Nigidius Figulus' Natural Cosmology and Philosophy of Language Phillip Sidney Horky

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Introduction

Concerning the argument which Nigidius, the scientist, took up from the potter's wheel, on the question of twins.

So then, that noble comment concerning the potter's wheel, which Nigidius, thrown into confusion by this question, is said to have responded with—whereby he was called "Figulus" ["potter"]—was advanced to no avail. For, while he was spinning a potter's wheel with as much strength as he could, he very swiftly struck it twice with black ink in what was for all intents and purposes, given the speed, the same spot. Then, once the motion ceased, the marks which he had made were discovered to have been at an interval rather large along the circumference of the wheel. "Thus," he said, "given the velocity of the heavens, even if one of the twins is born after the other with the same speed as when I marked the wheel the second time, it would be greater by far in the span of the heavens. Hence arise," he said, "all dissimilarities noted in the characters and fortunes of twins."¹

¹ Nigid. test. 17 (= August. *De civ. D.* 5.3). All translations from Latin or Greek are my own.

This chapter takes its lead from Augustine's intriguing explanation of Nigidius Figulus' cognomen in order to highlight two topics central to its inquiry: cosmology and the philosophy of language. For what Augustine's anecdote reveals is the interdependence of cosmic physics and language in the philosophy of Nigidius.² The question concerning twins was a classic objection raised against those who believed in astral determinism, notably certain Stoics: if the positioning of the astral bodies at birth determines the innate qualities, character, mind, body, career in life, and destinies, of a child, how can we explain differences of these attributes in twins?³ For twins are born at the same time, under the same sign, and with the constellations in the same relationship to the planets. Nigidius' answer, as presented by Augustine, was quite ingenious: given that a potter's wheel imitates the circular motion of the cosmos, but spins far more slowly (even when we spin it as swiftly as possible), if we mark it twice with ink as quickly as we possibly can—just as fast, or even faster, than twins are born—when we slow the wheel, we see that the marks are quite far apart indeed. So expansive are the heavens, that being born at the "same time" on earth is being born at vastly different times in the heavens. This is what

² For an illuminating discussion of this anecdote, see Volk 2021: 270-1.

³ This account is ultimately based on Cic. *Div.* 2.89-91, in reference to the astral determinism of the Chaldeans. Cicero goes on to describe the response to the question by Diogenes of Babylon, who claims that astral determinism works to a certain extent (i.e., it determines twins' physical natures and aptitudes, but not their length of life or fortunes). Not all Stoics were in agreement about divination or astral determinism, and a variety of positions can be determined (cf. Inwood 2022: 23-7, with ancient sources provided).

explains such differences between twins. There is an additional implication: the art of astrological prophecy requires interpreters, like Nigidius, who are not only aware of the vast differences in space relative to time (between terrestrial space-time and cosmic space-time), but also are able to calculate the difference in making their predictions. Finally, all of this story is marshaled to explain the etymology of Nigidius' cognomen Figulus: he is the "potter," as the example demonstrates. But we should be doubtful about Augustine's claim that the lore concerning the potter's wheel is the real source of his cognomen: Figulus was a perfectly traditional Roman name, well attested in the Roman Republic.⁴ Rather, a more likely inference is that the story was marshaled by Nigidus himself to provide an etymological explanation of his cognomen: the potter, whose daily instrument is the wheel, is he who best understands the relationship between time and cosmic motion, and its ontological implications.⁵

This chapter aims to provide a concise account of Nigidius Figulus' views on the coimplication of cosmology and language. In particular, it will investigate how Nigidius' cosmology, which is fundamental to his theory of prophecy, and his theory of language are grounded in conceptions of nature—in the sense that for Nigidius, the motions of the heavens

⁴ For the cognomen "Figulus," which occurs several times in the Republican and early Imperial eras (starting as early as 169 BCE, where it is associated with the family of the Marcii), see Kajanto 1982 [1965]: 322, as well as Maras in this volume.

⁵ Also note the emphasis on time in the following anecdote (fr. 81 = Gell. *NA* 16.6.12): "Now Publius Nigidius, in the book which he wrote *On Entrails*, says that not only sheep are called 'two-teethed' (*bidentes*), but all victims that are two years old (*bimas*); yet he has not explained clearly why they are called 'two-teethed' (*bidentes*)."

and the substance of language itself are both unequivocally natural. In pursuance of this goal, it will consider the perennial question of Nigidius' purported Pythagoreanism, since the Pythagoreans were figures well known from earlier antiquity as philosophers of nature; and, in order to determine Nigidius' unique views on nature, it will compare his views on the cosmos and language with those of the Stoics. In the end, it will advance a hypothesis, according to which Nigidius Figulus' alleged Pythagoreanism stands on very shaky ground, and it will suggest that a more fruitful approach to Nigidius' theory of nature, applicable to his cosmology as well as to his philosophy of language (including prophecy), lies in comparison with late Hellenistic Stoicism, especially the sort of eclectic "scientific" Stoicism advanced by, among others, Posidonius of Apamea.

Nigidius among the Pythagoreans

We may start by taking a closer look at the famous introduction to Cicero's translation of Plato's *Timaeus*, where Cicero presents Nigidius Figulus as someone who was seeking to revive the Pythagoreanism that had once flourished in Sicily and Italy, but now lay dormant in their native plains:

There are many things which I have both written up against the natural scientists in my *Academic Books* and frequently argued about with Publius Nigidius, after the manner and style of Carneades. For Nigidius was not only equipped with all the arts worthy of a free man, but he was also a keen and meticulous investigator of those things that nature would appear to have concealed. Hence, I judge him to have presented himself after those noble

Pythagoreans whose creed somehow faded away (although it thrived for centuries in Italy and Sicily), in order to revive it.⁶

When scholars consider the introduction to Cicero's *Timaeus*, they often remark on the description of Nigidius as "a keen and meticulous investigator of those things that nature would appear to have concealed." According to Cicero, then, Nigidius is distinguished for his abilities in natural philosophy, as someone who can uncover the secrets that nature herself hides. What is not always noted by scholars, however, is the identification of Nigidius as *both* a natural philosopher ($\varphi \upsilon \sigma \iota \kappa \varsigma \zeta$) and a Pythagorean.⁷ The correlation (*denique sic*) indicates that, for Cicero (and his audience), Pythagoreanism was to be associated specifically with the philosophy of nature. There is the obvious connection between Timaeus' speech in Plato's *Timaeus*, as translated by Cicero, and Pythagoreanism, as suggested by the introduction to his translation here. But there are other contemporary signs in the Roman world as well: for example, Varro associated enquiry into the nature of the universe with Pythagoras, as is evidenced in the *Res rusticae*:

Pythagorean and magus, dies in exile"; and test. 10 (*Schol. Bob.* Cic. *Vat.* 147 Stangl): "There was at that time a certain Nigidius, a man exceptional for his learning and the erudition of his studies, to whom many people came. These are improbably conjectured by their detractors to be a sect, as it were, although they are minded to consider themselves followers of Pythagoras."

⁶ Test. 9 (= Cic. *Tim.* 1-2).

⁷ Also see test. 8 (Jer. *Ab Abr.* 183.4 Helm, for the year 45 BCE): "Nigidius Figulus,

Therefore, I say, although it is necessary, by nature, that both humans and sheep have always existed—for either there was a certain origin of the generation of animals, as Thales of Miletus and Zeno of Citium held, or contrariwise there has never been any origin for them, as Pythagoras of Samos and Aristotle of Stagira held—it is necessary for human life to have come down step-by-step from the earliest memory to this age, as Dicaearchus thinks.⁸

Varro contrasts two views: those who posit that the various species of animals (including humans) have not existed forever, and those who deny this claim. The rejection of the principle of the origin of animals is interestingly associated here with Pythagoras and Aristotle, and of course Aristotle himself argues in favour of the eternal nature of heaven and kinds in *On the Heaven* and in his lost work *On Philosophy*.⁹ Additionally, the late 2nd-century-BCE Peripatetic Critolaus supported Aristotle's claims with further arguments in favour of the eternality of the world.¹⁰ That takes care of the Aristotelian reference, but what about the mention of Pythagoras? The Pythagorean text that survives from antiquity, to which Varro, I think, refers, is not actually ascribed to Pythagoras himself, but rather to one of his students in Italy: Ocellus of Lucania, in his treatise *On the Nature of the Universe*, known to Philo of Alexandria for developing its

⁸ Varro, *Rust.* 2.1.3.

⁹ Arist. *Cael*. 2.1, 284a13-34. Cf. Arist. frr. 19 and 20 Rose (probably from *On Philosophy*).
¹⁰ Critolaus fr. 13 Wehrli.

distinctive arguments in favour of the sempiternality of the universe.¹¹ As ps.-Ocellus states in the work:

(38) The first origin of human generation did not arise out of the earth, nor yet out of other animals or plants; rather, it is necessary that, since the ordered arrangement [of the universe] is eternal, the things that exist in and are arranged under it subsist with it. In the first place, since the cosmos is eternal, it is necessary that its parts too co-exist with it (by its "parts," I mean heaven, earth, and what is in between them, which is called the "meteorological" and the "atmospheric"); for the cosmos is not without them, but rather it is with them, and out of them. (39) Since these parts co-exist with it, it is necessary that the things that are encompassed by them co-exist with them: with heaven, the sun, moon, fixed stars and planets; with earth, animals, plants, gold, silver; and with the meteorological and atmospheric realm, spirits, winds, and changes to warmer and colder; for heaven exists in conjunction with the possession of those things it encompasses; earth exists in conjunction with the subsistence of those things that grow and graze upon it; and the meteorological and atmospheric realm exits with the generation of all things that come to be in it. (40) Therefore, since in each division [of the cosmos] a certain genus is arranged above the others, that is, in heaven the genus of the gods, on earth the human being, and in the meteorological realm the daemons, it is necessary that the race of human beings be immortal, since reason truly instructs us not only that its parts co-exist

¹¹ Philo, Aet. mund. 12.

with the cosmos, but also that those things that encompass their parts co-exist with them.¹²

Ps.-Ocellus thus presents us with what those in the circles of Cicero, Varro, and Nigidius would have associated with Pythagoras' view on the generation of animal kinds, and, by extension, the generation of the universe—for, as the argument goes in Ocellus (as well as in Aristotle), if the universe was generated, then animal kinds will have been generated, whereas if the universe is eternal, then animal kinds will be eternal. But in Cicero's translation of the *Timaeus*, as well as in Plato's *Timaeus* and the text of Timaeus Locrus,¹³ it is clear that the universe—and by extension, its parts—are generated. If Nigidius is to be taken as the speaker of Timaeus' speech in Cicero's

¹³ Tim. Locr. 43-5 (pp. 217.23-218.5 Thesleff): "(43) After the constitution of the cosmos, he [sc. God] devised the generation of mortal animals, so that it [sc. the cosmos] would in every way be brought to completion in relation to the image. (44) Hence, when he had blended together and divided the human soul from the same proportions and powers, he distributed it, handing it down to the alterative Nature. And Nature, succeeding him in the <process of generation>, brought to completion mortal and ephemeral animals. (45) Then she introduced souls through infusion, some from the moon, others from the sun, and others from the other [animals] shaped in the portion of the Different, excepting only the power of the Same, which she mixed into the rational part, an image of wisdom for those who have a good portion [of it]" (cf. Pl. *Tim.* 42d). To be sure, Timaeus claims that the heaven "came to be verbally" ($\lambda \dot{\alpha} \gamma \phi \gamma \epsilon \nu \dot{\alpha} \sigma \alpha t$) (Tim. Locr. 7), but it is also referred to explicitly as a "generated god" ($\theta \epsilon \dot{\alpha} \gamma \epsilon \nu \alpha \tau \dot{\alpha}$) (Tim. Locr. 9).

¹² Ocell. 38-40 (p. 134.5-22 Thesleff).

Timaeus, then it is clear that he takes a position contrary to what Ocellus and, according to Varro, Pythagoras, held. There are no translation modifications to the speech of Timaeus (from Greek to Latin) so extreme as to remove the generation both of the *mundus* and of the human race in Cicero's *Timaeus*.¹⁴ Hence, if Nigidius is the speaker of Timaeus' speech in Cicero's *Timaeus*, his position on the controversial question of the generation or sempiternality of the universe is firmly literalist and traditional, rather than the more radical interpretations found elsewhere in this period: for Nigidius, the universe, and its parts, were generated.¹⁵ This claim puts him at odds with a range of Platonists from the second half of the 4th century BCE (Xenocrates) until the 2nd century CE (Calvenus Taurus).¹⁶ Interestingly, however, it situates his views on the cosmos and its elements rather firmly in the tradition of the Stoics, with whom Nigidius' philosophical views on language and the cosmos share more common ground.¹⁷ In the next section, this paper will focus first on Nigidius' cosmology, *qua* natural philosophy, and its relationship to Stoicism, before turning to his views on natural language.

Nigidius' Cosmology

¹⁴ See Cic. *Tim.* 3 and 40-1.

¹⁵ On this issue in Cicero's *Timaeus*, see Sedley 2013: 194-9 (although Sedley does not exactly commit to the view that Nigidius is the speaker).

¹⁶ Xenocrates frr. 73-8 Isnardi Parente² (on which, see Sedley 2021: 18-22); Calvenus Taurus

T26* Petrucci (on which, see Petrucci 2018: 26-64).

¹⁷ As suggested by Garcea 2019 and Volk 2021: 264.

We can establish Nigidius' cosmology from a number of passages that embed his views on the cosmos within other discourses, especially prophecy and divination. A key example is Cassius Dio's account of Nigidius' horoscopic prophecy concerning Octavian's total power.¹⁸ There, by contrast with the more objective account of Suetonius in his *Life of Augustus*,¹⁹ there is further evidence of the implication of Nigidius' cosmology and his theory and practice of divination:

The child had only been born, and Nigidius Figulus, a senator, straightway prophesied for him absolute power. For he was best at distinguishing the cosmic arrangement of the firmament in itself and the differences between the stars, what things come to be in themselves, and what things they bring to completion when they are mixed together in conjunctions and in intervals; and on account of this, too, he was charged with practicing some forbidden arts. So then, at this time Octavius had arrived late at the Curia, owing to the birth of his child (for, by chance, there was a meeting of the Senate that day); so, he [Nigidius] asked him [Octavius] why he was late. After he learned the reason, he called

¹⁸ An excellent general discussion of the whole issue is to be found in Volk 2021: 271-3. Also valuable is her earlier, and in some ways more detailed, discussion in Volk 2017: 342-7. See also MacRae in this volume.

¹⁹ Test. 13a (Suet. *Aug.* 94): "On the day he [Octavian] was born, when the conspiracy of Catiline was being debated in the Curia and Octavius had arrived late because of his wife's confinement, as is commonly known, Publius Nigidius, after learning the reason for his delay and learning too what was the hour of the birth, affirmed that the master of the lands of the world had been born."

out: "A master over us have you begotten." And the latter was disturbed by this and wanted to destroy the infant, but the former restrained him, saying: "It is impossible for him to suffer such a thing."²⁰

Cassius Dio's testimony tells us a number of things: first of all, according to Dio, Nigidius was distinguished for his ability to discern the "cosmic arrangement in itself" ($\kappa \alpha \theta$ ' έαυτὸν τήν τε τοῦ πολοῦ διακόσμησιν) and the particular "differences between the stars" (τὰς τῶν ἀστέρων διαφοράς). The term διακόσμησις puts us firmly on Pythagorean ground, since it is characteristically used by Pythagorean writers of the Hellenistic or post-Hellenistic periods, or attributed to them by others.²¹ But the additional comment that follows, in which Nigidius' astrological practices are noted ("what things become in themselves and what things they bring to completion when they are mixed together in conjunctions and in intervals"), is not characteristic of the Pythagorean tradition: in the Pythagorean sources of this period, evidence for the kind of elaborate mythologizing astrology and accompanying geographical speculation that Nigidius practised in fr. 88-103, from his work *Sphaera*, is nowhere to be found.²² Rather

²¹ The term probably first arises in the Pythagorean tradition and gains authority in the so-called *Sacred Account*, ascribed to Pythagoras but produced in the (late?) Hellenistic period (cf. [Pythagoras], *Sacred Account* in Prose fr. 7 = Hierocles, *In Aur. Vers.* 47, p. 165.12-19 Thesleff). On διακόσμησις more generally, see Schofield 2019.

²² For the mythologizing astrology, see frr. 88-103. For the geographical speculation, see fr. 88 = Plin. *HN* 6.33-4. On *Sphaera*, see further Reed in this volume.

²⁰ Test. 14 (Cass. Dio 45.1).

more representative of the Pythagorean kind of astronomy from the 1st century BCE is the account of Anonymous Photii, who focuses on how the motions of the bodies in the zodiac produce the cyclicality of the terrestrial year, along with some speculation about the size of the sun, and about the length of cycles of the moon and the planets Saturn, Jupiter, Mars, Mercury, and Venus²³—nowhere close to the elaborate astral and terrestrial mythography Nigidius himself undertook in *Sphaera*.

²³ Anonymus Photii (Phot. Bibl. Cod. 249, pp. 239.23-240.5 Thesleff): "Just as Aristotle, who sought to discover it, thought, [the Pythagoreans said that] the zodiac is moved obliquely for the sake of the generation of places in the region of the earth [that are] focused on complementing the universe. For if they were to be moved along a parallel latitude, there would always be one season of the year, whether summer, winter, or something else. But, as it is, the alteration of the four seasons is produced by the passage of the sun and the other planets, from constellation to constellation; and crops grow, and other generations of animals occur, owing to changes of these [sc. the seasons] one from the other. [The Pythagoreans said that] the sun is 100 times larger than the earth, just as he himself [sc. Pythagoras] expressed as his own opinion-another thing he says truthfully. But many people say that it [sc. the sun] is no less than 30 times [larger than] it [sc. the earth]. [The Pythagoreans] also said that the period of Saturn is the 'great year,' on the grounds that, of the six remaining planets, it [sc. Saturn] brings to a close its own course in more time [than the others], in 30 years; but Jupiter completes its own circuit in 12 years; Mars in 2 years; and the sun in 1 year; and Mercury and Venus have the same speed as the sun. The moon is closest [to the earth] and has the smallest cycle, in 1 month."

The second piece of evidence from this account relates to the sort of horoscopic prediction Nigidius is said to make. That Pythagoreans were able to make predictions is minimally attested by the contemporary sources: Anonymus Photii, again, attests to Pythagoras' ability to make predictions that come true²⁴, and Iamblichus (probably reporting a late Hellenistic, or later, account)²⁵ tells us of Pythagoras' teacher Abaris practicing bird-sacrifices to read the future from their entrails-a practice that Pythagoras allegedly adapted to the study of numbers, due to the latter's edicts against blood sacrifice.²⁶ Iamblichus' account is vague on this point, but we may speculate that he is referring to the numbers in the heavenly bodies. Beyond this conjecture, though, there is no evidence of Pythagoreans blending prediction with astronomy, that is, no evidence for Pythagorean astrology as such.²⁷ Let us recall that in the Cassius Dio passage, Nigidius tells us that Gaius Octavius' son Octavian cannot be destroyed, because "it is impossible for him to suffer such a thing." Like the description of Nigidius' cosmos, discussed above, this is an addition to the story supplied by Cassius Dio, which is not present in the more skeletal account of Suetonius. Note here in particular the terminology pointing to Stoicism: ἀδύνατόν ἐστι τοιοῦτόν τι αὐτὸ παθεῖν. The implication is that Octavian is incapable of the "suffering" or "affection" ($\pi\alpha\theta\epsilon$ iv) associated with "destruction" ($\delta\iota\alpha\phi\epsilon$ i $\rho\alpha\iota$)

²⁴ Anonymus Photii (Phot. Bibl. Cod. 249, p. 238.11-18 Thesleff).

²⁵ Cf. Zhmud 2016: 458-61.

²⁶ [Pythagoras], Oratio ad Abaridim (Iambl. VP 90-3 and 147, p. 169.5-16 Thesleff).

²⁷ Contrast the Stoics, for whom various theories of prediction via divination are attested (for a collection of sources, see Inwood 2022: 23-7).

because he was born under a certain set of signs in conjunction.²⁸ Again, just when things get philosophical in Dio's account, the language and the conceptualization point in the direction of Stoic astrology, rather than Pythagorean astronomy.

Cassius Dio's reference to Nigidius Figulus being charged with "practicing forbidden arts" is a curious claim, but it does help to explain why Jerome referred to him as a "magus" who "die[d] in exile" (*in exilio moritur*)²⁹, as well as a comment in ps.-Cicero's *Invective against Sallust*, in which the *sodalicium* of Nigidius is marked as a den of sacrilege.³⁰ It is possible, although it cannot be confirmed, that Nigidius was exiled in accordance with the *Lex Cornelia de sicariis et veneficiis*, as James Rives has discussed.³¹ Be that as it may, Cicero's description of Nigidius as an exemplar of natural philosophy ($\varphi \upsilon \sigma \iota \kappa \delta \varsigma$) can also be detected in Lucan's vivid presentation of Nigidius in the first book of the *Pharsalia*, where the hierophant clothes a mixed hypothetical syllogism in the garb of a cosmic prediction:

²⁸ Octavian/Augustus was born on 23 September 63 BCE, with the sun in Libra and the moon in Capricorn. He promoted Capricorn as his symbol, despite the fact that it was not his sun sign. ²⁹ Test. 8 = Jer. *Ab abr*. 183.4 Helm.

³⁰ Test. 11 = [Cic.] *In Sall*. 5.14: *in sodalicium sacrilegii Nigidiani*. It is possible that association with P. Vatinius colored Nigidius' alleged Pythagoreanism.

³¹ Rives 2006: 63-4. There are problems with this hypothesis, though, as emphasised by Volk (2019: 263 n. 79, following Santangelo). Moreover, regardless of the actual legal mechanism used to exile Nigidius, it can be inferred from Cic. *Fam.* 4.13 that his siding with Pompey against Caesar played a major role in his exile.

But Figulus, whose study it was to know the gods and the secrets 640 Of heaven, whom Egyptian Memphis could not equal in observation Of the stars and the numbers that motivate the stars, said: "Either this cosmos wanders forever with no law, And the stars dash to and fro without a fixed movement, Or, if the fates put them into motion, ripe destruction 645 Is set for the City, and for humankind. Will the land cleave And the cities collapse therein? Or will ardent air abolish The moderate climate? Will earth, faithless, refuse us crops? Will every source of water be polluted with streams of poison? You on high, what kind of disaster do you prepare? And through what Sort of ruin, your fury? For many, the ends of days are in conjunction, 650 Towards a single moment. If Saturn, harsh and frigid planet, Had kindled her black flames at the summit of heaven, Aquarius would have cascaded the rains of Deucalion Down, and the whole earth clouded in universal flood. If you, Phoebus, were now to strain the savage Nemean lion 655 Under your rays, flames would deluge the whole cosmos, And the ether, caught fire, be consumed by your chariot. Such fires hold off, for now. Mars, you who kindle the Scorpion Snarling with ardent tail, you who inflame its claws, What are you planning in all this? For pliant Jupiter 660 Is pressed far below the horizon, profit-granting Venus

Lies exhausted, and swift-footed Mercury is detained: Mars alone owns the sky. Why have the constellations Forsaken their courses? Why borne darkly in the cosmos, Whilst the flank of sword-girt Orion outshines them? 665 The frenzy of war is upon us, and the power of the sword Will overthrow all righteous law, and the name 'virtue' Will refer to impious atrocity, and this madness will continue For many years. What use to entreat those on high to end it? Such is the peace that attends a master. Protect the chain 670 Of evils a little longer, dear Rome, protract the calamity For centuries: only in civil war shall you be free."³²

Within the economy of the poem, Nigidius is brought forward as the counterpart to the Etruscan heptoscopist Arruns, each interpreting the signs given in the sky, and on the earth, respectively. But it is interesting to note how Arruns' analyses of the bull's liver, lung, and heart are contrasted with Nigidius' prediction: the priest Arruns' brief speech is marked by ambiguity, as the narrator himself says³³, whereas Nigidius speaks scientifically, using syllogistic, just like a natural philosopher would. Either the cosmos is lawless and there is no determination in the stars' movement, or if it is subject to fate, then the city of Rome and humankind will suffer destruction. But it is not the case that the cosmos is lawless (this is not expressly stated, but it is

³² Test. 15 (Luc. 1.639-72). On this text, see further Celotto in this volume.

³³ Luc. 1.636-37: flexa sic omnia Tuscus / inuoluens multaque tegens ambage canebat.

implied by the phrase in lines 650-1, "For many, the ends of days are in conjunction, / Towards a single moment"). Hence, the city of Rome and humankind will suffer destruction. After presenting the syllogism, Nigidius ruminates on the way in which destruction will take place: earthquake, or climate change, or famine, or ruined water supply? By what means will Jupiter effect fate? After all, he says, many people's fates are already determined, as can be seen in the heavenly signs. Nigidius returns to the syllogistic in order to explain how such destruction might occur via the risings and fallings of the heavenly bodies, with two arguments: if Saturn had risen to its zenith, the mode of destruction would be flooding; and if the sun were in Leo, there would be cosmic conflagration. But these have not happened; no, Mars stands alone in the sky. Hence, according to Nigidius, the destruction is to come from war, which will overturn the law of nature itself.

This last comment, of course, is anathema to a committed Stoic, or equally to a Pythagorean. But the context for Nigidius' prediction is decidedly Stoic, not Pythagorean. Consider the famous phrase from Book 1 of Nigidius Figulus' *On the Gods*: "still, when we seek to know what it means 'to live in accordance with nature."³⁴ Nonius quotes this passage from what is surely early on in Nigidius' *On the Gods*, in order to attest to Nigidius' idiosyncratic spelling of *obsecundanter*, but what interests us is the reference to "following nature." The lacunary quality of the statement affords us the opportunity to investigate what the "nature" is that we are to live in accordance with in our philosophical enquiry. The last part of this paper will turn to Nigidius' peculiar way of thinking about nature as embedded in the natural

³⁴ Fr. 66 (Non. p. 147): cum autem, id quid sit, quaerimus, obsecundanter naturae uiuere.

cosmology I have attempted to outline above, in order to determine how his ideas about natural language correspond to his cosmology.

Nigidius on Nature and Natural Language

The most informative single piece of evidence concerning Nigidius Figulus' views on nature comes from Aulus Gellius, who himself was curious about philosophers and philosophical questions, having been the student of the Platonist Calvenus Taurus.³⁵ Indeed, Gellius preserves a striking account of Nigidius' theory of natural language:³⁶

Publius Nigidius in his *Grammatical Notes* teaches that nouns and verbs were formed, not by a chance use, but by a certain power and design of nature, a subject very popular in the discussions of the philosophers; for they used to inquire whether "words are by nature" or "by convention." Nigidius employs many arguments to this end, to show that words appear to be natural rather than arbitrary. Among these the following seems particularly neat and ingenious: "When we say 'you' (*uos*)," says Nigidius, "we make a movement of the mouth suitable to the meaning of the word; for we gradually

³⁵ For Taurus, see Petrucci 2018: 1-19.

³⁶ A detailed study of Nigidius Figulus' naturalistic philosophy of language and grammar is Garcea 2019. See also Garcea in this volume on the transmission of the *Commentarii grammatici*. For a broader discussion of problems in naturalistic philosophy of language, focused on Lucilius, Trypho, and the Stoics, see Chahoud 2019: 56-63.

protrude the tips of our lips and direct our breath and soul towards those with whom we are speaking. But on the other hand, when we say 'us' (*nos*), we do not pronounce the word with a projected and directed impulse of the voice, nor with the lips protruded, but we constrain our breath and our lips, so to speak, within ourselves. The same thing happens with the words 'you' (*tu*), 'I' (*ego*), 'to you' (*tibi*), and 'to me' (*mihi*). For just as when we agree or disagree, a movement of the head or eyes corresponds with the nature of the expression, so too in the pronunciation of these words there is a natural gesture, as it were, of the mouth and breath. The same principle that we have noted in our own speech applies also to Greek words."³⁷

Gellius sets the stage: Nigidius sought to insert himself into the classic debate with other philosophers, which we can trace back as far as Democritus, about whether language is by nature or imposition.³⁸ The indication that language "follows nature" is that when we speak pronouns that are other-directed, our lips and our lungs project our breath outwards, towards the persons being addressed; but when we speak of ourselves in pronouns, our mouths revert inwards,

³⁷ Fr. 41 (Gell. *NA* 10.4.1-4).

³⁸ Democr. D202 and D205 Laks and Most (if these are rightly assigned to Democritus of Abdera); Pl. *Cratyl.* 383a-384e. For the idea that the shape of words is owed to the movement of the instruments of speech, see Pl. *Cratyl.* 426c-427d. The debate between language by nature or imposition is complicated in later periods, from (at the earliest) the Hellenistic period onwards. For a good overview of the question, see Pezzini and Taylor 2019: 1-9.

retaining our breath.³⁹ Similarly, gestures accompany language, especially interjections such as "yes" or "no," and this can be observed among speakers of Latin or Greek. Hence, at least among non-barbarians, these traits are universal. Now if we compare this example with Stoic theories of etymology, for which they were of course famous, there are some important connections to be drawn.⁴⁰ The most general account comes from Origen, who explains that the Stoics believe names are by nature, "since the initial verbal utterances imitate the things for which they are names, and accordingly they introduce certain elements of etymology."⁴¹ In Cicero's *De natura deorum*, the Stoic Balbus more acutely describes the process of articulating speech:

³⁹ Or, as Garcea explains more technically (2019: 82): "This indeed shows that words are motivated by nature, since the signifier establishes with its *denotatum* the same relation that a specific articulatory feature has with the same *denotatum* and this correspondence is supposed to prove the truthfulness of the denominations." There are many examples of Nigidius' etymologization, of which I only mention one as representative, fr. 71 (*Schol. Bern. in G. Verg.* 1.498): "Some, among them Nigidius, say that all gods are called 'holinesses' (*indigites*), because they are whole (*nullius indigent*)."

⁴⁰ On the Stoic origins of language and etymology, see Allen 2005.

⁴¹ Origen, C. Cels. 1.24 = SVF 2.146: ἐμπίπτει εἰς τὸ προκείμενον λόγος βαθὺς καὶ ἀπόρρητος, ὁ περὶ φύσεως ὀνομάτων, πότερον, ὡς οἴεται Ἀριστοτέλης, θέσει ἐστὶ τὰ ὀνόματα ἢ, ὡς νομίζουσιν οἱ ἀπὸ τῆς Στοᾶς, φύσει, μιμουμένων τῶν πρώτων φωνῶν τὰ πράγματα, καθ' ὦν τὰ ὀνόματα, καθὸ καὶ στοιχεῖά τινα τῆς ἐτυμολογίας εἰσαγουσιν. For a useful discussion of this theory, see Allen 2005: 16-18.

Now if you pay close attention, you will understand how incredible the practice of speech is, devised with such skill by nature. For, in the first place, an artery extends all the way from our lungs to the back of our mouth, through which the voice, taking its origin from the mind, is caught and issues forth. Next, the tongue is situated in the mouth and constrained by the teeth; it shapes and gives definition to the voice, which had been issued forward inarticulately, and it produces vocal sounds that are distinct and controlled when it strikes the teeth and the other parts of the mouth.⁴²

Balbus' description of the natural production of language corresponds strongly to Galen's account of Zeno of Citium's description of how language ($\lambda \delta \gamma \circ \varsigma$) develops ultimately out of our thought ($\delta \iota \alpha v \circ \iota \alpha$), proceeding from the lungs near the heart through the pharynx.⁴³ Hence, Balbus' description is not especially innovative here. What Balbus adds, and what is not in

⁴² Cic. *Nat. D.* 2.149.

⁴³ Gal. *De Plac. Hipp. et. Plat.* 2.5 (V.241K) = *SVF* 1.148. The Zeno passage states: φωνὴ διὰ φάρθγγος χωρεῖ. εἰ δὲ ἦν ἀπὸ τοῦ ἐγκεφλάλου χωροῦσα, οὐκ ἂν διὰ φάρυγγος ἐχώρει. ὅθεν δὲ λόγος καὶ φωνὴ ἐκεῖθεν χωρεῖ. λόγος δὲ ἀπὸ διανοίας χωρεῖ. But Galen has already explained (2.4, V. 231K.) that the origin of vocal sound is in the lungs: οὕτω γάρ, οἶμαι, καὶ τὸν πνεύμονα καὶ τὴν τραχεῖαν ἀρτηρίαν ἀρχὴν τῆς φωνῆς ἐροῦμεν, ὡς ἐγγυτέρω γε ταῦτ' ἐστι τῆς καρδίας τοῖς φωνητικοῖς ὀργάνοις.

Galen's testimony on Zeno,⁴⁴ is the reason why language develops in this way: it is in accordance with nature's design that it does so.⁴⁵

By contrast, in the Pythagorean arguments concerning the origins of language, the assumption is that language was formed not by nature, but by assignation or imposition. Scholars sometimes refer to the famous early Pythagorean *akousma* or *symbolon*, "What is wisest? Number. The giver of names to things is second [wisest]" (τί τὸ σοφώτατον; ἀριθμός· δεύτερον δὲ τὸ τοῖς πράγμασι τὰ ὀνόματα τιθέμενον), in order to connect Pythagoreanism to Nigidius.⁴⁶ But the *akousma* taken on its own does not seem to refer to nature at all—it refers instead to a primal namegiver, and not just anybody who sounds out a word through his mouth. Similarly, the roughly contemporary Pythagorean texts betray no evidence of assignation of names by nature. For example, Ps.-Euryphamus explicitly associates name-giving with the divine (possibly God, possibly another deity), who "assigned names to things according to their character" and "discovered letters, too, furnishing them as a treasury for memory," as well as "imitat[ing] the cosmic arrangement (διακόσμασις) of the universe, [and] harmonizing the community of cities with justice and law."⁴⁷ No nature is mentioned here, and certainly no reference to natural

⁴⁴ Or, for that matter, in the locus originis for these passages, Pl. Soph. 263e.

⁴⁵ See also Cic. *Nat. D.* 2.128: *perpetuatis causa machinate natura est.*

⁴⁶ Cited at Iambl. VP 82.

⁴⁷ [Euryphamus], *De uita* fr. 1 (Stob. 4.39.27, pp. 85.15-87.19 Thesleff): διὸ καὶ ὀνύματα μὲν ἔθηκε τοῖς πράγμασι, χαρακτῆρι αὐτῶν ἑπόμενος, ἀνεύρετο δὲ καὶ γράμματα, θησαυρὸς τῷ μνάμῷ παρασκευσάμενος, ἐμιμάσατο δὲ καὶ τὰν τῶ παντὸς διακόσμασιν, δίκαις τε καὶ νόμοις

expression of words through the organs of speech. Ps.-Archytas all but omits discussion of names in his influential *On the Universal Logos/On the Ten Categories*,⁴⁸ leaving out the analysis of homonyms and polyonyms that marks the beginning of Aristotle's *Categories*.⁴⁹ In another work of ps.-Archytas, *On Wisdom*, we witness the same commonplace concerns over how speech was developed, but again without any appeal to nature:

The human has been born the wisest by far of all the animals. For he has the capacity to contemplate the things that are, and to obtain knowledge and wisdom concerning all of them. Wherefore the divine too engraved in him the system of universal reason, in which all the kinds of being have been distributed, as well as the meanings of nouns and verbs. For a seat for vocal speech has been assigned—pharynx, mouth, and nostrils. But just as the human has been born as an instrument for speech, through which nouns and verbs are signified through being imprinted, so too has he been born as an instrument for thought,

κοινωνίαν πολέων συναρμοξάμενος. On whether this was God or some human, see Pythagoras' speech in Iambl. *VP* 56-57.

⁴⁸ This is the beginning of the work ([Archytas], *De Ratione Universali/Categoriae Decem* p. 22.6-31 Thesleff): "on the topic of the universal *logos*, I will attempt to write [statements] that man may use in interpreting things and recognizing accurately the things that are. I for my part declare that *logos* is what is composed of thinking and speech; what is signified is thinking, whereas what signifies is speech; what are signified are, universally, ten, and what signify are equal in number to these."

⁴⁹ Arist. *Cat.* 1, 1a1-15.

in which the things that are are seen. It seems to me that this is the function of wisdom, for which the human has both been born and constituted, and [for which] he obtained his instruments and powers from God.⁵⁰

A brief glance at this passage reveals the deep differences between Nigidius' account and that of ps.-Archytas. The latter's praise of man seeks to emphasize the binary aspect of the characteristically Pythagorean "system of universal logos" (τὸ τῶ παντὸς λόγω σύσταμα)---that being in its polyvalence, as well as the meanings of nouns and verbs, were primevally divided up and distributed in kind and imprinted into the souls of humans by God, just as they are now imprinted by humans outside themselves by way of the instruments of speech, which God also fashioned for humans. All of this indicates the consistency that obtains in the system of universal logos-which of course means both "reason" and "speech" here. And it is in the service of wisdom that humans were born and provided instruments to articulate rude sound to one another, in imitation of God. The language is broadly Aristotelian throughout, and the concepts are the typical blend of Platonic and Pythagorean that one would expect from the pseudepigrapha. There is not a single reference to "nature" here, not even the kind of "nature" that is represented by Aristotle with the phrase "the for the sake of which", that is, the final cause, or the function, of a species. It is as if ps.-Archytas is *deliberately* avoiding references to the term "nature." And if the Pythagoreans eschewed discussion of nature in their philosophy of language or cosmology,

 ⁵⁰ [Archytas], *De Sapientia* fr. 2 (Iambl. *Protr.* pp. 18.23-19.11 Pistelli, p. 44.5-15 Thesleff).
 Generally on ps.-Archytas' *On Wisdom*, see Horky 2015.

one might conjecture, it is because they had anxieties about their philosophy being confused or associated with Stoicism.

Where does all this leave Nigidius Figulus? What remains of his views on cosmology and the philosophy of language has very little to show for its alleged Pythagoreanism. Rather, Nigidius looks to be what one might describe as *charismatically*, rather than *characteristically*, Stoic—one of those next-generation Stoics who had at their disposal, and perhaps felt completely overwhelmed by, the accretions of Stoic philosophy that had come before. It may be that further analysis of his fragments would show that Nigidius Figulus is quite in line with the sort of Stoicism advanced by Posidonius in particular—an eclectic sort of Stoicism, which took its roots from the great fathers of old Zeno and (especially) Chrysippus, with their commitments to theology and cosmology, but also found space for scientific analysis of astronomy (including astrological divination), meteorology, cultural geography, and zoology.⁵¹

It is easy to explain away the references to Nigidius' Pythagoreanism in Jerome and the Scholia Boboniensa *Against Vatinius* as late sources that read into Nigidius' alleged skirmishes with the law a kind of occult, sacrilegious Pythagoreanism; but that does little to explain Cicero's own association of Nigidius with Pythagoreanism, which emphasizes his natural philosophy. To

⁵¹ Comparable accounts of divination in Posidonius worth investigating would include frr. 106-113b Edelstein-Kidd, but I do not have space to investigate these connections here. For Posidonius' naturalistic theory of language, see Verlinsky 2019, although he does not consider Posidonian divination in his analysis. Another Stoic who was interested in a topic of importance to Nigidius was his contemporary Attalus, who advanced brontoscopic theories that were ultimately directed towards ethics (see Inwood 2022: 155-6)

be sure, a straightforward reading of Cicero's text merely indicates that Nigidius' careful study of nature is what made him distinctly Pythagorean—and with this we could speculate that even a Stoic such as Zeno, who wrote a work called *Pythagorica*, might have agreed.⁵² But that is a weak line of argument, because we know nothing of what Zeno had to say concerning Pythagoreanism. Beyond that tenuous connection between Stoicism and Pythagoreanism, we are left with our own imaginations to fill in the lacunae. I offer this caution as we proceed to do so: when we place Nigidius Figulus in the context of what survives of Pythagoreanism for the period of the 2nd century BCE until the 1st century CE, it emerges that he is less likely a custodian of the purported archaic Pythagorean practises from Sicily and Italy, as Cicero painted him, and more likely the exception that proves the rule in Pythagoreanism.⁵³ Perhaps it is best to move away from this comparison, in spite of our ancient sources that call him a Pythagorean, and consider him in relation to his closer kind, the Stoics.

⁵² Diog. Laert. 7.4 = SVF 1.41.

⁵³ There is of course one exception here, the so-called school of the Sextii (including Sotion of Alexandria). For Q. Sextius the Elder considered himself a Pythagorean, whilst Seneca the Younger considered him a Stoic (Sen. *Ep.* 64.2-5). But all evidence suggests that Sextius postdates Nigidius, and it remains to be argued that there are any *specific* parallels between Nigidius' and Sextius' philosophical views (or those of his students, e.g., Sotion of Alexandria).