The Stoics on Mental Representation[1]

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A KEY ELEMENT IN the Stoics' discussions of knowledge and responsibility, and indeed in their philosophy more generally, is a mental state they call *phantasia*. The term, first coined by Plato, is used prominently in the *Theaetetus* to characterize Protagoras' view that things are just as they *appear* to be (*phainesthai*, 152B11–C3; cf. 161E8). This core notion is evident in the Stoics too, for whom *phantasia* is the state or condition of a subject in virtue of which things appear or seem to be a certain way to that subject: such states *represent* things as being a certain way, whether or not the subject endorses it as correct. As the Stoics develop the idea, it is a state that has content because of its intrinsic features and the way in which it is produced. I will therefore use 'representation' for *phantasia* in what follows, as providing a natural, yet accurate rendering of the Stoics' usage, rather than try to preserve the etymological connection with appearing, which proves awkward in English.[2]

1. The views below provide an overview of some of the ideas developed and defended at greater length in my monograph, *The Stoics on Content and Mental Represetation* (in progress). Although most citations are given simply to Long and Sedley 1987, all translations are my own.

2. Michael Frede often uses 'representation' as an equivalent for *phantasia* (1987b; Frede 1994; Frede 1999), although 'impression' seems to be his preferred translation, in line with Long and Sedley 1987. But 'impression' trivializes the Stoic definition of *phantasia* as an impression (*tupōsis*), even if one renders the latter 'imprint', rendering it either a tautology or elegant variation, instead of a substantive claim; and it obscures the

1. Representation as the mark of the psychological

One of the most striking features of the Stoic account is how they use representation to demarcate what essentially involves mind from other natural phenomena. The idea that psychology, in a sense recognizable to us, concerns a distinctive range of phenomena first arises in Western philosophy only the Stoics.

Stoicism regards objects in the natural world as distinguished by layers of increasing complexity, the so-called *scala naturae*, depending on how the underlying natural substance is organized.[3] The integrity of bodies is due to their *cohesion*; the vital functions of plants and other living things is due to their *nature*; cognition and goal-directed behavior in animals is due to their *soul*; and the intellectual and moral character of humans is due to *reason* (LS 47N–S).[4] The division of labor is significant. Whereas Plato and Aristotle regarded the *psuchē* or soul as the principle of life, that in virtue of which living things are alive (*Phd.* 105c; *DA* 2.2, 413a20–b13), the Stoics demote metabolism, growth, and reproduction to *phusis* or nature. What distinguishes animals from plants is the fact that they have in addition representations and make what the Stoics call *hormē* or "effort" (usually misleadingly translated as 'impulse'):

T1 Things without a soul move on their own while those with a soul move by their own [agency], viz. they move by their own agency because a representation is produced that elicits effort, and representations elicit effort in ani-

philosophical function of the notion in their theory.

3. On the Stoic *scala naturae*, see Inwood 1985, ch. 2 and 2014, 65–67; Annas 1992, 50–56, cf. 62–64.

4. The Stoics spell out these differences physicalistically, in terms of different states of "tension" (*tonos*) in the *pneuma*, a blend of fire and air, that pervades the entire cosmos (LS 47G–M). See Inwood 1985, ch. 2 and 2014, 65–67; Annas 1992, 50–56, cf. 62–64.

> mals because their representational nature triggers effort in an orderly way. Thus, in the spider a representation of spinning arises and an effort to spin follows, because its representational nature draws it towards this in an orderly way, without the animal relying on anything other than its representational nature. Similarly with the bee building its hive. (Orig. *Princ.* 3.1.2, 196.12–197.8 Koetschau > LS 53A4)[5]

Animals, that is, are sensitive to their circumstances and the opportunities in it, and they respond appropriately in pursuit of certain ends, whether for food and shelter or avoiding dangers. The former, representation, is as we shall see fundamentally passive, the capacity to be struck by the world in certain ways; while effort, the capacity to respond and engage, is active. But both essentially involve content, which concerns how things are or should be, and can accordingly be satisfied or frustrated by the world. It should be no surprise, then, that the Stoics define effort as a kind of representation, with a specific kind of content.[6] Consequently, what distinguishes the soul—or as we might now say, the *mind*—is representation.

Representation, though, is not only a distinctive feature of the mind, but a pervasive one. On the Stoic theory, all mental states are analyzed in terms of representation: they are either representations themselves, for example, memories, experience, and concepts;[7] or they are defined as the assent (*sunkatathesis*) to the content of a representation, as we

5. Although Origen does not mention the Stoics here by name, in a parallel discussion he clearly alludes to the Stoics (*Orat.* 6.1, 311.16–312.10 = *SVF* 2.989). See also LS 53P.

6. LS 53Q. DEFINITION OF EFFORT

7. CITATIONS. Memory: Sextus Empiricus *Math.* 7.373; *PH* 2.70.

find with perception, belief, and choice.[8] But then all mental states essentially involve representations, and indeed only mental states, as we saw above. Representation, therefore, is the mark of the mental for the Stoics: what distinguishes animals from other living and non-living things is their psychology, where this is understood in terms of intentionality. Brentano would have felt right at home.[9]

2. Making an impression: a causal theory of representation

To speak of these as mental states, however, does not imply that they are not physical. The Stoics insist that all mental states must be understood causally, and for them this entails that they must be physical states too, much as Donald Davidson had argued: only bodies can act and be acted upon.[10] Except that Stoic monism is not "anomalous." Mental states, as such, are fully integrated into the physical laws that determine all outcomes.[11] Psychological phenomena are not separate from the natural world, but a part of it.

The Stoics think of representations as the soul's governing part (*hegemonikon*) in a certain state (*pōs echon*), just as a fist is a hand in a certain state.[12] More specifically, Zeno and Cleanthes define a representation as an impression (*tupōsis*) made on the soul, which they conceived of in strongly physical terms, due typically to the impact of exter-

8. LS 39A1. CITATIONS FOR PERCEPTION, BELIEFS, ASSENT.

9. In a lengthy historical footnote to his famous definition of psychology in terms of intentionality, Bretano (1924, 1.125) enlists many ancient and medieval thinkers as allies, but not ironically the Stoics.

10. Plutarch *Comm. not.* 1073E, 1080F; LS 45A–C, 55B. For Davidson's monism, see Davidson 1980.

11. CITATIONS ON FATE RE: REPRESENTATIONS AND ASSENT.

12. Sextus *PH* 2.81 (= LS 33P2); *Math.* 7.39, 9.343. The Stoics identify the soul's governing part with the heart: Galen *PHP* 3.1.11, 170.15–16, 3.1.23, 172.17–19 De Lacy.

nal objects coming into contact with our senses, and compared it to the seal a signet ring produces in wax.[13] As should already be clear from this definition, Stoic discussions are framed primarily in terms of perceptual representations; and while they are not the only kind of representation, they figure as the central or paradigmatic case (LS 39A4). To avoid the suggestion that objects literally make an indentation on the soul, Chrysippus preferred to characterize it as an alteration (*heteroiōsis*). But he saw this as explaining the true sense behind Zeno's definition,[14] and he himself continued to use the language of being "stamped and impressed" in the definition of a secure representation.[15] Later Stoics even maintained that animals were aware of their own bodies due to the soul's being in contact with every part (Hierocles *Elem. eth.* 4.38–53 > LS 53A6–9).

The metaphor of the wax seal is important for the Stoics' epistemology, insofar as it suggests the authority our perceptions carry. Because of the level of detail in signet rings and the way in which they produce seals, they are a generally trustworthy way of authenticating messages and documents as having originated from a specific source. The wax seal does this, moreover, by taking on the insignia of the ring, and thereby represents its owner. This model has ramifications we will take up in later sections. But this much is al-

13. Impression: Sextus Empiricus *Math.* 7.228, 230, 236, 372, 8.400; *PH* 2.70; Diogenes Laertius 7.45, 50; Plutarch *Comm. not.* 1084F; Alexander of Aphrodisias *DA* 68.10–12; Anon. *In Tht.* 11.27–31 Bastianini-Sedley. Impact: LS 40B1, 27E.

The sealing wax analogy is not new in Greek philosophy. But the Stoics' us is less like Plato's in *Theaetetus* 191C–195A (cf. Arist. *Mem.* 1, 450a27–b11), with which it is often compared (e. g. Ioppolo 1990, Long 2002), and more like Aristotle's at *DA* 2.12 (424a17–24). Plato offers it as a model of memory, in order to explain false belief, whereas Aristotle, much like the Stoics, uses it to explain perception, with clear antecedents in Gorgias (*Hel.* 15, 17) and Democritus (DK 68 A135, §§51, 52).

14. Sextus Empiricus *Math.* 7.229–30, 373–73, 8.400.

15. Cicero *Fat.* 43 (LS 62C9), which shows that the rejection in Diogenes Laertius 7.50 is not total, but limited only to an overly literal construal. On secure representations, see §3.

ready clear. On the Stoics' view, perceptual representations are produced in such a way that they bear the authoritative stamp of the objects in the world they represent. Elsewhere they speak of the senses as relaying reports to the soul's governing part, like messengers to a king (LS 53G7).

Chrysippus has more to say about the relation between representation's content and cause. The doxographical tradition reports that he distinguished four things, which fall into two pairs. The first concerns the basic case:

T2 (1) REPRESENTATION [*phantasia*]: a modification [*pathos*] occuring in the soul that reveals both itself and its producer. For example, whenever we observe something white by sight, the effect in the soul due to seeing is a modification, and in virtue of this modification we are able to assert that there is something white at its basis acting on us, and likewise for touch and smelling. The word '*phantasia*' [representation] is derived from '*phōs*' [light]. For just as light displays both itself and the things enveloped in it, so a representation displays both itself and what produced it.

(2) REPRESENTED [*phantaston*]: what produces the representation, for example, something white, something cold, or in fact anything able to act on the soul—that is what is represented. (LS 39B2–3)

Two features of Chrysippus' framework immediately stand out. First, it is emphatically causal. It says twice that a representation is about its cause: what produces the impression is what that representation is *of*. As we shall see shortly, it goes on in the sequel to introduce different terminology for cases where what is represented is *not* the cause. But in the central, paradigmatic case content is tied closely to cause. A second striking feature is its

phenomenological character. A representation does not merely provide information or evidence of its cause. It reveals and displays it to the subject, along with itself. The fact that it reveals itself, moreover, together with the comparison to light, suggests a kind of conscious experience in which we are aware of both the object and the experience together, integrally, in a single mental event, rather than one awareness alongside another. This light of awareness not only makes objects and their features available for inspection, but itself as well. Unsurprisingly, they regard this "natural light" as offering a foundation for their epistemology:

T3 … representation is the criterion, since nature provides us with the perceptual power and the representation that comes about through it as illumination, as it were, for recognizing the truth. It is absurd for them, then, to reject such a great a power and eliminate what serves as their own light. (Sextus Empiricus *Math.* 7.259–60)

When an Academic claimed that nothing could be securely grasped, Aristo of Chios asked whether he could see the person sitting next to him, and when the Academic denied it, Aristo quoted the comic poet Cratinus: "Who blinded you, then? Who snuffed your torch's beams?" (Diogenes Laertius 7.163 = Cratinus fr. 456)

If Chrysippus' distinction were intended as an account of representation, though, it seems vulnerable to a particularly glaring objection. For even if we think that *perception* can be profitably analyzed along causal lines, where what we perceive is the very object that brings about that perception, it would be a surprising thing to think about *representation* generally. We commonly think that some of our experiences are true and others false, where the latter must be due to something other that what we seem to be experiencing;

and indeed our sources frequently ascribe such a view to the Stoics, where it is stated in terms of true and false representations.[16] The latter, moreover, is just what we should expect, if all mental states either are or essentially involve representations, as they believe.

The continuation of the doxographical report, however, makes clear that Chrysippus had such cases in view all along. But he uses different terminology to distinguish them from the basic case of representation from which he began:

T4 (3) REPRESENTATIONAL STATE [*phantastikon*]: an empty drawing [of attention], a modification in the soul that does *not* arise from anything represented, as happens when someone struggles against phantoms and grasps at emptiness. For at the basis of a representation there is something represented, but there is none at the basis of a representational state.

(4) MERELY REPRESENTED [*phantasma*]: that towards which we are drawn by an empty representational drawing [of attention]. This is what happens with people who are disturbed or have gone insane. (LS 39B5–6)

Chrysippus does not say that representational states are without *any* cause at their basis, but only that they don't arise *from what they represent*. In these cases, content and cause diverge: such states are not about what brings them about. They are about something else instead, towards which our attention is drawn, though it does not actually exist and so is merely represented. Our representation must therefore be produced in other ways, even by our own internal condition if sufficiently disturbed.[17]

16. E.g., Sextus Empiricus *Math.* 7.388. The Academics presuppose this claims in their attacks (LS 70B4–6), which is contested by the Epicureans, but not the Stoics.

17. Sextus plausibly suggests that they can be due to internal conditions (*Math.* 7.240–41).

It is difficult to know the further implications of these distinctions without knowing more about the context in which they were applied, which the doxographical tradition does not supply. For example, if there were intended as the framework of a general account of representation, then the causal relation to the object would be *essential* to representation; and however much "representational states" were phenomenally like representations, they would still be distinct types of mental state. Chrysippus, that is, would be a *disjunctivist*, holding that despite their phenomenological similarity, such states do not share a common genus or type, but must be treated disjunctively as divided into these two more fundamental types. And this might seem tempting, given that Chrysippus himself seems to distinguish a "good case"—namely, representation, strictly so called—and a "bad" or defective case, that at best approximates it phenomenally. One complication is that Chrysippus' distinctions wouldn't line up the good and bad cases as one might expect. Since the distinction only turns on whether the object of a state exists and is its cause, it will turn out that perceptual illusions, which are caused by the object, yet misrepresent them in some way, will be *good* cases, rather than a bad ones,[18] as for example, when Orestes in his madness perceived his sister Electra, but took her to be a Fury (LS 39G9), or when Heracles fatefully mistook his own children for Eurystheus' (40H2). But the more serious problem is simply our textual evidence. All of our other reports of Stoic views, including Chrysippus', treat representation as a broad class, which includes not only true and false representations, but illusory and hallucinatory ones of various kinds too. The

18. Byrne and Logue 2009 call this "VI ∨ H disjunctivism", because it classes illusory together with veridical perceptual states, rather than hallucinations, in contrast with "V ∨ IH disjunctivism," which groups illusions and hallucinations together (pp. xi–xii). They take Snowden and Langsam to be disjunctivists of the first sort.

definition of a "secure representation" (see next section) attempts to distinguish this privileged kind from other kinds of representations that fall short of its requirements. In fact, there is no other text I am aware of that treats 'representation' as restricted to the narrow case marked in the first distinction above, or uses 'representational' for the bad case.

It would better, then, not to take the pair of distinctions as constituting the framework for a complete account of representation, but rather as using certain central cases as a way of drawing distinctions and using technical terms to label them, at least on that occasion. If that is right, then we should understand the use of 'representation' in virtually all our texts as referring to the broadest class, and the narrower class Chrysippus picks out in the text above is simply a paradigmatic case, and *not* a representation "in the strict or proper sense." The strict sense of 'representation' *is* the broad one. And this is precisely what we would expect if, as I have argued (§1), the Stoics hold that representations are essentially involved every mental state.

3. Varieties of representation

Perhaps the greatest source of information we have on Stoic representation comes from their epistemology and in particular the definition they offered of one special kind of representation, which they took to serve as a foundation for knowledge (LS 41B3). This definition became the flashpoint in their debates with sceptics in the Academy, who offered numerous counterexamples. The epistemological controversy, a large subject in its own right, is of only secondary interest here, however. For if the definition sets out substantive conditions that a representation must meet in order to play its foundational role, it thereby reveals the various dimensions along which representations can also fall

short. In fact, Chrysippus appears to recognize borderline cases where the difference is so slight that it is nearly impossible to distinguish them, as well as cases much further apart (LS 37F). The definition can thus tell us about how Stoic representations more generally, once its conditions have been properly understood. But we should begin with its relation to knowledge.

The Stoics held that for anything to count as knowledge, it must be such that it "cannot be overturned by argument" (LS 41B1, C2). What is at stake is not the strength of one's conviction, subjectively speaking, but its relation to other mental states that can be brought to bear against it. Consequently, this requirement places significant constraints on one's belief set as a whole. In their view, it must not include any falsehoods (LS 41D3, E, G1), while the remainder must be so comprehensive and systematically integrated that no new evidence or theoretical considerations could ever convince us to abandon a genuine case of knowledge. Very few humans attain this, if any, apart from the so-called "sage," essentially an ideal construct used for thinking about a theory's demands more concretely. Nevertheless, we all have the building blocks necessary for such knowledge, namely, individual experiences that are not only true, but well-founded, and would constitute knowledge if sufficient numbers were organized in the right way. Zeno called this state a "secure grasp" (*katalēpsis*), a metaphor he illustrated with a series of hand gestures: a representation is like an open palm, where an object resting on it is open to view; assent is like gripping it lightly with one's fingers; a secure grasp is like making a fist around it and holding it firmly; and knowledge is like further compressing one's fist with the other hand (LS 41A). A secure grasp is to be understood, then, as assenting to a suitable representation (LS 40B, 41B–C), and Zeno went on to specify the conditions that made it suitable,

labelling it a "secure representation" (*phantasia katalēptikē*). All subsequent debate turns on the adequacy of his definition.

We can be relatively certain of the canonical form of Zeno's definition, as it is repeated in many sources with only slight variations (e.g. LS 40C–E). According to Cicero, it initially consisted of two conditions, but Zeno added a third in response to an objection of Arcesilaus':

A secure representation is a representation that is

i. from something that is

ii. stamped and sealed in accordance with the very thing that is

iii. such that it could not come from something that is not

Much will turn on the interpretation on the interpretation of the phrase 'something that is' (*huparchon*) that occurs in each clause. But a number of things are clear even before we get to that. The first condition is *causal:* what a representation comes from is what produces it or brings it about. The second condition requires a certain kind of *correspondence* with the object that produced it, mentioned in (i). The phrase 'stamped and sealed' (to which some versions add 'molded') is an allusion to the sealing wax analogy. The seal represents the ring and thereby its owner in part because each of the seal's features corresponds to a feature of the ring's uniquely identifying insignia. Mental representations work in the same way. Whether it is a literal impression or some other kind of alteration, it represents the object and its features a certain way, and a secure representation will do so thoroughly and accurately, capturing all of the features of the object that produced it that are accessible to that sense (LS 41B3, 40E3, 6). The second clause is thus both an *accuracy condition* and a *completeness* condition, tied specifically to its cause: the content of a

secure representation is *isomorphic* with its cause. The third condition, finally, is a modal claim about whether other causal histories are possible, and as such is not strictly entailed by the first two conditions (as is sometimes claimed), though it may have been implicit in the conception that gave rise to them. This again parallels the wax seal, which authenticates a document because it could not have been produced in any way other than the owner's signet ring: so too a secure representation could not have been produced by anything other than its actual cause. All three conditions explain why such representations, just like seals, are secure: each is produced by something so as to correspond to it exactly, in a uniquely identifying way, that could not be produced by anything else.

How, then, should we understand the ambiguous phrase 'something that is'? Many translations render the verb *existentially* and take the conditions to require a real object, as distinct from the merely represented objects of the hallucinations and delusional states the Stoics sometimes mention. But it's hard to see why such extreme cases should be so salient, when error is widespread even with existent objects. Such a reading, moreover, makes trivializes the conditions. Since nothing is produced by a nonexistent object or indeed could be, no representation can be either; so (i) will be vacuously satisfied, as will (iii).[19] On the existential reading, therefore, the only substantive condition will be (ii), which is inadequate to the task, since it only secures truth at most.

A second interpretation, favored by a number of scholars, treats the verb *veridically*, so that it is used throughout for "something that is true" or "is the case," based on the

19. Sedley 2002, 139–40 rightly points out the importance of negation's scope in these discussions: whether a text says that something is '*not* from what is' (wide scope) or, as in (iii), 'from what is *not*' (narrow scope).

Stoics' claim that a true proposition is one that "obtains" (*huparchei*, LS 34D1).[20] But it won't help make sense of the definition. For thus understood, (i) would require the representation to be produced by a proposition (*axiōma*) or a state-of-affairs (*pragma*) that obtains, which the Stoics think are incorporeals.[21] But only bodies can be causes (see n. XX), unless we take one or the other of these doctrines loosely, against their technical sense. It would also trivialize the definition's conditions, even if facts could in some loose sense be causes: since nothing is produced by a state-of-affairs that doesn't obtain, or indeed could be, representations can't either, so both (i) and (iii) will again be vacuously satisfied, with (ii) as the only substantive condition. Still worse, (i) will guarantee the *truth* of the representation on this reading, since it stipulates that the state-of-affairs it represents in fact obtains. But then the accuracy conditions in (ii) do no real work—at most (ii) secures that it will be complete in its details or perhaps that it must be pictorial or vivid (Sedley 2002, 146–47).

Something has clearly gone off. Instead of treating *huparchein* as the equivalent of 'to be' (*einai*) and then disambiguating accordingly, we might revisit other uses of the verb to see if they shed any light. One very ordinary use is to indicate what is *actually present* in the circumstances in question, where the contrast is with things not currently in those circumstances, though they may still nonetheless occur in other places or at other times.[22]

20. FREDE, SEDLEY, ANNAS

21. INCORPOREALS.

22. This holds for all the exempla in LSJ under I.B.2: the ships one actually owns (Hdt. 7.144) or property (Isoc.1.28), the current price (D.35.12) or the citizens present (D. 18.295). (LSJ places the Stoics' use of *huparchon* in the definition above under I.B.3, with the meaning 'exist really'; but their other exempla for this sense are equally dubious.)

What counts as present is contextually determined: it depends on the purposes and scope implicit in the context in which it is used. Thus, in speaking about time, the Stoics can say that unlike what has happened or is going to, which are not present, but merely subsist, what is currently going on (*enestēkos*) alone is present (*huparchei*, LS 51B4, C5). In semantics, they hold that while predicates (*katēgorēmata*) are generally said of or applied to objects, they are present (*huparchein*), that is, inhere in them only when they are actual attributes (LS 33G, 51B4). Similarly, a proposition is true just in case it both has a contradictory and is present, that is, currently obtains, even if it is in the past or future tense and so about things that are not present (LS 34D1, 51H).

We might suspect, then, that when it comes to secure representations, what is present is just what is present in the immediate environment of the perceiving subject. We can make this even more precise, though, thanks to an objection Sextus makes. He argues that having defined secure representations in terms of what is present, they are caught in a vicious circle:

T5 But then, since everything taught through definition is taught on the basis of things known, when we further ask just what is present, they turn around and say that what is present is *what triggers a secure representation*. So in order to comprehend the secure representation, we need to have already grasped what is present; but to do that, we have return to the secure representation. So neither is made clear, as each rests on support from the other. (Sextus Empiricus *Math.* 7.426, with variants at 8.86, 11.183; *PH* 3.242)

The charge of circularity itself overreaches: unless the Stoics *defined* being present in terms of secure representations, there are not reciprocal priority claims here; if, as is

more likely, they simply *described* being present in this way, then mutual implication is just what one should expect. But in any case Sextus confirms that presence in this context was specified *in causal terms:* something is present in the relevant sense if, and only if, it is acting on the subject's senses in the appropriate way. Many, though not all, the objects in your immediate environment will be present in this sense, so long as they stand in the right relations and are not occuded. It might also include objects not in your vicinity, like the evening stars. But it will not include the LSD in your synapses producing hallucinations, even though it is directly inside you, since your representation does not come from something present in the relevant sense—it is not acting on our senses, but directly on the central organ.

This construal has significant ramifications. First, if a secure representation is defined as a representation that is

i′. from something *present*,

ii′. stamped and sealed in accordance with the very thing that is *present*,

iii′. such that it could not come from something that is *not present*

where 'present' is understood causally, then all three conditions are substantive and independent in several ways. The first condition is no longer vacuous, since not all representations satisfy it: there are representations that are not brought about by an object acting on the subject's senses, even if what the representation is about exists and is accurately represented. And obviously a representation can satisfy the first condition without satisfying the second, as when I look around the room without my glasses. The third condition, crucially, is also not vacuous: in some cases a given representation *could* be brought about by something that is not in fact present, if it had been present and acted on the sub-

ject's senses.[23] This would explain the Academics' persistant appeal to switching counter-examples using duplicates or near duplicates—twins, coins, eggs, and snakes poking their heads out of a basket—where it is implausible to think one could tell if one had been swapped for another. I am in fact looking at Tweedledee; but could I tell if Tweedledum had taken his place? The Stoics respond that some people can tell, e.g. their mother, because there are telltale, though subtle, features she can recognize (LS 40I2). Duplicates are highly relevant if being present is construed causally: for what is at issue is not what nonexistent objects or nonobtaining states-of-affairs might produce, but what actual objects with a very similar causal profile might if they were switched. The Stoics can, finally, allow that there are representations that satisfy the first two conditions (either or both), but not the third: a representation might be fully accurate and comprehensive, but indiscriminable from one produced by a duplicate; it just won't be secure and so not one the sage should assent to.

Second, because these conditions are substantive, we can use them to characterize the dimensions along which representations differ more broadly.[24] If a representation were to fail to meet (i′), so that it is *not* from something present (taking the negation to have wide scope), the representation would be "insecure" (*akatalēpton*).[25] One example is

23. That is, 'something that is not present' must be construed rigidly. A nonrigid construal is not incoherent — something not acting on a subject's senses might nontheless produce a representation in other indirect ways, like David Lewis's veridical hallucinations, but it would be a very marginal case to focus on. The existential and veridical readings, in contrast, are incoherent on a nonrigid reading, and peculiar and ill motivated on a rigid one.

24. Since representations in Chrysippus' narrow sense necessarily satisfy (i), clearly the conditions are meant to carve out a subset of representations in the broad sense.

25. As Diogenes correctly reports in LS 40C3. Sextus gets the scope wrong in 40E4.

any case of what is sometimes called "presence in absence," where something is "present" only in so far as it is an object of representation, but not presently acting on our senses or perhaps even existing at all—it is something "merely represented" in Chrysippus' sense. Such cases include not only hallucinations and dreams, but also physiological illusions like double vision, floaters, and flashes. Obviously these aren't the only kind of insecure representation either. A representation may satisfy (i′), but fail (ii′), as noted earlier: it may be inaccurate and so misdescribe an object's features, as when Heracles fatefully took his children for Eurystheus' or Orestes' his sister for a Fury, to use the Stoic examples;[26] or closer to home, when a dress appears white and gold, though actually blue and black.[27] Later Stoics called such misrepresentations "misimpressions" (*paratupōtikai*).[28] A representation can fail (ii′) in still other ways. A representation might be accurate, but simply incomplete and so leave out finer details; or in a more marginal case it might correspond exactly, just not as a result of being "stamped and sealed," but rather "extraneously and by chance" (LS 40E1). The third condition is perhaps the most interesting. For if a representation satisfies both (i′) and (ii′), it will represent its cause accurately and in full detail. But if it could have been produced by another object, which is not actually present, and so fail (iii′), we may be vulnerable to misidentification, without any error in misdescription. If so, then a variation of the third condition in Cicero gets it exactly right: a seecure representation is "such that it could not come from something it is not from," however similar (*Acad.* 2.18).

26. Heracles: . Orestes: *Math.* 244–45 (= LS 39G9), 249.

27. Rogers 2015.

28. Sextus Empiricus *Math.* 8.67; PBerol. 16545, l. 17 (on which, see Backhouse 2000).

4. Content

It is worth noting that none of the evidence we have considered so far mentions *lekta* or "what can be said." This stands in marked contrast to much of the secondary literature, which gives them pride of place is discussing representations. But the exposition here follows the Stoics' own recommendation, which begins the study of dialectic with representations, before what can be said, because of the way in which the latter is grounded in the former:

T6 The Stoics hold that the account of representation and perception should come first, insofar the criterion by which the truth of matters is recognized is a representation generically, and insofar as the account of assent, having a secure grasp, and thought, which precedes the other accounts, is not constituted without representation. For representation arises first and then thought, which is capable of speech, expresses in language what it undergoes due to representation. (LS 39A1–2; cf. 53U6–7)

Mental representation is thus taken to have priority over language, at the very least in the causal sequence and the order of exposition. But many scholars have thought that in another regard the reverse priority holds. They hold that the content of representations is in some way dependent on what can be said, where this is dependent on the concepts an individual possesses: representations do not possess content without being conceptualized, at least in humans.[29] This, in turn, raises serious questions about representational content in other animals as well as human children, who on the Stoic view lack reason

29. Long and Sedley 1987, 1.240; Annas 1992, 78; FREDE; SHIELDS. (Inwood?)

and therefore concepts.[30] In what follows, I will discuss the evidence and argue for a different interpretation.

That there is some close connection between *lekta* and representations is not in doubt, since the Stoics appear to define the former in terms of the latter. Diogenes Laertius and Sextus Empiricus record virtually the same formulation:

T7 The Stoics state that a *lekton* is what subsists in accordance with a rational representation

except that Sextus immediately adds

T8 while a rational representation is that in accordance with which what is represented can be set out in language. (LS 33F2, C)

Much hinges on what precisely is meant by the phrase, 'subsists in accordance with'. The Stoics held that incorporeals like *lekta*, time, place, and void do not exist, but subsist (LS 27B, D, G; cf. 51F2), but the question we would really like answered is whether the relation is merely one of covariation or instead some form of dependence or grounding, all of which can be expressed by the Greek preposition (*kata*).[31] But as this phrase is not otherwise explicated in our sources, I propose speaking simply of "correspondence," so as not to prejudge these issues, and leave it open whether other considerations weigh in favor of one or another.

30. REFERENCES.

31. Some of our reports use other formulations that suggest dependence or at least supervenience: LS 33B2 (*parhuphistamenon*), 31A7 (*ek toutōn huphistamenōn*), cf. Syr. *In Metaph.* 105.25–30 (*parhuphistatai*). Place is similarly said to depend on bodies at Simplicius *In Categ.* 361.10–11 (*parhuphistatai*). We might further wonder whether this is only a global relation, or local to individuals, or a particular one, like the divine mind.

Though controversial in their own right,[32] these ontological issues have not been what drives the debate about representational content. For that, we need an another text about rational representations from Diogenes Laertius, together with several assumptions usually left tacit. It consists in a seemingly innocuous classification:

T9 Some representations are rational, others nonrational: the ones that belong to rational animals are rational, the ones that belong to nonrational animals nonrational. The rational ones are thoughts, while the nonrational ones are not given a name. (LS 39A6)

But this might reasonably be thought to carry various implications. If a nonrational representation can never be rational, the division is *dichotomous*: all and only representations of rational animals are rational. If, furthermore, the division is not just a matter of taxonomy, but holds in virtue of some distinctive characteristic that belongs to all and only rational representations, it follows that nonrational representations *differ generically* from rational ones. The standard view makes both assumptions and identifies this feature with having a corresponding *lekton*, based on T7–8:

A. All and only rational representations have a *lekton* corresponding to them, specifically, an *axiōma* or proposition.

If the *lekton* corresponding to a representation just *is* its content, then all and only rational representations will have *propositional content*—no nonrational ones do. Call this the "strict dichotomy reading."[33] Several scholars go even further. If no rational representa-

32. LONG, FREDE, SCHUBERT, COOPER. Others (Alessandrelli)?

33. FREDE; Annas 1992, 75–76; Brittain 2012, 114–15. CHECK LONG, LS.

tion has content apart from the *lekton* corresponding to it, and which *lekton* corresponds depends on which concepts a subject possesses, it follows that

B. No rational representation has content prior to conceptualization

that is, there is no given, uninterpreted content in a representation that has a conceptual scheme imposed on it; it is all inherently conceptual. Call this the "conceptual reading."[34] I will consider the latter reading in §5 and focus on the former here.

In support of the strict dichotomy reading, certain textual evidence is standardly cited. To begin with, one might take it to be suggested just by the fact that T9 calls rational representations "thoughts" (*noēseis*), but not nonrational representations. There are also texts in Cicero and Sextus that claim that while the senses themselves apprehend qualities like white and sweet, they cannot grasp that 'this is white' or 'this is sweet'; even the most basic propositional content requires reason or the mind.[35] None of these texts is decisive, however. Without additional assumptions, the label 'thoughts' alone is insufficient. As we know from Descartes's *Meditations*—which exploits other notions of Stoic provenance, such as clarity and distinctness (Med. III) and responsibility for assent (Med. IV)—'thought' can be applied to mental states right across the board, including emotions, willing, and crucially sense-perceptions (Med. II) as acts of a unitary mind, much as the Stoics hold (LS 53H1). So without knowing anything more definite about how thoughts are conceived, we cannot draw any further conclusions. The other texts, in contrast, are more definite. But neither attributes the view to the Stoics: the first is attrib-

34. Long and Sedley 1987, 1.240; Annas 1992, 78; FREDE;

35. LS 39C1; Sextus Empiricus *Math.* 7.344–45, 293. Calcidius' report (LS 53G8–9), though not as explicit, could conceivably be construed along these lines as well.

uted to the Academic, Antiochus of Ascalon, and the second is purely dialectical without any identifying indications in context. And while Antiochus frequently adapts Stoic views, the view in question here is distinctly at odds with them. Antiochus is not drawing a contrast between rational and nonrational animals, but within rational animals between the kinds of content the mind and the senses can entertain, a division that seems to go against the monistic theory of mind the early Stoics insist on. It would be quite natural for a Platonist, though, as it seems very similar to the one drawn in *Theaetetus* 184–86 on the most accepted reading.[36]

The greater difficulty is philosophical and systematic, though. First, if nonrational representations do not have any propositional content, it is difficult to see how the Stoics are able to explain the goal-directed behavior of animals in the distinctively intentional terms they seem to, by invoking representations and effort (§1): not only why and how a spider spins its web or bees build their hive, but birds fly off at the approach of a predator and the predator stalks its prey, not to mention the extensive awareness of one's own body, its capacities and needs, which the Stoics think baby animals of all species exhibit (LS 57B–C). If the Stoics thought the content of nonrational representations was so impoverished, it is surprising that none of their opponents seized on the difficulty. One could conjecture that the Stoics posited primitive analogues to do the work here, such as "quasi-concepts" and "hormetic markers".[37] But apart from the speculative nature of this solution, it is not clear what it achieves. Animal minds would function in more or less the same way as ours, by categorizing things, applying various notions, and detecting wheth-

36. Burnyeat 1976, Frede 1987a.

37. Brittain 2002, 253–74.

er one ought to go for them or not; any differences would be in the extent of abstractness or complexity. Far from salvaging the strict dichotomy view, it effectively abandons it in all but name, in favor of a more mitigated and graded approach.

A second problem concerns human development, from infancy to adulthood. We do not start out as rational animals: reason emerges gradually and is only completed at the age of 7 (or possibly 14).[38] The formation of reason is itself a result of our acquiring various concepts—we possess none at birth—and their coalescing into an integrated system (LS 39E, 53V). Incremental development of this sort is impossible if children have only nonrational representations and so are entirely without concepts, as the strict dichotomy reading holds. It is difficult to see, moreover, how any given concept can arise from nonrational representations, unless these possess some content of a suitable sort. We will consider this problem further in the next section.

In any event, the key plank in strict dichotomy reading, (A), is demonstrably false. The Stoics hold that *every* causal interaction involves a *lekton*: one body causes a predicate to become true of another body (LS 55B–D). But representations are impressions, the causal effect of objects impinging on our sense organs (§2), and so *a fortiori* there will be a *lekton* that becomes true of the subject, whenever a mental representation is produced, regardless of whether that representation is rational or nonrational. Moreover, it will not only be true of the subject that it has a representation and indeed a representation of a specific kind, but one that represents an object and its features in significant detail. Being like imprints in sealing wax, perceptual representations will be "stamped and impressed,"

38. Seven: LS 39E4. Fourteen: LS 33H; Stob. 1.317.21–24.

to greater or lesser extents, in accordance with the object that produces each. Hence, the *lekton* that comes to be true of a perceiving animal when it has a representation will specify this determinate effect: it will have embedded within it as its content all the features that the object "stamps and seals" on the perceiver's soul. So the *lekton* that holds of the perceiver won't simply be a generic one, e.g.

'… forms a representation'

but rather

'… forms a representation that —'

where the second blank specifies the features that get impressed, including all the ways they are related to each other to form a complex whole. And so there will be a *lekton* corresponding to every representation, whether rational or nonrational, that has its content embedded within it, indeed propositional content in the full sense of the word, which specifies how the features are related to one another.

What is important to stress is that the content is determined entirely naturally and objectively, as a causal effect a perceptible object has on a perceiver. Nothing has been said here about the concepts a perceiver possesses, if any, or interpreting representations, or assigning *lekta* to them. It simply falls out of taking their causal account of representation (§2) within the context of their own theory of causation. One might worry, given T7–8, how there could be *lekta* independent of some rational animal, and so speculate that they somehow subsist in correspondence with thoughts in the divine mind of Zeus,[39] or perhaps that they constitute an independent, Fregean third realm. The Stoics do not

39. As has sometimes been claimed: SCHUBERT, COOPER.

say. But it also doesn't matter. For whatever the underlying metaphysical story is, they are committed to *lekta* being involved in every causal interaction, and so *a fortiori* in the production of nonrational representations too. Even if such *lekta* subsist because of Zeus, they are true *of* animals and constitute the content of their representations. The relation to rational representations singled out in T7–8 is something more specific and will be considered in the next section.

Subjects that possess concepts will of course be able to have some representations that other subjects, who lack those concepts, cannot have. But they are not required for there to be representational content, even in a rational animal: some representational content in rational animals is determined simply by the effect of the perceptual environment on a given perceiver. Hence it is possible that some of these contents might be enjoyed by nonrational animals as well, including human children. Call this the "inclusive reading." Lacking concepts and reasoning powers, such animals will not respond to them in exactly the same ways adult humans will. In particular, they may be incapable of expressing them in language, either because they lack these abilities entirely or have them but don't possess the right concepts yet. But because there are *lekta* corresponding to their representations too, ones we may share, their representations will still in general be *articulable* by us, at least in principle, even if not by the subject having the representation. I may be perfectly correct in saying that the lion wants to eat the antelope it sees.[40]

In ascribing these representational contents to the lion, I am not merely taking an intentional or instrumentalist stance, but explaining its behavior in terms of real features

40. I am thus in broad agreement with Sorabji 1990 and 1993, 20–28, although I prefer a realist interpretation to the kind of instrumentalism he finds attractive in Dennett.

of its mental states that themselves have causal repercussions. Content is a real feature of these states because of the objective causal relations that determine which *lekton* is true of that perceiver; and for this reason, the content of representations can figure in intentional explanations of animal behavior quite generally, as the Stoics assume. The inclusive reading thus avoids the first of the two problems facing the strict dichotomy reading.

5. Concepts

One consequence of the sealing wax analogy, then, is that content, indeed propositional content, is a natural and objective feature of perceptual representations. But another consequence is how rich in detail such content is, even when it falls short of the standards for secure representations (§3). Such content will standardly be quite "thick" in terms of the information conveyed to the subject about objects in the world. Regardless of whether we think of this content as a set of propositions or as a single large conjunction, it will typically be so large that as a practical matter no human could spell it all out in language or indeed reflect on every portion individually. And yet we experience all of it together and can, if we wish, yield (*eikein*) to its total content, as nonrational animals do, and simply follow it in how it depicts the world. As rational animals, though, we can also do something that nonrational animals cannot, which is to reflect on this content piecemeal by attending to some of its "thinner" partial contents, assenting to some, rejecting others, and withholding assent on yet others. This discriminative power, which enables us to discern among the partial contents of a representation and respond selectively, is what makes rational behavior possible, because it allows us to assess evidence or goals bit by bit, and so be held accountable. This ability to dissect the thick content of perceptual represen-

tations by attending to the thin contents individually is not something furnished by perceptual powers on their own—it is a rational power. But they provide the material from which rational beings can isolate thin contents, which taken on their own are nonperceptual and abstract (LS 39A4), in short, concepts. The only representations that can have these simpler contents as their total content are rational ones, representations that only a rational being can have. This gives meaning to the claim in T7–8 that *lekta* correspond to rational representations: not just the large, complex ones corresponding to perceptual representations, but the simpler, abstract ones corresponding to nonperceptual ones.

This picture stands in marked contrast to much of the literature, which makes the mistake of assuming that the total content of a perceptual representation is quite thin, e.g. 'this is a green book', a content that can be shared in common by many representations of one or more subjects. If this thin content exhausted the propositional content of a perceptual representation, we would be forced to conjecture on the Stoics' behalf that proposition can be represented "in different ways",[41] where these modes of representation are not to be understood in terms of propositional content. Such a maneuver is not only speculative, but wholly unnecessary. People can share the same *partial* contents, which may be exceedingly thin, while their experiences differ radically, because the *total* content to which each partial content belongs can and often is exceedingly different for different subjects. But these will still just be differences in content, in fact propositional content, which each rational subject can reflect on and express in language, if they choose. It might just be conceivable that different subjects could have the exact same total content.

41. As Frede repeatedly does: REFS.

But practically speaking, there will only be partial overlaps, because there always will be differences in subjects' vantage points, abilities, and the experiences they bring to bear, even when they are affected by objects and surroundings that are as similar as you like.

An *ennoia* or "concept," as I will translate the term,[42] is defined as a kind of representation (LS39F): it is therefore a kind of mental state and something that exists. More specifically, they characterize it as a "stored thought," and so something we possess, but can also be applied to objects we encounter to categorize them, whether correctly or incorrectly (LS 40S). Such concepts concern general features of things, which can be articulated in definitions (LS 40A3, 32F), which themselves can be equivalently framed either as categorical propositions or universalized conditionals (LS 30I).

Some are formed by performing various mental operations on representations: by combining or transposing certain features in their content, enlarging or diminishing others, or constructing their opposite or negation (LS 39D, E3, 60D1). Whether or not these are all conscious or deliberate, they are clearly contingent on how an individual is thinking on a certain occasion. But other concepts are formed naturally, without any deliberate intent or design (*anepitechnētōs*), simply as a result of what our capacities tend to do on their own. These are what they call a "initial grasp" or basic notion (*prolēpsis*, LS 40A3, 39D8, E3), such as our notion of good and just (LS 60C–E). Since our minds are

42. This term is widely translated as 'conception', in contrast with *ennoēma*, its intentional object, which instead is translated as 'concept'. But this is misleading, since it embodies a very specific and idiosyncratic view about the nature of concepts, as nonexistent intentional objects; and our sources rarely, if ever, use the term for Stoics later than Zeno and Cleanthes. They frequently use *ennoia*, on the other hand, which we are said to store and apply to objects (LS 40S), and so their theory is much more comfortably and meaningfully put in terms of our own talk of "concept possession," which it mirrors. Whether or not all Stoics insisted on an intentional object of such states, in most contexts their primary interest is in their *content*, which again agrees with current philosophical usage of 'concept'.

like "blank writing tablet" at birth, without any innate or latent concepts, these basic notions are formed ultimately from our perceptual experiences; once a sufficient number have been stored in memory and sorted into similar groups, they constitute experience (*empeiria*), which in some way brings into relief, at least in a rational being, the common features in their content (LS 39E1–3, D1–2; 60D1–3, E3–6).[43] But on the present interpretation, the content of concepts should no longer seem like a magical process: it will be a matter of sifting and collating information that is already there in the *lekta* naturally associated with our perceptual representations, as a result of the causal process that gives rise to them; so there is no need for bootstrapping. Concepts are not applied to perceptual representations, but abstracted from them.

Because of the natural process by which they are generated, without conscious intereference or assistance, the Stoics think that basic notions provide a fully accurate and reliable representation of features of the world around us, much as secure representations do. For this reason, they think that basic notions can also serve as a criterion of truth (LS 40A3). They further think that our cognitive systems are so providentially designed that the very same basic notions will arise in every individual, regardless of experience and circumstance (LS 54C1, K) and so form the basis of "common concepts" (*koinai ennoiai*), which can serve as a touchstone in argument (LS 48C5, 60G1). On the basis of such concepts, one can then make more abstract moves, through more conscious efforts, to "transition" to incorporeal features of the world, such as the place bodies occupy or or crucial-

43. In this respect, their theory of concept acquisition looks broadly similar to Aristotle's (*APo* 2.19, *Metaph.* 1.1); and in both cases too, one wishes more had been said about what happens at the critical juncture, when we actually grasp the abstract content, and how refinements in our concepts are later effected.

ly from utterances to the *lekta* they signify (LS 39D7, A5; 27E; 33B2). It is on that basis that abstract reasoning in math and logic, and the study of it, become possible.

The concepts a subject possesses affect perceptual experience too. To begin with, acquiring expertise in a certain area or even just extensive experience (as the mother of Tweedledee and Tweedledum has) enables one to reflect on partial contents already present in our perceptual representations, as noted above. But because we can devise entirely new concepts, whose content is not due to processes that produce perceptions—VOID, for example, or CELLPHONE—we can apply these concepts to experience and so draw conclusions on the basis of informed observations (LS 40S, 53G9). Such contents cannot figure in the contents of nonrational animals' or very young children's representations, who are without concepts entirely. But they also will not figure in the experience of adult human beings, who happen not to have the relevant concept. If Chrysippus were transported suddenly to Athens today, he would have perceptual representations of objects that were in fact cellphones, but he would not recognize them as cellphones. When he comes to form the concept, he will, because of what he can bring to bear on his experience, and not because objects affect him differently when they act on his senses. If so, then the conceptual reading mentioned above is also false: although we can apply concepts to our perceptual representations, the content they themselves have is not dependent on them.

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