Ph.* 199b15–18).

Aristotle's aversion less so).⁴⁰ Finally, it seems that on Makin's own view, Aristotle resists an analysis that appeals to preventative conditions (e.g., *S* has the ability to play the piano at *t* iff, at *t*, *S* were to attempt to play the piano and *S* were not prevented from playing the piano, then *S* would play), and instead ends up proposing an analysis according to which: *S* has the ability-to-play-the-piano-unless-people-are-watching.⁴¹ However, this makes what capacities *do* seemingly too fine-grained (they are multiplied beyond predictive or explanatory necessity) and if Aristotle does indeed wish to avoid talk of preventative conditions, then this doesn't seem like a very satisfactory way of doing so.⁴²

However, despite the objections just raised to Makin's interpretation, the other salient alternative, which makes capacities context and relationally dependent, seems damaging to Aristotle's broader aims and inconsistent with his remarks about the acquisition and retention of capacities, which suggests that they are stable features (not easily lost) and contextually robust (such that it is not the case that an agent has a capacity relative to one situation or circumstance, but not according to another situation or circumstances).⁴³ It does not seem that it will do to have someone who is a doctor at one moment but not the next, or to have someone who is a doctor when-the-case-is-an-easy-one but not a doctor when-there-are-complications.⁴⁴

What is needed then is an analysis of rational capacities that avoids the problems so far raised. Ideally, it should also allow for: (a) *occasional* failure (e.g., *Ph.* II.8, 199a33–35; *Metaph.* 981a20–24); (b) manifestation of the capacity where the typical result aimed at is not possible (*Rhet.* 1355b12–14); and (c) some (but not total) adaptability to circumstance or the manifestation-form of the capacity (e.g., *Top.* 101b8–10).

⁴⁰ Makin 2006: 119–20 suggests that Aristotle resists any specification of preventative conditions 'because it is important for him to privilege the role of active and passive capacities (agent and patient); and it is important to do that because it is the active and passive capacities which stand to the change as something potential to something actual' (120). However, that doesn't seem to be suggested by the text and neither is it especially compelling. Specifying the conditions under which a match acts (e.g., by saying 'if the match were struck and nothing interfered, then it would catch light') does not, as far as I can see, rob the match of causal power.

⁴¹ Cf. Makin 2006: 121.

⁴² To be clear, Makin allows that one may have a capacity at a time or in a situation where it is not possible that it be exercised, yet he maintains that some finessing of what capacities do is nonetheless necessary (Makin 2006: 123–24).

⁴³ Cf. *Metaph.* 1046b36–47a2.

⁴⁴ Cf. also Johansen 2012: 75–78 for the point that the explanatory role Aristotle wishes to assign to capacities, for example, in his psychology, would be undermined if they were generally made too context specific.

While matters are difficult, it seems that if one is to provide a unified account, then what is required is something (very roughly) along the following lines:

(Ability**) if S has a rational capacity of ϕ -ing, then *if* S were to attempt to ϕ or ψ (where ϕ -ing and ψ -ing are contraries) at t , then – *most of the time* – S would perform the activity they had attempted.

(Ability**) might seem to run counter to some of Aristotle's remarks in *Metaphysics IX* (e.g., *Metaph.* 1048a13–15 suggests *infallibility* and would seem to require success *all of the time*). However, Aristotle's remarks about how generalisations that hold only *for the most part* (i.e., claims of the form, *for the most part*, α holds of β) are characteristic of the *logos* constitutive of *technai* suggest that what Aristotle is committed to (or perhaps what he *should say*) is (Ability**) or something like it.⁴⁵ (The thought being that the skilled practitioner will be limited in his effectiveness by the limitations of the generalisations upon which he or she relies.) A full discussion of this issue merits its own detailed treatment (cf. Nawar ms), but here it suffices to note that (Ability**) seems to better reflect Aristotle's thought in some works and also seems to be a rather good characterisation of abilities (or rational capacities) of the relevant kind.⁴⁶ Moreover, in line with (β), such an account *could* be supplemented by the specification that the activity in question would be strictly the *doing* of action, rather than the achievement of a specific result (or perhaps the achievement of a *modest* result, cf. *Rhet.* 1355b12–14).

II.C Directed at the Good

Finally, I turn to consider Aristotle's conception of how *technai* are directed towards the good. The *Nicomachean Ethics* famously opens with a proclamation to that effect, stating that every *technê* seems to seek some good (1094a1–2) in a manner that suggests that the claim has wider currency and that it is important. However, Aristotle is clear that a practitioner of *technê* does not need to know the good (*EN* 1097a5–13) and it seems that, contra some readers (e.g., Beere 2009: 88–90), Aristotle's understanding of the claim that *technai* are directed towards the good should ultimately be understood in a rather deflationary manner.

⁴⁵ E.g. *Metaph.* 1026b27–27a28; *EN* 1180b8–10; see also the essays by Bolton (Chapter 6) and Coope (Chapter 5) in this volume.

⁴⁶ For recent discussion of generic and modal accounts of ability (and the virtues of hybrid accounts), see Maier 2018.

In so far as every *technê* has a *logos* of some universal and, *per accidens*, of its privation (*Metaph.* 1046b6–14), we may suppose that, for Aristotle, the universals that are the objects of *technai* are goods (cf. *EN* 1140a25–28; *EE* 1216b16–19). Thus, for instance, just as medicine takes as its object, health (which is a good), so too we might expect that something similar applies to other *technai*, and – as Aristotle notes – it is indeed a fine thing to have cognisance of fine things or goods (*EE* 1216b19–20). However, the problem with this line of thought is that even if *all* the non-privational objects of *technai* were in fact goods, and even if Aristotle might say that *technai* are naturally directed towards the good (cf. *EE* 1246a26–35), it is not easy to see in what manner a *technê* can meaningfully be said to be aimed at the good rather than its privation. As we have seen, it is ultimately the agent's desire that is in control, and it seems that the agent's desire might be directed towards the good or not (e.g., the doctor's desires may be directed towards healing *or* harming).

Aristotle does not, as far as I am aware, explicitly speak of any *dark arts* in any detail and does not explicitly countenance a *technê* or a pseudo-*technê* that is directed towards evils or non-goods, but with regards to those *technai* that have been put to nefarious ends he claims:

What makes a man a sophist is not his abilities but his choices. In rhetoric, however, the term 'rhetorician' may describe either the speaker's knowledge of the art, or his choices. In dialectic a man is a sophist because he makes a certain kind of choice, a dialectician in respect not of his choices but of his abilities. (*Rhet.* I.1 1355b17–21)

On Aristotle's view, the sophist and the dialectician differ only in their respective desires and the ends towards which they direct the *technê* (cf. *Top.* 126a30–b3). If that is right, then although Aristotle might say that each *technê* is directed towards the good, it is not clear what this being *directed towards* amounts to. Like Plato, Aristotle would probably rule out a *technê* that manifests itself in reliably bringing about bad works (*erga*), that is, *erga* that are not brought about *adroitly* or *skilfully* (e.g., badly executed paintings, lousy playing of music and the like). However, more explicitly than Plato (and, indeed, perhaps against Plato's Socrates, depending upon how and whether Plato's Socrates takes a *technê* to be good-directed) Aristotle seems to allow that there are *technai* whose *erga* are or may be morally bad. Accordingly, it seems that the principal way in which a *technê* can be said to be directed towards the good is that it is useful (cf. *chrêsimos*, *Rhet.* 1355a21) and that, on the whole (or, for the most part), the practitioners of a *technê* (and their desires) tend to be

directed towards the good. However, if that is right, then it doesn't seem that a *technê* can be said to be good-directed in any particularly strong sense and the claim is less important than is sometimes thought.

III Conclusion

In this chapter I have attempted to clarify three important but poorly understood claims in the thought of Plato and Aristotle: (a) that skills or the abilities constitutive of skill have a certain 'two-way' nature; (b) that the possessor of skill cannot fail to bring about what they intend or attempt; and (c) that skills are good-directed. We have seen the precise form these claims take in *Republic* I, why they might be thought plausible, and how Plato's Socrates and Aristotle engage with them. Each of the claims deserves further attention, but in the course of this chapter I hope to have advanced our understanding of these claims and of Plato's and Aristotle's views on the modal and teleological aspects of *technê*.⁴⁷

⁴⁷ Thanks to two anonymous readers for the press and audiences at Oxford and, especially, Kyoto for comments on earlier versions of this piece.