

How Nothing Can Be Something: The Stoic Theory of Void

Vanessa de Harven, UMass Amherst

Abstract

Void is at the heart of Stoic metaphysics. As the incorporeal par excellence, being defined purely in terms of lacking body, it brings into sharp focus the Stoic commitment to non-existent Somethings. This article argues that Stoic void, far from rendering the Stoic system incoherent or merely *ad hoc*, in fact reflects a principled and coherent physicalism that sets the Stoics apart from their materialist predecessors and atomist neighbors.

Vanessa de Harven

Introduction

The notion of void has posed metaphysical difficulties for philosophers since antiquity, and the Stoics are no exception. What could something that is arguably nothing even be? The Stoics' answer to this question was a matter of some internal debate then, as it is now to those of us looking back. I will give an account of the Stoics' unique theory of void, and show how it illustrates the general ontological principles that make the Stoics our first non-reductive physicalists.

To appreciate the uniqueness of Stoic void a little background is necessary. Leucippus and Democritus, in the 5th century BC were the first atomists, followed by Epicurus in the Hellenistic period (4th and 3rd centuries BC) (Aristotle, Metaphys. i 4 985b4-20 (DK67A6); Simplicius, In Ar. De caelo commentaria 295.1-22 (DK68A37), 242.18-26 (DK67A14), 583.18-20 (DK67A16); Epicurus, Ep. Hdt. 56-9 (9A); Lucretius 1.599-634 (9C)).¹ As David Sedley 1982 has argued, these theories did not come about in a vacuum (so to speak), and their evolution is instructive of the conceptual difficulties of ancient Greek physics. The Greek translated as void is to kevóv, which literally means the empty. It is natural to take this as a mass term and thereby understand void as empty space. As Sedley argues, however, in responding to Pythagoras, Parmenides and Melissus, the atomists Leucippus and Democritus conceived of void rather as an element, a negative substance that itself occupies space. Indeed, this is the force of positing atoms and the void (better: voids) as the ultimate constituents of the cosmos. Epicurus and Lucretius, on the other hand, did espouse a concept of void as empty space. Epicurean void is best characterized as three-dimensional extension that persists when atoms move through it. Though void is no longer an ultimate constituent of the cosmos qua element, it remains fundamental in that it is not a derivative attribute of body (atoms), i.e., Epicurean void has independent existence.

The Stoics embraced neither of these options; though, as I will show, their conception of void has aspects of both. It is on the one hand a discrete entity denoted by a count noun, like the Democritean conception of void as element; on the other hand, it is also empty space and can be described by a mass noun, like the Epicurean conception. However, unlike either atomist picture, Stoic void is not an independent element of the cosmos; if there were no body there would be nothing at all—not even void. In this latter respect the Stoics are akin to contemporary relationists about space (and time), but in a non-reductive spirit that allows them to embrace substantivalist discourse that takes void as a particular. Accordingly, Stoic void is Something rather than nothing, even though it does not exist independently. In order to arrive at this result, we will navigate a minefield of textual and interpretive issues.

¹ Unless otherwise noted (as in DK for Diels-Kranz), parenthetical citations like (9A) refer to passages by chapter and order therein from Long & Sedley 1987, hereon LS.

For example, the Stoics are often called the first nominalists.² Indeed, they eagerly affirm that only bodies (and their corporeal attributes) exist (Alexander, *In Ar. Top.* 301,21-22 (27B part); Sextus Empiricus, *M.* x 3-4 (49B, passage I below)), and they categorically reject universals (Stobaeus 1.136,21-137,6 (30A), Aëtius 1.10.5 (30B), Diogenes Laertius vii 60-1 (30C), Alexander, *In Ar. Top.* 359,12-16 (30D), Simplicius, *In Ar. Cat.* 105,7-20 (30E, passage L below)). However, they are not typical nominalists in that their ontology is not restricted to these concrete individuals, or corporeal particulars. This probably sounds paradoxical, since the Stoics also say that only bodies exist. But the Stoics' central metaphysical innovation is that existence does not exhaust what there is—they say that while everything is Something (tí), not everything exists (εἶναι, ὄν).³ In addition to bodies, the Stoics recognize certain entities they call *incorporeals* (ἀσώματα); incorporeals depend on body without themselves being bodies, much as the flow of traffic depends on cars without being nothing but the cars. Though these entities do not *exist* in the full-fledged manner of bodies, they nonetheless have a derivative kind of reality the Stoics term *subsistence* (ὑπόστασις). Encompassing both kinds of reality, corporeal existence on the one hand and incorporeal subsistence on the other, the Stoics recognized Something as the highest genus of reality.

Just how the Stoics can coherently countenance incorporeal entities within a physicalist, oneworld ontology has been a matter of debate since antiquity. Though the canon of Stoic incorporeals—place, void, time and the tantalizing $\lambda \epsilon \kappa \tau \dot{\alpha}$, or sayables (roughly, the meanings of our words)—is well attested (Sextus Empiricus, M. x 218 (27D)), it has been unclear what this motley crew of incorporeal entities have in common; or, what comes to the same: what it even means to say they subsist. Many commentators consider at least one of the incorporeals to be a breach of Stoic physicalism, and subsistence to be no more than ad hoc jargon. Galen, for one, mocks the Stoics' distinction between existence and subsistence as "linguistic quibbling" (την μικρολογίαν τῶν ovoμάτων, Meth. Med. x 155,1-8 (27G)). Without a unifying principle to their subsistence, the incorporeals look like left over entities that don't fit the corporeal mold, but aren't quite dispensable either; and Something, as the highest genus of being, seems more gerrymandered than principled. Suddenly, the Stoics don't look much like nominalists at all, or even like competent physicalists, for that matter. The debate over Stoic void is at the heart of these issues in that it has been unclear whether there is even a single theory of void embraced by enough thinkers to be called a doctrine or, rather, whether disagreements over void reflect a fundamental incoherence to the concept such that the Stoics cannot even be seen as operating against a background of shared physicalist assumptions. If they cannot, problems with the void are testament to general problems with the coherence of their ontology.

² Such talk is loose, with nominalism undefined. One goal of the paper is to establish in what so-called Stoic nominalism consists, allowing Stoic theory to define the label; and likewise for Stoic physicalism.

³ One might worry that the notion of *existence* is anachronistic prior to the first century CE. There are two responses to this concern: one is that the Stoics are clearly using $\varepsilon iv\alpha t$ (and δv) as a technical term, and since the scholarly tradition renders this verb as *to exist*, it would be cumbersome to depart from that usage. The other, more substantive response is that the existential sense of $\varepsilon iv\alpha t$ has been live since Parmenides (cf. Khan 1966, 1981), and that the Stoics' conscious technical use of this verb demonstrates active engagement with their predecessors and neighbors, shows they were indeed engaged in metaphysics as the study of what there is, and establishes *existence* is a fitting notion in this context (cf. Brunschwig 1988 and Vogt 2009).

Evidence and Controversy

It is uncontroversial that the Stoics classify void as an incorporeal Something, and for the most part agreed that the incorporeal mode of reality (way of being Something) is called *subsistence*.⁴ As I have said, however, there is little agreement about what these terms mean or whether they are just *ad hoc* labels for left over entities. So I will proceed directly to the texts. Since I will argue that the Stoics recognized *place*, *room* and *void* as three distinct incorporeal phenomena, I will have to address place and room in addition to void; indeed these concepts go hand in glove.

The first thing to notice is that void appears to be an inherently negative conception, defined purely in terms of lacking body, as the following texts (A1, B3) attest.

- A) They differentiate void ($\kappa\epsilon\nu\delta\nu$), place ($\tau\delta\pi\sigma\varsigma$) and room ($\chi\omega\rho\alpha$); (1) and void is on the one hand lack of body, (2) while place is what is occupied by body, (3) and room is what is partly occupied, just as in the case of a jar of wine. (Aëtius, *Plac.* I.20,1=SVF 2.504)
- B) (1) The extra-cosmic void (τὸ ἐκτὸς τοῦ κόσμου κενόν) is what extends into infinity (εἰς ἄπειρον) from all sides (ἀπὸ παντὸς μέρους). And of this, (2) what is occupied by body (κατεχόμενον ὑπὸ σώματος) is called place, (3) while what is not occupied will be void. (Cleomedes, *Cael.* i 1, 17-19 (Todd)=SVF 2.538+)

The question that immediately arises is what sense there can possibly be for the Stoics to maintain that only bodies exist and yet that void is something beyond these. If void is just what is not a body, doesn't that make it nothing at all? The problem is all the more pressing when we notice that void is strictly speaking extra-cosmic, i.e., outside the corporeal cosmos (earth and the surrounding heavens and sun, moon, etc.) that exhausts what exists, as B1 and the following show.

C) The Stoic void is not something within, it obtains (ὑπάρχειν) outside the cosmos. (Galen, An. pecc. dignosc. vii 5.101=SVF 2.542; see also Diff. puls. viii 674,13-14 (49D))

Further, one wonders what the infinity of void (B1) could possibly amount to if it is nothing but a non-body. One approach to this question is to take void as something self-subsistent, along the lines of empty space that is there whether the cosmos exists or not (as do Algra 1995, Inwood 1991, Powers 2014, Sedley 1999, Sorabji 1988). As evidence for the independence of void, commentators cite the following passages.

D) Void is not scattered (κατεσπάρθαι) among bodies but encompasses them, and void is something outside the heavens *per se* (καθ' αὐτό), just as the impression (ή φαντασία) of many people exceedingly holds, considering void to be something infinite (ἄπειρον) outside the heavens. (Philoponus 17.614=SVF 1.96)

⁴ I am going to operate on the hypothesis that it is legitimate to speak of *the Stoics* as a whole in reference to orthodox views that unify the school. I do not thereby deny that there was internal debate or that successive heads of school and other individual Stoics left their mark on Stoic doctrine. Rather, I take there to be core doctrine against which, as an agreed-upon background, there were more fine-grained internal debates. One of my objectives here is to show how this is so with place, room and void. So, taking the Stoics as a whole is a conscious exegetical strategy to show how far their agreement extends without encountering controversy.

- E) Moreover (τοίνυν) it is necessary that there be a certain subsistence to void (τινα ὑπόστασιν κενοῦ). The notion (ἡ ἐπίνοια) of it [void] is exceedingly simple, being incorporeal (ἀσωμάτου) and intangible (ἀναφοῦς), and neither having shape (σχῆμα) nor accepting shape (σχηματιζομένου), and neither undergoing nor doing anything, but (rather) being simply what is capable of receiving body (ἀπλῶς δὲ σῶμα δέχεσθαι οἴου τε ὄντος). (Cleomedes, *Mot. circ.* 8,10-14 (49C))
- F) Outside [the cosmos] is the infinite void (τὸ κενὸν ἄπειρον) encompassing (περικεχυμένον) it, which is indeed (ὅπερ) incorporeal; and being incorporeal it is what can be occupied by bodies but is not occupied; and in the cosmos there is no void, but it is a united whole (ἡνῶσθαι); for the union (σύμπνοιαν) and tension (συντονίαν) of the heavenly relative to the terrestrial necessitates this. (Diogenes Laertius viii 140=SVF 2.543; see also Cleomedes, *Mot. circ.* 10,24-12,5)

Certainly the negative conception of void as unlimited non-body outside the corporeal cosmos is evident in these passages. Its independence from body is found (by those who seek it) in the *per se* locution in passage D and the testimony of passage E that there must be *a certain subsistence* to void. Further, passages D and F suggest that void must be an independent phenomenon if it is to be the sort of thing that can *encompass* the cosmos. The virtue of an account of void as independently subsisting space is that it gives good intuitive sense to characterizing the phenomenon as infinite and extra-cosmic.

Unfortunately, the sense of the Greek $\check{\alpha}\pi\epsilon\iota\rho\sigma\nu$, which I have rendered as *infinite*, is a controversial matter of its own. The literal meaning of the term is *unbounded*, and so lends itself as well to *indefinite* as it does to *infinite*. The rest must be gleaned from context. For example, passage E, which describes the void only in terms of lacking corporeal and therefore causal qualities, might plausibly be taken as evidence for $\check{\alpha}\pi\epsilon\iota\rho\sigma\nu$ as indefiniteness. On the other hand, their well-known treatment of never-ending divisibility (to infinity, as it is natural to say) speaks to $\check{\alpha}\pi\epsilon\iota\rho\sigma\nu$ as infinity. Whether we take the unboundedness of void as spatial infinity (as do, for example, Hahm 1977, LS, Powers 2014, and Sorabji 1988) or as mere indefiniteness (as do Algra 1995, Inwood 1991, and Hahm 1977), there are implications for the nature of time (also characterized by the Stoics as $\check{\alpha}\pi\epsilon\iota\rho\sigma\nu$), for the status of incorporeals generally (is the unboundedness of time and void a function of their being incorporeal, or just a property of those two incorporeals?), and ultimately for the coherence of the ontology as a whole (how can a physicalist, let alone nominalist, system support not only incorporeal but now indefinite entities?).

Further complicating matters, some commentators take Stoic void to be a modal entity, i.e., a possibilium (e.g., Bréhier 1928, Todd 1982). It's clear enough why someone would think so, since the Stoics clearly define void as *what can be* occupied by body (E, F); and with a modal account there is no problem with the status of void as lacking corporeal properties. But then the challenge to Stoic physicalism is exacerbated: if non-bodies were already a stretch, possible entities are even more so in a system that makes bodies fundamental; how could possible entities depend on bodies in a way that does justice to the physicalist label? This is a problem not only for the modal account of void but also for those who take void as independently subsisting space; if void is independent of body, how is body primary or fundamental?

Our picture of Stoic void takes on new dimensions (as it were) with the following testimony:

G) The Stoics are compelled to admit that extension in three dimensions (τὸ τριχῆ διαστατόν) is common to body and void and place, since they leave void in the nature of existing things (ἐν τῆ τῶν ὄντων πραγμάτων φύσει) even if they say this does not obtain (τοῦθ ὑπάρχειν μή) within the world. (Galen, *Qual. inc.*, xix 464,10-14 (49E))

Seeing void as three-dimensional extension⁵ is helpful in addressing the initial question, how void can be something more than nothing at all—at least now it has some positive characteristics of its own. Indeed, extension in three dimensions is uncontroversially a physical phenomenon, which is an asset to the view that void is independently subsisting space rather than a modal concept. However, then it is unclear why the Stoics would define the phenomenon in negative corporeal terms (lacking body, shape, tangibility, and capacity for action or passion) when they could proceed directly to a definition of it as independently subsisting, three-dimensional extension outside the cosmos (as the Epicureans do).

Now, in adjudicating the independence of void and its relation to body, we confront the more complicated textual puzzles that lead to the closely related phenomena of place and room. I will address these briefly, to give a sense of the complications involved.

H) (1) Chrysippus declared place to be (a) what is occupied through and through by an existent (τὸ κατεχόμενον δι' ὅλου ὑπὸ ὄντος), or (b) what can be occupied (τὸ oἶov $<\tau\epsilon>$ $\kappa \alpha \tau \epsilon \gamma \epsilon \sigma \theta \alpha i$) by an existent and is occupied through and through either by a particular existent ($\dot{\upsilon}\pi\dot{\upsilon}$ τινός) or by several ($\dot{\upsilon}\pi\dot{\upsilon}$ τιν $\tilde{\omega}\nu$). (2) And if what can be occupied by an existent is partly occupied by something and partly unoccupied, the whole will be neither place nor void, but something else unnamed (ούκ ώνομασμένον); for void is spoken of almost in the manner of $(\pi\alpha\rho\alpha\pi\lambda\eta\sigma(\omega\varsigma))$ empty containers, while place in the manner of full ones; (3) but is room ($\chi \omega \rho \alpha$) (a) a bigger thing that can be occupied by an existent and like a bigger container for body, or is it (b) what has room for a bigger body? (4) At any rate, void is said to be infinite ($\check{\alpha}\pi\epsilon\iota\rho\sigma\nu$). For what is outside the cosmos is such; and place is finite because no body is infinite. And just as the corporeal is finite, so the incorporeal is infinite, for time is infinite and so is the void. For just as nothing is no limit, so neither is there any limit to nothing, as in the case of void. For according to its own subsistence (κατά γάρ τὴν αύτοῦ ὑπόστασιν) it is infinite; and, again, this is made finite by being occupied; but if what fills it is taken away, a limit to it cannot be conceived (οὐκ ἔστιν αὐτοῦ νοῆσαι πέρας). (Stobaeus, 1.161,8-26 (49A))

Those who favor a modal view will point to the language of what *can be* occupied describing all three phenomena throughout the passage. On the other hand, the language is strongly realist, as advocates of void *qua* independently subsisting space will point out: *according to its own subsistence*, void is infinite. In further support of void as independent, Inwood has argued that the unnamed phenomenon of H2 is a new entity: three-dimensional (indefinite) extension (1991, 248). The fact that it is unnamed, according to Inwood, shows that Chrysippus was introducing a new entity to serve as conceptual backdrop to Zeno's incorporeals. According to this picture, it seems there was no unified or orthodox Stoic conception of void. Rather, Zeno started a list of incorporeals that did include void, and Chrysippus later added another entity (extension) to help make sense of the original list. This does not paint a principled picture of the Stoic ontology. To make matters worse, there is disagreement as to which texts constitute orthodox and heterodox views. For example,

⁵ Alternately, *interval* or *dimension* can translate διάστημα and τὸ διαστατόν. I use *extension* in all cases for the sake of consistency, sometimes in favor of good Greek over lame English, to highlight the fact that the Greek is consistently διάστημα.

Keimpe Algra 1995 takes passage H to represent an orthodox Stoic view from Chrysippus, while passage I (below) represents Chrysippus' heterodox view on *room*.

I) (1) The Stoics say void is what can be occupied by body but is not occupied, or extension $(\delta\iota\dot{\alpha}\sigma\tau\eta\mu\alpha)$ empty of body, or extension unoccupied by body, (2) and place is what is occupied by an existent and made equal to what occupies it (by *existent* they now mean *body*, as is clear from the interchange of names). (3) They say room is extension that is partly occupied by a body, and partly unoccupied. (4) Some say that room is the place of a larger body, so that room differs from place in this respect: that place does not reflect the size of the body contained (for even when it contains the smallest of bodies, it is no less called place) while room is noteworthy ($\dot{\alpha}\xi\iota\dot{\alpha}\lambda\sigma\gamma\sigma\nu$) in that it does reflect the size of the body in it. (Sextus Empiricus, *M*. x 3-5 (49B+); see also *PH* iii 124)

Algra 1995, 335 tries to untangle the place-room-void knot by attributing to Chrysippus the heterodox view that void has two senses: "apparently Chrysippus made a distinction between void *qua* empty space *as such* (being infinite and isotropic) and the void *qua* space surrounding the cosmos (being at any rate anisotropic)" (original emphasis). According to Algra, void *qua* empty space is the orthodox view, even though he recognizes that in being self-subsistent it is dangerously close to the Epicurean view that puts void on an ontological par with body. The issue of isotropy (sameness of properties) is raised by Plutarch (*St. rep.* 44, 1054B-1055C), who finds absurdity in the notion of Stoic void as infinite yet with an identifiable center (where the cosmos is); what is infinite, according to Plutarch and with Algra's sympathies, can't have a beginning, middle or end, i.e., it must be isotropic, and therefore it must be impossible to say the cosmos is at its center. To address Plutarch's complaints and the mysterious characterizations of room in passages H and I, Algra posits a second sense of void as limited, anisotropic space outside the cosmos, and takes this second sense of void to be what Posidonius called room. Thus on Algra's view, like Inwood's, there is no consistent account of void within the Stoic school.

One might easily think that such internal variance, plus commentators' disagreement as to what disagreements there were among the Stoics, shows there was no consistent or coherent theory of void. Indeed, scholarly interpretations run broad. For instance, David Hahm 1977, 105 takes place and void to be "coordinate species of a third thing, 'that which is capable of being occupied by body'" in an Aristotelian spirit.⁶ Emile Bréhier 1928, 52 reduces room to body; and Max Pohlenz 1959, Johnny Christensen 1962, and LS, vol. 1, 296 take room as the all ($\tau \delta \pi \tilde{\alpha} v$), e.g.: "to denote space which combines place and void (i.e. the 'all', 44A); and they also acknowledged the less technical point that a spatial container within the world, for instance a half-filled wine jar, can accommodate more of the body which partly fills it." The textual evidence, especially the last two passages (H, I), does pose significant interpretive difficulties for void, place and room, and by extension for the Stoic ontology as a whole. So, any account of these three phenomena will have to address the unnamed phenomenon of H2, the difference between H3a and H3b, and the consistency of H with what we get in I.

In addition, an adequate account will determine how void is Something rather than nothing, what it means to say it is three-dimensional extension and how it is related to body. Is void an independently subsisting phenomenon, a modal entity, or describable some other way that respects the avowed primacy of body in Stoic ontology? The unboundedness of void must also be

⁶ Indeed, Hahm takes Stoic cosmology to have evolved out of Aristotle quite directly.

adjudicated; is $\check{\alpha}\pi\epsilon\iota\rho\sigmav$ to be taken as spatial infinity or mere indefiniteness? Further, does it have this property as a function of being incorporeal so that all incorporeals are similarly unbounded, or does it apply only to void and time? Finally, did the Stoics have such widely divergent views about void, place and room that we cannot even speak of an orthodox theory of void? What's at stake in settling these details is not just whether the Stoics agreed about the nature of void, but whether their debates took place against a background of shared assumptions about what it is to be incorporeal and what it means to be Something subsistent. The coherence of the ontology as a whole hangs in the balance.

The Principles of Stoic Ontology

I will argue that the Stoics did in fact have a principled and coherent physicalist ontology one in which we can even identify the sense in labeling them nominalists despite the fact that they recognize incorporeal entities in addition to bodies. I will explain the principles of Stoic ontology here, then apply them to void, resolving the interpretive debates introduced above to show in conclusion that void is no bur to Stoic metaphysics but, in fact, illustrative of its very coherence.

As I have said, the Stoics' highest category of reality, Something, is comprised primarily of corporeal entities. Now, the strong criterion for existence is whether the entity can act or be acted upon (Cicero, *Acad.* i 39 (45A); see also Aëtius, *Plac.*, 4.20.2=SVF 2.387; Aristocles *ap.* Eusebius, *Pr. Ev.* 15.14.1 (45G); Cleomedes, *Cael.* 1.1.66, 1.1.99-100; Diogenes Laertius, vii 134 (44B); Sextus Empiricus, *M.* viii 263 (45B), 10.3-4 (49B); Plutarch, *De comm. not.* 30, 1073E=SVF II, 525). Unlike their materialist predecessors, the Stoics took a broad swath of reality to be corporeal entities like Plato's Forms.⁷ Corporeal reality, or bodies arranged and disposed in a certain way, is all that properly speaking exists for the Stoics (Alexander, *In Ar. top.* 301,21-22 (27B part); Sextus Empiricus, *M.* x 3-4 (49B); Stobaeus 1.138,14-139,4 (55A)). However, the Stoic innovation is to forge two criteria of reality instead of one.⁸ The second criterion establishes a minimal threshold for being Something, i.e., for the mode of reality they called subsistence (ὑπόστασις). There are two aspects to what I call the Something criterion: a measure of objectivity and a test for particularity; I will take each in turn.

One way to capture what it means to be Something for the Stoics is to say that whatever is Something is a proper object of thought, the referent of genuinely significant discourse (as LS, vol. 1, 164 put the point).⁹ I will sometimes call this the *thinkability* criterion, by which I mean that availability for thought is a logical measure of Something's objective reality, not a point about its provenance. The thinkability criterion does not equate subsistence with being a *product* of thought,

⁷ Throughout, I speak of the Stoics as *corporealists* rather than *materialists* because matter ($\delta\lambda\eta$), as so many terms in Stoic philosophy, is a technical term (it is properly speaking the passive principle prior to the cosmos (Diogenes Laertius vii 134 (44B)), but is also used to describe the combination of earth and water that plays the passive role to active $\pi\nu\epsilon\delta\mu\alpha$ within the cosmos (Aëtius 1.7.33 (46A), Diogenes Laertius vii 142 (46B)). The Stoics are thus rightly described as materialists insofar as their commitment to body as fundamental is what we would call a materialist thesis; but insofar as they do not technically make matter but rather body fundamental, it is erroneous to label them as materialists.

⁸ As Jacques Brunschwig 1988 argued; I now take up and follow through his suggestion.

⁹ Note, however, that my analysis does not agree with LS that Stoic subsistence captures Meinong's mode of being called *bestehen*.

but rather restricts the domain to those entities that are available *to* thought such that anyone can think about them. Thus availability to thought is not a criterion for mind-dependence but quite the opposite—it is a logical measure of objective reality because being a *proper* object of thought means being equally available to any thinker, i.e., publicly or intersubjectively. This point about objectivity bears emphasis against the background of Stoic scholarship that takes incorporeals to be constructs of the mind, impositions on reality by us; the incorporeals are thus ideal and, according to some, subjective (e.g., Christensen 1962, Goldschmidt 1972, Graeser 1978; see Rist 1971 and Lloyd 1971 for the view that even the Stoics' corporeal categories are *lekta*). Against this background, I press a picture of Stoic realism grounded in physics.

In support of thinkability and then, below, of the principle of incorporeal subsistence, I will focus on the following famously perplexing passage from Sextus Empiricus.¹⁰

J) For they [the Stoics] say, just as the trainer or drill-sergeant sometimes takes hold of the boy's hands to drill him and to teach him to make certain motions, but sometimes stands at a distance and moves to a certain drill, to provide himself as a model ($\pi\rho\delta\varsigma$ µíµησιν) for the boy—so too some impressors ($\varphi\alpha\nu\tau\alpha\sigma\tau\omega\nu$) touch, as it were, and make contact with the commanding faculty ($\dot{\eta}\gamma\epsilon\mu\nu\nu\iota\kappa\sigma\nu$) to make their printing ($\tau \iota \pi \omega \sigma \iota \nu$) in this, as do white and black, and body in general; whereas others have a nature like that of the incorporeal sayables ($\tau \dot{\alpha} \dot{\alpha} \sigma \omega \mu \alpha \tau \lambda \epsilon \kappa \tau \dot{\alpha}$), and the commanding faculty is impressed in relation to them ($\dot{\epsilon}\pi'$ $\alpha \dot{\nu}\tau\sigma\bar{\varsigma}$), not by them ($o\dot{\nu}\chi \dot{\nu}\pi' \alpha \dot{\nu}\tau\omega\nu$). (*M*. viii 409 (27E))

The impressors that touch the commanding faculty are corporeal, as one would expect given that only bodies can act or be acted upon; they are the motions the boy *sees*, and this type of causal agency is captured by the preposition $\dot{\upsilon}\pi \dot{\sigma}$. In contrast, the impressors with a nature like the incorporeal $\lambda \epsilon \kappa \tau \dot{\alpha}$ do not meet the action/passion criterion for existence and thus do not make physical contact with the soul. Nonetheless, they are *bona fide* impressors, i.e., proper objects of thought and discourse, which is captured by the preposition $\dot{\epsilon}\pi \dot{\iota}$. In this case, the pattern of the drill-sergeant's motions is what the soul is impressed in relation to; it is not visible like the token motions, but it is intelligible, i.e., discoverable by thought. The distinction between sensible and intelligible impressors in this passage is unambiguous, thus lending support to the idea that the Stoics took availability for thought, i.e., the commanding faculty's ability to be impressed *in relation to* Something, as a measure of objective reality. This principle shows up throughout the Stoic corpus. For example, in the context of Stoic logic, Sextus tells us the following:

K) But one [an argument] like "If sweat flows through the surface, there are ducts discoverable by thought. But sweat flows through the surface. Therefore there are ducts discoverable by thought" is demonstrative, having the non-evident conclusion "Therefore there are ducts discoverable by thought." (Sextus Empiricus, PH ii 140 (36B7))

What is discoverable by thought here is a true conclusion, i.e., what is the case, which is of course objective. Thus availability for thought is consistently testament to real features of the cosmos; it is

¹⁰ Another important piece of evidence for the thinkability criterion is Sextus Empiricus, *M*. i 17 (27C): "If something is taught, either it will be taught through not-somethings ($0\dot{v}\tau v \tilde{\omega} v$) or through somethings ($\tau t v \tilde{\omega} v$). But it cannot be taught through not-somethings; for these have no subsistence for the mind ($\dot{\alpha}v v\pi \dot{\omega} \tau \alpha \tau \alpha \gamma \dot{\alpha} \rho \dot{\varepsilon} \sigma \tau \tau \eta \delta t \alpha v \omega \alpha$), according to the Stoics."

criterial in screening for what there is.¹¹ I will now turn to the second aspect of the Something criterion: particularity.

There is good textual evidence (Syrianus, *In. Ar. Met.* 104,17-21 (30G); Alexander, *In. Ar. Top.* 359, 12-16 (30D); Sextus Empiricus, *M.* xi 8-11 (30I)) and a long scholarly tradition (e.g., Brunschwig 1988, 2003; Caston *et al.* in Caston 1999, n. 1; LS, vol. 1, 164, 181-2; Sellars 2006, 84; Watson 1966; Mates 1961, 32) that the Stoics countenance an ontology of particulars. Indeed, this is why the Stoics are often cast as the first nominalists. Since it's not entirely clear in what the particularity of non-existent Somethings consists it's worth making some terminological observations at the outset. Being a particular ($\kappa\alpha\theta$ ' ἕ $\kappa\alpha\sigma\tau\sigma\nu$, tóδε tt) is a matter of being an individual, in contrast to a universal. Particulars are fully determinate entities as opposed to Plato's Forms or the generic Average Man with 2.4 children (to borrow an example from LS, vol. 1, 181).¹² Accordingly, talk of kinds is always reducible to talk of tokens so that statements like "Man is a rational mortal animal" translates without loss of meaning to the universally quantified proposition "If something is a man, that thing is a rational animal" (Sextus Empiricus, *M.* xi 8-11 (30I)). So while it is acceptable to characterize Stoic particulars as tokens, it is important to remember that such talk does not necessarily bring with it a corresponding realism about types. For the Stoics only individual tokens exist, and in this respect they are rightly called nominalists.

Jacques Brunschwig has suggested that the Stoics' famous Not-Someone argument against Platonic Forms is a test for reality, one that screens for particularity in terms of basic laws of logic.

L) (1) Indeed, Chrysippus too raises problems as to whether the Idea is to be called a "this Something" ($\tau \delta \delta \epsilon \tau \iota$). (2) One must also take into account the Stoics' custom concerning generically qualified things—how according to them cases ($\pi \tau \omega \sigma \epsilon \iota \varsigma$) are expressed, in their

¹¹ See also Cicero, *Acad.* ii 22 (42B) for evidence of thinkability in support of mathematical entities and rhythms as intelligible Somethings: "And given that there is one class of experience whose function is to study a thing with the mind alone…how can a geometer study things which are either nothing or indistinguishable from falsehoods, or a harpist fill out rhythms and create lines in music?"

¹² While being a concrete or pure particular (that is spatio-temporally continuous and therefore not multiply located) is one way of being an individual, and pure universals like Platonic Forms are never individuals for the Stoics, this dichotomy is not exhaustive; there is also room in the Stoic ontology (as there is for Peter Strawson 1959) for abstract individuals that are multiply located and not spatio-temporally continuous though still, as Strawson would say, substance-dependent and therefore physical. Such entities have a different kind of subsistence, which the Stoics call neither corporeal nor incorporeal; this third kind of Something includes figments (such as Centaurs and Giants) and mathematical limits (such as surface, line and point). The body-less incorporeals, in contrast, are pure particulars in that their determinacy is spatio-temporally continuous. Note that I have purposely avoided characterizing the debate in terms of the identity of indiscernibles, though it is central to the conventional distinction between particulars and universals and to the status of abstract entities as individuals. I have avoided it because the Stoics are committed to a uniquely individuating quality in virtue of which pure particulars will always be discernible; thus they would not characterize pure particulars as failing the identity of indiscernibles test. Nonetheless, they would agree with the spirit of the observation that pure particulars are not identical when they are indiscernible, as in the case of identical neckties. The issue is further complicated by the Stoics' commitment to everlasting recurrence according to which the world repeats itself eternally. It is a matter of debate whether each iteration of the cosmos is numerically identical, indiscernible or merely type identical but with certain distinguishable differences. The Stoics were the first to endorse the identity of indiscernibles, so the way in which each cosmos is *just like* the last has far-reaching theoretical consequences. It is relevant to their understanding of body-*less* time (defined as the temporal extension ($\delta \iota \alpha \sigma \tau \eta \mu \alpha$) of the world's change), as well as for personal identity across worlds and the $\lambda \epsilon \kappa \tau \dot{\alpha}$, or sayables—roughly the meanings of our words; indeed, the Stoics are arguably the first to conceive of possible worlds and to posit Twin Earth-style thought experiments.

school how universals ($\tau \dot{\alpha} \kappa \sigma \iota \dot{\alpha}$) are called not-somethings ($\sigma \check{\upsilon} \tau \iota \iota \alpha$), and how their ignorance of the fact that not every substance signifies a "this Something" gives rise to the not-Someone sophism, which relies on the form of expression. (3) Namely, "if someone is in Athens, he is not in Megara;
but man is in Athens; therefore man is not in Megara.>" (4) For, man is not Someone ($\sigma \check{\upsilon} \tau \iota \varsigma$); for the universal is not Something; but we took him as Something ($\dot{\omega} \varsigma \tau \iota \iota \dot{\alpha} \delta \dot{\varepsilon}$) in the argument, and that is why the argument has this name, being called the Not-someone argument. (Simplicius, *In. Ar. Cat.* 105,8-16 (30E))

Here, as with thinkability, the criterion is logical and not causal. Our ability to think about Something is not constitutive of its objectivity, but it is an excellent measure. Likewise, passing the Not-Someone, or $o\check{v}\pi\varsigma$, test is not explanatory of an entity's particularity, but indicative of it. Now, it's obvious how individuals like Socrates pass the $o\check{v}\pi\varsigma$ test for being $to\delta\epsilon \tau t$, especially in contradistinction to a universal like Man that obviously is in Megara and Athens at once. But the particularity of non-existent Somethings has remained unclear, or has been rejected as applicable only to bodies.¹³ My suggestion is that each and every thing that is Something is an individual, i.e., a particular $to\delta\epsilon \tau t$, and that this is the grain of truth in labeling the Stoics as nominalists. How so is best illustrated in application to the incorporeal Somethings case by case; if it can be applied to all the Stoics' non-existent entities, then this aspect of the Something criterion is confirmed. Here, I will show that the test applies to place, void and room.

I should add, however, that Victor Caston 1999, 159 is pessimistic about the matter: "Attempts to extract a criterion for 'not-somethings' from this argument have failed," he says in reference to Brunschwig (and his treatment of void in particular). Caston argues that the need for *ad hoc* restrictions in application to the incorporeals shows that the test is not a genuine criterion. However it is important to note that Brunschwig does not put the out the out a criterion for Not-Somethings, but as a positive criterion for Somethings. I will therefore persevere and show that the test can be applied without *ad hoc* restrictions. The upshot is that the Stoics' commitment to objective particulars goes well beyond the familiar Stoic thesis that only bodies exist. In fact, the lesson of the Not-Someone argument is that everything there is (anything that's Something) will be a determinate individual in space-time.

The result so far is that to *subsist* is to be a proper object of thought and discourse, an objective particular that meets the so-called Something criterion. The objectivity of such entities is measured by their availability for thought and discourse; while their particularity is tested by the Not-Someone argument. If I am right about this Something criterion, then the Stoic ontology may be a principled system after all, and not some *ad hoc* construction cobbled together to handle a collection of left over entities that can't be forced into the corporeal mold. However, even if all Stoic entities meet the Something criterion, there is no guarantee that they constitute a coherent physicalist system. For instance, it remains open whether the incorporeals all subsist according to a common principle; and, in fact, interpretations of Stoic incorporeals vary widely in the scholarship.

My thesis is that in addition to the Something criterion that applies to all Stoic subsistents, the incorporeals can each be understood as body-*less* (my emphasis on a locution from LS, vol. 1,

¹³ Especially in the case of the Stoics' hallmark Sayables ($\lambda \epsilon \kappa \tau \dot{\alpha}$). Yet, as Brunschwig 1988, 92 says, "That the $\lambda \epsilon \kappa \tau \dot{\alpha}$ are particulars is beyond the shadow of a doubt, even if it is quite difficult to grasp that in which their particularity consists." Though he goes on to sketch the landscape of the question, Brunschwig does not pursue an answer; he is content knowing that the particularity of $\lambda \epsilon \kappa \tau \dot{\alpha}$ can be adjudicated in principle.

200): entities that depend on body without themselves being bodies, much like the flow of traffic depends on cars without being reducible to the cars that give rise to it. The flow of traffic is a proper object of thought and discourse—we can say true and false things about it, like that it is slow or fast; and it is objectively available for anyone to think about. In addition, such an entity will be particular, and not properly understood as a mass term when it passes the Not-Someone test for particularity: the flow of traffic on the Emperor Norton Bay Bridge cannot be the same flow of traffic as that on the Golden Gate Bridge. They might both be slow, stop-and-go, smooth, or fast; but just as my car cannot at the same time be on the Bay Bridge and the Golden Gate Bridge, so too the particular flow of traffic arising from cars on one bridge cannot be the same as that on another bridge. If a certain flow of traffic arises from cars in Athens, then it cannot be in Megara.¹⁴

The reason this cannot be the case is that in being body-*less* the incorporeals inherit their positive physical characteristics from the bodies that give rise to them. So the incorporeals are characterized in negative terms, i.e., as a lack of body, in order to capture the fact that their positive characteristics are due to the particular bodies they lack. In fact, the Stoics define body as three-dimensional solid extension (Diogenes Laertius vii 135 (45E)) with resistance (Galen, *Qual. inc.* xix 483,13-16 (45F)); and the point of specifying its solidity is that they recognize three-dimensional extension without body as well, as we saw before in passage G. This is not to say, as Inwood has argued, that non-solid extension is an independent phenomenon subsisting whether body exists or not. Rather, the point of seeing incorporeals as body-*less* (versus a-corporeal, one might say) is to capture their dependence on body. Stoic incorporeals lack body in a specific way, namely they inherit positive physical characteristics from the solid, three-dimensional bodies on which they subsist. If there were no bodies, there would be no incorporeals; there would be nothing at all.

The notion of positive physical characteristics needs clarification. I hope it is intuitively clear how the flow of traffic has positive physical characteristics (such as its speed, the density and smoothness of its flow) inherited from the cars that give rise to it. However, the Stoics obviously did not speak of the flow of traffic. Let's return instead to the case of the drill sergeant described by Sextus (passage J above). This passage was relevant earlier in establishing that the Stoics recognized availability for thought and discourse as a logical measure of objectivity—if the commanding faculty can be impressed in relation to a certain impressor (even if not by it), then it must be Something objectively real, a proper object of thought and discourse. Now the passage will help establish just how the incorporeals are body-less, i.e., how they can be incorporeal yet physical (something inconceivable for a Platonist). The drill sergeant's motions are themselves corporeal, and when he takes the boy's hands to teach him the drill he makes corporeal contact. But what is the model the sergeant provides such that it can be an objective impressor without making contact? It's not the motions themselves, since those are perfectly corporeal and make an impression by printing on the soul, like "white and black and body in general." Rather, the model in relation to which the boy is impressed is a body-less three-dimensional pattern that emerges and is distinct from the sergeant's individual bodily motions. If the sergeant had not moved that way, there would be no model (or it would be a different model). Yet the model is still Something in its own right: we could say, in a contemporary voice, that the pattern supervenes on the corporeal motions, without being identical or reducible to any one of the sergeant's motions or to all of them collectively. Nonetheless, the

¹⁴ Note, however, that being a particular, i.e., a τόδε τι picked out by a count noun, is no barrier to being *stuff* as well, i.e., to being describable by a mass noun—indeed, Stoic void will be just such a case.

ontological commitment to Something of this sort is minimal in that the drill sergeant's pattern comes for free, so to speak—it is an incorporeal entity whose extension in three dimensions is entirely determined by the underlying body (the sergeant's individual motions). It is therefore physical despite—or, rather, because of—lacking body, without being a free-standing entity either.

So what Sextus means when he says that some impressors have a nature like that of the incorporeal sayables is that while they cannot act or be acted upon and are thus stripped of their causal efficacy, they are nonetheless real in a derivative way such that the commanding faculty can still be impressed in relation to them, i.e., they are proper objects of thought and discourse and therefore Something in their own right. To say that incorporeals are real in a derivative way means that they are entirely dependent on body. In Stoic terms, the incorporeals subsist according to ($\kappa\alpha\tau\dot{\alpha}$) body; in this case, the sergeant's model subsists according to his individual motions without which there would be no model—it is thereby Something with positive physical characteristics despite being incorporeal, i.e., not itself a body.

The remainder of the paper will focus on void, which is a canonical incorporeal and thus a canonical subsistent. I will demonstrate how the principle of body-*less* subsistence can apply to what is arguably nothing at all; further, that the body-*less* subsistence of void explains *why* it meets the Something criterion for objective particulars, thus putting my finger on the Stoics' genuinely nominalist strain. Finally, I will show how such an approach to incorporeals generally makes the Stoic ontology principled and coherent.

How Void is Something Rather than Nothing

I have urged that all Stoic incorporeals get their reality by subsisting according to underlying body—this was the point of calling them body-*less*. Nowhere is incorporeal dependence on body more apparent than in the definition of place as *what is occupied by body* (A2, B2, H1a, I2). For example, the place where my car is parked depends for its subsistence on my car (and the pavement underneath); and we can say that it has positive physical characteristics in that it has the three spatial dimensions given to it by my car. Thanks to that body-*less* subsistence, my parking place is a proper object of thought and discourse—it is an incorporeal impressor like the drill sergeant's model in relation to which the commanding faculty is impressed. Only the car can be *seen* because only the car has three *solid* dimensions with resistance (only the car is corporeal), but its place is Something objectively real I can think about because it is three-dimensional extension. This positive physical characteristic also makes the parking place particular, as evidenced by the Not-Someone test: if a parking place subsists according to a car in Athens, it is not in Megara.

Now, place is defined disjunctively as what is or what *can be* occupied by body (D1b). This sounds a little odd. Are we to define such a place by possible objects? Is there a subsistent parking place for my possible dream car? How would one decide which possible object should be the one to define a place? These questions are rhetorical of course, since this would be the wrong way to take the second disjunct. The subsistence of possible place will not be on the bodies that *could* fill it, but on the bodies that actually determine its boundaries. So the parking space for my dream car is not defined by a non-actual car, but by the actual cars that do in fact carve the boundaries of the place. Whereas place defined as what *is* occupied gets its three dimensions from the occupying body—from

the inside out one might say—place defined as what *can be* occupied gets its three dimensions from the delimiting bodies—from the outside in.

There is a further wrinkle to the definition, which is that the second disjunct does not say just that it *can be* occupied but that it can be *and is* occupied. One might think this makes the second disjunct reduce to the first, since it *is* occupied; but that is not the case. Rather, defining place as what *can be and is* occupied signals the Stoic commitment to an intra-cosmic plenum (as confirmed by Galen, *Diff. puls.*, viii 674,13-14 (49D)). A parking place both lacks an occupying car and is in fact occupied by air (or whatever elements); passage E4 confirms this reading, since even the smallest of bodies makes something place. So, place according to the second disjunct is defined by its actual delimiting bodies, on the model of a parking place being defined by the surrounding cars, and there is no barrier to saying that this place is also occupied by air. Put this way the incorporeal subsistence of place on body is apparent in both disjuncts, explaining why it is a proper object of thought and discourse that passes the Not-Someone test. Just as an occupied place subsisting from the inside out in Athens cannot be in Megara, likewise place subsisting according to its delimiting bodies from the outside in in Athens also cannot be in Megara. Thus we can see already how an incorporeal entity can be an objective particular in a physicalist system, and make sense of the nominalist label beyond the Stoic commitment to bodies as the only things that exist.

So far we have seen two modes of subsistence: place according to bodies that actually fill it, subsisting from the inside out; and place according to the bodies that create its external boundaries or finite endpoints, subsisting from the outside in. Void offers a third mode, from the outside out, one could say: it begins at the edge of the corporeal cosmos (including the heavens) and extends out from all sides (ἀπὸ παντὸς μέρους, B1). Void is in a way the incorporeal par excellence (Brunschwig 2003, 213) being defined purely in terms of lacking body-it is whatever can be occupied by body but isn't occupied at all (A1, B3, F, I1), which is why one might be tempted to think of it as nothing at all. However, it is very much a determinate phenomenon with positive physical characteristics whose objectivity and particularity are due to its underlying body, the cosmos as a whole. The only boundary of void is the outside limit or edge of the corporeal universe, the starting point according to which the external void beyond subsists. It is therefore infinite (B1, D, F, H4) in being unbounded in its outward extension from all sides (B1). Though it is defined as what can be occupied and isn't, void is not a modal concept (contra Bréhier 1928, Todd 1982), just as the second disjunct of place as what can be occupied was not defined in terms of my possible dream car. Rather, each is characterized as what can be occupied because of the actual delimiting bodies that make them real-place as what can be and is occupied (from the outside in) and void as what can be occupied and isn't (from the outside out). The infinity of void is therefore not nothing at all but an entity of infinite spatial extent, albeit in one direction.

Thus I am against the suggestion of Inwood 1991, 255 that void is indefinite or indeterminate unfilled extension best "distinguished as unlimitedness in the simplest sense, absence of limits or boundaries...thus a rather negative conception [that] makes no positive assertion about spatial extent, as the atomistic conception of infinity does." Though the notion is elusive, I think we are in a position to say that the unboundedness ($\ddot{\alpha}\pi\epsilon\iota\rho\sigma\nu$) of void is not mere indefiniteness but spatial infinity, and that it belongs to void not *qua* incorporeal but *qua* void subsisting on the

corporeal world from the outside out.¹⁵ And this infinity is no slight to the objective reality of void, which is what the Stoics' realist language in passages H4 and D shows: "*In respect of its own subsistence* it is infinite," and "void is outside the heavens *per se.*" On the other hand, while this realist language is certainly testament to void as an objective phenomenon, it does not give reason to think that void is self-subsistent, independent or prior to the corporeal world, as Algra, Inwood and Powers suggest. It is just that the extra-cosmic void subsists in three non-solid dimensions according to the corporeal world from which it inherits those dimensions, as passages B1 and G indicate.

Galen (G) sees absurdity in the result, as he does in the Stoic distinction between existence and subsistence, but closer inspection shows that the Stoic conception of place and void as threedimensional extension is perfectly coherent, even if unusual. Accordingly, subsistence remains a physicalist notion even though incorporeals are not themselves bodies; place and void lack body but not extension and are thus physical though not corporeal. Furthermore, this picture respects the primacy of bodies in the Stoic system: the subsistence of the void, as with place, is due to underlying body, not independent of it and certainly not on an ontological par. Hence I have called the Stoics our first non-reductive physicalists, embracing a one-world ontology according to which bodies are fundamental and everything else there is depends on body. Should the corporeal cosmos disappear, the extra-cosmic void would cease to subsist as well. What would be left is nothing at all.

The isotropy of the void remains at issue: how can the cosmos be at the center of something infinite when things that are infinite have no center? Algra 1995, throughout but especially 303, 306, solves the problem by positing a second sense of void (i.e., room) as finite and anisotropic to give sense to talk of the universe at the center of void. But the isotropy of the void is a false problem for the Stoics, because it's not that the cosmos is at the center of an independently subsisting void that can't have a center.¹⁶ Rather, the cosmos is characterized as being at the center of void because it is the starting point of the infinite extra-cosmic void (the rest of all there is) extending from the outside out (see Goldschmidt 1969, where the position of the cosmos is said to determine the *center* of the void, as opposed to its start).¹⁷ It is isotropic in that there is no middle or end to the void once it starts, just as the series of natural numbers extends infinitely in one direction from a determinate starting point (1 or 0), and thus has no middle number. That the Stoics thought of infinity this way is evidenced by their description of time as infinite on precisely this model,

¹⁵ As further evidence against indefiniteness as a feature of incorporeals *qua* incorporeals, the λεκτόν is a direct counterexample, in being clearly finite, with determinate parts and not divisible to infinity, as Brunschwig 1988, 90 observes; it is conspicuously absent from Stobaeus' 1.142,2-6 (50A) list of things divisible to infinity, which includes bodies and things comparable to bodies like surface, line, place, void and time. Furthermore, it's not clear how place can be considered unlimited according to Inwood's interpretation. If unlimited extension is limited when occupied, then place is strictly speaking not an unlimited incorporeal except insofar as it is extension. If so, Stobaeus' report (49A, passage H above) that what is incorporeal is infinite is no longer taken to apply to all incorporeals, just time and void. Likewise, time is ἄπειρον not *qua* incorporeal but *qua* the temporal extension (more intuitively, *dimension*, but crucially the same Greek term, διάστημα, for place, room, void, and time) that extends infinitely into the past and future. ¹⁶ By the same token, there is no genuine problem with the coherence of the cosmos as Peripatetics and others hostile to the Stoics' extra-cosmic void have supposed. The *prima facie* problem is that if the cosmos were not at the center of the extra-cosmic void it would not remain a unified whole. The problem does not arise because they do not posit independently subsisting space and because the world is a unified whole on its own, from the internal tension or tenor. Cf. Plutarch *St. rep.* 44, 1054B-1055C for this problem and isotropy.

¹⁷ Hence *the all* ($\tau \dot{o} \pi \tilde{\alpha} v$) is best understood as the simple combination of the corporeal cosmos and the extra cosmic void as everything there is, rather than as the combination of place and void. After all, place, void and/or room is certainly not all there is for the Stoics; *the all* as cosmos plus void better merits the name.

extending forever in both directions (Stobaeus 1.105,8-16 (51D)), and above all by the coherence of the ontology that emerges from this reading. Plutarch's charges of Stoic incoherence with regards to isotropy are generated by a picture according to which the cosmos is at the center of void considered as independent space; so a picture according to which the cosmos is not in fact at the center but the very beginning of void neutralizes this complaint.

Nonetheless, one might yet worry that Stoic void is not genuinely isotropic. To the extent that any spot in the void will always be a certain distance from the cosmos and from $(\dot{\alpha}\pi \acute{0})$ a particular place at the edge of the cosmos, the void seems anisotropic-its properties are not the same everywhere, and the term does not apply in the same sense to the whole and its parts. To this I think the Stoics could agree, without pain of incoherence. Stoic void can be considered genuinely isotropic not only in that it has no middle or end, in analogy with the number line, but also in its divisibility to infinity. As continuum physicists with a unique and controversial theory of blending, the Stoics are committed to the infinite divisibility of bodies such that "no part among them fails to participate in everything contained in such a blended mixture" (Alexander, Mixt. 217,9-13 (48C7)). "Likewise, things comparable to bodies, such as surface, line, place, void, and time" are divisible to infinity (Stobaeus 1.142,2-6 (50A)). If void depends for its subsistence on a continuous, infinitely divisible body (the cosmos), it stands to reason that the incorporeal would be similarly homoiomerous. Void is, after all, nothing but three-dimensional, non-solid extension subsisting from the outside of the cosmos out into infinity. The parts and whole of void are thus spoken of in the same way, void is correctly understood as a mass noun, and to this extent it is genuinely isotropic. There is no absurdity or contradiction to the Stoic position, since the claim to unqualified isotropy is foisted on them by critics and commentators. Plutarch's puzzle that finds a center to void as counterevidence of its isotropy only gets off the ground by presupposing the void is independent of body and that it is isotropic, full stop. The Stoics need not accept either of these claims, however.

There is thus no need to posit two kinds of extracosmic void as Algra does (void proper as infinite, isotropic space, and room as finite, anisotropic space), or to render Chrysippus unorthodox about void or room. Further, three dimensional subsistence from the outside out shows that void is spatially infinite in virtue of the specific way it subsists on body, and that there is nothing indefinite about the principle of body-*less* subsistence *per se*. Therefore, being incorporeal does not mean being inherently indefinite, but quite the contrary; void and place subsist according to a common principle of incorporeality (being body-*less*) that makes them the particular entities they are, whether infinite or not. Further, the incorporeals are not best seen as some *ad hoc* group of left over entities that couldn't be corporealized, but rather as a principled category of entities subsistent on body.

The subsistence of void (and place) is due to underlying body and identified by its availability for thought, as illustrated by passages D, E and H4. Our inability to conceive of an outside limit to void (H4) is not a cognitive shortcoming, but due to the fact that the void is infinite, and thus testament to the thinkability criterion as measure of objective reality. If there were an outside limit to void, it (the limit) would be a proper object of thought and discourse; since there isn't one (and can't be *ex hyposthesi*) we can't conceive of it. Likewise, the impression that many people have of void as something infinite outside the heavens (D) is testament to the fact that void is an objectively real entity in relation to which the commanding faculty is impressed. Given its incorporeal, i.e., intangible nature, it would stand to reason that void would be an intelligible rather than sensible impressor—but, as Sextus' drill sergeant passage shows, that is no slight to its

objectivity or physicality. In fact, the simplicity of the notion of void (E) reflects the simplicity of its objective subsistence from the outside out.

So void is technically whatever is outside the corporeal world, and it extends infinitely from all sides of the cosmos. Let's now handle the elephant in the room, so to speak: room ($\chi \omega \rho \alpha$). Passages A, H, and I, which I will recap, raise some important puzzles about place and void. Passage H from Stobaeus reports fragment 25 of Arius Didymus, who attributes to Chrysippus the disjunctive definition of place as what is occupied (H1a) or what can be occupied (and is) (H1b). Then (H2) we get a further division of the second disjunct into what is partly occupied and partly unoccupied, so that the whole thing is nameless, since it's neither void (spoken of like empty containers) nor place (spoken of like full ones). This characterization of nameless partly occupied place is followed by the question (H3) whether room is (a) the bigger container or (b) what has room for a bigger body. From there we get (H4) that at any rate void is infinite, as evidenced by the fact that a limit to void is inconceivable.

What are we to make of the distinction between the nameless phenomenon of H2 and the room dilemma of H3? It looks at first sight as though we have a division of place considered as what can be occupied into two distinct phenomena, what is partly occupied and nameless, on the one hand, and room on the other. What then is the nameless phenomenon and how is it different from room, especially given the explicit definition of room in passages E and F as what is partly occupied? Inwood takes the nameless phenomenon to be extension, and its namelessness as evidence that Chrysippus' view was new and different from other Stoics'. Algra, on the other hand, takes this passage to represent Chrysippus' orthodox Stoic view, as opposed to passage I that introduces Chrysippus' heterodox view of room. I think we need not see Chrysippus as heterodox at any juncture.

First, what is nameless is the whole entity ($\tau \dot{o} \ \ddot{o} \lambda o v$) that is partly occupied and partly unoccupied, and the reason it is nameless is that it doesn't align either with place or void because it is neither full of body nor empty of body. This seems like a reasonable puzzle about the nature of a body-less incorporeal: it has extension from the underlying body, but it's not clear what to call it. There's no real question about the nature of the phenomenon, just about how to classify such an intracosmic pocket; that there is room in a wine jar is an ordinary phenomenon and common conception. What would be convenient is for this phenomenon to be called room, and for H3 to introduce a further puzzle as to whether room names the bigger thing able to be occupied by body, like a greater container for body, or just the phenomenon of there being room for a bigger body. However, the nameless entity and room do look, grammatically speaking, like two distinct phenomena so that it would be strained to cast H3 as a further division of H2 rather than as a contrast. I propose that this can be explained as the rather fine-grained distinction between three distinct phenomena: the nameless entity of H2 will be the whole entity consisting of the occupied place plus unoccupied room, the pocket inside; room in the sense of H3a will be the limit of the container itself (outside in); and room in the sense of H3b will be the unoccupied extension within the container (inside out). These are subtle distinctions indeed-pedantic perhaps, but not without

sense and not contradictory.¹⁸ In fact, the common thread is their extension in three body-*less* dimensions and their being objectively available for thought as a result.

Contrary to Inwood, then, I take the phenomenon of non-solid extension to be dependent on body, not prior to it, nor a later innovation by Chrysippus. While I agree that extension underwrites the phenomena of place and void, and that Chrysippus is providing the conceptual backdrop to Zeno's incorporeals, I don't take extension to be a *further* incorporeal entity but the mode of incorporeal reality that place, void and room all share; it is the principle of their subsistence. The Stoics from Zeno forward recognized a common phenomenon, not itself corporeal or sensible but nonetheless physical and intelligible; thus I don't take Chrysippus as unorthodox in his views about place, room or void. The real lesson of passage H, I urge, is that the Stoics recognized incorporeality as a pervasive phenomenon, inheriting objective reality from the bodies underlying. Indeed, what place, void and room have in common is three-dimensional extension.¹⁹ That the Stoics recognized three-dimensional spatial incorporeals as of a kind is evidenced by Diogenes Laertius' report that the Stoics divided physics into five topics, the fifth being limits, place and void (vii 132 (43B)). Room is not mentioned on this list, but if I am right that the Stoics worked with an open-ended list of incorporeals according to the principle of body-less-ness, it would make good sense for there to be internal disagreement as to how best to classify things like room and the nameless phenomenon, and for controversial entities not to show up on canonical reports.²⁰

For example, passage I tells us that room is partly occupied, partly unoccupied extension (as does passage A) and that some Stoics said the difference between room and place is that room makes the size of the occupying body relevant. If we take these as less fine-grained reports than what we got in passage H, the texts are compatible. The description of room as partly occupied, partly unoccupied extension is prior to (less fine-grained than) the distinctions between the nameless entity (occupied plus unoccupied extension together), room as the limit of the container, and room as the unoccupied extension inside the container; so too for the description of room as the place of a larger body. In all cases room amounts to an intracosmic incorporeal phenomenon, pockets of space that can be (and are) occupied.²¹ Again, what these passages tell us is that there was some debate as to how to classify the ordinary notion of unoccupied spaces in the world: should they be called void, while defining place as what is actually occupied; or should they be classified as place that can be occupied, as in the disjunctive report? The debate over how to characterize unoccupied spaces in the world emphasizes that void is strictly speaking unoccupied space outside the world, place is strictly speaking occupied space in the world, and that incorporeality is a pervasive physical phenomenon. Whatever the classification of the intracosmic pockets, their reality is uncontroversially dependent on the bodies that determine their extension and boundaries, which is what makes them objectively real and thus available for thought and discourse.

¹⁸ Thus I take this account to answer Algra's desiderata for the passage. Namely, that one account for the difference between room and the nameless phenomenon, as well as the two senses of room (3a and 3B), room as incorporeal.

¹⁹ Time and $\lambda \epsilon \kappa \tau \dot{\alpha}$ will also inherit their objectivity from underlying body, but not in the same, spatial way; time will be the temporal dimension of underlying body, and $\lambda \epsilon \kappa \tau \dot{\alpha}$ the semantic.

²⁰ Also, for limits of bodies to be included on the list as *bona fide* incorporeals, vs. mathematical limits, which are *neither corporeal nor incorporeal*

²¹ Thus I disagree with Algra that room should be considered the finite amount of extra-cosmic void required for the conflagration.

Their dependence on body also makes place, void and room particulars. I already showed that places defined as what can be and are occupied (i.e., place defined from the outside in) are objective particulars that pass the Not-Someone (outic) test. The same will apply to any interpretation of room(s) we care to give-insofar as they are intra-cosmic pockets dependent for their subsistence on delimiting bodies and thus akin to place, they will pass the outure test. For example, if there is room in a wine jar in Athens, it can't be in Megara; the pockets in Athens are not the ones in Megara. The more interesting question is how extra-cosmic void, being infinite, passes the outust test: if void is in Athens, then it is not in Megara. As stated, the result is unclear. If treated as independent space describable only by mass terms, it might be false to say that if there is some void in Athens then there is no void in Megara; just as it would be false to say that if there is some honey in Athens, there is none in Megara; or that if there is traffic on the Bay Bridge there isn't any on the Golden Gate. On this interpretation, Brunschwig 1988, 97 says the outur test is powerless to justify the extra-cosmic void as Something. His solution is to say that void, properly speaking, refers to the unified and continuous extra-cosmic void, which does pass the outus test. If (per impossibile) the extra-cosmic void is in Athens, then it can't be in Megara. So far Brunschwig is exactly right-namely, that Stoic void is strictly extra-cosmic, and that qua particular it cannot be in two places at once. But worries about room as a portion of void send Brunschwig 1988, 98-9 in circles to address the intra-cosmic pockets:

[T]he term "void," while remaining a mass term, applicable in the same sense to the whole and its parts, designates nothing more, when it applies to the whole, than a continuous whole of a single tenor, with the exception of the enclave of the world that limits it on the interior as a hole limits the continuity of a Gruyère; and when the term *void* applies to the parts of the whole, it designates nothing more than parts arbitrarily lifted from the continuous whole.

Brunschwig's result is that the extra-cosmic void has cosmic parts, the contradictoriness of which he hedges by making the parts somehow arbitrary. Now, there is an important sense in which the Stoics do make parts of the whole arbitrary and of a lesser reality, but in making the void correspond to the Gruyère, and the world to the holes, Brunschwig reduces the Stoics to absurdity because the void is no longer extra-cosmic. Treating the parts as arbitrary is therefore too little too late, and runs afoul of the principle that mass terms be applicable *in the same sense* to whole and parts. The problem is Brunschwig's assumption that void is independent space accepting only mass nouns, which blinds him to the fact that the so-called intra-cosmic void and extra-cosmic void are just two different phenomena, i.e., two different kinds of incorporeal entities, one a plenum, the other genuinely void.²² Void, strictly speaking is extra-cosmic: it begins at the edge of the corporeal world and extends infinitely out from there in all directions. As a single, continuous entity determined by a body (i.e., the world) it is itself a particular that passes the oʊ̈́tic test. The void outside *this* world can't be over there, outside *that* world (not that the Stoics recognized more than one cosmos, though they could entertain it as logically possible).²³

In addition to the extra-cosmic void, the Stoics also recognized pockets of space in the world, able to receive body; that there was internal debate as to whether these should be classified as a kind

²² This assumption is more explicit in Brunschwig 2003.

²³ That the Stoics were live to this kind of distinction between metaphysical and logical possibility is evidenced by Chrysippus' consideration (cited polemically by Plutarch, *St. rep.* 44, 1054B-1055C) of the logical possibility of a cosmos not in the center of an independent void, as Algra 1995, 301 ff. notes.

of place, void, room, or something else is testament to the fact that the Stoics recognized room as a further case of incorporeal subsistence. There is on the one hand place as defined by the body that occupies it, from the inside out; on the other hand void as defined by the edge or limit of the corporeal cosmos, from the outside out; and then there is another phenomenon where bodies define a space from the outside in-should we call that the extension itself, the limit of the extension or the combination of both? What we have are several different ways in which extension can be conceived without body. It is only natural that there be an active debate as to how to characterize the various kinds of incorporeal subsistents. Being in the world, these pockets are akin to place and so warrant the disjunctive definition of place attested by Stobaeus (passage H). On the other hand, being what can receive body makes the pockets akin to void-but not parts or the same thing as void. Brunschwig's error is in the way he deploys the Gruyère metaphor. He makes the cheese correspond to void, and body to the holes (such an egregious role reversal might have been a clue that something was amiss). But it's the perfectly intuitive sense of Swiss cheese that captures the phenomena: the cheese corresponds to the corporeal world, the holes to the pockets of space in the corporeal cosmos, and everything outside the cheese to the extra-cosmic void. Extra-cosmic void is thus an incorporeal individual subsisting according to the corporeal world, from which it inherits its particular As such, it passes the outic test straightforwardly, without the need for ad hoc properties. restrictions, as Caston had worried.

Conclusions

We are now in a position to see just how the Stoics agree and disagree with the atomists about void. They agree with Leucippus and Democritus, who conceived of void (or rather, voids) as fundamental elements of the cosmos, in that Stoic void is an objective particular we refer to with a count noun; hence the point of countenancing void as Something. They also agree with Epicurus and Lucretius, who take void in the sense of empty space, in that Stoic void is empty threedimensional extension capable of receiving body; it is the same in its whole and parts the way a mass term is. Contrary to both atomist theories, however, Stoic void is no fundamental building block of the cosmos but entirely dependent on body for its subsistence. If all body were eliminated, there would be no void; there would be nothing at all. Nonetheless, Stoic void is essential to explaining the cosmos as the Stoics see it; although it follows from the principle of body-less subsistence, it is not a superfluous entity. For the Stoics there is no beginning or end to the world's motion, just an everlasting recurrence punctuated by periods of conflagration when the world turns into fire and then starts over. During the conflagration the world becomes pure undifferentiated fire, expanding as God withdraws into himself (itself) and prepares to exhale another cosmos just like the last one. In order for the cosmos to expand, there must be Something into which it expands; thus Stoic void plays an important cosmological role for the Stoics, as it does for the atomists.

In what, then, does Stoic nominalism consist? Certainly its core is that only bodies exist. But this commitment only becomes innovative and interesting insofar as *existence* is a technical term for the Stoics, in contrast to *subsistence*. By making body the grounds of all there is, as opposed to the only kind of reality, Stoic metaphysics takes on a new and controversial dimension. What's newsworthy is that in positing Something as the highest genus of reality set over *existence* on the one hand and *subsistence* on the other, the Stoics recognize incorporeal entities without breach of their physicalist commitments or their particularity constraint. I have shown how Stoic incorporeals can be considered body-*less* rather than a-corporeal or outside space-time, as a two-worlds ontology would have it. Being body-*less* is a genuinely negative conception in that incorporeals lack body, but these entities are not without positive physical characteristics: place, room and void have threedimensional extension, which is grounded in the bodies on which they subsist. Thus Stoic void is not an empty notion (as Aristotle would have it), nor a case of straight non-Being (as Parmenides would charge), nor the genuinely puzzling notion of independent nothingness (as the atomists posit), but a step toward non-reductive physicalism.

The case of void, place and room shows that the Stoics are committed to an ontology of objective particulars as measured by the Something criterion. According to this logical measure of reality, whatever is Something will be objective insofar as it is a proper object of thought and discourse, and particular insofar as it passes the Not-Someone test. Crucially, it is precisely because they are body-*less* entities with positive physical characteristics that incorporeals satisfy this criterion. In the case of void, the fact that it extends in three dimensions from all sides of the corporeal cosmos accounts for its objective availability for thought (and the inconceivability of an outside limit to void) as well as its being a spatio-temporal individual. The combination of these principles is the true heart of Stoic physicalism and nominalism: only determinate entities grounded in bodies as their *sine qua non* will meet the Something criterion for objective particulars. On this view, even void—the infinite nothing beyond—can coherently be called Something.²⁴

Department of Philosophy University of Massachusetts Amherst MA 01002

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