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Situated Cognition

Sophocles, Milgram, and the Disobedient Hero

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12.1 Introduction

World literature forms an invaluable archive of human cognition¹—and maybe even more so of metacognition, the ways in which, in different settings, periods, places, and cultures, people have conceived of their own and other people's cognitive processes and functions. Since literature offers culturally and historically specific representations of human behaviour, it provides rich material for an understanding of 'situated cognition'. The study of situated cognition belongs in the context of the development of the 4E approach (embodied, embedded, extended, and enactive cognition).² We will use the term 'situated cognition' to refer to all forms of cognitive interaction between agents and the circumstances (in the widest sense of the word) in which they find themselves.³

The situatedness of cognition is best explored through a comparative approach,⁴ and that is what this chapter aims to do. It offers a comparison of three models of human behaviour, one from a fifth-century-BCE literary text, the others from research projects from the 1960s/1970s and the first decade of the twenty-first century, respectively. The combination of literary and scholarly sources may seem surprising, but in fact the creative design and analysis of psychological experiments will turn out to belong to that same archive of human (meta)cognition. In our three cases, each distinctive metacognitive model was exploited within its own context to explain a basically rather similar

¹ Cave 2016, 20; on literary works and situated cognition: Cave 2016, 20–1 (with reflection on the opposition between 'universalism' and 'the specific cognitive positioning of the work as a unique artifact'); Cave 2017. Morgan 2017 sketches the historical development of the situated approach and its many different forms, which, however, all share a commitment to 'approaching both body and environment as integral parts of intelligent human activity' (220).

² See the introduction to this volume by Felix Budelmann; on 4E cognition also Menary 2010.

³ Shapiro and Spaulding 2021 (in their section 2.1) capture all four E's under the heading of 'embodied cognition', which is also perfectly defensible. We prefer the term 'situated', because it fits our emphasis on ecological validity as an important criterion of cognitive approaches. For a situational approach to problem-solving (based on the social, cultural, and material aspects of the situation), see Kirsh 2009.

⁴ Brown 2018.

situation—the prerequisite for a fruitful comparison: a scenario of conflict between an individual's moral values and the tasks he or she has in some way agreed to perform. The scenario is not just one of internal conflict: in each case, there is interaction with an authority figure. First, in Sophocles' tragedy *Philoctetes* (409 BCE), we see the young Neoptolemus put under great pressure to follow Odysseus' orders and deceive Philoctetes so as to make him come to Troy. The second scenario was created in the 1960s by social psychologist Stanley Milgram in his infamous 'experiments in obedience to authority': Milgram equally put his subjects under pressure to transgress their moral sensibilities by exposing them to the instructions of an authority figure. His subjects administered what they believed to be real electric shocks to a person they thought was, like themselves, taking part in the experiment as a subject; many proved willing even to proceed to a level of punishment that would have been lethal had the shocks been real.

Sophocles and Milgram had particular ideas and concepts in mind that they believed relevant to the behaviour and cognitions of their 'subjects' when those subjects found themselves in the stressful situations they had so carefully constructed for them. They also advertised, to their audience and scholarly readership respectively, those conceptual frames, and thereby steered the interpretation of the behaviour that was elicited. Sophocles, of course, was also in a position to have his characters deploy these concepts themselves. These explicitly advertised intellectual frameworks are forms of situated metacognition. For Sophocles, as we will see (section 12.2), the relevant intellectual context was that of the sophists and their interest in the origins and basic principles of human society, manifest in particular in the tension between *physis*—Neoptolemus' natural disposition as the son of Achilles—and cultural and conventional factors such as (rhetorical) argument, persuasion, and deceit. For Milgram (section 12.3), the leading hypothesis of 'obedience to authority' was generated by his desire to explain how the Holocaust could have happened. Would the presence of an authority figure and a form of delegated responsibility make people (too) obedient? In each case, the creator of the situation was exploring what at the time were seen as basic motivations and incentives of human behaviour, and so they were offering acceptable frameworks for understanding. It is not as if, for Sophocles and Milgram, the concepts used by the other, even across so many centuries, would have been incomprehensible. In each case, however, the respective preferred mode of explanation had greater contextual salience (and this is what makes it situated metacognition). Sophocles' model was related to what we might call the anthropological interests of his time, Milgram's belonged to social psychology.

In the early twenty-first century, cognitive linguist Herbert Clark reinterpreted the Milgram transcripts in 'cognitive' terms, in an attempt to reach an even more basic level of interpretation (section 12.4).⁵ Clark analysed the conversational

⁵ 'Cognitive linguist' is part of Clark's self-definition; it does not entail that Milgram's (or Sophocles') observations are not also 'cognitive' *avant la lettre*.

behaviour of Milgram's subjects, particularly their interactions with the authority figure of the 'experimenter', and found evidence of the influence of one of the most foundational principles underlying human behaviour: social coordination and collaboration. This enabled him to reframe the results of the Milgram experiments as (normal) 'joint commitments' gone wrong.

Is this in fact a more basic level of understanding? Indeed, we can demonstrate that Clark's analysis also works in the case of Neoptolemus (section 12.5). But then, in a way, so does Milgram's framing in terms of obedience to authority, which may be equally 'basic' in human societies. Nonetheless, it is possible to explain what happens in the two scenarios in Sophocles and Milgram, which had been based on very different conceptual models, by means of a cognitive model claiming to transcend cultural-historical differences in that it attends to basic principles of human interaction.

However, further exploration shows that this is not just a story of one-directional intellectual progress. How would the *three* cognitive models account, not only for the phenomenon of obedience, which was most salient to Milgram,⁶ and which also seems to be at work early in the Sophoclean play, but also for the *disobedience* that was equally apparent in many of Milgram's subjects and in Neoptolemus (section 12.6)? This was a problem that had stumped Milgram, and that clearly was not on Clark's agenda either. Recent studies of the Milgram experiments suggest a solution based on ideas that Sophocles would have had little difficulty recognizing: an interplay between personality and circumstances.

In fact, then, and in conclusion (section 12.7), the three models are not mutually exclusive at all, and neither does the latest one either explain everything or force us to discard earlier ideas altogether. The historical and cultural archive, exemplified both by literature and creative scientific experiments, can help to demonstrate an important phenomenon of situated cognition: the differential situated salience of competing (but all relevant) elements in human cognition to agents in that archive. This then is the outline of the argument. Now for the details.

12.2 Neoptolemus in Sophocles' *Philoctetes*: a hero under pressure

Sophocles' *Philoctetes* is a fascinating exploration of some fundamental issues of human survival, social bonding, and the development of human society. Its eponymous hero has been deserted on an uninhabited island by the Greek army

⁶ Milgram 1974, 5 is explicit on the fact that Milgram focuses on the 'obedient', rather than the 'defiant' subjects.

on its way to Troy on account of the unbearable stench of a foul wound to his foot.⁷ However, many years later the Greeks have discovered that they cannot take Troy without Philoctetes and/or his bow,⁸ which he had inherited from his friend Heracles. They dispatch Odysseus, accompanied by the young warrior Neoptolemus, who is the son of the recently fallen great hero Achilles.⁹ Neoptolemus is put under considerable pressure to use deceit in order to make Philoctetes rejoin the Greek army before Troy. Odysseus makes him overcome his aversion to engage in this kind of un-Achillean behaviour (when Neoptolemus would have much preferred violence, v. 90), and we witness Neoptolemus' efforts, when confronted with Philoctetes, to stick to the plan. This is no easy task, since Philoctetes, whose struggle for survival in the desolate wilderness without human companions is emphasized time and again, reaches out to Neoptolemus and his companions (the chorus). These in turn are affected by pity (*oiktos*, e.g. v. 507 (chorus), 965 (Neoptolemus))¹⁰ and a desire to help Philoctetes, whose old-fashioned heroic ethos cannot but remind Neoptolemus of his father Achilles, and who certainly adopts a paternal attitude towards the young man.¹¹ When Philoctetes feels the onset of a pain attack, he entrusts Neoptolemus with his sole means of survival: the bow. Upon Philoctetes' recovery, Neoptolemus' inner conflict causes him, first, to confess the treacherous plan to his new friend, and later, in spite of the demands of Odysseus, to return Philoctetes' bow to him.¹² Moreover, when after a last attempt he cannot persuade Philoctetes to join the Greek army, he agrees to take him home, knowing full well the cost to his own eternal glory, since he cannot conquer Troy without Philoctetes. It is only the appearance of a *deus ex machina*, Heracles himself, that can save the traditional outcome of the myth: Neoptolemus and Philoctetes are ordered to go to Troy, where they will win great honour.

The play has often been understood in the terms it offers rather conspicuously itself, highly topical ones in Sophocles' time, when they were associated with the intellectual concerns of the so-called sophists.¹³ These itinerant intellectuals, who offered education for money, had developed various theories of social

⁷ The fact that the island is uninhabited is crucial to the thematic of the play; Sophocles added this innovation to the traditional myth (Rose 1976; 1992, 280).

⁸ There is some ambiguity about this issue, which will not concern us here; see Schein 2013 *ad S. Ph.* 113 (only the bow mentioned by Odysseus); 191–200 (Philoctetes plus bow necessary according to Neoptolemus); 1329–47 (Neoptolemus talks about bow plus Philoctetes and mentions Helenus' oracle).

⁹ The role of Neoptolemus is the second Sophoclean innovation that drives the action of the play and defines its problematic.

¹⁰ On pity in the *Philoctetes* (*eleos*, *oiktos*), see Prauscello 2010.

¹¹ See esp. Avery 1965, 285f., also for Philoctetes' frequent use of the forms of address *παῖ* and *τέκνον*; Roisman 1997 for the 'struggle between Philoctetes and Odysseus over the paternity of Neoptolemus' (128): will he be a man of action or of deceitful words?

¹² We are omitting some of the back and forth here, which does not affect our argument.

¹³ The best analysis of the links of *S. Ph.* with contemporary intellectual culture, in particular with the intellectual milieu of the sophists, is still Rose 1976 (revised in Rose 1992, 266–330).

anthropology on the origins and development of human society and civilization. They were also interested in the politics and ideology of language use, rhetoric, ethics, and epistemology. Well-known topics are the possibility of finding counter-arguments to any argument and of speaking well on any proposition, irrespective of its morality. Some of these concerns are prominent in the play, and discussed by the characters. This is true in particular for the tension between natural, inherited character and persuasive speech (*φύσις* and *λόγος*); between violence and persuasion (*βία* and *πειθώ*); or between trickery and truth (*δόλος* and *ἀλήθεια*). In addition, we also observe how the older, hierarchically superior, and authoritative Odysseus leans on the younger man to follow his lead, and how Neoptolemus gradually gives in.

The opening scene between the son of Achilles and Odysseus bristles with signal words flagging these concerns. The sheer density of their use leaves no doubt as to what intellectual concerns are evoked here. Here is a significant interchange:

NE Son of Laertius, things which it distresses me to hear spoken of / are things which I hate to do! / It is my nature (*ephun*) to do nothing by treacherous plotting (*ek... tekhnês*); / that is my nature, and it was also my father's (*houkphusas eme*) nature. / But I am ready to take the man by force (*pros bian*) / and not by cunning (*doloisin*)... / (96) OD Son of a noble father (*esthlou patros pai*), I too when I was young / had a tongue (*glôssan*) that was inactive but an arm (*kheira*) that was active; / but when I come to put it to the proof I see / that it is the tongue (*tên glôssan*), not actions (*targa*), that rules in all things for mortals. / NE Then what are you telling me to say except lies (*pseudê*)? / OD I am telling you to take Philoctetes by a trick (*dolôi*). / NE But why must I take him by a trick (*en dolôi*) rather than by persuasion (*peisan*)? / OD He will never obey (*pithêtai*), and you could not take him by force (*pros bian*) / ... (108) NE Do you not think it disgraceful (*aiskhron*) / to tell lies (*pseudê*)? / OD Not if the lie brings us salvation! / NE With what kind of a face will one be able to utter such words? / OD When you are doing something to gain advantage (*kerdos*), it is wrong to hesitate. (tr. Lloyd-Jones, adapted)

NE ἐγὼ μὲν οὖς ἂν τῶν λόγων ἀλγῶ κλύων, / Λαερτίου παῖ, τούσδε καὶ πράσσειν στυγῶ· / ἔφυν γὰρ οὐδὲν ἐκ τέχνης πράσσειν κακῆς, / οὐτ' αὐτὸς οὐθ', ὥς φασιν, οὐκφύσας ἐμέ. / ἀλλ' εἰμ' ἐτοῖμος πρὸς βίαν τὸν ἀνδρ' ἄγειν / καὶ μὴ δόλοισιν... / (96) OD ἔσθλου πατρός παῖ, καὐτὸς ὦν νέος ποτὲ / γλώσσαν μὲν ἄργον, χεῖρα δ' εἶχον ἐργάτιν· / νῦν δ' εἰς ἔλεγχον ἐξιὼν ὀρώ βροτοῖς / τὴν γλώσσαν, οὐχὶ τάργαν, πάνθ' ἡγουμένην. / NE τί οὖν μ' ἄνωγας ἄλλο πλὴν ψευδῇ λέγειν; / OD λέγω σ' ἐγὼ δόλῳ Φιλοκτιήτην λαβεῖν. / NE τί δ' ἐν δόλῳ / δεῖ μάλλον ἢ πείσαντ' ἄγειν; / OD οὐ μὴ πίθηται· πρὸς βίαν δ' οὐκ ἂν λάβοις. / ... (108) NE οὐκ αἰσχρὸν ἡγή / δῆτα τὸ ψευδῇ λέγειν; / OD οὐκ, εἰ τὸ σωθῆναι γέ τοι ψεῦδος φέρει. / NE πῶς οὖν βλέπων τις ταῦτα τολμήσει λακεῖν; / OD ὅταν τι δρᾷς εἰς κέρδος, οὐκ ὀκνεῖν πρέπει. (86–111)

The orders of Odysseus to resort to clever speech, artifice, deceit (*tekhnê, dolos, peithô*) do not fit Neoptolemus' self-image, which rests entirely on his natural disposition, his *φύσις*, as the son of Achilles, marked by *phu*-words (*ἔφυν, οὐκφύσας*). Odysseus acknowledges the importance of Neoptolemus' descent (*ἐσθλοῦ πατρὸς παῖ*), and excuses Neoptolemus' preference for violence (*βία*) as a sentiment of younger people shared at one time by himself. He then first replaces Neoptolemus' blunt framing of the plan as 'lies' with the idea of *δόλος* (tricking), excludes the alternative options of persuasion and violence, and removes the shame from resorting to lying (a term on which Neoptolemus insists) by associating it with salvation and advantage. In the end Neoptolemus accepts to play the part assigned to him.¹⁴ Odysseus removes himself from the action, since he must not be recognized by his arch-enemy Philoctetes.

In the rest of the play, this framework for understanding human behaviour in terms of the tension between natural disposition and cultural forces resurfaces.¹⁵ Philoctetes is overjoyed to see the son of 'his dearest' Achilles (242). When he wakes up from the horrible attack of his illness and finds Neoptolemus and his bow still there, he praises his steadfastness and naturally attributes it to the younger man's *phusis* (874–5 'for your natural disposition is noble, my child, and you are born from noble parents' (*εὐγενὴς γὰρ ἡ φύσις καὶ εὐγενῶν, ὧ τέκνον, ἡ σή*). Neoptolemus is increasingly uneasy with the deceit, and explains his discomfort as the logical result of betraying or 'leaving behind' one's disposition (*τὴν αὐτοῦ φύσιν... λιπών*, 902–3). 'No', says Philoctetes, 'you're not doing anything out of line with the one who fathered you' (*ἔξω τοῦ φυτεύσαντος*, 904).¹⁶ But when he realizes that Neoptolemus is indeed going to betray him he calls out against 'the son born of Achilles' (940). 'Give [my bow] back', he says, 'be your own self' (*ἐν σαυτῷ γενοῦ*, 950), i.e. behave according to your *phusis*. When Neoptolemus ultimately not only returns the bow, but also gives up his attempt to persuade Philoctetes, the latter says: 'Child, you have shown the *phusis* from which you've sprung: not from Sisyphus as father, but from Achilles' (*τὴν φύσιν δ' ἔδειξας, ὧ τέκνον, ἐξ ἧς ἔβλαστες, οὐχὶ Σισύφου πατρός, ἀλλ' ἐξ Ἀχιλλέως*, 1310–11).¹⁷

The metacognitions activated and advertised in the opening scene remain in place elsewhere in the play. In describing behaviour that flies in the face of one's *phusis*, characters speak of resorting to the (wrongful, deceitful) use of words, tricks and contrivances, and deceit: Neoptolemus expresses his fear of being

¹⁴ On the metatheatrical aspects of *S. Ph.*, see Lada-Richards 2009. She observes that at a decisive moment in the interaction with Philoctetes, Neoptolemus will allow his *phusis* '[to hijack] the "character" he is supposed to project' (56).

¹⁵ See Blundell 1988 for the sustained importance of Neoptolemus' *phusis* in the play.

¹⁶ *ἔξω* is a logical follow-up from *λιπών*.

¹⁷ 'Sisyphus as father': Philoctetes is here referencing the rumour that Odysseus was fathered by arch-villain Sisyphus, rather than Laertius/Laertes (cf. Schein 2013 *ad* 417; 1311). Cf. also *Ph.* 1284, when Philoctetes is still in despair and calls Neoptolemus 'most hateful son of the best father', *ἀρίστον πατρός ἔχθιστος γεγώς*.

found inferior, *κακός*, through the use of disgraceful speech (*λέγων αἰσχιστ' ἐπῶν*, 909). Philoctetes calls him out for the same behaviour as 'you most hateful contrivance of sly villainy', using a *τέχνη*-term (*ὦ... πανουργίας/δεινῆς τέχνης* *ἔχθιστον*, 927–8). And he adds: 'How you deceived me!' (*οἶ ἡπάτηκας*, 929). The natural tools of an Odysseus in his interactions with his environment (wily deceit, sly words) are unbearable for someone like Philoctetes when exposed to them, and cause moral quandaries for someone like Neoptolemus when using them against another human being, since they are at odds with his natural disposition as the son of his father. We will note again that Neoptolemus would have had no trouble (at least that's what he himself thought at the beginning of the play) in using violence against Philoctetes. This alternative is not put to the test.

In sum, then, in this play Sophocles explores a particular way to understand (the morality of) human behaviour under stressful circumstances, by invoking a powerful contemporary interpretative framework: his situated metacognition is passed on to his characters and would have resonated with the audience.

12.3 Milgram's experiments in obedience to authority

In the first part of the *Philoctetes*, Neoptolemus is pressured by an authority figure to treat another person in a way that conflicts with his own values. This calls to mind the set-up of some of the most infamous experiments in social psychology: the ones involving obedience to authority by social psychologist Stanley Milgram (1963; 1974). The willingness of subjects to inflict even lethal electrical shocks to people they were supposedly 'teaching', has usually been explained in just these terms: obedience to authority and delegated responsibility. Those concepts were of considerable cultural-historical interest at the time, in the aftermath of the Eichmann trial.

In July 1961, Stanley Milgram began a series of experiments to investigate the willingness of ordinary people to follow the orders of an authority figure in performing acts that are increasingly harmful to others.¹⁸ In Milgram's set-up subjects were led to believe that they were taking part in a learning experiment, using a memory task. When they entered the lab, someone playing an experimenter would explain that this experiment required a 'learner' and a 'teacher'. Through a rigged lottery, the subject would always be assigned the role of 'teacher', while the 'learner' was another associate of Milgram's. Within the triangle of experimenter, learner, and teacher, then, there was only one subject each time: the teacher. In most versions of the experiment, teacher and experimenter would be together in one room, while the learner was in an adjacent one. Subjects were ordered by the

¹⁸ Milgram 1963 (the experiments were conducted in 1961); 1974.

experimenter to administer increasingly severe shocks to the learner in the course of supposedly helping him to commit to memory a list of word pairs. Whenever the learner provided a false answer, the teacher was supposed to give feedback in the form of a punitive shock. To this end a fake 'shock generator' was used, fitted out with switches that allegedly produced voltage levels ranging from 'Slight Shock' (15 volts) all the way up to 'Danger: Severe Shock', and ultimately to two final ones simply marked 'XXX' (450 volts). In cognitive terms, this machine was used as 'environmental scaffolding' for the teacher, an item in the environment supporting the understanding of the situation by the subject.¹⁹ At every incorrect answer, the voltage level was to be raised by a single notch. Milgram conducted many versions of this experiment, varying some conditions. But in most versions (from experiment 2 onwards), the teacher would receive feedback from the victim, consisting of either emphatic vocal responses of protest or distress (e.g. a claim of heart trouble, a request to stop) or other signs to the same effect (e.g. pounding on the wall). Worried reactions by the 'teacher' would be blocked by the 'impassive', 'stern' experimenter:²⁰ 'the experiment requires that you continue.'²¹ After the 315-volt shock, the victim remained silent—the experimenter would instruct the subject to regard silence as an incorrect answer and to continue.

In experiment 2, 25/40 subjects continued until the end; in experiment 1, 26/40 subjects had done so without vocal feedback—a surprisingly small difference. The subjects were observed to suffer extreme stress and showed various nervous reactions, sighing, sweating, nervous laughter, etc. The experiment lasted until either the experimenter put a stop to the session after the thirtieth and most severe shock level had been reached or the subject at some point broke off the experiment unilaterally by refusing to continue the administration of shocks. In the two years following the original experiment, repeated editions that tested the possible influence of such variables as setting, racial or cultural background, and gender, on the whole yielded somewhat similar results.²² Physical proximity of subject and learner substantially reduced the willingness of the subject to continue.²³

¹⁹ For environmental scaffolding, see Andy Clark 1997.

²⁰ Milgram 1963, 373.

²¹ 1963, 374; other stock phrases used as prods were: 'please continue/please go on', 'it is absolutely essential that you continue', 'you have no other choice: you must go on', all of this in a 'firm, but not impolite' tone.

²² Increasing attention has been paid to the 18 different conditions Milgram created in various iterations of the experiment. In many cases, the transcripts were analysed anew with attention to different factors. See e.g. Kaposi 2020 for a rhetorical analysis of different proximity conditions, or Gibson 2019. And cf. sections 12.4 and 12.6 below. Replication has itself been an ethical dilemma; see Burger 2009 and Miller 2009.

²³ Milgram 1974, 32–5. In such cases the bond between learner and 'teacher' would compete with the commitment of the 'teacher' to the experimenter (or the experiment as such). Cf. the influence of witnessing Philoctetes' suffering on Neoptolemus. Conversely, if the experimenter was physically removed from the 'teacher', obedience dropped sharply (to 9/40, Milgram 1974, 59).

Milgram notes a number of points relevant to the 'situated cognition' (not his term) of his subject, for instance, that they trust the usefulness of their participation, or the importance of the 'background authority' of Yale, where the first experiments took place. He also notes that the subjects realize that they have entered the experiment voluntarily. The subject therefore 'perceives himself under obligation to aid the experimenter. He has made a commitment, and to disrupt the experiment is a repudiation of this initial promise of aid'.²⁴ Another issue is that the subject finds himself torn between the competing demands of two persons, of which he can help only one.²⁵ These points will be important for the reanalysis of the experiments by Herbert Clark (section 12.4).

The publication of Milgram's study in 1963 caused a tremendous stir. The fact that some two-thirds of the participants in the initial experiment obeyed the experimenter's command all the way to the administration of the most severe—in fact lethal—shock seemed to indicate that under authoritative pressure ordinary people could let down their moral guard and commit atrocities.²⁶ This was highly suggestive at a time when people were trying to come to grips with the events of World War II. Notably, it seemed to accord perfectly with Hannah Arendt's idea of the 'banality of evil', her famous 1963 summation of the Eichmann trial in 1961.²⁷ The desire to explain how the Holocaust could ever have happened had obviously and explicitly informed Milgram's clearly advertised metacognition-cum-hypothesis of 'obedience to authority' in the first place. Here too, then, we have an example of situated metacognition, or, to adapt the title of Hutchins's 1995 book: an example of 'metacognition in the wild'.²⁸ Milgram hypothesized that the willingness of the obedient subjects could be explained by the presence of an authority, and thus to a form of delegated responsibility.²⁹ '[T]he individual who is commanded by a legitimate authority ordinarily obeys' (1963, 372). The

²⁴ Milgram 1963, 376; cf. Milgram 1974, 64, 149.

²⁵ Milgram 1963, 376; 1974, 24.

²⁶ Milgram has come under a lot of criticism for the way in which he reached this high a percentage of 'obedient' subjects; for one example, see Perry 2013, who points out that over half the subjects initially were *not* inclined to go along with the experiment. The pressures they were put under went further than just 'authority', and seemed more like bullying.

²⁷ Arendt 1963; her report of the trial had first been published in five parts in *The New Yorker*. Modern editions of the book are based on the expanded and revised 1964 version. Milgram (1974, 6) refers to her work.

²⁸ Morgan 2017 discusses Hutchins 1995 (*Cognition in the Wild*) among several earlier positions on situated cognition. This chapter argues that metacognitions are just as dependent as primary cognition on context and culture. Kirsh 2009 discusses situated problem-solving, arguing that 'problems' are not a natural category, but that they are themselves a product of construction and definition. Metacognitions are themselves an example of situated problem-solving.

²⁹ Milgram 1963 appeared in the *Journal of Abnormal and Social Psychology* [our emphasis] and called attention to 'destructive' obedience. He says in so many words that '[o]bedience, as a determinant of behavior, is of particular relevance to our time' (1963, 371) referring to World War II. He regards obedience as an 'impulse overriding training in ethics, sympathy, and moral conduct'. On deferred responsibility and the link with World War II, see also Milgram 1974, xii, 145. Ultimately, though, it was Milgram's ambition to explain 'obedience to authority' as normal human behaviour (1974, 188).

context of explaining the Holocaust was a shared interpretative framework for Milgram and his contemporaries. This is evidenced by the remark made by the wife of one of the ‘teachers’ on hearing about the experiment: ‘You can call yourself Eichmann.’³⁰

12.4 Herbert Clark and the natural tendency to cooperate

Milgram had set up his experiments and interpreted their results in specific cultural and historical terms. In the early years of this century, Herbert Clark made an effort to explain Milgram’s data in terms designed to transcend such specificity and bring them under the umbrella of a universal and basic phenomenon of human cognition.³¹ That phenomenon is the primacy of social coordination and human collaboration, based on a view of human nature that attempts to redress excessive emphasis on competition. Human beings are, or are equipped with, ‘interaction engines.’³² They are highly motivated to be cooperative and to engage in what are called ‘joint commitments.’ Through a minute linguistic analysis of the communicative exchanges between experimenter and subjects, Clark shows that, in these interactions too, a relationship of *cooperation and joint commitment* was constructed in the initial phases of the experiments. Note that this approach means that Clark elides the hierarchical relationship between experimenter and ‘teacher’ and thus the whole issue of authority. His interest is in basic human communication in line with some of the universalizing tendencies of the cognitive turn. In that sense, his cognitive model is also an example of situated metacognition.

Interaction and communication are key to Clark. Since the basis of communication is, precisely, exchange, Clark’s unit of analysis is not the individual speech act, but rather what he calls a ‘projective pair’, an adjacency pair consisting of a move (called ‘proposal’) by one speaker, and the counter-move (called ‘uptake’) of the interlocutor.³³ A joint commitment is established through repeated positive interactions on joint courses of action. Negotiating a joint activity, then, is usually a piecemeal exercise requiring multiple joint commitments to particulars that emerge incrementally and hierarchically (the latter in the sense that each separate joint action serves the higher goal of carrying out the main joint project).

Clark uses the joint project of putting together a TV stand as an example (the more commonly available cognitive model would probably be an IKEA Billy

³⁰ Milgram 1974, 54. ³¹ Clark 2006, updated in Clark and Henetz 2014.

³² Levinson 2006, referring to an ensemble of cognitive abilities and motivational predispositions which underlie human communication and action (44).

³³ Clark 2006, esp. 131–3.

bookcase these days):³⁴ two people agree to construe the thing together, there is a division of labour, and then there are all the individual tasks and subtasks which are coordinated in projective pairs: ‘now we have to do x’—‘ok’//‘if you hold this, I’ll find x’—[takes hold of shelf]//‘this seems to be right’—‘[assenting grunt]’, etc. It would be socially unacceptable if one partner, by refusing a logical next step, in practice would ruin the whole stack of joint actions and the joint commitment to the project as such. Clark’s analysis does not directly target the usefulness of the customary interpretative framework (which may still be relevant), but rather it lays bare this underlying structure of engagement in a joint action, which involves an ongoing process of establishing, negotiating, and maintaining joint commitments.

In the Milgram experiments there are a great many positive interactions and commitments before the subjects experience moral unease. A subject voluntarily enters the experiment together with others at Yale laboratory, he assents to a division of labour through a lottery to divide the roles of teacher, learner, and experimenter for a memory task with word pairs, the procedures for that task are established, and then there is a long series of executions of the memory task proper. At each iteration this involves exchanging word pairs and providing feedback through (initially) light shocks.³⁵ In the mind of the subject, refusal to take the next step would not just be the simple rejection of one item, but would undermine the whole joint project, and thereby negate all the individual small steps of commitment-building that went before. The subject might feel that he would be ruining the whole experiment. By Clark’s calculation, by the time the experiment had reached word pair 14, the subject had agreed and acted on no less than 99 smaller joint actions, supporting the overall joint project of taking part in a Yale experiment.³⁶ Subjects would be wary of unilaterally breaking off the joint commitment. Instead, most of them would either attempt to negotiate a joint exit with the experimenter (blocked effectively by the programmed refusals of the latter), or try to reframe the implications of the task at hand (e.g. deference of responsibility, denial of the impact of the shocks)—or they would simply keep cooperating, thus keeping intact the long string of already completed joint actions.

Joint commitment and joint actions can primarily derail in two different ways: *exploitation*, i.e. (over-)using the fact that a partner has ceded a certain amount of control in a joint activity; and *overcommitment*, caused by the general difficulty or even the sheer impossibility of renegotiating prior commitments. While these two factors may increasingly make participants want to back out of the joint commitment, the gradualness of their emergence also means that participants keep

³⁴ Clark 2006 and Clark and Henetz 2014 borrow the example of the TV stand from an unpublished paper by Julie Heiser and Barbara Tversky. We only paraphrase the gist of their analysis.

³⁵ Clark 2006, 145.

³⁶ Clark 2006, 145: the number is not easy to verify, but there are certainly over 70 joint commitments.

feeling bound to those joint commitments, well beyond moral or other objections. What makes the experiments so wrenching, then, is not so much the conflict between obedience to authority and moral considerations, but between the latter and our basic human tendency to form commitments.³⁷ We should note that Clark's analysis is reductionist by choice, in itself a perfectly legitimate scientific approach. However, in comparing agreeing to continue building a TV stand to administering shocks to a fellow human being with a focus on social coordination and collaboration, one is bound to lose something along the way.

12.5 Cooperation in the *Philoctetes*

Nevertheless, if Clark is right about having tapped into a more basic level of human interaction by focusing on issues of joint commitment and joint action, it should be possible to analyse the exchanges in *Philoctetes* in the terms Clark has offered.³⁸ And indeed, this is highly feasible. We have shown earlier how the prologue establishes and advertises the situated metacognition of *phusis* and *tekhnê*. However, it can also be analysed as the mutual and shared establishment of a plan and a role division, in which these first steps (taken onstage, but also reported from the time when the expedition set out from Troy) commit Neoptolemus to what will be a series of joint and coordinated actions.

Neoptolemus has agreed to come with Odysseus and assist him in bringing Philoctetes to Troy—the overarching joint commitment (cf. 'we are going to put together a Billy bookcase'). At the opening of the play, Odysseus asks him to identify Philoctetes' cave, a task easily accomplished by Neoptolemus, constituting another step in the joint action, 26–7. Odysseus had promised (24–5) to then set out the rest of the plan, so that Neoptolemus might listen and Odysseus might do the explaining (role division), and the plan would proceed as a joint project (*koina*) from the two of them (dual form).³⁹ When the first task has been fulfilled, their communication continues with projective pairs, consisting of more

³⁷ In fairness to Milgram, it should be observed that he himself had anticipated a number of Clark's points, see above section 12.3, p. 219. Earlier, Orne 1962 had signalled the fact that psychological experiments constitute a special form of social interaction known as 'taking part in an experiment', which means there are well-defined roles and the shared assumption that 'a legitimate purpose will be served by the subject's behavior' (777). In the Milgram experiments, the subject (not unreasonably) assumes that the (Yale) experimenter knows what *both of them* are doing. Cf. e.g. 'Surely you've considered the ethics of this thing' (quoted in Clark 2006). This is testimony to the initial acceptance of authority.

³⁸ As we will see, this is even the case if Clark's model does not represent *the* ultimate basic layer of human interaction. In classical studies, too, more attention is being paid to cooperative values, rather than just to the traditional competitive ones. See Elmer's study on consensus-building in Homer (Elmer 2013), and Lambert 2011. Moreover, Clark's work is also related to so-called 'conversation analysis' (CA; for a brief overview, cf. Chevalier 2011), and this too is applied to classical works, see e.g. Van Emde Boas 2017.

³⁹ *Ph.* 24–5: ὡς τὰ πύλοιπα τῶν λόγων σὺ μὲν κλύης, ἐγὼ δὲ φράζω, κοινὰ δ' ἐξ ἀμφοῖν ἔη.

directions and questions from Odysseus and Neoptolemus' positive uptakes. For example, 'look to see whether...' (30)/'I see...' (31).⁴⁰ After this first joint exploration of Philoctetes' abode, with the younger man doing the actual inspecting, Neoptolemus initiates the next step by inviting Odysseus to proceed with further instructions ('if there is anything you want, speak again and tell me', 49). It is interesting to note that Odysseus delivers his instructions as a necessity, repeatedly using the impersonal *δεῖ*, 'it is necessary that you'.⁴¹ After the first *δεῖ* sentence, exhorting Neoptolemus to fulfil his task, there is a positive uptake in Neoptolemus' 'what are your orders then?' (*τί δῆτ' ἄνωγας*; 54).

Odysseus does not hesitate to exert (social) pressure, even when Neoptolemus has not yet indicated that he may not be willing to cooperate: 'if you fail to do this, you will hurt all the Greeks; for if his bow is not taken, you will not be able to conquer the Trojan plain'.⁴² Neoptolemus tries to negotiate (86ff., discussed in section 12.2), referring to his natural, dispositional preference for violence over deceit, but feels the weight of the earlier joint commitment: 'however, since I was sent here as your collaborator, I shrink from being called a traitor' (*πεμφοθείς γε μέντοι σοὶ ξυνεργάτης ὀκνῶ/προδότης καλεῖσθαι*, 93–4). At this point there may already be some overcommitment. Odysseus has evoked the weight of social pressure. Neoptolemus realizes that the army is aware of his commitment and would disapprove of any failure of his to honour it.

As we have seen in section 12.2, a negotiation over the framing of the task follows, with Neoptolemus expressing his aversion to lies, and bringing up his concerns about engaging in despicable forms of action. In the end, though, Neoptolemus once again repeatedly formulates consent. Initially his phrasing is highly reluctant and impersonal: 'If that's the situation, it may be necessary for it [the bow] to be captured' (*θηρατέ' οὖν γίγνεται' ἄν, εἴπερ ὧδ' ἔχει*, 116);⁴³ but soon he sounds more confident: 'so be it, I'll do it!' (120), '[I'll remember what to do], now that I've once and for all consented' (122).⁴⁴

Right from the prologue, then, we can see some of the overcommitment that Clark's model identifies as a risk inherent in our natural tendency to form joint commitments. The other risk is exploitation. Both of these come to the fore when Neoptolemus forms a bond with Philoctetes that competes with Neoptolemus'

⁴⁰ Other pairs, after Neoptolemus' successful completion of his first tasks, e.g. in v. 28–9, 32–3, 34–6. Each question/order and reaction cements the joint commitment.

⁴¹ *Ph.* 50, 54, and cf. the impersonal *κλεπτέον* in v. 57. See Schein 2013 *ad loc.* This impersonal use is comparable to the formulaic responses by Milgram's experimenter. Odysseus uses impersonal constructions also with Philoctetes, e.g. 993–4 *OD ἡ δ' ὁδὸς πορευτέα./PH οὐ φημι.* *OD ἐγὼ δέ φημι. πειστέον τάδε*, 'OD the journey must be made. PH I say no! OD but I say yes. This must be obeyed'.

⁴² *Ph.* 66–9: ...εἰ δ' ἐργάση/μή ταῦτα, λύπην πᾶσιν Ἀργείους βαλεῖς. *λεῖ γὰρ τὰ τοῦδε τόξα μὴ ληφθήσεται, οὐκ ἔστι πέρσαι σοὶ τὸ Δαρδάνου πέδον.*

⁴³ Note that everything is impersonal and indefinite here; see Schein 2013 *ad loc.*

⁴⁴ *Ph.* 120 *ἴτω πῶσω.* Schein 2013 *ad loc.* observes that *ἴτω* 'frequently indicates a decisive commitment to a particular course of action, whatever the consequences'. *Ph.* 122 *ἐπεῖπερ εἰσάπαξ συνήνεσα.*

commitment to Odysseus and their common plan.⁴⁵ Philoctetes acts like a parent towards Neoptolemus,⁴⁶ but his behaviour is also manipulative and exploitative. For instance, when he first asks Neoptolemus to take him along on his ship, he says (477) σοὶ δ', ἐκλιπόντι τοῦτ', ὄνειδος οὐ καλόν, / δράσαντι δ'... 'but for you, when you abandon this, this will be a disgraceful cause for blame, but if you do it (there will be honour)'. The verb ἐκλείπειν 'to abandon, leave out' is rather stronger than simply 'not doing': it suggests that the object of the verb is something to which Neoptolemus was already somehow committed. Similarly, the way in which Philoctetes manages to get physical help from Neoptolemus personally is manipulative. Neoptolemus had suggested that his men could lift Philoctetes up, to which he replies: 'thank you, my boy, raise me up as you intend' (αἰνῶ ταδ', ὦ παῖ, καί μ' ἔπαρ', ὥσπερ νοεῖς, 889).⁴⁷ An example of both exploitation and overcommitment comes up with the question of whether or not Neoptolemus actually ever swore to take Philoctetes home.⁴⁸

The upshot of this is that Clark's analysis in terms of an overcommitment to and exploitation of established joint commitments turns out to be enlightening also for the behaviour of Neoptolemus in *Philoctetes*. However, this does not imply that Milgram's conceptual apparatus should be discarded. His framing of the interactions in terms of obedience to authority can also be shown to have relevance for Sophocles' play and would not have been incomprehensible to Sophocles and his audience. Odysseus is cast as the authority figure from the beginning, as is clear from the fact that the younger man addresses him as ἄναξ 'lord' (*Ph.* 26, also 94), asks for instruction (49), and is sent as (subordinate) helper (ὑπηρέτης, 53); his role is labelled ὑπηρετεῖν (15), and ὑπουργεῖν 'render service, assist' (53).⁴⁹ When towards the end of the play he decides to redress the wrong he has done to Philoctetes, he connects that *hamartia* to his misplaced obedience to Odysseus and the whole Greek army (1226).⁵⁰ Even more explicit is what happens when the whole Trojan myth cycle teeters at the brink of destruction, since Neoptolemus

⁴⁵ On the bond between Neoptolemus and Philoctetes, competing with that between Neoptolemus and Odysseus, see Kyriakou 2012, 152. Cf. the bond that the 'teacher' would feel with the innocent learner in the Milgram experiments.

⁴⁶ For Philoctetes as a father figure and Achilles-like character, see Schein 2013, 15 with n. 50, with the literature cited there. See also n. 11 above. Schein 2013, 15–16 nuances this picture by pointing out similarities and differences between Philoctetes and Odysseus, and Philoctetes and Achilles (in epic and tragedy).

⁴⁷ Clearly, this had not been 'the intention', and in the next verse (*Ph.* 890) Philoctetes dismisses the help of Neoptolemus' men altogether, after which Neoptolemus indeed picks him up himself.

⁴⁸ See Ussher 1990 on *Ph.* 941, 1367, and 1398: in all of these passages it is Philoctetes who claims that Neoptolemus has sworn. When the issue had come up between them, Neoptolemus was still on his Odyssean mission and so is constantly and purposely very vague on where he will take Philoctetes (see e.g. *Ph.* 528–9). But Philoctetes acts as if he had made a good-faith offer and in the end, Neoptolemus just accepts this overcommitment ('if you wish, let us go', 1402).

⁴⁹ Both spoken by Odysseus; Neoptolemus uses the slightly more egalitarian *ξυνεργάτης*, 93. Blundell (1988, 138) points out this authority status of Odysseus.

⁵⁰ *Ph.* 1226 ἦν [sc. ἁμαρτίαν] σοὶ πιθόμενος τῷ τε σύμπαντι στρατῷ. When Odysseus brings up the power of the army, Neoptolemus now resists the pressure (1243–51) (see above p. 223 on his earlier

and Philoctetes seem to be on their way home: it is only the intervention by the undoubtedly authoritative Heracles that saves the charter myth of the Greeks and makes the stubborn Philoctetes accept to go to Troy after all: οὐκ ἀπιθήσω τοῖς σοῖς μύθοις, 'I will not disobey your words,' 1447.⁵¹

'Obedience to authority' is itself well-anchored in the sociocognitive structure of primate life with its issues of status and social hierarchy, and the ensuing dominance and submissiveness. This, too, may be recognizable everywhere in human societies. It can lay as strong a claim to being 'basic' and 'cognitive' as Clark's analysis can.

12.6 The disobedient hero

Milgram was explicit about the fact that his primary interest was in the obedient rather than the defiant subjects.⁵² Clark followed him in this and explained why it is so hard to extricate oneself from joint commitments. However, how about all those subjects—in many iterations of the experiment a majority—who in fact did *not* 'obey', but turned 'defiant'? One of the most notable results of the Milgram experiments was actually the large between-subjects variation in behaviour under exactly the same conditions. Milgram had of course observed the very substantial presence of defiant subjects, but could not explain the difference between the responses.⁵³ In this respect, it is actually Sophocles who gives us the most open exploration of how a conflict might play out between one's (self-perceived) natural disposition and the pressures of (conflicting) social commitments, while acknowledging issues of obedience to authority and joint commitments.⁵⁴ Neoptolemus after all turns into a defiant subject.⁵⁵

Recent studies of the Milgram experiments suggest different solutions, all based (like Clark's work) on reanalysis of the transcripts. Gibson, for instance, doubts whether these experiments are really about 'obedience', a concept not clearly delineated psychologically, and suggests that the communicative processes are key: it is all about rhetoric and persuasion—Sophocles' model in a modern

sensitivity to the disapproval of the army, v. 93–4). Nonetheless, Odysseus threatens social retribution on leaving the stage: *Ph.* 1257–8 OD τῷ δὲ σύμπαντι στρατῷ/λέξω τάδ' ἐλθὼν, ὅς σε τιμωρήσεται.

⁵¹ Remember Odysseus' remark that Philoctetes would never obey (οὐ μὴ πίθηται, 103), see section 12.2, p. 215.

⁵² Milgram 1974, 5.

⁵³ Milgram 1974, 162–3. Level of 'aggression', for instance, turned out not to explain the difference. Milgram 1974, chapter 13.

⁵⁴ While Sophocles offers the most open exploration, he is also happy not to offer one simple key to understanding human behaviour. The action in *Philoctetes* is steered by many factors: *phusis*, an oracle, rhetoric and persuasion, emotions such as pity, commitment to the collective of the army, desire for glory, and obedience to the *deus ex machina*.

⁵⁵ See Fulkerson 2013, who sees Neoptolemus as a character rethinking a decision on moral grounds, and takes this as a sign of development.

guise.⁵⁶ There is also an echo of Sophocles in the model that has held most appeal to modern researchers: the idea that the subjects' responses can best be predicted by personal disposition ('personality') or by an interplay between personality and circumstances.⁵⁷

A further step is the complication of the notion of selfhood.⁵⁸ Sandra Jovchelovitch's overview of modern psychological theory about selfhood or personhood suggests that selfhood itself most likely comes about in a constant interaction of processes of individuation and socialization. The self maintains a relationship to itself (through a dialogue between I and me), but self-realization takes place in a sociocultural context that provides templates for selves, in terms of values, ideas, roles, and practices of cultural communication ('social representations'). They serve as anchors for the 'self'.⁵⁹

Of our three case-studies, Sophocles, Milgram, and Clark, it is Sophocles who not only factors in the pressures of social interaction (all three authors acknowledge those) but also leaves room for the individual self (Neoptolemus). Milgram had been unable to identify a well-defined role for personality, and Clark is focused on universal aspects of human interaction, which elide individual differences. How then does Neoptolemus' resistance to Odysseus' plan relate to his 'personality'?

In the light of modern theory of individuation, it is interesting to observe that all Sophoclean characters seem to relate Neoptolemus' *phusis* to the simple fact that he is the son of Achilles. However, what does that mean for Neoptolemus' behaviour? Neoptolemus has never met his own father, but has only heard about him and tries to imitate him. He is construing what behaviour would be appropriate to his *phusis* in the terms in which his heroic society (and Sophocles' fifth-century one) envisages the role of the Achillean hero. Odysseus makes his own plan sound like what the son of Achilles is supposed to do.⁶⁰ Philoctetes, too, uses *phusis*-rhetoric to commend actions of which he approves (now you are like your father), and to reject other ones (this is not like your father).⁶¹ Neoptolemus' *phusis* itself, then, becomes the product of social interactions.⁶²

One other point needs to be made about Neoptolemus' *phusis*. Neoptolemus' role in this play was new to the original audience in Athens, but a later episode in

⁵⁶ Gibson 2019.

⁵⁷ The literature is vast, but see e.g. de Swaan 2014 (also in the context of thinking about genocidal regimes); Bègue et al. 2015 (claiming personality predicts obedience); Blass 1991 and 2000 (promoting an interactional model).

⁵⁸ This has not been discussed in the context of Sophocles, Milgram, or Clark.

⁵⁹ Jovchelovitch forthcoming, in an explicit discussion of the psychological study and use of ancient Greek tragic characters. See also her extensive overview of the relevant literature.

⁶⁰ See Schein 2013, *ad Ph.* 50–1.

⁶¹ Cf. section 12.2 p. 216.

⁶² Sophocles does not have his characters theorize the social component to inherited nobility, but he shows how it works. For that purpose it does not need to form part of his explicit (or perhaps even conscious) conceptual framework.

the Trojan War made him a familiar mythological figure: the Athenian audience would have known that Neoptolemus had behaved like a godless and brutal war criminal after the fall of Troy, killing the king on the altar, ordering human sacrifice, and raping a virgin. Their expectations as to whether he could live up to his father would have been low in this prequel, although his preference for violence over words would sound true.⁶³ Neoptolemus' tragic double bind at the end of the play before the intervention by Heracles made it impossible for him to live up to his father either way. On the one hand, he could have broken his (over-)commitment to Philoctetes—hardly Achilles-like. On the other hand, had he taken Philoctetes home, that would have meant the end of the Greek ambition to capture Troy and attain glory:⁶⁴ that, too, would have been a thoroughly un-Achillean decision. Being able to just accept the instructions of Heracles (thus returning to 'obedience') saves him at this point.

12.7 Conclusion

In this chapter, we have studied a Greek tragedy by Sophocles as part of the cultural archive of human cognition and situated metacognition constituted by world literature. But we have also expanded that notion to include the imaginative designs and analyses of scientific researchers, such as the psychologist Stanley Milgram and the cognitive linguist Herbert Clark. They, too, offer examples of socioculturally situated metacognition, rather than decontextualized universal truths—this also goes for work done in the specific context of cognition studies.⁶⁵ There is a definite task for the humanities here. Cognitively inflected interpretations of human behaviour in different periods, including modern times, are themselves the object of historical study. They need full contextualization, i.e. an awareness of the intellectual agenda of their authors in their own environment, in order to grasp their preference for specific forms of metacognition. Such interpretative models of human behaviour are not necessarily mutually exclusive: they are different because they provide answers to different questions.⁶⁶ They have *differential situated salience* to agents in different contexts and to their understanding of self and others: the explanatory power of certain concepts is deemed greater in a given situation than that of others. Sophocles preferred *phusis* and deceitful

⁶³ Neoptolemus' role in the fall of Troy is evoked for the audience towards the end of Heracles' speech, when he warns the two men to behave piously towards the gods, once they have captured the city, a warning that will go unheeded (*Ph.* 1441–4).

⁶⁴ As Neoptolemus realizes: *Ph.* 1404.

⁶⁵ For a wry commentary on universal concepts and the rather more messy and embodied 'bricolage' of human cognition, see Cave 2020.

⁶⁶ This historicizing study of metacognitions should remedy the scepticism of critics like Sharrock 2018.

persuasion,⁶⁷ Milgram 'obedience to authority', and Clark 'joint commitment' and 'human interaction' for good reasons, as we have shown. Such words and concepts are also 'repositories of knowledge', that can be reopened.⁶⁸ As Morgan says: 'There is no single mode of situated cognition. But there is a historical archive' (2017, 222).

We have contributed here to a history of reflection on cognition, which is unlikely to have come to a definitive end with the so-called cognitive turn. This was not a story of unidirectional progress. There is not one final answer, one key to the understanding of all human cognition, since every effort at understanding is itself contextual and situated. However, each new insight and all new experimental data added to the archive of (meta)cognition deepen our understanding. New insights will likely be applicable to older examples of human interaction in the archive. And they are unlikely to be able to explain all such interactions, in whatever time and place, by themselves. While undoubtedly some concepts that have been developed historically are no longer usable, the archive is also stacked and cumulative: theories and concepts can be retooled and refined, but remain of use in later periods. The history of cognitive understanding is path-dependent, and new ideas are anchored,⁶⁹ not only in older ones but always also in the *condition humaine* of being human beings, human bodies in a world of other beings, in a certain historical, social, and cultural context, trying to make the best of it.

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⁶⁷ But see n. 54 for his willingness to leave the scenario played out in the *Philoctetes* overdetermined.

⁶⁸ Morgan 2017, 221.

⁶⁹ Sluiter 2017.

