Logic

Ibn Sīnā inherited Greek and Arabic Aristotelianism and turned it into a new synthesis with a new conceptual vocabulary. Translation lay at the heart of this process. In the eleventh century, Ibn Sīnā wrote in dialogue with both the philhellenic commentary tradition and the Arabic tradition of thought about language. Where the Baghdad School of Aristotelian philosophers had claimed that logic enabled them to dispense with Arabic grammar (see my article with Peter Adamson),[1] and al-Fārābī had tended to use calques of Greek words (Zimmermann argues persuasively that he did so deliberately),[2] Ibn Sīnā chose to write Arabic with all the challenges and rewards such a decision entailed. He was faced with Aristotle in Arabic and translation choices made by other scholars. The Arabic conceptual vocabulary he developed gave him the tools to rethink human cognition, logical process, and the role of God.

IBN SĪNĀ BETWEEN GREECE AND THE WEST

Greece in the Arabic Eleventh Century

Ibn Sīnā was an Aristotelian. He was certain that he was engaged in the same intellectual project as Aristotle, and he structured his most comprehensive philosophical work, *aš-Šifāʾ* (*The Cure*) as a summa of the *Organon.* Aristotle had died over a millennium before Ibn Sīnā wrote *aš-Šifāʾ,* and across those centuries

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1. Key and Adamson (2015).

2. Zimmermann (1981, cxxix–cxxxvii).

Aristotle's logical works, and more, had been curated into a single set of treatises understood as a tool (*organon*) for intellectual activity. Ibn Sīnā followed this commentary tradition. *Aš-Šifāʾ* starts with Porphyry's (d. 305) introduction to logic the *Eisagoge,* and then Aristotle's *Categories, De Interpretatione, Prior Analytics, Posterior Analytics, Topics, Sophistical Refutations, Rhetoric,* and *Poetics.* In all these cases *aš-Šifāʾ* is not a line-by-line commentary but rather a book-by-book analysis and reworking of Aristotle, al-Fārābī, and Aristotle's Greek and Arabic commentators. Ibn Sīnā saw himself "as a conscious reformer of the Aristotelian tradition,"[3] and after *Poetics* he stopped following the inherited Aristotelian order. *Aš-Šifāʾ* continued with Aristotle's *Physics, On the Heavens, De Generatione et Corruptione, Chemistry* (*Meteorology*), *Meteorology, On the Soul, Botany,* and *Zoology.* Then came mathematics with Euclid's (fl. 300 B.C.) *Elements,* Ptolemy's (d. 168) *Almagest,* Nichomacus's (d. 120) *Introduction,* and Ptolemy's *Harmonics.* Finally, closing out *aš-Šifāʾ* was Ibn Sīnā's own *Ilāhīyāt,* which took the theological and epistemological promise of Aristotle's *Metaphysics* and completely reworked it into a new Islamic philosophical synthesis.[4]

The benefit of writing out these titles here is that it forces the reader to remember just how much Greek there was in the Arabic eleventh century. This may come as a surprise when we consider the ways in which ar-Rāġib and Ibn Fūrak, the subjects of the previous two chapters, worked to understand and describe the world and mankind. They both knew the Greek was there, but their Islamic theology had the confidence to, for example, disagree with Democritus about atoms. Ar-Rāġib was opposed to any non-Islamic account of God whatsoever, but at the same time his ethics often came straight from Aristotle and Neoplatonism. Ar-Rāġib's claim that the physical act of doing things was central to both ethics and the purification of the soul is self-evidently both Aristotelian and Neoplatonic. Ibn Sīnā's account of the same process was very similar indeed; and his "with reason and revelation" was also one of ar-Rāġib's favorite ethicoepistemological slogans.[5] What we have in the eleventh century is a combination of Islamic theology and Arabic philosophy in which there is complete overlap at some points and total divergence at others. (For a paradigmatic example of the process, see Everett Rowson.)[6] Sometimes these two disciplines used the same Greek texts, and sometimes their wholly different approaches to the divine, the world, and humanity used completely separate epistemological resources. When we read Ibn Sīnā with a focus on

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3. Gutas (1988, 115).

4. For details of these contents: Gutas (1988, 103f, 270f).

5. عقلًا وشرْعًا. Gutas (1988, 71), Ibn Sīnā (1952b, 196.17), Key (2011, 301–2).

6. Rowson and al-ʿĀmirī (1988).

the core conceptual vocabulary of *maʿnā* and *ḥaqīqah,* it brings to the forefront those moments when he was part of the conversation about language along with ar-Rāġib and Ibn Fūrak.

The Arabic Eleventh Century and the West

From our standpoint today in the twenty-first-century Anglophone and European academy, the historical genealogies of conceptual vocabulary go in more than one direction. It is not just the case that the Arabic reception of Greek philosophy moved into Europe through Ibn Sīnā, Ibn Rušd (Averroes, d. 1198), and others, or that Ibn Sīnā himself used Arabic translations of the same Greek texts we read today. There were also Roman and Christian traditions of thought about language that were accessed by European scholasticism yet were unavailable to Ibn Sīnā, despite their origins in the Middle East and Mediterranean. The works of Cicero (d. 43 B.C.), Varro (d. 27 B.C.), and Horace (d. 8 B.C.) were not available in Arabic. But there is little to be gained from pursuing of an account of influence or the lack thereof. Eleventh-century Arabic scholars and their predecessors moved and talked in ways that are not captured in the extant manuscripts. Furthermore, human beings are capable of having similar ideas in different places and at different times without this having been the result of a documentable transmission process. This is particularly true in relation to descriptions of languages and minds. Augustine of Hippo's (d. 430) theories of signification and epistemology, which famously helped Wittgenstein start *Philosophical Investigations* fifteen hundred years later, are one such case: they were not translated into Arabic at all.[7] But as Laurent Cesalli and Nadja Germann show, Augustine had a four-part map of signification that bears comparison to those found in the Arabic eleventh century. There were spoken words (*verbum*), spoken words that signified (*dictio*), intelligible contents (*dicibile*), and extramental objects (*res*). And there was a significant further component for Augustine: the sign (*signum*) that occurs "whenever something that sounds presents the mind with something to be cognized. . . . A sign is something which is itself sensed and which indicates to the mind something beyond the sign itself."[8] We find ourselves right back with Saussure, and it is much easier to sketch a genealogy of influence from Augustine to Saussure than it is to connect either to Arabic. All that we should say about the relationship between Augustine and eleventh-century Arabic is that they were playing different games with some of the same equipment. Furthermore, both the absence of Augustine from eleventh-century Arabic and the presence of Augustine in

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7. König (2013).

8. Cesalli and Germann (2008, 131–32).

fourteenth-century Europe are important reminders that what came after Ibn Sīnā in Latin was both more and less than Arabic.

Translation in Three Directions (Greek, Latin, and Persian)

Ibn Sīnā wrote in Arabic and Persian, and as he did so he cared about Greek. He was well aware of the schools and stages of translation from Greek into Arabic that had enabled him to access Aristotle's texts. Ibn Sīnā's work was subsequently translated into Latin by scholars who knew Greek and who, as we have just noted above, were also reading Latin that predated Ibn Sīnā. *Maʿnā,* the term with which I am concerned, is an Arabic word that sits in between Greek and Latin, fitting neatly into neither. What did people think it meant in Latin? In their magisterial *The Development of Logic,* which traces formal logic from ancient Greece to the English twentieth century, William and Martha Kneale discussed the twelfth- and thirteenth-century European controversies about the intellectual soul and the connections made between Aristotle's *De Anima* and his *De Interpretatione.* The Kneales wrote: "Thought, it was generally held, proceeds by means of *propositiones mentales* formed from natural signs in the soul, and here again Arabic influence was important in the detailed elaboration of the theory. In the Arabic of Ibn Sīnā . . . a form in the soul was identified with a *maʿnā,* i.e. a meaning or notion, and when Ibn Sīnā's works were translated into Latin, *maʿnā* was rendered in all contexts by *intentio,* which thus came to have in medieval epistemology the technical sense of 'natural sign in the soul.'"[9] What happened here was that scholars such as Albert the Great (d. 1280) and Thomas Aquinas (d. 1198), while engaged in a European project of making Aristotle (and Ibn Rušd) compatible with Christian doctrine, used Ibn Sīnā's Aristotelian synthesis, which itself had used the Arabic word *maʿnā.* The result was a piece of Latin conceptual vocabulary, *intentio,* that did Christian work in Europe as equipment for a different language game. From a twenty-first-century perspective, this translation history can cause serious problems for philosophers reading Ibn Sīnā, as Dimitri Gutas has noted in a short discussion of what he calls an "evocatively polysemic word": "The fact that this *maʿnā* was translated as *intentio* in medieval Latin, the starting point of many a misled scholar, does not mean *by itself* that the term means 'intention' in any sense."[10]

When Ibn Sīnā's *maʿnā* was translated forward in time and into the European Latin language game, it started to play a necessarily new and different role within that game's Latin conceptual vocabulary. What about when *maʿnā* was translated backwards? Or rather, what conceptual vocabulary in ancient Greek philosophy

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9. Kneale and Kneale (1962, 229).

10. Gutas (2012, 430).

became *maʿnā* in eleventh-century Arabic? Ullmann has already shown us how many of Galen's Greek words became *maʿnā* in the ninth century, and the array of options in the Arabic translation of *De Interpretatione* is indicative of the work *maʿānī* continued to do, and of the persistent problem of reading that work today in English: *pragmata, pathēma,* and *legō d' hoti!* First, we have an ancient Greek word for "things" (*pragmata*), which Aristotle used to refer to real objects. In the first chapter of *De Interpretatione,* J. L. Ackrill translates it as "real things." (Wolfson lists other occurrences.)[11] Next, a word for "passive emotion or condition" (*pathēma*), which Ackrill translates as "affections or impressions."[12] (The immediate Arabic translation was *āṯār,* but *maʿānī* were soon involved, as we will see below.) Finally, a phrase (*legō d' hoti*) that Aristotle used to express his authorial intent: "Now let me explain what I mean" (Harold Cooke; the phrase is elided by Ackrill).[13] Jon McGinnis, in an article on Ibn Sīnā's scientific method that looks forward to twentieth-century Anglophone philosophy of language and back to Aristotle, translates *maʿnā* as "certain (positive) accounts" and "intrinsic essential account."[14] (Cf. Gerhard Endress: "*maʿnā* ('Betroffenheit,' 'Intention') = *prâgma* 'Bedeutung.'")[15] John Wansborough has also noted the connection between the Greek word for "motif" or "theme" (*topos*) and the *maʿānī* of Arabic poetry.[16] It is clear that *maʿnā* in Arabic occupied a space that did not exist in Greek (just as it does not exist in English). Different games are played with different equipment.

The fact that *maʿnā* was used for this range of Greek meanings is evidence that it had a broad function in Arabic, and that it was a preexisting category in the conceptual vocabularies of the translators of Aristotle and his commentators, just as it had been a preexisting category in the translators of Galen. The question then becomes whether it developed specific, separate, technical functions in the Arabic vocabularies of the philhellenic philosophers and should be read as such, or whether it would be better to follow the practice established in the first five chapters of this book and read for a single stable usage. I would like to attempt the latter course; I think *maʿnā* was an Arabic word used for all kinds of Greek words across Aristotle, Galen, and more. *Maʿnā* in Arabic Aristotelianism is best looked at as a functional piece of equipment in the eleventh-century Arabic language game, and not as a series of distinct and incompatible alternatives.

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11. Arist. *Int.* 16a7–8. Aristotle (1963, 43), Wolfson (1976, 115 n. 12).

12. Arist. *Int.* 16a5. Aristotle (1948, 1:99.6, 10), (1963, 43).

13. Arist. *Int.* 16b7–8. Aristotle (1938b, 119), (1963, 44).

14. McGinnis (2008, 137, 138).

15. Endress (1986, 280), (1989, 133).

16. Wansborough (1967, 57).

The Arabic Aristotelianism of Ibn Sīnā used *maʿnā* to claim universal purchase on philosophy, regardless of the language in which it was written. At the end of his discussion of the first book of Aristotle's *Categories,* Ibn Sīnā noted that he was reading an account of the interface between language and thought that had been written in a language different from his own: "The Greek language uses a different convention here."[17] Ibn Sīnā had been reviewing Aristotle's third type of naming, *parōnuma* ("paronymous" for Ackrill, "derivatively" for Cooke), for which he gives the examples of "grammar" connecting to "grammarian" and "heroism" connecting to "hero."[18] Ibn Sīnā explained that what connects such names is a certain connection to a particular mental content, which can exist in the latter (eloquence exists in the eloquent person) or be for some work the latter does (the blacksmith, *ḥaddād,* works with iron, *ḥadīd*).[19] The variation in examples is a function of a millennium of translation and commentary. (The translation by Ḥunayn b. Isḥāq [d. 873] or his son Isḥāq b. Ḥunayn [d. 911] used by Ibn Sīnā is extant and has eloquence and bravery as the two examples.)[20] Ibn Sīnā goes on to explain how Arabic morphological changes to the vocal form can introduce variation in the mental content in different ways. (So a sword can be "Indian," *hindī* with the Arabic *nisbah* ending *-ī,* or it can be "an Indian-made sword," *muhannad,* in the form of the Arabic passive participle). He says this is specific to the convention of each different language, and ends with the remark about Greek I quoted above.[21] The Arabic translation of this passage of Aristotle did not use *maʿnā,* but Ibn Sīnā did, as had his predecessor in the Baghdad School of Aristotelian commentary, the Christian scholar al-Ḥasan Ibn Suwār (d. 1020).[22] *Maʿnā* was a useful word for discussions of comparative grammar in logic.

Elsewhere, in his Arabic commentary on *De Interpretatione,* Ibn Sīnā noted that Arabic Aristotelianism had established the Arabic "word" (*kalimah*) rather than "verb" (*fiʿl*) as a translation for the Greek "verb" (*rhēma,* on the translation of which see Ackrill).[23] Ibn Sīnā wrote: "Not everything that is a *fiʿl* in Arabic is a

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17. ‏وللیونانیات اصطلاحٌ آخر في الأمرَین‎. Ibn Sīnā (1959b, 17.13–14). On Ibn Sīnā's knowledge of Greek: Vagelpohl (2010, 260).

18. Arist. *Cat.* 1a12–15. Aristotle (1938a, 13), (1963, 3); Ibn Sīnā (1959b, 16.18–17.14).

19. ‏والمُشتقُّ له الاسمُ هو الذي لمّا كانتْ له نسبةٌ ما أيْ نسبةٍ كانت إلى معنئً من المعاني سواء كان‎ ‏المعنى موجوداً فيه كالفصاحة أو له كالمال أو موضوعاً لعملٍ من أعماله كالحديد‎. Ibn Sīnā (1959b, 16.18–20).

20. Aristotle (1948, 1:33–34), D'Ancona (2013, n. 55).

21. ‏فُعِلَ به فِعْلٌ آخَرُ یُوجِبه اصطلاحُ لغةٍ دون لغة‎. Ibn Sīnā (1959b, 17.5,12–14).

22. ‏قال الحسن بن سُوار یُحتاج في تمامِ المشتقّةِ اسماؤه إلى خمسة أشياء أنْ تكون لها شِركةٌ في الاسم‎ ‏وشِركةٌ في المعنى واختلافٌ في الاسم واختلافٌ في المعنى وأنْ یكون اسمُ أحدِهما مأخوذٌ من الذي منه اشُتقَّ‎ ‏الاسم‎. Aristotle (1948, 1:85 n. 24), Georr (1948, 371 n. 24).

23. Aristotle (1963, 118–20).

kalimah. For in Arabic, *amšī* ["I am walking"] and *yamšī* ["he is walking"] are both called *fiʿl,* but neither is unequivocally a *kalimah.* That is because the *a-* in *amšī* indicates a specific separate matter ["I"], as does the *-t-* in *mašaytu* ("I walked"). The statements "I am walking" or "I walked" can therefore be true or false."[24] Ibn Sīnā noted that the Arabic verb, which includes the subject as a prefix, is in effect a predication consisting of two terms, which can therefore be true or false. What matters for us here is Ibn Sīnā's combined clarity both about specific languages and about universal matters of logic such as predication.

Maʿnā was also available for Ibn Sīnā to use in his Persian logic as an Arabic loanword. This is not the place for an in-depth examination of the role of *maʿnā* in Persian philosophy, but suffice it to say that both *lafẓ* and *maʿnā* moved into New Persian along with a great deal of Arabic scholarly terminology around this time. As we know, Ibn Sīnā wrote a complete abridged philosophy in Persian at the request of the ruler of Isfahan, "apparently by translating into Persian sections that he had written earlier in Arabic" around 1027.[25] Vocal form and mental content are to be found there, just as they were in his Arabic logic.[26]

MENTAL CONTENTS IN IBN SĪNĀ'S CONCEPTUAL VOCABULARY

Maʿnā was a logical concept for Ibn Sīnā, and it was also the cognitive result of sensory input. Mental content is an unproblematic translation in both cases. *Maʿānī* were things in our minds that we do not sense directly; *maʿānī* such as the fear or enmity that one associates with a predator, or the sweetness that one associates with a yellow-colored substance thought to be honey.[27] In a famous example, Ibn Sīnā said that sheep see the shape and color of a wolf first, and then subsequently perceive a *maʿnā* of antagonism in the wolf that completes its form and leads them to be afraid and flee.[28]

24. وليس كلُّ ما يُسمّى في اللغة العربية فِعْلاً هو كلمةٌ فإنّ قولهم أَمْشِي ويَمْشِي فِعْلٌ وليس كلمةً عندهم
مطلقةً وذلك لأنّ الهمزة دلّت على موضوعٍ خاصٍ وكذلك التاء فصارَ قولُك أمشي أو مشيتُ صِدقاً أو كذباً. Ibn
Sīnā (1970b, 18.12–14). Re: Arist. Int. 16b6f.

25. The *Dānišnāme-ye ʿAlāʾī* (*Philosophy for ʿAlāʾ ad-Dawlah*). Gutas (1988, 118–19, 424–25).

26. Ibn Sīnā (1952a, 11).

27. ثم إنا قد نحكم في المحسوسات بمعانٍ لا نحسُّها إما أنْ لا تكون في طبائعها محسوسة البتة [مثل
العداوة] وإما أنْ تكون محسوسة لكنا لانحسها وقْتَ الحكم . . . مثلاً شيئاً أصفر فنحكم أنه عسل و حلو. Ibn
Sīnā (1959a, 166.5–7, 12–13). Cf. Black (2010, 74–75).

28. والفرْقُ بين إدراك الصورة وإدراك المعنى أنّ الصورة هو الشيء الذي يُدرِكه الحِسُّ الباطنُ والحِسُّ
الظاهرُ معاً . . . مثل إدراك الشاة لصورةِ الذئب أعني لشكله وهيئته ولونه . . . وأما المعنى فهو . . . مثل
إدراك الشاة للمعنى المضاد في الذئب أو للمعنى المُوجِب لخوفها إيّاه وهربها عنه. Ibn Sīnā (1959a, 43.5–12).

Late in the *Eisagoge,* when Ibn Sīnā was exploring Porphyry's statement that "species are more extensive than genera,"[29] he wrote: "The species exceeds the genus with *maʿnā,* for it contains the *maʿnā* of the genus and the *maʿnā* of the specific difference in addition." Whereas a genus is obviously more general than a species and therefore exceeds it ("animal" is more general than "human"), a species such as "human" nevertheless contains within it both the *maʿnā* of animal-ness (its genus) and the *maʿnā* of speech (its specific difference).[30] This is how the apparently counterintuitive statement that a species can exceed a genus is true: a species such as "human" includes within it both the *maʿnā* of the genus of which it is a part (animal) and the additional *maʿnā* (speech) that differentiates it within that genus. The word *maʿnā* is functioning just as it did in Ibn Fūrak's accounts of God, as a stable category that helped explain epistemological relationships without necessitating any fragmentation of the concepts under consideration.[31] This shared vocabulary between Islamic theology and Aristotelian logic helps frame Ibn Sīnā's remark, in his analysis of sensory input, that "it has been the custom to call what is sensed a 'form,' and what is estimated a '*maʿnā*.'"[32] *Maʿnā* was the Arabic word for the stuff of cognition: mental content. The fact that this translation of *maʿnā* causes fewer problems in Ibn Sīnā than it did in Ibn Fūrak tells us that our conceptual vocabulary today shares more with Arabic logic than it does with Islamic theology. It tells us nothing about the divisions and consensus that existed in the eleventh century; for that we will have read more of Ibn Sīnā.

Mathematical Origins

Greek texts first began to be translated into Arabic in the eighth century, and Gutas makes a persuasive case for an early focus on mathematical disciplines that enabled the "accounting, surveying, engineering, and time-keeping" of the caliphs who founded Baghdad and whose bureaucrats needed to know "arithmetic, geometry, trigonometry, and astronomy." Euclid's *Elements* (which would serve as a mathematics textbook until the nineteenth century in the West) was consequently translated at some point before 775.[33] Then, from around 830 to 870, the scholar

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Cf. Black (2010, 75), López-Farjeat (2016, 63–66).

29. Porph. *Eisagoge* 14.10f. Translation from Porphyry (2003, 14).

30. فالجِنسُ يَفضُل بالعُموم . . . والنَوعُ يَفضُل بالمعنى إذ يتضمّن معنى الجنس ومعنى الفَصْل زائداً عليه فإنه كما أنّ الحيوان يتضمّن بالعموم الإنسانَ وما ليس بالإنسان مما هو خارجٌ عن الإنسانية كذلك الإنسانُ يتضمّن بالمعنى معنى الحيوانية ومعنىً خارجاً عن الحيوانية وهو النُطق. Ibn Sīnā (1952c, 99.9–13). Cf. Thom (2016, 150).

31. Cf. Porphyry (2003, 261).

32. وقد جرتْ العادةُ بأنْ يسمّى مدرَك الحسّ صورةٌ ومدرَك الوهْم معنىً. Ibn Sīnā (1959a, 167.4–5).

33. Gutas (2004, 197–98).

known as the first Islamic philosopher, al-Kindī, was in a position to exploit the epistemological and rational potential of mathematics to work across all available fields of intellectual inquiry. Peter Adamson sketches the arc of a career that began with "the metaphysical and cosmological concerns typical of late Greek, Neoplatonizing Aristotelians" and then evolved into being "a practicing scientist and mathematician engaged in empirical research . . . more willing to . . . engage in criticism of the ancients."[34] Methodologically, for al-Kindī mathematics was everything. Gutas highlights the extreme nature of his rhetoric: "If number is removed, so also are the objects numbered." Adamson shows how, for example, his advances in optics and pharmacology relied on mathematical analyses, and Endress argues for a genealogical connection between the process of geometrical proof and the development of the syllogism.[35]

The knowledge that came from the Greeks was therefore always potentially associated with a certain kind of knowledge, the paradigmatic form of which was mathematics. This means that when al-Kindī stated his goal of reasoning the accurate accounts of things and achieving certainty through syllogistic proof,[36] the method he was envisioning to achieve that goal was via the numerical processes that Euclid had laid out, which he was engaged in applying to everything from metaphysics to music. Over a century later, the same honorific terms were being used in the eleventh century to describe the sort of certain knowledge that scholars like ar-Rāġib and Ibn Fūrak thought could be gained from revelation, or reasoning, or both. As noted above, for both Ibn Sīnā and ar-Rāġib, philosophy in the broad sense was the combination of thought and action (ʿIlm and ʿamal for both Ibn Sīnā and ar-Rāġib.)[37] As soon as philosophy moved into thought and action, one specific cognitive arena—language—that could be ignored in pharmacology or optics became unavoidable. When the subject matter of an intellectual endeavor moves from things to humans, language comes in along with the people. Both ar-Rāġib and Ibn Fūrak could comfortably accept the intrusion of language, in large part by not considering it an intrusion at all. For them, with hermeneutics and the divine revealed text always on the table as a source of certainty, the episte-

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34. Adamson (2007, 12).

35. أما عِلم العدَد فبيِّنٌ أنه أوّلٌ لجميعها [العلوم التي يحتاج الفيلسوفُ إليها] فإنَّ العدَد إنْ ارتفع ارتفعتْ المَعدودات. Adamson (2007, 161, 167), Endress (2002, 241–43), Gutas (2004, 202), al-Kindī (1950, 1:369.14–15, 370.6–8).

36. العقلُ جوهرٌ بسيطٌ مدرِكٌ للأشياء بحقائقها . . . العِلمُ وِجْدانُ الأشياء بحقائقها .. اليقينُ هو سكونُ الفهم مع ثباتِ القضية ببرهان. Al-Kindī (1950, 1:165.5, 169.1, 171.4).

37. وسَعادتُه بتكميل جوهره وذلك بتزكيته بالعِلم بالله والعَمَل لله. Gutas (1988, 71), Ibn Sīnā (1952b, 196.15). المعارف الحقيقية . . . لا تُحصَل إلا بزوالِ رجاسة النفس. Ar-Rāġib (1988a, 93.6, 8). Cf. ar-Rāġib (1988b, chap. 23).

mological status of language was unquestioned (and the lexicographers benefited commensurately). But for Ibn Sīnā, the situation was very different. He knew and used the mathematical tools first identified in Arabic by al-Kindī, and his logical project was designed to fully integrate them into a set of empirical processes through which reason could start at the known and then arrive at the unknown. The epistemological promise of mathematics could not be ignored, but neither could the problem of language, nor the relationship of both mind and language to the extramental world.

Three Existences (triplex status naturae)

Ibn Sīnā's famous "threefold distinction of quiddity (*triplex status naturae* in Latin Europe),"[38] was built on a clear distinction between the world and the mind, albeit with terminology slightly different from that found in Ibn Fūrak and ar-Rāġib. For Ibn Sīnā, the external, extramental, world was one of matter (*māddah*) that really occurs (*qiwām*), and the mental world of cognition was one of conception (*taṣawwur*). Actual instances (*aʿyān*) could exist in either the extramental or the mental world. Ibn Sīnā's distinction between these two existences is clearest when he comes to discuss *māhiyah* (an established term by the eleventh century, derived from the Arabic word *mā* ["what,"] translated as "quiddity" or "what-it-is-ness;" in philhellenic philosophy it has roots in Aristotle).[39] Ibn Sīnā wrote that "the what-it-is-ness of things can be in either the actual instances of things, or it can be in the conception."[40] As Alexander Kalbarczyk has shown,[41] Ibn Sīnā had profitable access to Simplicius's (fl. sixth century) commentary on the *Categories,* in which Simplicius had distinguished between the mental way a subject is and the extramental way a thing is: "There is a great difference between 'as in a subject' and 'as in matter.'"[42] Ibn Sīnā took this and turned it into three new categories: what-it-is-ness can be considered in three ways: (1) as unrelated to existence in either actual things or in conception; (2) as in actual things with the accidents specific to that existence; (3) as in conception with the accidents specific to that existence.[43] The

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38. Bäck (1987, 365).

39. Arist. *Metaph.* 1029b21–23. See Cohen (2016), Endress (2002, 236).

40. ‏وماهيّات الأشياء قد تكون في أعيانِ الأشياء وقد تكون في التصوُّر‎. Ibn Sīnā (1952c, 15.1). Cf. Black (2010, 70–71).

41. Kalbarczyk (2012, 313).

42. Simpl. *In Cat.* 46.22–23. Michael Chase's translation with Kalbarczyk's "subject" for *hupokeimenōi* instead of Chase's "substrate." Kalbarczyk (2012, 316), Simplicius (2003, 61).

43. ‏فيكون لها اعتباراتٌ ثلاثةٌ اعتبارُ الماهية بما هي تلك الماهيةُ غيرُ مضافةٍ إلى أحدِ الوجودَين وما يلحقها مِن حيث هي كذلك واعتبارٌ لها مِن حيث هي في الأعيان فيلحقها حينئذٍ أعراضٌ تخصّ وجودَ ذلك واعتبارٌ لها مِن حيث هي في التصوّر فيلحقها حينئذٍ أعراض تخص وجودها ذلك‎. Ibn Sīnā (1952c, 15.1–5).

sort of accidents that attach to conceived things in the mind are "what-it-is-ness" and "accident," "subject" and "predicate." But out in the extramental world there is no such thing as an accident or a subject; the syllogism is in the mind, not in the world.[44]

What we are dealing with in Ibn Sīnā is a theory based on the process of conception, a process understood to happen in the mind. The mind is the location of the subject matter of logic: "Logic looks at things as predicates and subjects, universals and particulars,"[45] exactly those things that Ibn Sīnā knew did not exist in the extramental world. The stuff that is the result of conception is mental content: "Conception is the representation of the mental content of something in the mind."[46] This is where we find *maʿnā* in Ibn Sīnā: as the cognitive result of the process of conceiving of a thing, wholly separate from the question of whether or not it exists in the world. When he talks about conception (*taṣawwur*), he talks about the conception of mental content (cf. al-Fārābī).[47] Therefore, when he came to discuss the conception of being itself, which he had identified as the subject matter of Aristotle's *Metaphysics* as well as of his own, Ibn Sīnā used mental content to talk about existence: "We say that the mental contents of the existent, the thing, and the necessary are impressed upon the soul first, and this impression is not established on the basis of anything better known."[48] Mental content is primary, the first step in the cognition of anything. The components that make up our definitions, our meaningful conceptions of mental or extramental things, are *maʿānī*.[49]

This doctrine gives us clarity on the question of *maʿnā*. The mental contents are the stuff of conception, and conception is what happens when things exist in the mind. While Ibn Sīnā's actual instances can be in the mind or in the world, his conceptions and *maʿānī* can be only in the mind. In the work Gutas calls "his manifesto of the philosophical praxis as he came to formulate it later in his

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44. فإنه ليس في الموجودات الخارجة ذاتيّةً ولا عرضيّةً ولا كونَ الشيءٍ مُبتداً ولا كونه خَبَراً ولا مُقدَّمةً ولا قياساً. Ibn Sīnā (1952c, 15.7–8).

45. وكذلك صناعةُ المنطق فإنها ليستْ تَنظر في مفرداتِ هذه الأمور من حيث هي . . . بلْ من حيث هي محمولات ومَوضوعات وكلِّيّات وجُزئيات. Ibn Sīnā (1952c, 22.7–8, 10–11).

46. تمثَّل معناه في الذِهن. Ibn Sīnā (1952c, 17.8). Cf. Hodges (2011), (2016, 9–12).

47. Rudolph (2017, 605).

48. فنقول إنّ الموجود والشيء والضروريّ ومعانيها ترتسِم في النفس ارتساماً أوّلياً ليس ذلك الارتسامُ مما يُحتاج إلى أنْ يُجلَب بأشياء أعْرَفَ منها. Ibn Sīnā (1970a, 29.5–6).

49. فترتسِم حينئذٍ في العقل المعاني الأولى للمتصوَّرات ثم يُركَّب منها الحدود. Gutas (2012, 406), Ibn Sīnā (1938, 65.21–66.1). Ahmed's translation: "Thus, the primary meanings are imprinted in the intellect for [the process of] conceptualization. Then definitions are compounded out of them." Ibn Sīnā (2010, 135.24–26).

life"⁵⁰ (*Manṭiq al-Mašriqīyīn*), Ibn Sīnā wrote that "the subject matter of logic is the mental contents as they are placed for the composition that will enable them to help us attain something in our minds that is not yet there. The subject matter of logic is not the mental contents *qua* things that exist in actual instances such as substances, quantities, or qualities."⁵¹ Logic is therefore about mental contents in specific logical arrangements. It is not about those mental contents that are instances of the cognitive conception of substance or the quality of a substance. (Although the conclusions of a logical arrangement of mental content, the results of logic that were previously unknown, may be cognitive instances of substance or quality.)

Does this mean that the results of logic *only* apply in the mind? Twenty-first-century scholars of logic have indeed noticed that Ibn Sīnā's syllogistic is not necessarily always *de re* (about the thing in extramental reality). Paul Thom writes: "Ibn Sīnā's characterization of the subject of these [modal] propositions as standing for whatever it applies to, 'be it so qualified in a mental assumption or in external existence . . .' leaves open two ways to construe the propositions."⁵² The text that Thom uses here, from Ibn Sīnā's *al-Išārāt wa-t-Tanbīhāt,* states that with regard to "the predicative affirmation, for example 'the human is an animal,' the mental content of this is that the thing we suppose in our minds to be a human, whether or not it exists in actual instances, we suppose to be an animal."⁵³ So all that logic does here is take mental content and predicate mental content of it, with no necessary connection to the world outside. What sort of connection to the world outside did Ibn Sīnā envisage? He was surely not interested in a subjectivist or relativist rejection of extramental reality. And sure enough, back in *aš-Šifāʾ,* Ibn Sīnā talked about how mental contents could be congruent with actual existent things.⁵⁴ But even if we can settle our nerves with regard to the mind and its relationship to the world, what hangs in the background here is language.

Marks on the Soul (al-āṯār allatī fī an-nafs)

For Ibn Sīnā, the basic stuff of the cognitive process was conceived mental concept with a nonnecessary relationship to the outside world. But that same mental content could occur as a result of the noise of human language. Both Aristotle

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50. Gutas (1988, 34).

51. وموضوعُه المعاني مِن حيث هي موضوعةٌ للتأليف الذي تَصير به مُوصِلةً إلى تحصيلِ شيءٍ في أذهاننا
ليس في أذهاننا لا مِن حيث هي أشياءُ موجودةٌ في الأعيان كجواهر أو كمّيّات أو كيفيّات أو غير ذلك. Ibn
Sīnā (1982, 31.9–12).

52. Thom (2008), 366.

53. Ibn Sīnā and aṭ-Ṭūsī (1983–94, 1:271.8–10).

54. وذلك المعنى [الإنسان] مُطابِقٌ لِزَيدٍ وعمرو. Ibn Sīnā (1952c, 26.13).

and his translator into Arabic, Isḥāq b. Ḥunayn, started *De Interpretatione* by affirming the need to discuss the noun, verb, affirmation, negation, statement, and sentence.⁵⁵ Ibn Sīnā, on the other hand, started by restating that there are two kinds of existence. There are things outside in the world, and thanks to sensory faculties, humans are able to draw secondary fixed impressions of those extramental things in their souls. The resulting impressions are not dependent on the continued existences of the sensed objects in the world, and subsequent impressions may be purely cognitive events shorn of connection to any external sensible form. "For things have an existence in extramental instance and an existence in the soul where they constitute marks on the soul."⁵⁶

This vocabulary of marks or impressions on the soul came from Aristotle, who in the second sentence of *De Interpretatione* had introduced an influential epistemology of language, mind, and world: "Spoken sounds are symbols of affections in the soul, and written marks symbols of spoken sounds." And then while not all humans share a single language, "what these are in the first place signs of—affections of the soul—are the same for all; and what these affections are likenesses of—actual things—are also the same."⁵⁷ Isḥāq's Arabic translation reads: "What comes out in sound indicates the marks that are in the soul and what is written indicates what comes out in sound. . . . The things that sound indicates first are the soul's marks, and they are exactly the same for all, and the things of which the soul's marks are likenesses are the *maʿānī*, and they are also one for all."⁵⁸ Two conceptual vocabularies about language are meeting in translation, and in this tenth-century Baghdad moment a couple of interesting things have happened. The Greek token and sign (*sumbolon* and *sēmeion,* two nouns) have both become the Arabic process of indication (*dāllun,* an active participle). Deborah Black has observed that this process of indication connects all three parts of the language-mind-reality triad whereas al-Fārābī had restricted "indication" to the connection between language and mind. (And he followed Aristotle by connecting mind to reality with "likenesses.")⁵⁹

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55. Arist. *Int.* 16a1–3. Aristotle (1948, 1:99).

56. إنّ الإنسان قد أُوتِيَ قوةً حِسِّيّة ترتسِم فيها صُوَرُ الأمور الخارجية وتتعدّى عنها إلى النفس فترتسِم فيها ارتساماً ثانياً ثابتاً وإنْ غابَ عن الحسّ ثم ربما ارتسم بعد ذلك في النفس أمورٌ على نحوِ ما أدّاه الحسّ . . . فللأمُور وجودٌ في الأعيان ووجودٌ في النفس يُكَوّن آثاراً في النفس. Ibn Sīnā (1970b, 1.8–2.3).

57. Arist. *Int.* 16a3–8. Translation: Aristotle (1963, 43).

58. فنقول إنّ ما يَخرُج بالصوت دالٌّ على الآثار التي في النفس وما يُكتب دالٌّ على ما يَخرج بالصوت. وكما أنّ الكتاب ليس هو واحداً بعينه للجميع كذلك ليس ما يخرج بالصوت واحداً بعينه لهم إلا أنّ الأشياء التي ما يَخرج بالصوت دالٌّ عليها أوّلًا وهي آثارُ النفس واحدةٌ بعينها للجميع والأشياءُ التي آثارُ النفس أمثلةٌ لها وهي المعاني تُوجَد أيضاً واحدةً للجميع. Aristotle (1948, 1:99.6–11).

59. Black (2010, 69 n. 13). Cf. Ibn Sīna at note 46 above.

The second observation is that *maʿānī* have made an appearance as objects in concrete reality (*pragmata*). What exactly are the *pragmata*? Recent scholarship has read Aristotle as using the word *pragmata* for bearers of truth or falsehood, certain states of affairs that are the objects of our cognitive and semiotic processes.[60] Wolfson has noted that in late antiquity *pragmata* was the word used to describe each of the three parts of the Christian Trinity,[61] thereby taking us back to *maʿnā* in Ibn Fūrak, where it was a word used to negotiate both gap and overlap between human minds and the divine. When Aristotle gave examples in his *Metaphysics* for false objects, false *pragmata,* his examples were "the diagonal's being commensurable [always false, because not all diagonals are commensurable] or your being seated [sometimes false but sometimes true depending on whether you are in fact seated]."[62] It seems that for Aristotle the *pragmata* grounded cognition in a realm of actual fact, whether conceptual or extramental. Further discussion of Aristotle is, however, beyond my scope here. To return to Arabic, we could speculate that Isḥāq was thinking of Islamic theology, or the Christian Trinity, or even of a grounding for the relationship between mind and world when he translated *pragmata* as *maʿānī,* but it would be guesswork. What we can say is that this is the translation that Ibn Sīnā worked from.

When Ibn Sīnā read Aristotle in Isḥāq's translation, it presented him with a *maʿnā*-shaped problem. His Aristotle told him that there were *maʿānī,* and that humans had likenesses of them as marks in their souls. His Arabic conceptual vocabulary, on the other hand, pushed him in the direction of seeing *maʿānī* as the mental contents in human souls. His solution was elegant: "What comes out in sound indicates what is in the soul and is called a mark. What is in the soul indicates things that are called mental contents or intentions of the soul. Just as marks in the soul, by way of analogy to the vocal forms, are also mental contents."[63] Both Black and Heidrun Eichener have analyzed this solution to good effect, Black in the context of Ibn Sīnā and Ibn Rušd's theories of intentionality,[64] and Eichener in an excellent passage of analysis that compares the translations as I have done and notes correctly that what we are dealing with here is logic "zwischen Ontologie

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60. Ademollo (2015, 52–53), Crivelli (2004, 3f, 46f). Cf. David Larsen's discussion of Charles Sanders Peirce's theory of signs: Larsen (2007, 141).

61. Wolfson (1956, 4). See also chapter 2 note 95.

62. Arist. *Metaph.* 1024b18–21. My bracketed insertions into the translation from Ademollo (2015, 52).

63. فما يَخرج بالصوت يدُلّ على ما في النفس وهي التي تُسمّى آثاراً والتي في النفس تدُلّ على الأمور وهي التي تسمّى معانيَ أي مقاصدَ للنفس كما أنّ الآثار أيضاً بالقياس إلى الألفاظ معانٍ. Ibn Sīnā (1970b, 2.15–3.2).

64. Black (2010, 68–70).

und Epistemologie."[65] Riccardo Strobino also notes that the same word for "marks" reappears, when Ibn Sīnā deals with Aristotle's *Posterior Analytics,* as: "The attributes (*āṯār*) that are sought by demonstration to hold of the subject."[66] I would like to take a slightly different but complementary approach to explaining *De Interpretatione* in Ibn Sīnā.

On Ibn Sīnā's reading, the connection between the sounds of language and the human soul is a process through which impressions or marks are made on human souls. The connection between human souls and the world outside is a matter of mental contents. Ibn Sīnā said that these mental contents that connect the mind to the world could also be called "intentions of the soul," and this fits with the pragmatic relationship established in the previous chapters between mental content and what we want to say, our intent, our expression of the content of our souls. (It also gives an alibi to the Latin translators and their *intentio,* albeit no translations of Ibn Sīnā on *De Interpretatione* are recorded as having been made.)[67] I will return to intent in what follows. The soul therefore contains intentions, and it contains mental contents that connect to the world outside (although, as we have seen, the connection to the world outside is not a necessary one). The remaining problem for Ibn Sīnā is that his account of cognition in the soul now has three components: intentions, mental contents, and marks. The compatibility of intentions and mental contents is not a problem in Arabic. But Aristotle's marks have to be integrated, and Ibn Sīnā does this characteristically with an analogy (or perhaps even a rough Barbara syllogism in which > stands for "connect to"):

marks in the soul > sound	A > B
sound (i.e., vocal forms) > mental contents in the soul	B > C
marks in the soul are mental contents in the soul	A = C

As he put it: "The marks in the soul are also, by way of analogy to the vocal forms, mental contents." The autochthonous Arabic pairing of "vocal form" and "mental content" had already been used by Isḥāq to translate Aristotle (as noted by Eichner).[68] But here that Arabic pairing is doing a little more than providing a parallel; it is the framework on the Arabic side that actually enables Ibn Sīnā to translate Aristotle's concepts into Arabic (in the second line of the syllogism above). The Arabic assumption about signification, when placed in the syllogistic structure of demonstrative logic, is able to do what Ibn Sīnā wanted and effectively move one conceptual vocabulary into another.

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65. "Between ontology and epistemology": Eichner (2010, 211–16, esp. 212).

66. Strobino (2016, 192, 206).

67. Bertolacci (2011, 48). Cf. Black (2010, 68).

68. Eichner (2010, 236).

Was this Ibn Sīnā's own idea? It seems likely. We do not know for sure which commentaries on *De Interpretatione* were available to him. The famous Baghdadi bibliographer Ibn an-Nadīm (d. 990) tells us that copies of commentaries by Alexander of Aphrodisias (fl. 200), Galen (d. 200), Porphyry (d. 305), Iamblichus (d. 325), and Proclus (d. 485) were available in Arabic then,[69] but they are not available to us now in Greek, Arabic, or Latin. Other works from that millennium between Aristotle and Ibn Sīnā that are available contain what could have been valuable resources, notably Stephanus's (fl. 6th–7th century) discussion of the relationship between sounds and thoughts as an analogy,[70] and Boethius's (d. ca. 524) long analysis, which states that the three fundamental components of speech are things, thoughts, and spoken sounds, and asks why Aristotle didn't simply call the "affections in the soul" thoughts. (Boethius suggests an affective relationship between the thing and the mind that bears some resemblance to the way *maʿnā* worked for Ibn Fūrak,[71] but we are in the realm of anachronistic guesswork just by bringing up such a resemblance; for while Boethius relied heavily on Porphyry's commentary on *De Interpretatione,*[72] which may have been available to Ibn Sīnā, there was no direct transmission of the Latin work Boethius did into Arabic.)[73]

For the commentary tradition, and that includes Ibn Sīnā, the opening of *De Interpretatione* was a moment to settle this question of words, things, and thoughts. It provided those working through the *Organon* in the traditional order with clarity after the equally traditional confusion about the subject matter of *Categories,* where Aristotle's readers asked whether he was talking about categories of words or categories of things. This was a long debate, and this is not the place to review it. (See the brief discussion in Adamson and Key, a much more detailed review in Bäck, and the foundational article by Sabra.)[74] Suffice it to say that Ibn Sīnā took a terse approach to the debate: Aristotle had not been thinking independently when he wrote the *Categories;* he had simply been imitating his predecessors.[75] Ibn Sīnā did not use Aristotle's ten categories (substance, quantity, quality, relation, place, time, position, possession, action, being acted upon), but rather the five universals of Porphyry's *Eisagoge* (genus, species, differentia, property, accident), and as for the question raised in the commentary tradition as to whether logic was about the

69. Gutas (2010a).

70. Stephanus, *In Int.* 6.15–21. Stephanus of Alexandria (2000, 122–23).

71. Boethius, *In Int.* 20.10–25, 33.25–34.25. Boethius (2010, 25, 32–33).

72. Marenbon (2010, 30).

73. Gutas (2010b, 12–13).

74. Bäck (2008, 47f), Key and Adamson (2015, 90), Sabra (1980).

75. Ibn Sīnā أنّ واضِعَ هذا الكتاب لم يضَعْه على سبيلِ التعليم بل على سبيل الوضع والتقليد . . . (1959b, 6.9–10).

words or ideas, Ibn Sīnā was crystal clear: the logician needs vocal forms only to talk to his fellow logicians; he does not need them to do logic. If it were possible, it would be enough to learn logic from pure mental content. But it is not possible; our cognitive process of arranging mental contents is almost an internal linguistic whispering to ourselves with the imagined vocal forms of those mental contents, which means that the logician has to be aware of the patterns of vocal forms in order to be cognizant of the effect these patterns may have on mental content.[76]

Ibn Sīnā knew that logic was a cognitive process done with *maʿānī,* mental contents. The Arabic conceptual vocabulary of vocal form and mental content allowed him to be perfectly clear about the difference between language and thought, and how language has a carefully circumscribed role to play in logic. It is not words, or signs, or symbols that make their way into our cognitive processes; it is vocal forms that come in along with the mental contents. These are the vocal forms that we have previously used, or that we plan to use, to talk about our mental contents to our fellow logicians. They hang around in our minds, and the fact that when they are used in language they necessarily have certain patterns means that they bring the echoes of those patterns into our heads, with the potential for confusion. (Wilfred Hodges has suggested a formal account of this process.)[77] It is here that logic, the science of mental contents, comes in. Ibn Sīnā wants us to follow him through the logical chapters of *aš-Šifāʾ,* avoid being confused by the vocal forms of language, and then be equipped to proceed logically from the mental content we have in our possession to new mental content that is currently unknown to us.

The Lexicon

Gutas writes that Ibn Sīnā lived his philosophy: "His desire to communicate it beyond what his personal circumstances required, as an intellectual in the public eye, is manifest in the various compositional styles and different registers of language that he used."[78] It should therefore come as no surprise that while Ibn Sīnā clearly privileges logic as *the* epistemological discipline and talks with unprecedented clarity about how this makes cognition central, he nevertheless deals at

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76. وليس للمنطقيّ مِن حيث هو منطقيٍّ شُغْلٌ أوّلٌ بالألفاظ إلا من جهةِ المخاطَبة والمحاورة ولو أمكَن أنْ يُتعلَّم المنطقُ بفكرةٍ ساذجةٍ إنما تُلحَظ فيها المعاني وَحْدَها لكانَ ذلك كافياً . . . لكن لمّا . . . مِن المتعذِر على الرويّة أنْ تُرتَّب المعاني مِن غير أنْ تَتخيّلَ معها ألفاظَها بل تكاد تكون الرويّة مُناجاةً مِن الإنسان ذِهْنَه بألفاظٍ مُتخيّلةٍ لَزِمَ أنْ تكون للألفاظ أحوالٌ مختلفةٌ تَختلِف لأجلها أحوالُ ما يُطابقها في النفس من المعاني. Ibn Sīnā (1952c, 22.13–23.1). Cf. Ibn Sīnā and aṭ-Ṭūsī (1983–94, 1:181), Key and Adamson (2015, 90–91), Sabra (1980, 763), Street (2004, 540).

77. Hodges (2012, slides 19–24).

78. Gutas (2016).

length with the lexicon, accurate lexical accounts, and the processes by which meaning can change.

The linguistic discussions that we find in Ibn Sīnā's logic do not focus on the framing and syntactic ordering of words, which is what one might have expected when reading his statement that patterns of vocal forms should be considered for their impact on the patterns of mental content. Instead, reading Ibn Sīnā with a focus on *maʿānī* leads us to moments when he talks about words themselves in the singular, and how their lexical histories affect the conceptions drawn from them. Ibn Sīnā is in exactly the same place as ar-Rāġib when it comes to the lexicon. Their rhetoric is very different, as indeed are the disciplinary conversations in which they were engaged. Ibn Sīnā was an Aristotelian philosopher, and ar-Rāġib an interesting combination of Hadith Folk, rationalist theology, and mysticism—three identities that would all have been anathema to Ibn Sīnā. They do, of course, share a certain metaphysical discourse describing God as necessarily existent (see Key, and Wisnovsky),[79] and they also share an ethical heritage in Aristotelian and Neoplatonic thought about the good life. But what I am concerned with here is a connection, which Ibn Fūrak also shares, that cuts across these disciplinary identities and boundaries. It is a connection to the Arabic language. We have seen how for ar-Rāġib this meant a valorization of the lexicographers. What did it mean for Ibn Sīnā?

In his discussion of *De Interpretatione,* Ibn Sīnā engaged with the origin of language, the question posed by Plato's *Cratylus* (although of course "no dialogue of Plato is known to have been fully translated into Arabic").[80] This is the same engagement that we have already encountered with ar-Rāġib, but Ibn Sīnā took a quite different tone. Whether or not language comes to us from God or from convention, he wrote, it still has to come from someone; there has to be precedent. And the connections are arbitrary: whether divinely or humanly instituted ("Have it as you wish!" he exclaims on that one), it is possible that the lexical placement could have been different.[81] Convention and the acceptance of precedent by language users (here Ibn Sīnā is in agreement with ar-Rāġib) was necessary to maintain a language once it had been created.[82] For Ibn Sīnā, however, that precedent was not primarily maintained by the lexicographers, as was the case with ar-Rāġib. Instead, a vocal form indicated, because once a human imagination hears a name,

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79. Key (2012, 51); ar-Rāġib (1988a, 48, 56–58), (1988b, 40), (1992, 854); Wisnovsky (2003, 196f), (2004b, 88–90).

80. Gutas (2010a, 811).

81. وسَواءً كان اللفظُ أَمْراً مُلْهَماً ومُوحاً به عُلِّمَه به مِن عند الله تعالى مُعلِّم أوَّلٌ . . . كيف شِئتَ لَكان
.Ibn Sīnā (1970b, 3.6,15) يجوز أَنْ يكون الأَمْرُ في الدلالة بها بخلافِ ما صار إليه لو وَضَعَه

82. فالدلالةُ بالأَلْفاظ إنما استمرَّ بها التعارُفُ بسببِ تراضٍ مِن المخاطِبين غيرِ ضروريّ . . . فإنه بحسبِ
.Ibn Sīnā (1970b, 4.1, 3) المشارَكة اصطلاحيّ

a mental content is impressed in that human's soul, which is then able to maintain the connection.[83] The maintenance of the lexicon is individual and universal, not sociopolitical as it was for ar-Rāġib. Ibn Sīnā does mention the lexicographers in this section, but their work is accidental to logic.[84]

The question of which vocal form referred to which mental content was important for Ibn Sīnā only when it came to the technical terminology of the disciplines with which he was concerned. For example, Ibn Sīnā was concerned that other logicians used the vocal form *muqawwim* ("constituting") as a synonym for *ḏātī* ("essential" or "per se"; see Strobino).[85] This interfered with his own account of logical terminology, in which *muqawwim* applied only to a subset of *ḏātī*. What is important for our purposes here is to notice the moment when Ibn Sīnā starts to argue on the basis of the lexicon and linguistic precedent: "They have come with a synonym diverted away from its primary usage, a synonym that fails to indicate the mental content to which 'essential' has been transferred."[86] Ibn Sīnā, just like the lexicographers, used a conceptual vocabulary in which vocal forms indicate mental contents according to precedent. And just like lexicographers such as ar-Rāġib, who were policing language usage in theology, Ibn Sīnā was aware that the lexicon was a moving target. The closing phrase of the sentence quoted above, "the mental content to which 'essential' has been transferred," is a recognition of that fact. A few pages earlier Ibn Sīnā had noted that his preferred account of the meaning of "essential" (the word he thought people should be using) was in fact itself a deviation. The vocal form's original lexical placement had been for possession, and it was the convention of the logicians, of which Ibn Sīnā approved, that had caused it to deviate to from "possession" to "essential."[87] Linguistic precedent was a lexically authorized dynamic process through which word meanings could change.

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83. ومعنى دلالةِ اللفظِ أنْ يكون إذا ارتسم في الخَيال مسموعُ اسم ارتسم في النفس معنىً فتَعرِفُ النفسُ
معناه إلى ٱلْتَفَتَ النفس على الحسُّ أورَده فكُلّما المفهوم لهذا المسموع هذا أنّ. Ibn Sīnā (1970b, 4.8–10).

84. وأيضاً فإنّ النظر في أنه أيّ لفظٍ هو مَوضوعٌ دالاً على معنى كذا وأيُّ كتابةٍ هي موضوعةٌ دالةً على
معنى كذا أو أثرِ كذا فذلك لصناعة اللغويين والكُتّاب ولا يتكلّم فيها المنطقيّ إلا بالعرض. Ibn Sīnā (1970b, 5.13–14).

85. Strobino (2016).

86. أما قولُهم إنّ الذاتي هو المُقوّم فإنما يَتناول ما كان من الذاتية غيرَ دالٍّ على الماهية فإنّ المُقوّم مُقوّمٌ
لغيره وقد علمتَ ما يَعرض من هذا اللهمِّ إلا أنْ يَعنُو بالمُقوّم ما لا يُفهَم من ظاهرِ لفظه ولكنْ يَعنُو به ما عَنَيْنا
بالذاتي. فيكون إنما أتوا باسمٍ مرادفٍ صُرِف عن استعمال الأوّل ولم يدلّ على المعنى الذي نُقِل إليه Ibn
Sīnā (1952c, 33.12–16).

87. لكنّ قولنا ذاتيٌّ وإنْ كان بحسب قانونِ اللغة يدلّ على هذا المعنى النِسْبيّ فإنه بحسبِ اصطلاحٍ وقَع
بين المنطقيين يدلّ على معنىً آخَر. Ibn Sīnā (1952c, 31.15–17).

Ibn Sīnā was also concerned with misconceptions about the correct form by which a statement can indicate what-it-is-ness. (For example, one can't just combine the most general mental content with anything more specific and thereby say "a speaking substance" to indicate the what-it-is-ness of the human.)[88] Ibn Sīnā's statement to indicate what-it-is-ness had to "include the complete accurate lexical account," which meant that "a transfer of the vocal form in question from its place in the lexicon to a secondary placement is not needed." Ibn Sīnā said he would explain later how his preferred solution "maintains the original lexical placement."[89] He did not deny the possibility that the logicians he was disagreeing with on this issue were using words differently, but he was prepared to state that they were not using words "according to their original lexical placement, nor according to a transfer for which there is textual evidence from specialist usage."[90] When logicians used language to talk to each other, as they were inevitably required to do, they had to engage with lexical placement and precedent just like the lexicographers and theologians.

This process was understood as not unique to Arabic. Ibn Sīnā introduced his discussion of genus in the *Eisagoge* with the remark that in Greek, the technical term "genus" was the result of a process of lexical change. The vocal form, in its prior lexical placement, had simply indicated the mental content of a shared characteristic such as familial descent or geographical origin.[91] The Greek logicians had then, needing a vocal form for the mental content "a single intellected thing with a relationship to multiple instances that share in it," transferred a name from its prior lexical placement and given it the new logical description "what is said of many different species in answer to the question, 'What is it?'"[92] Porphyry used

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88. لو كان كذلك لَكان إذا أخذنا أعمّ المعاني كالجوهر وقرنّا به أخصَّ ما يدلّ على الشيء فقلنا مثلًا جوهرٌ ناطق. Ibn Sīnā (1952c, 39.15–17).

89. مِن أنّ الدالّ على الماهية يجب أنْ يكون مشتمِلاً على كمالِ الحقيقة فيكون حينئذٍ هذا التكلّف يؤدي إلى أنْ لا يحتاج إلى نقلِ هذه اللفظة عن الموضوع في اللغة إلى اصطلاحٍ ثانٍ فإنا سَنُوضِح مِن بعد أنّ استعمالَ هذه اللفظة على ما هيَ عليه يَحفظ الوضعَ الأوّل لها. Ibn Sīnā (1952c, 40.2–5).

90. إلا أنّ ذلك لا يكون بحسب الوضع الأوّل ولا بحسب نقلٍ منصوصٍ عليه مِن المستعملين لهذه الألفاظ في أوّلِ ما استعملوا. Ibn Sīnā (1952c, 41.3–5).

91. فنقول إنّ اللفظة التي كانت في لغة اليونانيين تدلّ على معنى الجنس كانت تدلّ عندهم بحسب الوضع الأوّل على غير ذلك ثم نُقِلتْ بالوضع الثاني إلى المعنى الذي يسمّى عند المنطقيين وكانوا أولائك يُسمّون المعنى الذي يشترِك فيه أشخاصٌ كثيرةٌ جنساً مثل وَلَديتهم كالعَلَوية أو بلديتهم كالمصرية Ibn Sīnā (1952c, 47.3–6).

92. فلما كان المعنى الذي يُسمَّى الآن عند المنطقيين جنساً هو معقولٌ واحد له نسبةٌ إلى أشياء كثيرة تشترِك فيه ولم يكن له في الوضع الأوّل اسمٌ نُقِلَ له مِن اسمِ هذه الأمور المتشابهة له اسمٌ فسُمّي جنساً وهو الذي يتكلم فيه المنطقيون ويرسمونه بأنه المَقولُ على كثيرين مختلفين بالنوع في جوابِ ما هو Ibn Sīnā (1952c, 47.15–19).

the Greek word *sēmainomenon* ("sense," "meaning," noted by Jonathan Barnes), and his translator into Arabic, Abū ʿUt̠mān Saʿīd ad-Dimašqī (d. after 914), used *ǧihah* ("aspect").[93] But Ibn Sīnā used the Arabic core conceptual vocabulary of lexical placement, mental content, and transfer. This must have been a conscious choice; the philhellenic Arabic vocabulary used by ad-Dimašqī was available, but Ibn Sīnā chose to use the same words as his contemporaries working in theology and lexicography. (Al-Fārābī's précis of this same passage had made no mention of mental contents or the lexicon.)[94] Ibn Sīnā clearly felt that the Arabic conceptual vocabulary he was using was compatible with his logical and Aristotelian project: vocal forms connected to mental contents by lexical placement and intent—this was a stable and useful conceptual vocabulary with which to rethink Aristotelian logic.

In his composite philosophical work *an-Naǧāh* (*The Salvation*),[95] Ibn Sīnā provided a short overview of the term *d̠ātī* ("essential" or "per se," as discussed above) in which the Arabic conceptual vocabulary of mental content was at the center of the logical process. He dismissed a series of options for understanding "essential" as insufficient, and he located the action in mental content. It was "not enough to say that the mental content of 'essential' is that it cannot be separated from the thing in question." It was rather the case that "the essential is what if its mental content is understood . . . and if the mental content of what it is essential to is understood . . . , then the essence of the thing described cannot be understood without a prior understanding of the essential mental content in question." One cannot therefore understand "human" without already having understood "animal"; the mental content of animal is essential to the mental content of human.[96] "Understanding mental contents" was what mattered, just as al-Ǧāḥiẓ had claimed in a very different kind of Aristotelian book (Miller)[97] almost two hundred years earlier.[98] What Ibn Sīnā has done here is use the conceptual space of *maʿnā* to structure logical processes. His Aristotelian logical project did require new conceptual vocabulary

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93. Porph. *Eisagoge* 1.20, 2.5. Aristotle (1948, 1058–60), Porphyry (2003, 50f).

94. Al-Fārābī (1986b, 24.2–8).

95. Gutas (1988, 115–17).

96. الذاتيُّ هو الذي يُقوِّم ماهيةَ ما يقال عليه ولا يكفي في تعريف الذاتي أنْ يقال إنّ معناه ما لا يفارق فكثيرٌ مما ليس بذاتي لا يفارق ولا يكفي أنْ يقال إنّ معناه ما لا يفارق في الوجود . . . بَلْ الذاتيُّ ما إذا فُهم معناه وأُخطِر بالبال وفُهِم معنى ما هو ذاتيٌّ له وأُخطِر بالبال معه لم يمكن أنْ يُفهَم ذاتُ الموصوف إلا أنْ يكون قد فُهم له ذلك المعنى أولاً كالإنسان والحيوان فإنّك إذا فَهِمتَ ما الحيوانُ وفَهِمتَ ما الإنسانُ فلا تَفهَم الإنسانَ إلا وقد فَهِمتَ أنه أولاً أنه حيوانٌ. Ibn Sīnā (1938, 6.14–16, 7.3–7). Cf. translation in Strobino (2016, 252).

97. Miller (2013, 58–90).

98. See chapter 2 note 48.

above and beyond vocal form and mental content, but the only way to explain that new vocabulary was with, of course, vocal form and mental content. Just as Ibn Fūrak used mental content to structure the interaction between human language and divine reality with a series of conceptual pigeonholes, so Ibn Sīnā used mental content to explain how a conception of something can be logically essential: there is a mental content of "animal" without which there cannot be a logically functional mental content of "human."

If understanding mental content was therefore what mattered, how could one know, with the sort of certainty for which Ibn Sīnā was looking, what people actually meant when they made logical statements? How can one account for potential ambiguity? As we have seen, Ibn Sīnā did not choose to have recourse to a sociopolitically charged lexicographical class of scholars like ar-Rāġib or a theological doctrine and school like Ibn Fūrak. Ibn Sīnā had himself written a dictionary, and could have considered himself a lexicographer like ar-Rāġib, but his philhellenic, philosophical, and logical commitments appear to have prevented him from locating truth in the books his contemporaries were iteratively curating. Instead Ibn Sīnā, just like twentieth-century Anglophone philosophers of language, turned to an account of what people meant that relied on intent, on pragmatics.

Intent

Pragmatics as Ibn Fūrak and ar-Rāġib understood it would seem to have been anathema to Ibn Sīnā, whose empiricism and logic was on the face of it inherently opposed to the subjectivity produced by accounts of meaning that give control to the speaker. For Ibn Fūrak and ar-Rāġib, this was not necessarily a problem, for they had both an actively curated lexicon and a confessional account of right belief to give them the confidence that they could divine what speakers meant. David Vishanoff has shown in chapters 5 and 6 of his *Formation* how the potential of a model of "performative speech intuitively grasped" was progressively exploited by Sunni legal theorists to get a great deal of what they wanted from the divine text.[99] But with Ibn Sīnā we are dealing with Aristotelian philosophy.

We have already encountered Ibn Sīnā's aside, in his commentary on *De Interpretatione,* to the effect that the mental contents in the soul are also intentions. This word for "intentions," *maqāṣid,* was not present in the Arabic translation of Aristotle that Ibn Sīnā used, and we do not have access to other Arabic commentaries that might help us identify a precedent. All we do know is that, as Kwame Gyekye showed in a 1971 article,[100] the Latin tradition bundled up mental contents

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99. Vishanoff (2011, 190f).

100. Gyekye (1971, 35–37). See also notes 9 and 67 above.

(*maʿānī*), intelligibles (*maʿqūlāt*), and intent (*qaṣd*) under the word *intentio*. Gyekye also confirms that Ibn Sīnā's mental contents are conceptually identifiable with al-Fārābī's intelligibles (on which see Zimmermann).[101] But neither Greek nor Latin provides us with a chronologically appropriate explanation for Ibn Sīnā's eleventh-century statement that "they are called mental contents: i.e., intentions of the soul."[102] I think that an Arabic assumption about pragmatics must be the source of this remark, because as we have already seen, mental content was often glossed as intent and vice versa in the earliest Arabic scholarly disciplines. This makes sense, because in the simple and elegant theory of meaning encapsulated in the Arabic core conceptual vocabulary, human beings had mental contents, and they intended to refer to them when they spoke with vocal forms. There was no separate ontological or epistemological category that could be "intent-separate-from-mental-content." There were just mental contents, vocal forms, and a process of intent that enabled the latter to indicate the former.

Ibn Sīnā used this conceptual vocabulary. For example, when he laid out the difference between simple and compound vocal forms in his *Eisagoge,* he did so by determining whether or not a vocal form could be divided into smaller component vocal forms each of which indicated an "*intended* mental content."[103] He then went on to identify the problem with the subjectivity of pragmatics that was always raised in Islamic exegesis and law (the question "How do you know what they mean?"). Ibn Sīnā's discussion of this problem took place in dialogue with logically inclined grammarians. It was a debate that had started almost a century earlier with the grammarian az-Zaǧǧāǧī. He had written that "others" had supplemented the logicians' standard definition of the simple noun (sound indicating mental content without time, a definition also adopted by some grammarians) with the phrase "and its parts do not indicate any of its mental content."[104] Ibn Sīnā identified the same development, albeit with slightly different contours: the teaching of the ancients described the noun as that whose parts did not indicate anything, but then scholars "considered that insufficient and made the necessary supplementation to the effect that the noun was that whose parts did not indicate anything apart from the mental content of the

101. Zimmermann (1981, xxxiiif, xli).

102. Ibn Sīnā (1970b, 3.2). تُسمّى معانيَ أيْ مقاصدَ للنفس.

103. إنّ اللفظ إنما مُفردٌ وإما مركَّبٌ والمركَّب هو الذي قد يُوجد له جزءٌ يدلّ على معنئً هو جزءٌ من. Ibn Sīnā (1952c, 24.13–14). المعنى المقصود.

104. وليس هذا من كلام المنطقيين وإنْ كان قد تعلّق به جماعةٌ من النحويين . . . وقال آخرون الاسمُ صَوتٌ مَوضوعٌ دالٌّ باتّفاقٍ على معنئً بلا زمانٍ ولا يدلّ جزؤُه على شيءٍ من معناه وهذا أيضاً من كلام القَوم [المنطقيين وبعض النحويين] وإنْ كان فيه هذه الزيادةُ اليسيرةُ وقد مَضَى القولُ فيه. Az-Zaǧǧāǧī (1959, 48.11–13, 49.6–8).

whole."[105] It seems clear that Ibn Sīnā and az-Zağğāğī are referring to the same conversation. However, Ibn Sīnā then went on to say that this supplementation was a mistake, and was really only an explanation rather than a step necessary to complete the description. Why?

This is where intent makes its appearance: "Because the vocal form does not indicate by itself at all. Were that to be the case, then each vocal form would have a right portion of mental content from which it could not deviate. But this is not the case. The vocal form indicates only with the intent of the one who speaks it." A more thoroughgoing statement of pragmatics (and a clearer refutation of reference as the basis for theories of language signification) can scarcely be imagined! In *Manṭiq al-Mašriqīyīn,* Ibn Sīnā used the example of the Arabic compound proper name (ʿAbd Šams, "Slave of the Sun," the name of a famous pre-Islamic ancestor of the prophet) to illustrate how intent could determine whether such a compound vocal form referred to just a specific person or to that person's worship of the sun.[106] Back in his *Eisagoge,* Ibn Sīnā went on to give the example of a person using a word like ʿayn to mean "water source" in one speech act and "coin" in another speech act. An English equivalent is "bank" (of a river) or "bank" (where one keeps one's money). Vocal forms have no mental content in and of themselves.[107] A speaker can even intend no reference whatsoever, in which case no reference is to be found (the vocal form ʿayn could be meaningless if all the speaker meant was " ").[108] This statement of pragmatics then allows Ibn Sīnā to close the discussion of the simple and compound noun: a composite vocal form may have the potential to indicate its composite parts or its whole, but the only factor that matters in actual usage is the intent of the speaker.[109]

Ibn Sīnā, who is here in this book about *maʿnā* to represent the discipline of Aristotelian logic, had a philosophy of language that permitted language users to intend everything, or nothing, by their speech acts. The gaping maw of linguistic relativism would appear to be opening up again, and in a most unexpected

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105. والموجودُ في تعليمِ الأقْدَم مِن رسْمِ الألفاظ المفردة أنها هي التي لا تدلّ أجزاؤُها على شيءٍ واستقَص فريقٌ مِن أهلِ النظرِ هذا الرسمَ وأوْجَب أنه يجب أنْ يُزاد فيه أنها التي لا تدلّ أجزاؤها على شيءٍ من معنى الكل. Ibn Sīnā (1952c, 25.9–12).

106. مِثلُ قولِنا عبدُ شمسٍ فإنه إذا أُريدَ أن يُدَلّ به على شخصٍ مُعيَّنٍ مِن حيث هو شخصٌ مُعيَّنٌ لا مِن حيث يُراد أنْ يقال فيه عبدُ الشمس. Ibn Sīnā (1982, 32.4–7).

107. وذلك أنّ اللفظ بنفسه لا يدلّ البتة ولو لا ذلك لَكان لِكلّ لفظ حقٌّ من المعنى لا يجاوزه بل إنما يدلّ بإرادة اللافِظ فكما أنّ اللافظ يطلقه دالاً على معنى كالعين على ينبوعِ الماء فيكون ذلك دلالته ثم يطلقه دالاً على معنى آخَر كالعين على الدينار فيكون ذلك دلالته. Ibn Sīnā (1952c, 25.15–18).

108. وكذلك إذا أخلاه في إطلاقه عن الدلالة بقي غيرَ دالّ. Ibn Sīnā (1952c, 25.18–19).

109. فلا يكون جزؤه البتة دالاً على شيءٍ حين هو جزؤه بالفِعل اللهمَّ إلا بالقُوة حين نجد الإضافة المُشار إليها وهي مقارنة إرادة القائل دلالةً به. Ibn Sīnā (1952c, 26.5–6).

place. But this is not the case. The reason that Ibn Sīnā is devoting so much of his *Eisagoge* to pragmatics is that he needs to identify the issues that come with vocal forms in order to focus on what really matters: mental contents. Logic, as he has already told us, is about mental content and not about vocal form. It is a matter of thought, not a matter of language. Ibn Sīnā was the first to really exploit the potential of the preexisting Arabic pairing of vocal form and mental content to be clear about what logic was and the extent to which language mattered for its pursuit. The questions of linguistic ambiguity that scholars like ar-Rāġib and Ibn Fūrak exploited in confessional hermeneutics were accurate reflections of how communication between human beings actually functioned, and Ibn Sīnā was not concerned to deny that reality. He knew that people had to guess what people meant. He also knew that logicians had no option but to use those ambiguous frameworks to talk to each other about logic. But what he was trying to establish in his work was an account, written in a consistent technical terminology, of how thought could be logically productive.

IBN SĪNĀ'S MENTAL CONTENTS IN ACTION

We have seen in this chapter that Ibn Sīnā used an Arabic core conceptual vocabulary to explain the workings of logic and language with influential clarity. I will now proceed to work through four topics at the heart of the nexus of language, mind, and reality in his philosophy. Two of them would become important for Latin philosophy in Europe (*pros hen* and *prima et secunda positio*). The third, "Attributes" (*ṣifāt*), represents Ibn Sīnā's engagement with Islamic theology, and the fourth, "Logical Assent" (*taṣdīq*), was the fundamental and most basic move of his logic. In all these cases, Ibn Sīnā used *maʿnā* to do great deal of work.

Being Is Said in Many Ways and pros hen

Thought needs to be logically productive in disciplines other than just logic itself, and Ibn Sīnā was very clear that metaphysics was one such discipline. Metaphysics was separate from logic, but it was part of the philosophical project that Ibn Sīnā identified in the Aristotelian tradition and then sought to bring to a completion that he thought the tradition had been unable to achieve. This book is not the place for an overview of that project. (For that, see Gutas in brief and McGinnis at length.)[110] It was a rational philosophical project with a unified methodology, and this book is not the place to take on a description of the methodology either (The essays in Adamson are a good place to start.)[111] What I would like to do is

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110. Gutas (1988, 359–86), McGinnis (2010).

111. Adamson (2013).

take Ibn Sīnā's insights about language and mental content and apply them to one of the most famous considerations of ambiguity: *pros hen.* The issue here is how, in light of the clear distinction he made between vocal form and mental content, between thinking about language and about thinking about thinking, Ibn Sīnā read Aristotle's statement that "being is said in many ways."

At the beginning of Book Four (Gamma) of his *Metaphysics,* Aristotle wrote that "there are many senses in which a thing may be said to 'be,' but all that 'is' is related to one central point, one definite kind of thing, and is not said to 'be' by a mere ambiguity."[112] There is some central principle (the Greek word is *archē*)[113] that connects the different ways the word "being" is used, just as there is some principle that connects "healthy" when it is said of different things that may preserve health ("a healthy exercise regime"), or produce health ("a healthy juice drink"), or mark health ("healthy blood results"), or be receptive of the quality of health ("the healthy child").[114] These usages all go "toward one" (*pros hen*) principle. The Greek commentary tradition, dealing with echoes of the Platonic Forms that could no longer be heard by the time philosophy moved into Arabic, had ultimately taken this passage to be part of an Aristotelian account of the different ways in which language could refer to reality (Proclus, d. 485, and then Porphyry; see Alexander Treiger and Richard Sorabji).[115] The only Arabic translation we have extant is by Ustāṯ,[116] undertaken in the ninth century for al-Kindī and preserved as the text on which Ibn Rušd based his commentary. When it came to other books of the *Metaphysics,* Ibn Sīnā had access to a later version by Isḥāq, but we cannot be sure he had read anyone other than Ustāṯ when he was dealing with "being is said in many ways."[117] Ustāṯ told Ibn Sīnā that Aristotle said existence was not a matter of linguistic homonymy but was rather a matter of different things being related to a single first.[118] The epistemological status of this first principle was not in doubt: "The accurate account of all things is the knowledge of the thing that comes first, to which all the other things relate, and because of which they are named."[119] Ustāṯ

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112. Arist. *Metaph.* 1003a33. Translation from Sennet (2015).

113. Arist. *Metaph.* 1003b6.

114. Arist. *Metaph.* 1003b2–4.

115. Sorabji (2005, 74, 131, 234–35), Treiger (2012, 336–38).

116. "The otherwise unknown Ustath . . . Eustathius, in all likelihood of Byzantine origin": D'Ancona (2013, n. 31).

117. Bertolacci (2006, 5–7, 14).

118. فالهُوية تقال على أنواع كثيرةٍ ولا تقال بنوعِ اشتراكِ الاسم بل تُنسَب إلى شيءٍ واحدٍ وطِباع واحد تلك الأنواعُ تُنسَبُ إلى أوّلٍ واحد . . . . Ibn Rušd and Aristotle (1938–52, vol. 5:2, pp. 300.13–14, 301.5).

119. والعِلمُ الذي هو عِلمٌ بالحقيقة في جميعِ الأشياء هو عِلمُ الشيء المتقدّم الذي به يتّصل سائرُ الأشياء وبسببه تُسمّى. Ibn Rušd and Aristotle (1938–52, vol. 5:2, p. 302.1–2). Arist. Metaph. 1003b16–17.

translated the Greek word *kurios* ("decisive, authoritative, most important, principal": Liddell and Scott) that Aristotle had used to describe this knowledge with the central quasi-linguistic honorific for accuracy with which we have become familiar: *ḥaqīqah.*

On the one hand, what we have here is an epistemological framework of principles and instances, central ideas and related connections, roots and branches, that has echoes in ar-Rāġib's and Ibn Fāris's valorizations of the root principle in lexicography and the origins of language. Real accurate knowledge is always of a central principle from which one can produce further knowledge. And whereas in the Greek tradition such a framework would tend to engage commentators in a discussion of whether such principles should be connected to Platonic Forms, in an Arabic intellectual environment the root principle of language use was paradigmatically lexicographical. So when it came to Aristotle's statement that the epistemological principle behind "being" and "healthy" was not a homonym, Ustāṯ translated this exclusion of Aristotelian homonymy (*ouch homōnumōs*) as an exclusion of any species of Arabic homonymy (*lā . . . nawʿi -štirāki l-ism*).[120] Aristotelian homonymy was an account of the relationships between things in the outside world, established in *Categories* with the example of how a man and a picture of a man are both "animal,"[121] whereas Arabic homonymy was linguistic and lexical, such as we find with "bank" and "bank" in English (or *ʿayn* and *ʿayn* in Arabic). Aristotle had been trying to explain how "being" was an appropriate subject matter for his *Metaphysics,* hence the need to exclude what he thought was an unscientific type of connection such as that exemplified by "animal" in "picture of an animal" and "man is an animal." (He made exactly the same exclusion when trying to establish "the good" as the subject matter of his *Nichomachean Ethics,* a connection recognized by the Greek tradition.)[122] But the homonymy that the pre-Avicennian Arabic Aristotelians wanted to exclude was the homonymy of the lexicographers. (A century later, Ibn Rušd would carefully exclude both the homonymy of *ʿayn* and the homonymy of "man" and "animal.")[123]

What did Ibn Sīnā do with this complex of alternatives? What conceptual vocabulary did he choose to establish? It should be noted at the outset that I have benefited from Alexander Treiger's discussion of these same passages in an article in which he argues persuasively for a transcendental motivation in Ibn Sīnā's account of existence.[124] In what follows I take a quite different approach from

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120. Arist. *Metaph.* 1003a34. Ibn Rušd and Aristotle (1938–52, vol. 5:2, p. 300.13).

121. Arist. *Cat.* 1a1.

122. Arist. *Eth. Nic.* 1096b25.

123. Ibn Rušd and Aristotle (1938–52, vol. 5:2, p. 302.14–16).

124. Treiger (2012).

Treiger, but as with Eichner's work I hope the result is complementary. Rather than ultimately focusing on high, as Treiger does with the One and necessary of existence, I restrict myself to looking at the most basic components of Ibn Sīnā's conceptual vocabulary, the building blocks of cognition and the question of their relationship to language. This does not necessarily tell us much about philosophy, but it should tell us something about *maʿnā.*

In his discussions of Aristotle's *Metaphysics* and *Categories,* Ibn Sīnā used *maʿnā* to talk about the complex of alternatives presented by Aristotle's epistemological framework for words such as "being" and the commentaries thereupon. The first chapter of Aristotle's *Categories* gives three ways that things can be connected through their names (homonymous, synonymous, and paronymous, rendered in Arabic as *muttafiqah, mutawāṭiʾah,* and *muštaqqah,* respectively). Ibn Sīnā described how synonymy was when the "statement about the substance" is the same, so "animal" is predicated as a synonym of both "man" and "horse." A man is not more animal than a horse. He glossed "statement about the substance" as "the distinguishing vocal form that indicates the mental content of the substance." This gloss (introduced with *ay,* meaning "i.e.") marks his movement from one conceptual vocabulary to another, from the Greek-into-Arabic translation of Isḥāq to his own Arabic framework of vocal form and mental content.[125] He makes the same move on the next line: "if the formal definition is one from every aspect—i.e. one in mental content."[126] With the equation between the two conceptual vocabularies established, he then divided homonymy into three: "either [1] the mental content in the different things is one in itself despite being different in some other way; or [2] the mental content is not one, but there is a certain similarity between the two things; or [3] the mental content is not one, and there is no similarity between the two things."[127]

Ibn Sīnā's first example for [1] was Aristotle's *pros hen* "being." The mental content in itself is the same ("being" is a stable category), but the form it takes is different in different things, some of which may be prior to others (a substance is prior in existence to its accidents).[128] The Peripatetics and the Stoics were all

125. Arist. *Cat.* 1a. أيْ اللفظ المُفصِّلُ الدالُّ على معنى الذات فيها كلّها / قَول الجوهر / *logos tēs ousias*
Aristotle (1948, 1:33), Ibn Sīnā (1959b, 9:9–10).

126. Ibn Sīnā (1959b, 9.11). وحدُّه واحدٌ فيها مِن كلّ وجْهٍ أيْ يكون واحدٌ بالمعنى.

127. إما أنْ يكون المعنى فيها واحداً في نفسه وإنْ اختلفَ من جهةٍ أخرى وإما أنْ لا يكون واحداً ولكن يكون بينَهما مُشابهةً ما وإما أنْ لا يكون واحداً ولا يكون أيضاً بينَهما مُشابهة. Ibn Sīnā (1959b, 10.4–7). Cf. alternative translation: Treiger (2012, 353).

128. فمِثالُ معنى الوجود فإنه واحدٌ في أشياء كثيرةٍ لكنه يختلِف فيها فإنه ليس موجوداً فيها على صورة واحدة من كلّ وجهٍ فإنه موجودٌ لبعضِها قبلُ ولبعضِها بعدُ فإنّ الوجود للجوهر قبلَ الوجود لسائرِ ما يتّبِعه. Ibn Sīnā (1959b, 10.8–11), Treiger (2012, 353).

philosophers, but the work of the former was "more philosophical" than that of the latter.[129] Mental content is a key component in this epistemology: it is the stable form that "being" takes in the mind. While being is spoken of in many ways, and while extramental things exist in different ways, "being" stays the same in itself as a mental content, as does "philosophy": both are stable pigeonholes. Ibn Sīnā then introduces a new category of "modulated existence," which divides Aristotle's *pros hen* ambiguity into two.[130] This division (also identified by Kalbarczyk in an earlier commentary by Ibn Sīnā on *Categories*) is persuasively explained by Treiger as being motivated by Ibn Sīnā's desire to reserve a category of "being" that would apply only to God and maintain his unity.[131]

For group [2], things that Aristotle had called homonymous but did not share a common account, and may be in completely unrelated things, Ibn Sīnā held that they could still share a name if there was a mental-content resemblance. He used Aristotle's example of "animal" predicated of both a horse and a picture of a horse.[132] What it is that connects the picture of the horse with a horse? Ibn Sīnā's answer is enabled, I think, by Arabic accounts of poetics rather than by the Aristotelian tradition. He says that the name "animal" has two original lexical placements in this case, one prior and one subsequent, to which it has been transferred.[133] The process of transfer from an original lexical placement is, of course, something we are familiar with from chapter 4 above, on the lexicon. No such structures were available to Ibn Sīnā from commentators such as Simplicius,[134] whom we know Ibn Sīnā had read from what are almost verbatim quotations a couple of pages later.[135] Ibn Sīnā is in conversation with Arabic poetics here. He talked about the way the constellations of Canis Major and Canis Minor and a living animal are all called

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129. Ibn Sīnā (1959b, ولا تقال الفلسفةُ على التي في المشّائيين والتي في الرّواقيين على التواطؤ المُطلَق. 11.1), Treiger (2012, 354).

130. فما كان المفهومُ من اللفظ فيه واحداً إذا جُرِّد ولم يكن واحداً من كلّ جهةٍ مُتشابهاً في الأشياء المتّحِدة في ذلك اللفظ فإنه يسُمّى اسماً مُشَكَّكاً. Ibn Sīnā (1959b, 11.3–4), Treiger (2012, 354).

131. Kalbarczyk (2012), Treiger (2012).

132. وأما الذي لا يكون فيه اتّفاقٌ في قَولِ الجوهر وشرْحِ الاسم لكنْ يكون اتّفاقاً في معنىً يتشابه به فمِثلُ قولنا الحيوانُ للفَرَس والحيوانُ للمُصوَّر. Ibn Sīnā (1959b, 11.8–9).

133. ويكون الاسم في أحدِ الأمرَين موضوعاً وضْعاً متقدّماً ويكون في الثاني موضوعاً ثانياً فإذا قِيسَ ذلك الاسمُ إلى الأمرَين جميعاً سُمّي بالاسم المتشابِه وإذا قِيسَ إلى الثاني منهما سُمّي بالاسم المَنقول. Ibn Sīnā (1959b, 12.2–4).

134. Simpl. *In Cat.* 21.1–33.20. Simplicius (2003, 35–47).

135. وقد يتّفِق أنْ يكون الاسمُ الواحد مَقولاً على شيئين بالاتّفاق وبالتواطؤ معاً. Ibn Sīnā (1959b, 14.15). "There are, however, some things that are homonymous and synonymous with regard to one and the same name": Simpl. In Cat. 35.15–20. Simplicius (2003, 49–50).

"dog," but while the connection in the latter case is lexically accurate, the connection in the former is "borrowed" (the technical term for the Arabic metaphor to which we will return in the next chapter).[136] Like Ibn Rušd, Ibn Sīnā also carefully delineated this kind of homonymy from the complete lexical homonymy of "bank" and "bank."[137] He then paused to talk about lexical homonymy and say that he had no time for the claim that such homonyms exist because of infinite things and a finite number of words to describe them, a claim that ar-Rāġib had explicitly maintained.[138] From Ibn Sīnā's logical perspective, the theory of reference assumed in ar-Rāġib's claim was nonsensical. What determined names for Ibn Sīnā was the intent of the namers,[139] not any purported lack of availability of words or limit on the number of possible combinations of letters.[140] And while naming was a process of lexical expansion through metaphorical deviations from the accurate lexical placement, an account with which we are familiar from ar-Rāġib, Ibn Sīnā gave no curation role to a community of lexicographers. Instead he was content with chance and the possibility that different people in different places, or the same person at different times, may just use different deviations.[141]

Ibn Sīnā had an account of language that was keyed into the same Arabic lexical conversation as ar-Rāġib's. The most salient difference between the two was the weight ar-Rāġib gave to the lexicographical community. Just like ar-Rāġib, Ibn Sīnā used the pairing of vocal form and mental content to deal with some of the most important problems in his philosophy. When Ibn Sīnā came to *Metaphysics,* the same discussion of how being can be said in many ways, which Aristotle had tried to resolve with a *pros hen* relationship to a central principle, was for him a matter of mental contents and reference: "We say that 'existence' and 'thing' and 'necessary' have their mental contents impressed on the soul first, an impression

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136. وربما كان هذا الاشتباهُ اشتباهاً حقيقياً وربما كان اشتباهاً مجازياً بعيداً مِثلَ قولهم كَلْبِّ للنجْم .وللكلْب الحيوانيّ وذلك لأنه لا تَشابَه بينهما في أمرٍ حقيقيّ إلا في أمرٍ مستعار. Ibn Sīnā (1959b, 12.7–9).

137. فما كان سبيلُ نقلِ الاسم إليه هذا السبيلَ فلا ينبغي أنْ يُجعل في هذا القِسم [الاسم المُشكَك] .بل هو من القِسم الثالث الذي لا اشتراكَ حقيقياً ولا تَشابهَ فيه مِثل قولنا عينٌ للبصر وعينٌ للدينار. Ibn Sīnā (1959b, 12.10–12).

138. والأصلُ في الألفاظ أنْ تكون مختلفةً بحسبِ اختلافِ المعاني لكنّ ذلك لم يكن في الإمكان إذ كانت المعاني بلا نهايةٍ والألفاظُ مع اختلافِ تراكيبها ذاتَ نهايةٍ وغيرُ المتناهي لا يَحويه المتناهي فلم يكن بُدَّ مِن وقوعِ اشتراكٍ في الألفاظ. Ar-Rāġib (1984, 29.5–7).

139. مِن حيثُ يَقصدها المُسمُّون بالتسمية. Ibn Sīnā (1959b, 13.8)

140. Ibn Sīnā (1959b, 12.12–13.14).

141. كأنّ بعضهم اتّفقَ له أنْ أوْقَع اسمَ العين على شيءٍ والآخرُ اتّفقَ له أنْ أوْقَعه على غيره إذاً فيجوز أنْ يكون سببُ الاتفاق هو اختلافُ حالٍ مُسمِّيين أو لاختلافِ حالٍ مُسَمٍ واحدٍ في زمانَين صار فيهما كشخصَين. Ibn Sīnā (1959b, 14.3–5).

that is not in need of any better known things to bring it about."[142] These are the central concepts of Ibn Sīnā's *Metaphysics,* analyzed accurately in the secondary scholarship as "intentional objects," and "primary, indefinable concepts." (I am quoting Robert Wisnovsky's discussion of "thing" with regard to Ibn Sīnā's what-it-is-ness and existence.)[143] They are mental contents. They are also the central concepts of Ibn Sīnā's logic. What is a universal? A mental content is universal when actually predicated of many (such as "is human"), or when possibly predicated of many although they may not exist (such as "is a heptagonal house"), or when it can be conceived of as predicated of many although a reason or cause may intervene (such as "is the sun," because there is only one sun).[144]

Mental content is the stuff of cognition, and if you are an Aristotelian philosopher like Ibn Sīnā, the Arabic conceptual vocabulary of mental content and vocal form provides you with a stable framework to talk about the relationship of language to logic, the nature of being itself, and to actually do logic, as we will see in the remainder of this chapter. The question that will take us into chapter 7 on al-Ǧurǧānī is: What if your aim was not a complete science of everything and the unfulfilled promise of Aristotle's project? What if you really cared about words? What if the subject matter that concerned you most was poetry? What if the question that drove you was not "What is it?" but rather "Why does it sound so good?"

Attributes (ṣifāt)

The answers to that question, "Why does it sound so good?" will in al-Ǧurǧānī be in part theological: "Why does God's word sound so good?" Here in the chapter on Ibn Sīnā, Treiger has opened the door to a consideration of theological motivation for Ibn Sīnā's epistemological categories, although Ibn Sīnā's Necessarily Existent One was as different from al-Ǧurǧānī's God as Aristotle's Prime Mover was from Zeus. In this short discussion of Ibn Sīnā's position on attributes I do not want to make the claim that Ibn Sīnā was doing theology in the same way as Ibn Fūrak, ar-Rāġib, or indeed al-Ǧurǧānī did Islamic theology.[145] What Ibn Sīnā shows us is that in his eleventh-century context there was a long-established theological

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142. فنقول إنّ الموجود والشيء والضروريّ معانيها ترتسم في النفس ارتساماً أوّلياً ليس ذلك الارتسامُ مما Ibn Sīnā (1970a, 29.5–6). Cf. translation by Michael Marmura: يُحتاج إلى أن يُجلب بأشياء أَعْرَفَ منها Ibn Sīnā (2004, 22).

143. Wisnovsky (2003, 158–59). Cf. Marmura (1980, 341f).

144. فيقال كليٌّ للمعنى من جهةٍ أنه مَقولٌ بالفعل على كثيرين مثل الإنسان ويقال كليٌّ للمعنى إذا كان جائزاً أنْ يُحمَل على كثيرين وإنْ لم يشترط أنهم موجودون بالفعل مِثل البيت المُسَبَّع . . . ويقال كليٌّ للمعنى الذي لا مانعٌ مِن تصوّره أنْ يقال على كثيرين إنما يَمنع منه إنْ منع سببٌ ويدلّ عليه دليلٌ مِثل الشمسِ والأرضِ. Ibn Sīnā (1970a, 195.6–12); cf. (2004, 148).

145. Cf. Gutas (2005, 62f).

debate with a stable vocabulary for God's attributes, of which Ibn Sīnā must have been aware (however antithetical it may have been to his philhellenic philosophical project). It was an Arabic conceptual vocabulary with a weight of scholarly precedent behind it. Now Ibn Sīnā had already, as we have seen, used the existing Arabic conceptual vocabulary of poetics in order to talk about the relationships of vocal forms to mental contents. When he used the vocabulary of poetics, he endorsed the theories of mental content that it carried with it, including the theoretical accounts of metaphor based on transfer, borrowing, and resemblance. But when he used the vocabulary of Islamic theology in his discussion of attributes, he did not endorse the theological assumptions in play. What, then, was he doing?

One answer is that the Islamic theological vocabulary of divine attributes was the inevitable basis for any discussion, even in logic, of what an attribute was. Moreover, unlike al-Fārābī, Ibn Sīnā was committed to using available Arabic words and avoiding the construction of neologisms. Another answer is that this was a moment when Ibn Sīnā contested the intellectual dominance of Islamic theology by a passive-aggressive (or ironic) use of theology's own vocabulary to do something different and philhellenic. If we follow the ironic interpretation, then an implication could be drawn as to the likely readership of Ibn Sīnā's logical work. Why write an ironic engagement with theology into logic if the only readers are one's fellow Aristotelians? If this implication is correct, then Ibn Sīnā wanted his logic to be read by scholars like al-Ǧurǧānī (Islamic theology and Arabic poetics) as much as he wanted to be read by scholars such as al-Ḥasan Ibn Suwār (Christianity, philhellenic philosophy, medicine). He included Islamic theology, alongside medicine, ethics, and more in his review of the foundational subjects of scholarly disciplines. (The starting point of theology was either obedience to divine law or the divine status of that law.)[146] Scholarship has already demonstrated the connections between Islamic theology before Ibn Sīnā and Ibn Sīnā's own work (Wisnovsky on Ibn Sīnā's *Metaphysics*), in addition to the impact that Ibn Sīnā had on theological discussions of atomism in the twelfth and thirteenth centuries (Dhanani).[147] What I am doing here is suggesting two further connections: first, that Ibn Sīnā brought parts of Arabic poetics and theology into his logic, and second, that scholars after Ibn Sīnā such as al-Ǧurǧānī used Ibn Sīnā's logic to do poetics.

With this framing established, let us turn again to Ibn Sīnā's *Eisagoge*. He had been discussing the difference between what-it-is-ness and accident as it stood in the Aristotelianism of his eleventh century, some three hundred years after

146. وإما أنْ تشترِك في مَبدأ واحدٍ مثل اشتراك موضوعات عِلم الكلام فإنها تشترك في نِسبتها إلى مبدأ واحد. إما طاعة الشريعة أو كونها إلهية Ibn Sīnā (1956b, 157.12–14), via alternative translation: Strobino (2016, 212).

147. Dhanani (2015), Wisnovsky (2003, 227f).

discussions of Porphyry's *Eisagoge* had begun in Arabic with Ibn al-Muqaffaʿ (d. 756). Ibn Sīnā started by dealing with the two types of accident identified by Porphyry: separable accidents such as "sleep" (and redness when embarrassed for Ibn al-Muqaffaʿ) and inseparable accidents such as "black" when used of ravens.[148] He then used the framework of mental and extramental existence to identify a third sphere in which, for example, a triangle necessarily had to have three angles that added up to 180 degrees. This fact about triangles, "triangleness," was not dependent on either existence in the mind or existence in the world: it was the what-it-is-ness of the triangle. The constituents of this what-it-is-ness (the fact of the three angles adding up to 180°) did not have to always be actually thought of when triangles were thought of, but whenever the what-it-is-ness of a triangle was thought of, these constituents were necessarily there too.[149] "If this is the case," says Ibn Sīnā, "then the attributes that we call essential for reasoned mental contents must necessarily be reasoned of a thing in this way; the what-it-is-ness of a thing cannot be conceived in the mind without their prior conception."[150]

This doctrine of what-it-is-ness would be influential for the subsequent millennium of both Arabic and European-language philosophy. (See, for example, statements by Wisnovsky and Klima.)[151] But I am interested in the move Ibn Sīnā made at the end of this discussion to talk about essential attributes, almost as if such a discussion was the justification for his analysis of what-it-is-ness. I am not claiming that this is the case; attributes (*ṣifāt*) rarely appear as a category in Ibn Sīnā's *Eisagoge.* But they do appear here, and the lesson that a theologian such as Ibn Fūrak might take would be that God can be thought of without necessarily thinking of his essential attributes (such as "speech" and "knowledge" for Ibn Fūrak) but that when the essence of God is thought of, then both speech and knowledge are necessarily constituents of that essence. It is as if Ibn Sīnā, having read Islamic theology in his youth,[152] was motivated to show his readers that his philhellenic logic, despite its programmatic and disciplinary separation from such theology (and despite the distinction philhellenic philosophy made between what-it-is-ness

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148. Porph. *Eisagoge* 12.25. Porphyry (2003, 12).

Ibn al-Muqaffaʿ (1978, 8.1–4). فمن الأعراض مفارقٌ وغيرُ مفارق فأما المفارق . . . حُمرةُ الخجِل.

149. Ibn Sīnā (1952c, 34.12–35.3). See also note 43 above

150. وإذا كان كذلك فالصِفةُ التي نُسمّيها ذاتيةً للمعاني المعقولة يجب ضرورةً أنْ تُعقَل للشيء على هذا

الوجه إذ لا تُتصوَّر الماهيةُ في الذهن دون تقدُّم تصوّرها. Ibn Sīnā (1952c, 35.3–5).

151. "Avicenna's innovations are a turning point in the history of metaphysics": Wisnovsky (2003, 266). "The most important influence in this [medieval European] period from our point of view came from Avicenna's doctrine distinguishing the absolute consideration of a universal nature": Klima (2013).

152. Wisnovsky (2003, 17).

and essence),[153] could still solve theological problems. Future generations would exploit this potential.

The other major discussion of attributes in the logical sections of Ibn Sīnā's *aš-Šifāʾ* comes in his discussion of the "fourfold classification of 'things there are'" in *Categories,* where Aristotle makes a distinction between things either in, or said of, the subject of a logical proposition.[154] I have not found in Porphyry, Simplicius, or the Arabic school notes, any indication that may frame the five-part scheme for the interaction of essence and attribute with which Ibn Sīnā replaces Aristotle's four categories.[155] Ibn Sīnā wrote that the attributes of things either: (1) are a mental content that settles in the essence but is external and attaches as a necessary concomitant or accident ("man is white," "man is laughing," Aristotle's "in but not said of"); or (2) settle in the essence and are not external but actually a part of the essence ("man is an animal," Aristotle's "said of but not in"); or (3) settle in the essence but are there to establish the essence while not being part of it (the relationship of form to substance); or (4) settle in the essence and are not attached externally but actually a part of the essence ("the animal is a body"); or (5) settle in the essence and attach to the essence either necessarily or accidentally ("matter occupies space" or "matter is white").[156] The disconnect between Ibn Sīnā and Aristotle (and between Ibn Sīnā and the commentary tradition) is symptomatic of the way he addressed the complex of problems around *Categories* with no concern for hermeneutical precedent. It may be an amusing exercise to slot Ibn Fūrak's concern for God's attributes into this scheme, and it is faintly conceivable that Ibn Sīnā had such epistemological assistance for theologians in mind (perhaps Ibn Fūrak would put God's knowledge into [5] and God's mercy into [1]?). It is worth noting that the word *maʿnā* appears only once in the scheme, and it does so as a word for an accidental quality in (1), just the same usage with which we became familiar in Islamic theology. The conceptual vocabulary in this passage is not particularly

153. Lizzini (2016).

154. Arist. *Cat.* 1a20f. Aristotle (1963, 74 notes).

155. Simpl. *In Cat.* 44–51, Porph. *In Cat.* 88f, Georr (1948, 359–87).

156. فاعلمْ أنَّ صِفات الأُمور على أقسام لأنه إما أنْ يكون الموصوفُ قد استقر ذاتَه معنيً قائماً ثم إنّ الصفة التي يُوصف بها تلحَقه خارجةً عنه لُحُوقَ عارضٍ أو لازم وإما أنْ يكون الموصوفُ أُخِذ بحيث قد استقر ذاتَه لكنّ الصفة التي يُوصف بها ليستْ تلحَقه لُحُوقَ أمرٍ خارج بل هو جزءٌ من قِوامه وإما أنْ يكون أُخِذ بحيث لا يكون قد استقر ذاتَه بعدُ والصفةُ تلحَقه لتقرّرِ ذاتِه وليسَتْ جزءاً من ذاته وإما أنْ يكون أُخِذ بحيث لا يكون قد استقر ذاتَه بعدُ والصفةُ ليستْ تلحَقه من خارج بل هو جزءٌ من وجوده وإما أنْ لا يكون قد استقر ذاتَه والصفةُ تلحَقه لا لنفس ذاتِه بل لُحُوقَ لازمٍ لمّا يُقرِره أو عارضٍ له أوّل ومثالُ الأوّل قولُك الإنسانُ أبيض أو ضحّاك ومثالُ الثاني قولُك الإنسانُ حيوانٌ . . . ومثالُ الثالث الهيولى والصورة . . . ومثالُ الرابع الجوهرُ للجسم المحمول على الحيوان . . . ومثال الخامس الهيولى إذا وُصفتْ بالبياض أو السواد أو التحيّز Ibn Sīnā (1959b, 18.5–19.7).

typical of Ibn Sīnā, and indeed he noted that he was using "subject" here in a specific technical way.[157] It is tempting to think that he took Aristotle's logical subject and used it to show Islamic theologians the sort of philhellenic resources that were available to them. But this is guesswork.

Logical Assent (taṣdīq)

Let us now put the amusement of imagining theological uses for Avicennian logic to one side and turn to Avicennian logic itself. The question is: What did *maʿnā* do here? In this section I will be presenting a basic account of logical categories and the syllogism with a focus on the conceptual vocabulary of mental content. This is an argument about what logic looks like from the outside, an argument designed to set up chapter 7, on al-Ǧurǧānī, who I will argue looked at logic from the outside (as I do!) and used its conceptual vocabulary to good effect in poetics. (For more detailed analysis of Arabic logic *qua* logic, readers should turn to a recent florescence in that field and to the work of Tony Street, Asad Q. Ahmed, Khaled El-Rouayheb, and others.)[158]

We have already established that the initial cognitive step for Ibn Sīnā was the process of conception, in which a particular mental content is established in the mind. This mental content can have a name in language (for example, "human") that enables it to be spoken about. But as a single mental content, not predicated of anything else, it cannot be true or false, and the question of truth and falsity is the concern of logic. Ibn Sīnā is here thinking of mental contents as language-facing, and one example of conceived mental content that cannot be true or false is the imperative speech act "Do that!"[159] You cannot take someone's order, the expression of their mental content, of their intent, and determine whether it is true or false. All that has happened is that mental content has been expressed. "X" cannot be true or false when conceived on its own, but faced with the statement "X is Y," we must decide whether or not to assent to its truth. The logical process begins when your brain does something to the mental content that language has delivered to you: "If someone says to you, 'Each instance of the color white is an accident,' then you do not just attain the mental content of that statement; rather you judge

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157. فيجِب أَنْ تفهَم مِن الموضوعِ هاهنا هذا وإنْ كان قد يُستعمَل فى مواضعَ أُخرى استعمالاتٍ غيره.
Ibn Sīnā (1959b, 20.2).

158. Ahmed (2008); El-Rouayheb (2010), (2012); Ibn Sīnā (2010); Street (2004), (2015).

159. وكما أنّ الشيء يُعلم من وجهَين أحدُهما أن يُتصوّر فقط حتى إذا كان له اسمٌ فنُطِق به تَمثَّل معناه
في الذِهن وإنْ لم يكن هناك صدقٌ أو كذبٌ كما إذا قيل إنسانٌ أو قيل إفْعَلْ كذا فإنك إذا وقفتَ على معنىً ما
تخاطب به من ذلك كنتَ تصوّرتَه. Ibn Sīnā (1952c, 17.7–10). Cf. with translations Sabra (1980, 759–60),
Street (2015). And for *tamtattala*, note 59.

it to be true."[160] This judgment is called "assent" (*taṣdīq*), and it comes after the initial cognitive language-facing process of conception (*taṣawwur*). The discipline of logic moves from known to unknown through both conception and assent.[161]

In this section Ibn Sīnā is clear that the language-facing mental content of initial cognition can be both single and composite. So when you hear "Each instance of the color white is an accident," your conceived mental content is of the form of the composition of the statement as well as of its individual components. Your subsequent assent concerns the correspondence (or lack thereof) in the relationship between that mental content and the actual things: Is each instance of the color white really an accident?[162] There is here no implication that the actual things have to be in the world outside as opposed to in the mind. At the start of the next section, on the subject matter of logic, Ibn Sīnā spelled out this distinction in terms of single and composite mental contents. The mind cannot do assent with single mental contents; they are insufficient because (for example) assent to their existence or nonexistence would (if the single mental content was all that was available to the mind) require their own cognitive existence or nonexistence. This would be impossible, because the cause of something (in this case the assent) cannot be a cause when it is possibly not there.[163] What actually happens when you assent to the existence of something or to its nonexistence is that you add a related additional piece of mental content.[164]

This is the critical statement about mental content that provided al-Ǧurǧānī with a conceptual vocabulary for poetics: language gives you a mental content, and your reason connects that mental content to other mental contents. What is more, the simple mental contents that make up composite mental contents have all kinds of extra issues that they bring along with them. Ibn Sīnā's example is the house composed of wood, clay, and bricks, each of which has qualities of which the builder must be aware. (Is the wood hard and straight, or soft and bent?) But the logician is not like the builder. The logician is unconcerned with the individual mental contents *qua* mental contents, and equally unconcerned with the question

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160. فيكون إذا قيل لك مَثلاً إنّ كلَّ بياضٍ عَرَضٌ لم يَحصل لك من هذا معنى هذا القول فقط بل صدّقتَ أنه كذلك. Ibn Sīnā (1952c, 17.10–12).

161. فهاهنا شيءٌ من شأنه أن يُفيد العِلم بالمجهول تصوّرُه وشيءٌ من شأنه أنْ يفيد العِلم بالمجهول تصديقُه. Ibn Sīnā (1952c, 18.2–3).

162. والتصور في مثل هذا المعنى يفيدك أن يَحدث في الذهن صورةُ هذا التأليف وما يُؤلَّف منه كالبياض. والعرض والتصديقُ هو أن يَحصل في الذهن نِسبةُ هذه الصورة إلى الأشياء أنفسِها أنها مطابقةٌ لها Ibn Sīnā (1952c, 17.14–17); cf. (1938, 60.13–17), (1982, 29–30).

163. وليس يجوز أنْ يكون شيءٌ [المعنى المفرد] عِلةً [عِلةَ التصديق] في حالتَي عدمه ووجوده. Ibn Sīnā (1952c, 31.6–7).

164. وإذا قرنتَ بالمعنى وجوداً أو عدماً فقد أضفتَ إليه معنىً آخر. Ibn Sīnā (1952c, 31.9–10).

of whether and how they exist either in the mind or outside in the world. The logician cares only about the mental contents insofar as they are predicates, subjects, universals, and particulars. Everything else, from extramental instances to linguistic references, is accidental to logic.[165] Just as we saw happen with Islamic theology in the preceding sections, when Ibn Sīnā demarcated the discipline of Aristotelian logic he also managed, along the way, to provide conceptual vocabularies for the other intellectual pursuits of the eleventh century. Scholars of poetics are like the builder: they care about the implications that mental contents bring with them. The Classical Arabic poetic metaphor works only when each mental content is looked at from every possible angle.

First and Second Position (prima et secunda positio)

The logical process is one in which reason interacts with mental content. Syllogisms and logical definitions are composed of "reasoned mental content in defined compositions."[166] The labels for the parts of defined compositions such as the syllogism, or the logical definition, are themselves mental contents, but they are in second position. They are the subject matter of logic: the subject, the predicate, the universal, the particular, and so on. Logic uses a particular set of mental contents that do not exist in the world outside (there are no extramental real-life predicates) to structure all other mental content. Ibn Sīnā's description of these two types of mental content in his *Metaphysics* would prove influential in Latin Europe: "The subject matter of logic is the secondary reasoned mental contents, which depend on the primary mental contents." The argument is the same as he made in the *Eisagoge* quoted above, but the two types of mental content identified there are now in his *Metaphysics* given the names "primary" and "secondary."[167] The Kneales call this passage "the origin of that discussion of first and second intentions which continued until the end of medieval logic."[168] Latin Europe's concern had its roots (Sorabji *pace* the Kneales) in the "Neoplatonic theory of the two-stage imposition

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165. Ibn Sīnā (1952c, 21.18–22.12).

166. Ibn Sīnā (1938, وكل واحدٍ من القياس والحدّ فإنه مَعمولٌ ومؤلفٌ من معانٍ معقولة بتأليف محدود.
3.15–16). Cf. translation Sabra (1980, 761).

167. *Eisagoge:*

وكذلك صناعة المنطق فإنها ليستْ تَنظر في مفرداتِ هذه الأمور من حيث هي على أحدِ نحوَي الوجود
الذي في الأعيان والذي في الأذهان ولا أيضاً في ماهيات الأشياء من حيث هي ماهيات

Metaphysics:

والعِلم المنطقيّ كما علمتَ فقد كان موضوعُه المعاني المعقولةَ الثانيةَ التي تستنِد إلى المعاني المعقولة
الأُولى ولها الوجودُ العقليُّ الذي لا يتعلّق بمادةٍ أصلاً أو يتعلّق بمادةٍ غير جُسمانية. Germann (2008, 19), Ibn
Sīnā (1952c, 22.8–10), (1970a, 10.17–11.2), (2004, 7).

168. Ibn Sīnā (1508, 70b/1.46–51), Kneale and Kneale (1962, 230).

of names."[169] Ibn Sīnā would have picked up this vocabulary, most probably, from Simplicius. But Simplicius was talking about the difference between Aristotle's *Categories* and *De Interpretatione,* and specifically about the grammatical categories of "noun" and "verb" therein.[170]

The problem in Arabic was that here a discussion of grammatical categories would run into the existing conceptual vocabulary that enumerated the mental contents of grammar. Al-Fārābī, who had been at this point a century or so earlier (see Zimmermann's detailed analysis)[171] had chosen to largely eschew the vocabulary of mental contents (*maʿānī*) in favor of "intelligibles" (*maʿqūlāt,* although he did use *maʿnā* for the target of conception).[172] But Ibn Sīnā was either more confident that he could overcome the grammarians or, as is perhaps more likely, by the eleventh century the boundaries between grammar and logic were no longer as polemically defined. (See Adamson and Key on this debate.)[173] Ibn Sīnā was doing logic, so he divided mental contents into two. Mental contents in first position enabled the conception of things that could be put into syllogisms or definitions (such as "instance of the color white" and "accident"). Mental contents in second position enabled the naming and classification of the structures of composition that created the syllogisms and definitions themselves (such as "subject" and "predicate"). When Ibn Sīnā made use of a pair of inherited philhellenic terms for these two levels, he was using terms with a genealogy that stretched back into ancient Greek grammar and forward into Latin European accounts of signification, but he was talking only about Arabic logic.

ARISTOTELIAN PHILOSOPHY DONE WITH ARABIC CONCEPTUAL VOCABULARY

The mental contents that are the stuff of Ibn Sīnā's logic were necessarily located in the mind. They are mental contents achieved through conception, in first or second position, and subject to assent. Through the formal structures of logic, the most important of which was the syllogism, they can be ordered so as to provide access to new information (if all A is B, and all B is C, then all A is C, a syllogism with a perfect proof, in Europe subsequently given the Latin mnemonic *Barbara*). The discipline of logic ensures accurate reference in the case of both conception and assent. Ibn Sīnā wrote that logic enabled the mind to check whether its

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169. Simplicius (2003, 109 n. 182).

170. Simpl. *In Cat.* 15.1–5 via Zimmermann (1981, xxxii).

171. Zimmermann (1981, xxxi–xxxiii, 5–6). Cf. Gyekye (1971, 35–36).

172. For example, al-Fārābī (1972, 7f). See Rudolph (2017, 605).

173. Key and Adamson (2015).

conception of something really did give an accurate account of a what-it-is-ness, and if not, what had gone wrong with the logical statements of conception. Logic also enabled the mind to know how and whether logical statements produced certain and accurate assent that could not be unwound, or how and whether they could produce assent with a defined degree of uncertainty.[174] The logical statements in question (the Arabic word, *qawl,* may be translated as "speech act" in a discipline other than Aristotelian logic) are defined compositions of mental contents, compositional structures that are defined by the roles their terms play in the second position. For example, "man is an animal" is composed of subject plus predicate, as well as a species plus a genus. "Man" and "animal" are conceived mental contents in first position, and "subject," "predicate," "species," and "genus" are mental contents playing logical roles in second position.

In the case of both conception and assent, Ibn Sīnā describes the result as *ḥaqīqah.* As we have seen, this is a judgment about accuracy. It is not necessarily a judgment about language. In the case of conception, Ibn Sīnā means that the substance of the thing is accurately known in the mind; the mental content is accurate with respect to the thing. There is no necessary connection to language, and there is no necessary connection to extramental existence in the world outside. This is an accurate account that connects a mental content to a thing, wherever it is. Accurate conception is therefore integral to accurate assent.

If accurate conception and accurate assent are the goal of logic, what happens in cognition that fails to achieve this standard? How does Ibn Sīnā contend with inaccurate conception or assent, logical processes that he cannot describe as *ḥaqīqah?* We can suggest an answer by looking at his discussion of how logic enables the identification of statements that appear to produce an impression on the soul like assent but that are actually imagination.[175] The example he gives is honey, and we can read it as an example of what happens when conception, and therefore assent, are not accurate (what *taṣawwur* and *taṣdīq* look like in the absence of *ḥaqīqah*). Honey looks like bile (yellow and viscous) and on that basis, one might accept the logical statement "Honey is bitter and causes vomiting." The impression on the soul would be that honey is bitter, and so one should avoid it. The logical statement would through its compositional form and mental content have produced a

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174. فغايةُ عِلم المنطق أنْ يفيد الذهنَ معرفةَ الشيئين [التصور والتصديق] فقط وهو أنْ يَعرف الإنسانُ أنه كيف يجب أنْ يكون القولُ المُوقِعُ للتصوّر حتى يكون مُعرِّفاً حقيقةَ ذاتِ الشيء وكيف حتى يكون دالاً عليه وإنْ لم يُتوصَّل به إلى حقيقةِ ذاته وكيف يكون فاسداً . . . وأيضاً أنْ يَعرف الإنسانُ أنه كيف يكون القولُ الموقِع للتصديق حتى يكون مُوقِعاً تصديقاً يقينيّاً بالحقيقة لا يصح انتقاضُه وكيف يكون حتى يكون موقِعاً تصديقاً يقارب اليقين. Ibn Sīnā (1952c, 18.10–16).

175. وكيف يكون القولُ حتى يُؤثِّر في النفس ما يُؤثِّره التصديقُ والتكذيبُ من إقدام وامتناع. Ibn Sīnā (1952c, 18.19–19.1).

result in the soul parallel to the process of assent. But it would be wrong; it would not be assent! It would be (as Ibn Sīnā explains elsewhere) a judgment based on estimation and not on reason.[176] The problem with the statement that honey causes vomiting is that the conceptions and subsequent assents are not accurate. An accurate process of conception would associate the name "honey" with the property of sweetness and therefore would be able to judge that any assent to honey being bitter or causing vomiting is not accurate either. As Ibn Sīnā has just told us, logic shows how statements can accurately produce conception as well as how they can accurately produce assent. Logic would enable us to see how our conception of honey is not accurate, and it would ensure that our mental contents are accurate accounts of the what-it-is-ness of the thing in question. It should be noted that the thing in question (in this case "honey" and the properties it has when accurately conceived) does not need to be in the extramental world. The whole logical process can happen in the mind. In his *Eisagoge* Ibn Sīnā is describing a logical tool that applies across science, a tool he would use when he came to ask in medicine and biology whether honey really was sweet out there in the world.

This account of how *ḥaqīqah* in Ibn Sīnā interacts with *maʿnā* shows how the discipline of logic maintained the basic role of both these components of eleventh-century Arabic conceptual vocabulary. My approach here could enable a slightly different reading of texts in which Ibn Sīnā talks about things being accurate accounts, a reading that does not necessarily push toward extramental realities in the world outside but rather reaffirms the centrality of the mind. For example, let us take a passage from Ibn Sīnā's *Metaphysics,* analyzed to good effect by Wisnovsky. Ibn Sīnā was making a distinction between "thingness" (*šayʾīyah*) and "existence" (*wuǧūd*) in order to discuss "the relation between efficient and final causes" and resolve the question of how the final cause could be both final (i.e., last) and a cause (i.e., first).[177] Ibn Sīnā's conclusion was that the final cause is last with regard to existence (i.e., all other causes are before it in the Aristotelian chain of causality) but first with regard to thingness (i.e., its thingness is that it is the reason for the existence of the other causes in the chain).[178] But he needed to say how thingness and existence were different. Here, Wisnovsky translates *ḥaqīqah* as "inner reality": "The difference between a thing and existence is just like the difference between some entity and its concomitant. . . . Consider, once again, the case of man: man has an inner reality, consisting of his definition and his quiddity, which is not conditioned upon [his] existence's being particular or general,

176. Ibn Sīnā (1956a, 2:177.12–14) via Pormann (2013, 104).

177. Wisnovsky (2003, 161–62).

178. Ibn Sīnā (1970a, 293), Wisnovsky (2003, 162).

concrete or in the soul, or potential or actual."[179] Ibn Sīnā thought that the definition and what-it-is-ness (quiddity) of the human being is his thingness, and this is separate from his existence, which may be particular, general, or potential.

What happens if we read *ḥaqīqah* as "accurate account" in this same passage? My translation is: "The difference between the thing and the existent . . . is like the difference between something and its concomitant . . . for the human has an accurate account that is his logical definition and his what-it-is-ness, not conditional on a particular or general existence in actual instances or anything potential or actual in the soul."[180] I think that Ibn Sīnā thought that the *ḥaqīqah* of a human being, the accurate account of a human being, and the epistemological process that enables us to contend with the human being was the combination of logical definition and what-it-is-ness. To provide an accurate account of the human being, one could provide a logical definition, and one could state the what-it-is-ness. Logical definition was a human epistemological process, while what-it-is-ness was an independent construct that could (according to the *triplex*) be either in the mind or in actual instances of things.[181] What-it-is-ness and definition were therefore both accurate connections between logical statements and things. My focus on *maʿnā* and *ḥaqīqah,* on mental content and the accurate account in Ibn Sīnā, has not here produced a substantively different reading of his actual philosophical argument about final causation. What I hope to have done is complement Wisnovsky's analysis of this question with a new focus on the very first steps of Ibn Sīnā's thought process and the most basic components of his conceptual vocabulary. *Ḥaqīqah* can be translated not as "inner reality" but rather as Ibn Sīnā's epistemological judgment: in both logical definitions and statements about what-it-is-ness we get an instance of epistemological accuracy, an accurate account of a thing.

In *Manṭiq al-Mašriqīyīn,* as he defined the different scholarly disciplines that deal in practical or theoretical knowledge, Ibn Sīnā remarked on the mind's ability to engage with incorrect hypotheticals. He was describing the relationship of theoretical disciplines to extramental matter and wrote that in a theoretical discipline, the matters under consideration were either inevitably constituted by extramental matter (such as humanity or size) or were potentially conceivable as separate from matter (such as number, rotation, or the creator). The word *maʿnā* appears when the human mind is considering the possibility that anything could be human: "It is not impossible for the mind, at the beginning of its theorizing, to have humanity

179. Ibn Sīnā (1970a, 292.2–5), Wisnovsky (2003, 161). Wisnovsky translates *māhiyah* as "essence."

180. فإنّ . . . وفرْقٌ بين الشيء والموجود وإنْ كان الشيءُ لا يكون إلا موجوداً كالفرق بين الأمر ولازمه
للإنسان حقيقةٌ هي حدُّهُ وماهيتُه مِن غير شرطِ وجودٍ خاصٍ أو عامٍ في الأعيان أو في النفس بالقوة شيءٌ من
ذلك أو بالفعل. Ibn Sīnā (1970a, 292.2–5).

181. Ibn Sīnā (1952c, 15.1–3). Cf. Wisnovsky (2003, 160 n. 40).

inhering in every substance, but that would be classed as a mental error. To be correct, the mind must necessarily turn away from permitting this and know that the *ma'nā* of 'humanity' inheres in a substance only if there is another *ma'nā* that provides a structure for it."[182] *Ma'nā* is the stuff of cognition, the mental content with which we make sense of fundamental metaphysical questions and contend with the relationship between abstract categories and the extramental world. Ibn Sīnā was talking about theoretical scholarly disciplines and a process that took place in the mind; there can be no question about the location of the *ma'ānī* in this passage. The scale and rigor of his philosophical project has ensured clarity on this point, and the action that is taking place is the same action that took place in Ibn Fūrak's theology: *ma'ānī* both inhere in extramental substances and are the way our minds make sense of those substances. We do not have a word in English that does this work, but Ibn Sīnā had a word in Arabic that could.

Just like Ibn Fūrak, Ibn Sīnā used his conceptual vocabulary to clarify the difference between mind and reality. In *an-Naǧāh* he explained "thingness," the neologism we have just encountered with the help of Wisnovsky: "It is clear that thingness is different from existence in actual instances. For *ma'nā* has an existence in actual instances, an existence in the soul, and a shared matter that is thingness."[183] Thingness is that moment when *ma'nā* in the soul and *ma'nā* in actual instances align. To some extent, this must be a human epistemological process, and so just as with Ibn Fūrak the translation of *ma'nā* as "mental content" is imperfect but functional. In the *Eisagoge* chapter on universals (part of the *Eisagoge*'s mini-discussion of *Categories*), Ibn Sīnā used "animal" as an example for this type of mental content: "The animal is, as itself, a mental content, whether existing in actual instances or conceived in the soul. As itself it is neither general nor particular."[184] This state of existing in either instances or in the soul is exactly what Ibn Sīnā called "thingness" in the *Metaphysics*. In this philosophy, any extramental fact or actual instance in the physical world will inevitably become mental content as soon as logic's dual process of conception and assent starts to work. The parallel to Ibn Fūrak's theology is clear: any extramental fact concerning God or the extramental physical world will inevitably become mental content as soon as theology's dialectical and linguistic process starts to work. Mental content is

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182. وإنْ كانتْ بحيث لا يمتنع الذهنُ في أوّل نظره عن أنْ يُحلّها كلَّ مادة فيكون على سبيل مِن غلط الذهن بل يحتاج الذهنُ ضرورةً في الصواب أنْ ينصرف عن هذا التجويز ويَعلم أنّ ذلك المَعنى [الإنسانية] لا يَحلّ مادةً إلا إذا حصل معنئً زائدٌ يُهيئها له وهذا كالسواد والبياض. Ibn Sīnā (1982, 25.15–20).

183. ومِن البيِّن أنّ الشيئية غيرُ الوجود في الأعيان فإنّ المعنى له وجودٌ في الأعيان ووجودٌ في النفس وأمرٌ مشتركٌ فذلك المشترك هو الشيئية. Ibn Sīnā (1938, 212.4–6). Cf. Wisnovsky (2003, 163).

184. إنّ الحيوان في نفسه معنئً سواءً كان موجوداً في الأعيان أو مُتصوَّراً في النفس وليس في نفسه بعامٍّ ولا خاصّ. Ibn Sīnā (1970a, 65.11–12) via Black (1999, 52–53).

what happens as soon as humans are involved. This necessarily happens in both logic and theology. The difference between Ibn Fūrak's theology and Ibn Sīnā's philosophy was what happened after humans got involved. For Ibn Fūrak, as we saw, mental content remained stable and may have been assumed to be controlled by God. Ibn Sīnā's philosophy, however, used mental content as human cognition of actual instances in the world and ideas in the soul. Mental content was both the abstract conception of "thingness" that underpinned metaphysics and the logical categories of subject and predicate with which logic was constructed. The mental content "animal" could be conceived of both in an actual instance of an animal and as an abstract logical category.

Ibn Sīnā's five universals were mental contents that could be natural, reasoned, or logical.[185] Mental content could conceive of animals out there in the world; it could reason the "thingness" category of animal, and it could assign the animal a logical category such as genus. This third logical stage involved the addition of another piece of mental content to the animalness.[186] Ibn Sīnā's accounting for mental content in this passage matches both his analysis of conception and assent and his analysis of hypotheticals: as soon as you assent to something, you add a piece of mental content to a piece of mental content, and so as soon as you conceive of something as a logical category such as genus, you are adding a piece of mental content to a piece of mental content. "The *maʿnā* of 'humanity' inheres in a substance only if there is another *maʿnā* that provides a structure for it."[187] This process of accounting for the workings of thought in terms of combining pieces of mental content is, I will argue in the next chapter, central to al-Ǧurǧānī's advances in the analysis of metaphor. It is how Ibn Sīnā used Arabic conceptual vocabulary to write Aristotelian philosophy, and in doing so develop that conceptual vocabulary into a tool that would be used for both philosophy and poetics across the subsequent millennium.

But Ibn Sīnā's goal was not to prepare the ground for al-Ǧurǧānī's poetics. Instead he was preparing the ground for his own metaphysics. At the start of this section Ibn Sīnā suggested organizing the three categories according to multiplicity. The reasoned category came first ("animal" conceived as a single mental content); then there was the multiplicity of instances in the world (lots of actual

185. فصلٌ في الطبيعي والعقلي والمنطقي وما قَبْل الكثرة وفي الكثرة وبعد الكثرة من هذه المعاني الخمسة. Ibn Sīnā (1952c, 65.4–5). Cf. Black . . . . إنَّ منها ما هو طبيعيّ ومنها ما هو منطقيّ ومنها ما هو عقليّ (1999, 52–53).

186. بل الحيوانُ في نفسه شيءٌ يُتصوَّر في الذهن حيواناً وبحسبِ تصوُّره حيواناً لا يكون إلا حيواناً فقط. .Ibn Sīnā فإنْ تُتصوَّر معه عامٌّ وخاصٌّ وغيرُ ذلك فقد تُصوِّر معه معنئً زائدٌ على أنه حيوانٌ يعرِض للحيوانية (1952c, 65.16–19).

187. See note 182 above.

animals), and then there was logical categorization of that multiplicity (statements such as "the human is an animal").[188] Then Ibn Sīnā discussed the question of which came first. Did the reasoned mental content come before the instances, and then the multiplicity in the world, or did the real-world multiplicity precede the scientific and logical determination that what these empirical facts displayed was genus and species? What caused what? With causation we are in the sphere of metaphysics, and Ibn Sīnā's resolution here (confirmed by a statement in his *Metaphysics* itself)[189] was: "All the different things that exist are related to God and the angels in the same way as our human crafts are related to the soul of each craftsman. For what God and the angels know is accurate knowledge of what is known, and perception of natural matters that exist before multiplicity. Each one of these reasoned things is a single mental content, and existence in multiplicity is subsequently produced for them. In extramental multiplicity there is no single general thing but rather complete separation. The next step after the extramental multiplicity is that the mental contents are produced for a second time in our rational processes."[190]

The single conceived mental contents that are the foundation of Ibn Sīnā's epistemology are here shown to be, like Ibn Fūrak's mental contents, of divine origin. For Ibn Fūrak and ar-Rāġib they were permanently under God's arbitrary control whether located in the mind or the world. But for Ibn Sīnā, God starts a process with simple mental contents that are conceived by angels. These conceived mental contents are then given real-world multiplicity. Finally, we human scientists and logicians study the multiplicity and reason logical categories from within it. Islamic theology and Arabic Aristotelianism turn out to be very different, and at the same time to share in *maʿnā*.

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188. Ibn Sīnā . . . وربما قيل إنّ منها ما هو قبل الكثرة ومنها ما هو في الكثرة ومنها ما هو بعد الكثرة (1952c, 65.5–6f). Cf. Black (1999, 52).

189. فالحيوانُ مأخوذاً بعَوارضه هو الشيءُ الطبيعيُّ والمأخوذُ بذاته هو الطبيعةُ التي يقال إنّ وجودها أَقْدَمُ مِن الوجود الطبيعيِّ بِقِدَم البسيط على المركَّب وهو الذي يخصّ وجودُه بأنه الوجودُ الإلهيِّ لأنَّ سببَ وجوده بما هو حيوانٌ عنايةُ الله تعالى. Ibn Sīnā (1970a, 304.17–305.2) via Black (1999, 52).

190. ولأنّ جميع الأمور الموجودة فإنّ نسبتها إلى الله والملائكة نسبةُ المصنوعات التي عندنا إلى النفس الصانعة فيكون ما هو في عِلم الله والملائكة من حقيقة المعلوم والمدرَك من الأمور الطبيعية موجوداً قبْلَ الكثرة وكلّ معقولٍ منها معنئً واحداً ثم يَحصل لهذه المعاني الوجودُ في الكثرة فيحصل في الكثرة ولا يتّحد فيها بوجهٍ من الوجوه إذ ليس في خارجِ الأعيان شيءٌ واحدٌ عامٌّ بل تفريقٌ فقط ثم تحصل مرةً أخرى بعد الحصول في الكثرة معقولةً عندنا. Ibn Sīnā (1952c, 69.10–16). Cf. Black (1999, 53).