

Definitions and Meno's Paradox

For critics of Aristotelian philosophy, an obvious potential weak point has always been the fact that its theory of demonstration depends on giving essential definitions. If we could show that it is usually, or entirely, impossible to grasp things in their essences then the whole edifice of Aristotelian science would seem to rest on shaky foundations. In the Christian tradition a diverse range of late ancient and medieval authors, including the Cappadocian Fathers and some fourteenth century scholastics, were persuaded that essences are inaccessible to humans and that we grasp substances only through their accidents; we find something similar still later, in John Locke. A parallel position was put forth by several figures in our period, notably Fakhr al-Dīn al-Rāzī and al-Suhrawardī. They argued for this apparently skeptical view by repurposing the tools of Avicenna's own epistemology: since we only ever grasp things from a certain limited perspective, which is a "conceptualization (*taṣawwur*)" or "meaning (*ma'nā*)," we are only ever in a position to give "nominal" definitions and not real or essential ones.

To understand their argument for this and how defenders of Avicennan epistemology responded to them, we need to go back even before Aristotle, to Plato. In a celebrated passage of his dialogue the *Meno* [T1], he has the title character present what is sometimes called the "paradox of inquiry." The problem is that you cannot inquire into what you already know, since you already know it, nor into what you don't know, because in your ignorance you have no basis for doing so. (Actually Meno says the problem is that you will not "recognize" the object of inquiry upon finding it, but we will be seeing treatments of the paradox that treat it as a problem of how to start, not how to recognize that one is finished.) This paradox is taken up by Aristotle in the *Posterior Analytics* and answered by appealing to the idea that our ignorance of the object of inquiry need not be total. We might have knowledge about some universal type but not a particular that falls under that type [T2], or a mere descriptive account of what we are looking for without true understanding [T3].

Meno's paradox was further discussed by Aristotelian philosophers of the formative era, including al-Fārābī and of immediate relevance to us, Avicenna.¹ Although some scholars claim that Avicenna doubted our capacity to under-

1 D. Black, "Al-Fārābī on Meno's Paradox," in P. Adamson (ed.), *In the Age of Al-Fārābī: Arabic*

stand essences, referring to an ambiguous passage from Avicenna's *Ta'liqāt* [T8] (for instance, al-Ṭūsī is clearly reluctant to understand Avicenna that way [T40]), it is pretty clear that Avicenna usually accepted our capacity to acquire real definitions of things [T6]. Against Meno's paradox, he developed Aristotle's idea of giving a preliminary mere description of the object of inquiry in terms of his contrast between "conceptualization" and "assent": I can conceptualize what a triangle is without assenting to every truth concerning it, even necessary truths that attach to its essence, for instance that its internal angles are equal to 180 degrees [T4]. For Avicenna, the paradox is a "sophistical argument" because it ignores the fact that we grasp things in different ways. He uses what for us today is a rather repugnant example: you might know an escaped slave incompletely but still be able to recognize him, say by some distinguishing mark. Just so, mere conceptualization can facilitate inquiry: we identify a corresponding subject of incomplete understanding in observable reality and then learn further things about it, ultimately reaching the level of complete understanding [T5]. The descriptive account in the beginning of the inquire is a merely "nominal" definition [T6]. It does not provide scientific understanding but it could provide the basis for starting an inquiry that terminates in such understanding. All this terminology became standard in post-Avicennan thought, as we can see for instance in a text from al-Sāwī [T9] (see also our Chapter "Conceptualization and Assent") or from a passage in Abū l-Barakāt in which he equally identifies knowledge as the recognition of the previous conception [T13].

But Avicenna's account unwittingly opened the way to formulate a more sophisticated attack on definition staged by Fakhr al-Dīn al-Rāzī and al-Suhrawardī.² They argue that we can never get past a nominal definition or conceptualization so as to define a thing as it really is, which is called "coming to understand (*ta'rif*)" the thing. In fact all we can ever do is explain what we mean by a term or how we "conceive" the thing picked out by the term, but this conception may well be incomplete or inadequate, is perhaps even guaranteed to be so. The

Philosophy in the Fourth/Tenth Century (London: 2008), 15–34; M. Marmura, "Avicenna on Meno's Paradox: On 'Apprehending' Unknown Things," *Mediaeval Studies* 71 (2009), 47–62.

2 On Fakhr al-Dīn see A. Falaturi, "Fakhr al-Dīn al-Rāzī's Critical Logic," in M. Minuvi (ed.), *Yād-nāmah-yi Īrānī-yi Minorsky* (Tehran: 1969), 51–79; B. Ibrahim, "Faḥr al-Dīn al-Rāzī, Ibn al-Hayṭam and Aristotelian Science: Essentialism versus Phenomenalism in Post-Classical Islamic Thought," *Oriens* 41 (2013), 379–431; N. Jacobsen Ben Hammed, "Meno's Paradox and First Principles in Fakhr al-Dīn al-Rāzī," *Oriens* 48 (2020), 320–344; F. Benevich, "Meaning and Definition: Skepticism and Semantic Internalism in Twelfth Century Arabic Philosophy," *Theoria* 88:1 (2022), 72–108. On al-Suhrawardī, see Benevich op. cit. and J. Kaukua, *Suhrawardī's Illuminatism: A Philosophical Study* (Leiden: 2022), Chapter 1.

best we can do is work on sharpening our provisional descriptions or conceptions of things and testing them against the world as we experience it, without ever being confident that we have grasped things in their essences. That's the fundamental point, but there is much more detail to explore. Before we do so, it should be cautioned that neither al-Rāzī nor al-Suhrawardī are outright skeptics. They both think that we have immediate acquaintance with things [T26], for instance through sense-perception, and that such acquaintance is the basis for all our conceptions, something for which al-Rāzī uses the *kalām* expression “necessary knowledge (*‘ilm ḍarūrī*)” [T17]. (In one exceptional passage al-Rāzī does seem to suggest that it might be possible to “acquire” further conceptions indirectly [T24].)

Al-Rāzī actually poses two paradoxes of inquiry, the one familiar from the *Meno* and a more complex one, which we call the “four options paradox” [T17, T18]. Possibly inspired by a relevant discussion in *kalām* [T30], he rejects the idea that Meno's paradox could be resolved by simply starting from some aspect or point of view one takes on the object of inquiry, because the paradox can simply be re-applied to the aspect of the thing we don't yet know [T17]. He also considers the specific response to Meno's paradox given by the Avicennans, namely that one could move from a nominal to a real definition by going from conceptualization that is “prior to assent” to a fully adequate conceptualization that is “posterior to assent” [T12]. Al-Rāzī rejects this solution, not just because finding real definitions would be very difficult [T20], but also because real definitions are supposed to be conceptualizations according to the Avicennans, whereas finding something in the world that corresponds to a previously formulated conceptualization is a case of assent, not conceptualization [T18]. Al-Rāzī himself is happy to accept that we can make claims—that is, provide assents—about the nature of real things, but we can never learn to fully understand them through conceptualization [T23].

As for the four options paradox, this is a meticulous proof against the possibility of making progress in inquiry, on the basis that a quiddity cannot be known through itself, through any intrinsic feature, through any extrinsic feature, or through both kinds of features together. The argument can best be explained using an example. How would we know the essence of *human*? Not through the essence itself, or through all its “intrinsic” features like animality and rationality, since to be in possession of these would presuppose that I already know the essence. Yet neither can I do so through an external “concomitant,” as probably envisioned by Avicenna at [T8], since I would need to know that it applies only to the essence I am interested in, and that would again presuppose my knowing the essence already—for this option see also [T22]. Either way, we are impaled on the first horn of Meno's original dilemma.

A similar line of argument is found also in al-Suhrawardī [T25], who concludes that real definitions cannot be given so that in explaining our terms we are only ever using nominal definitions to express what we have already grasped through direct awareness [T25, T26; cf. al-Shahrazūrī's account in T43]. It would be natural to connect this to his famous doctrine of "knowledge by presence" (on which see the Chapter "Knowledge and Perception"): we know things when they are immediately "present" to us not by "coming to understand" them through some process that puts us in a position to give a definition. Al-Suhrawardī also seizes upon a point admitted by Avicenna [T7], namely that at least simple things are immune to definition [T27], see also [T11].

Al-Rāzī's and al-Suhrawardī's critique of definitions may have been influenced by Abū l-Barākāt and his idea that essential definitions cannot be given, because we only ever consider things through a certain conception that will be expressed in a merely nominal definition [T13, T14, T15, and T16]. As Abū l-Barakāt explains in [T15], one and the same thing, or type of thing, can be defined in various ways depending on how one is thinking about it: you could think of the same individual as a human, as a writer, etc. and to each conception will correspond a distinct nominal definition. Al-Rāzī points out that there's no arguing with this sort of definition since it is just an explanation of what someone means by a given term [T23]; argument only comes in once we are dealing with assent rather than conceptualization [T19]. In other words, if someone says "by 'human' I mean an animal that walks on two feet" they are just telling me what conception they associate with a word, and I can hardly tell them that this is a mistake, but if they say "that object over there is a human" I can disagree with them and point out that the object does not in fact satisfy their concept ("no, it's actually a statue, not an animal that walks on two feet"; see also [T43]). So while Abū l-Barākāt, al-Rāzī, and Suhrawardī are skeptical about the prospects of going beyond nominal definitions, this does not imply that for them we are each trapped within a subjective point of view on the world that no one else can correct.

These seem to be rather formidable objections to Avicenna's solution to the paradox of inquiry, and indeed to his whole epistemology. But it turns out that it is Avicenna, not al-Rāzī or al-Suhrawardī, who finds the most supporters in the subsequent tradition. After Avicenna, Meno's paradox was formulated in purely logical terms and rejected on this basis [T32]. Maybe even more importantly, a number of thinkers respond to the paradoxes formulated by al-Rāzī, usually by offering some version of an "aspect" or "partial knowledge" solution (for the basic idea see [T42]). More specifically, a number of authors think we can after all use concomitant properties as a route to knowledge [T28, T29, T39]. One point made here is that one can know a concomitant feature and use it to

know the essence, without already knowing *that* it is a specific and proper concomitant of the essence; only the latter would presuppose knowledge of the essence [T29, T33]. We find al-Abharī and al-Kashshī suggesting that even accidental properties, never mind necessarily concomitant ones, could be enough [T37, T38].

Also common is adopting al-Rāzī's approach of talking about the paradox in terms of "parts and wholes," as at [T21], but insisting against him that we can come to know a whole if we first know its parts; this is stressed especially by al-Abharī and al-Khūnajī [T32, T33, T34, T35]. Many post-Avicennan philosophers bring up the metaphysics of parts and wholes in this context, questioning whether the totality of parts equals the whole, or we instead need to add a "form of arrangement" (*hay'a ijtimā'yya*); or possibly the whole is not even the same as parts plus their arrangement [T33, T38, T39].³ Al-Kātibī agrees, and adds the *ad hominem* point that knowledge through "detailed" nominal definitions, which al-Rāzī thinks is possible, would be rendered impossible by his supposed paradox just as much as real definitions would [T41]. But some thinkers believe that working towards a more "detailed" account of something we at first grasp only nominally, a procedure called *tafṣīl*, would actually give us a solution to the paradox [T36, T44, T45] (it's not always clear whether, in saying this, they intend to agree with al-Rāzī or disagree). A lengthy passage on *tafṣīl* found in al-Kashshī proposes that we reach definitions by gathering together the parts of a quiddity, which are not merely taken as a kind of disordered list but made into a unity by imposing a "form of arrangement" [T38].

Finally it should be added that issues were raised concerning circularities that arise from the mere notion of having definitions.⁴ For example al-Āmidī raises the worry that defining "definition" would lead to a regress [T31], while al-Sāwī poses, but then dismisses, the breathtakingly broad puzzle that the laws of reasoning in general might stand in need of justification [T10].

The upshot of this material would seem to be that the post-Avicennan tradition was much more concerned with general skeptical worries than Avicenna himself. Al-Rāzī and al-Suhrawardī, especially, moved in a rather skeptical direction without, as we have seen, denying the possibility of knowledge altogether: they simply denied that we can have knowledge of the sort the Aristotelians had envisioned. But it is noteworthy that even this step in a skeptical direction is one that few others were willing to take.

3 This discussion may remind the contemporary reader of the recent debates in Neo-Aristotelianism on parts and whole; see further K. Koslicki, *The Structure of Objects* (Oxford: 2008).

4 M. Özturan, "An Introduction to the Critique of the Theory of Definition in Arabic Logic: Is Complete Definition Circular?" *Nazariyat* 4 (2018), 85–117.

Texts from: Plato, Aristotle, Avicenna, al-Sāwī, Abū l-Barakāt al-Baghḍādī, Fakhr al-Dīn al-Rāzī, al-Suhrawardī, al-Sakkākī, Sayf al-Dīn al-Āmidī, al-Khūnajī, al-Kashshī, Athīr al-Dīn al-Abharī, Naṣīr al-Dīn al-Ṭūsī, Najm al-Dīn al-Kātibī al-Qazwīnī, Ibn al-Nafīs, al-Shahrazūrī, al-Samarqandī, al-Ḥillī.

[T1] Plato, *Meno*, 80d6–10, tr. Lamb.

[*Meno's paradox*]

Why, on what lines will you look, Socrates, for a thing of whose nature you know nothing at all? Pray, what sort of thing, amongst those that you know not, will you treat us to as the object of your search? Or even supposing, at the best, that you hit upon it, how will you know it is the thing you did not know?

[T2] Aristotle, *Posterior Analytics A*, 1, 71^a25–71^a30, tr. Barnes.

[*Aristotle's solution to Meno's paradox*]

Before the induction, or before getting a deduction, you should perhaps be said to understand in a way—but in another way not. For if you did not know if it is *simpliciter*, how did you know that it has two right angles *simpliciter*? But it is clear that you understand it in this sense—that you understand it universally—but you do not understand it *simpliciter*. (Otherwise the puzzle in the *Meno* will result; for you will learn either nothing or what you know.)

[T3] Aristotle, *Posterior Analytics B*, 10, 93^b29–93^b36, tr. Barnes.

[*Aristotle on nominal definition*]

Since a definition is said to be an account of what a thing is, it is evident that one type will be an account of what the name, or a different name-like account, signifies—e.g. what triangle signifies. And when we grasp that this is, we seek why it is; but it is difficult to grasp in this way why a thing is if we do not know that it is. The explanation of the difficulty has been stated already—that we do not even know whether it is or not, except accidentally.

[T4] Avicenna, *Ishārāt*, 40.13–41.5 [part. trans. Inati, mod.]

[*ignorance and learning in terms of taṣawwur and taṣdīq*]

The unknown is analogous to the known. Just as something may be known through mere conceptualization (*taṣawwur*), such as our knowing [41] the meaning of the word “triangle,” or may be known through conceptualization with assent (*taṣdīq*), such as our knowing that the angles of a triangle are equal to right angles—in the same way, something may be unknown in conceptualization, so that its meaning is not conceptualized until it is grasped (*yata'arrafa*), such as the binomial and the disjunctive, or it may be unknown in assent until one learns it (*yata'allama*), for instance that the square on the diagonal is equal to the squares on the sides of the right angle which it subtends.

[T5] Avicenna, *Shifā'*, *Burhān*, I.6, 74.13–76.18 [trans. Marmura, mod.]

[*Avicenna's solution to Meno's paradox*]

It is reported that Meno, who spoke with Socrates about the futility of teaching and learning, said to him, “someone who inquires after some knowledge or other will either be inquiring into what he [already] knows, so that his inquiry is futile, or else inquiring into what he does not know, and then how would he know it, once he attains it? It's like searching for a runaway slave one does not know. If one finds him, one would not recognize him.”

Then Socrates, to refute him, [75] undertook to present [Meno] with a geometrical figure, establishing for him how the unknown, after being unknown, is captured through the known. But this is not logical discourse. For he only brought forward an argument to show the possibility of the very thing that Meno had claimed to be impossible. But this does not resolve the doubt [as such]. But Plato did undertake to resolve the doubt [as such], by saying that learning is recollection. Thereby he tried to convey that the object of inquiry had been known prior to the inquiry, and prior to its being attained, but was inquired into simply because it had been forgotten. Once the investigation leads to the object of inquiry, it is remembered and “learned.” Thus the inquirer would know something he already knew. It's as though Plato gives in to the doubt, and seeking to escape it falls into an impossibility. This is something we have explained thoroughly in our summary of the book *On the Syllogism*.

Nonetheless, we say in addition: if the object of inquiry is known to us in every respect, we would not inquire into it, nor would we do so if it is unknown to us in every respect. But in fact it is known to us in two respects, and unknown in one respect. For it is known to us actually in conceptualiz-

ation (*bi-l-taṣawwur bi-l-fi'l*) and potentially in assent (*bi-l-taṣdīq bi-l-quwwa*), while being unknown to us actually only insofar as it is specified, even though it is also known to us actually as not being specified.⁵ So if we have previous knowledge that every thing which is of a certain character is of that character, not through inquiry but through natural understanding (*fiṭrat 'aql*), or through sensation, or in some other way, we potentially have knowledge of many things. If we observe some of these particulars through sensation, without inquiring into them, then at that point they would actually fall into the class of primary knowledge. In a way, this would fit with the way things go in Meno's example of the runaway slave. For we would initially know the object of inquiry conceptually, just as we would initially know the runaway slave conceptually. Also we would know ahead of time what would bring us to knowing it by assent, just as we would know the road [taken by the slave] before we find out where the slave is. For if we follow the path to the object of inquiry, and have a previous conception of it itself, and of the road leading to it, then when we reach it, we will at that point have perceived the object of inquiry. Just as, when we follow the path to the runaway slave having previously conceived him, and the road leading to him [76], then we'll recognize him once we reach him, even if we had never laid eyes on the runaway slave at all, so long as we've conceived some distinguishing mark (*'alāma*) for him, such that anyone who has this mark is our runaway slave. If, in addition, there arises some knowledge—not by acquisition, but by coincidental observation, or by acquisition, inquiry, testing, and recognition—so that we find that mark on a slave, we will know he is our runaway.

So the distinguishing mark is like the middle term in the syllogism, and our grasping that mark in the slave would be like the minor term. Our knowledge that whoever has this mark is our runaway is analogous to our previously having the major premise, while our finding the runaway would be like the conclusion. This runaway, moreover, would not have been known to us in every respect; otherwise we would not have sought him. Rather, he was known to us by way of conception, but we didn't know where he is. We would seek him insofar as he is unknown, not insofar as he is known. Once we recognize him and catch him, then through the inquiry we come to have knowledge we previously lacked. This happens thanks to the combination of two causes of knowledge, firstly the path and its leading to him, secondly his falling under sensation.

It's like this with unknown objects of inquiry. They are recognized by a combination of two things. Firstly, something we have in advance, namely, that B is

5 In other words, we do not actually know it in a specific way, but we do know that we don't actually know it in this way.

A, which parallels the first cause in the example of the runaway slave. Secondly, something that happens at some point, namely our recognizing through sensation that C is B, which is equivalent to the second cause in the example of the runaway slave. Just as in that case, the two causes yield apprehension (*idrāk*) of the runaway slave, so here the two causes yield the apprehension of the object of inquiry. We do not admit [Meno's] claim that whatever one does not know in every respect cannot be known when it is attained. Rather, it is that of which one is ignorant in every respect that cannot be known when it is attained. When one has previously known some item, this would be potential knowledge of some part of the object of inquiry, like a distinguishing mark for it, and one only needs to connect with something to render [the knowledge] actual. As soon as it is connected to whatever actualizes it, the object of inquiry is attained.

[T6] Avicenna, *Maṭīq al-mashriqiyyīn*, 34.6–35.8

[*nominal definitions*]

The thing that is called “definition” is either in respect of name (*al-ism*) or in respect of essence (*al-dhāt*). The one in respect of name is “a detailed statement (*qawl*) that signifies the meaning (*mafhūm*) of a name according to its use,” whereas the one in respect of essence is “a detailed statement that makes an essence known in terms of its quiddity.” Whenever somebody uses an expression (*lafz*), if he chooses the wording (*ibāra*) for the meaning (*ma'nā*) he intends, its defining is up to him, so that there is no quarrel with him at all, unless he deviates from what he intended in one of the ways we will mention [later on]. When he composes meanings as it is suitable, and then says about the combination: “that is what I intend when I use the expression,” then this will be the definition of this expression, so long as he makes no mistake in the composition, of the sorts you will hear about [later on]. Yet [this definition] would not be of such a kind that, if you were to attach some additional meaning (whether it is specific to what one has composed or not) to what you posited, you could claim that what one has composed plus the addition is the meaning of the expression that has been defined earlier, so that one could say that it is the same (*huwa huwa*). For instance, if one uses “human” when talking and is asked what one means by it, one might respond: “an upright standing animal with uncovered skin and two feet.” Then someone might say that he has just defined man in respect of the usage of its name, and you cannot have any argument with him, since there exists an animal that has such an attribute, and that attribute would express some aspect of it, and it is not forbidden to give a name for it under this aspect, which is expressed with this attribute. Most of what we

accept in matters of language is far from what is acceptable in science. Nevertheless, if you add “capable of laughing” to what was composed and you ask: “Do you mean by [“human”] an upright, standing, animal, capable of laughing, with uncovered skin and two feet?” and he responds: “Yes, that’s what I mean,” or you ask: “Do you mean by it an upright standing animal with two feet [35] by nature, which has uncovered skin *and can write?*” and he responds: “Yes, that’s what I mean,” then he has made a mistake. For what the combination of predicates without “capable of laughing” or “capable of writing” expresses is not the same as what it expresses together with one of them. When “capable of laughing” in particular is added to them, it’s not as if no meaning has been added to them; unless the one who says doesn’t, with that composition, intend primarily to signify the meaning of a name, but instead it would be as if he intended *something* to which [those attributes] would attach and belong, not as its attachments and accidents, but as its essence, which is lesser known than they are. Yet this would not be a definition in respect of a name, but would be making something known incompletely with a [mere] description, which we will unfold in what follows. The same goes for when we remove something from what was posited in the composition, and what remains would be either equal [in scope to the original definition] or more general.

[T7] Avicenna, *Maṭīq al-mashriqiyyīn*, 36.18–22

[*the impossibility of defining simple entities*]

As for the simple item (*al-amr al-basīṭ*), one does not seek in its case for any real genus or specific difference, nor for anything like what we called “real definition,” since there is no such thing [for simple entities] at all, even though some people imagined there to be. Rather one seeks to grasp [a simple entity] through its common concomitants and proper accidents while adding some of them to others, as one adds the specific difference to the genus. You should know that most definitions which one provided for those things are not [really] definitions, and most of the genera provided for them are their common concomitants, not genera.

[T8] Avicenna, *Ta’līqāt*, 71.1–72.6

[*the impossibility of grasping essences directly*]

The grasp (*wuqūf*) of the true realities of things does not lie within the capacity of humankind. What we understand are only the properties (*khawāṣṣ*),

concomitants, and accidents of things. We do not understand the constituent specific differences for each of them, which would refer to its true reality; rather, we understand that they are the things to which the properties and accidents belong. For we understand the true reality of neither the First, nor intellect, nor soul, nor the celestial sphere, nor fire, nor air, nor water, nor earth. Nor do we understand the true realities of accidents. For instance, we do not understand the true reality of substance, but only something to which belongs the property “existent, not-in-a-subject.” But this is not its true reality. Nor do we understand the true reality of body, but something to which belong the properties of height, length, and breadth. Nor do we understand the true reality of animal, but only something to which belongs the property of perception and action. For perceiving and acting are not the true reality of animal; rather, they are property or concomitant. One does not perceive real specific differences. That’s why there is disagreement [between people] over the quiddities of things: because each of us perceives a different concomitant, and makes judgments in accordance with this concomitant. We merely affirm some given, specified (*makhṣūṣ*) thing, and understand that it is specified by one or many properties. Then, we understand that this thing has other properties, through the intermediary of what we first came to understand. Then [72] we pass on towards grasping its “that-ness (*innīyya*),” as is the case of soul, place, etc. We affirm their “thatness” not on the basis of their essences, but by relating them to the things which we understood [before], or through some accident or property that belongs to them. For instance, in the case of soul, we observe a moving body and we affirm a mover for that motion. Then we observe a motion different from the motions of other bodies, and so understand that a specific kind of mover belongs to it, or that it has a proper attribute (*ṣifa khāṣṣa*) that doesn’t belong to other moving [bodies]. Then we follow from one property to another, and one concomitant to another, so that through them we arrive at the “that-ness” [of soul].

[T9] Al-Sāwī, *Baṣā’ir, Manṭiq*, 26.10–18

[*learning in terms of conceptualization and assent*]

Regarding those things that are unknown, one seeks either mere conceptualization (*taṣawwur*) or an assent (*taṣdīq*) that it would have to be either a negation or an affirmation. Conceptualization is simply the form of something occurring in the mind. [...] [26.15] Assent, on the other hand, is a judgment (*ḥukm*) of the mind about two meanings that have already been conceptualized, where one is judged to be the other, or not to be the other, along with a belief that this

judgment is correct, in other words, that this conceptualization in the mind corresponds to extramental existence.

[T10] Al-Sāwī, *Başā'ir, Manṭiq*, 27.14–23

[*circular justification of the rules of logic*]

One might pose the following problem: to grasp some unknown object of knowledge through discursive, intellectual thought, one must argue using some rule (*qanūn*) of the art [of logic]. Is this rule itself one of the self-evident, primary [truths] that require no discursive thought (*fikr*)? Or is it one of the discursive objects of knowledge that themselves require a rule? If the former, there is no need to learn it. If the latter, then it requires itself, and prior knowledge of it is a condition for knowing it, which is absurd. Answer: [...] [27.22] among the things one learns, some follow the pattern of recollection and reminding (*al-tadhkīr wa-l-tanbih*) and require no prior rule.

[T11] Al-Sāwī, *Başā'ir, Manṭiq*, 81.12–82.2

[*on defining composites*]

A perfect definition is a statement that signifies the quiddity of something. This teaches us that a single term cannot be a definition, since statements are composite. Similarly, it teaches us that whatever is not composed in its true reality (*ḥaqīqa*) and quiddity has no definition. [...] [81.19] The most eminent among recent scholars [i.e. Avicenna] asserted in the [*Pointers and*] *Reminders* that definition must be composed out of genus and specific difference. If this leads to the result that [the definition] cannot be composed from constituents other than genera and specific differences, then it is not so. For [82] something may be composed with an accidental feature, with each of the two [sc. the thing and its accident] constituting the composite, though neither is a genus or a specific difference, as with “white body” insofar as it is white body.

[T12] Al-Sāwī, *Başā'ir, Manṭiq*, 85.5–20

[*nominal and real definitions*]

A definition signifies a quiddity, and provides the conceptualization of an essence only once one knows that the thing exists. Otherwise, it will just be a matter of signifying the meaning of a name by explaining what it means.

But once someone does know that [the thing] exists, the very same statement will be a matter of signifying the quiddity in terms of the thing's essence. The [kind of] conceptualization we talked about at the start of this book, the one that is prior to assent, is conceptualization in terms of the meaning of a name, not in terms of the essence. But conceptualization in terms of essence comes *after* knowing the thing exists and forming an assent concerning it. *Let no one say*: if definition provides a conceptualization only once one has learned that [the thing] exists and formed an assent about it, and assent must follow on conceptualization, then definition only provides conceptualization after conceptualization, yielding a vicious circle. For [the kind of] conceptualization that is presupposed by assent is conceptualization of the meaning of the name and what is intended by it. For someone who doesn't even know the meaning of the word "definition" cannot judge whether it exists or not. By contrast, the conceptualization in terms of essence need not be prior to assent; rather it is posterior to it, as we have shown. Furthermore, in the case of the conceptualization that is prior to assent, there is no need that upon knowing that the thing exists, one will thereby conceptualize the true reality of its essence and quiddity by conceptualizing its essential [constituent properties]. Rather one might conceptualize it in respect of certain accidents, or its concomitants, or only in respect of some of its essential [constituents], or one might even conceptualize it as being other than it [actually] is. Usually when common folk form conceptualizations, they do not conceptualize the true reality of essence through the judgements of assent; as with their conceptualization of the meaning of "spirit," "intellect," "prime matter," "nature," and so on.

[T13] Abū l-Barakāt, *Mu'tabar*, vol. 1, 34.14–35.10

[*words, concepts, and recognition*]

Forms in the mind may be realized for things that exist among concrete individuals, as their representations and similitudes (*muthul wa-ashbāh*); humans apprehend them in the mind without apprehending whatever [corresponds to them] among concrete existents. They are the primary referents of words, and by means of them, words signify concrete existents secondarily, for instance the meaning of "horse" or of "man," or even of "Zayd" and "Amr": anything whose mention yields a representation in the mind just as if one were observing it, even if it is not present as a concrete existent that is being apprehended. Thus, once something is concretely present, and a representation and form is realized for it, one may say, "This is such-and-such." Otherwise there would be no way for someone who has once seen a person, who then went away,

to know upon seeing him again that he is that initially [seen person], and there be no difference between the two encounters. Indeed, there would not even be any way for someone who has seen one or more individual humans, upon seeing yet another person, to recognize (*yaʿrifuhū*) that person as a human. His recognizing [that person on the second occasion is a human] is simply through the identification of the initial recognition and form realized in the mind from the first [occasion] as his form [or as a form] corresponding to him [sc. person who was seen]. Recognizing that the person seen on the second occasion is the same as the one seen initially, is also recognizing that his form, which [35] was initially represented in the mind, corresponds to that which one perceives on the second occasion. When this form is represented in the mind on the basis of the observation of concrete things, one speaks of “conceptualization (*taṣawwur*),” whereas [when forms are represented in the mind] on the basis of words, one speaks of “comprehension (*fahm*).” When [the form] corresponds to what has been perceived, after representations have arisen, one speaks of “recognition (*maʿrifa*).” Of course, conceptualization precedes recognition and understanding. If someone says a word, and you did not conceptualize its meaning before that, then you do not understand what he was saying, nor does the linguistic utterance signify that meaning for you. If and only if there was a preceding conceptualization, and [the speaker] is capable of providing signification through linguistic utterance, can you understand what he was saying. Along the same lines, if someone sees something for which he has previously conceptualized no meaning, we do not say that he “recognizes.” Only if he has already conceptualized its meaning, and then perceives it on a second occasion do we say that he has “recognized,” so long as what he perceives corresponds to what he initially conceptualized.

[T14] Abū l-Barakāt, *Muʿtabar*, vol. 1, 68.11–14

[*nominal definition as an alternative to real definition*]

If defining is difficult in some cases and at some times, nevertheless this is not a difficulty in reality, since nominal definition [only] reports whatever results from the thing in the mind. It is that to which one gives a name, and for which mental and semantic (*maʿnavī*) unity arises.

[T15] Abū l-Barakāt, *Mu'tabar*, vol. 1, 63.12–17

[*one thing has many nominal definitions*]

One and the same thing may have multiple names in respect of multiple definitions, and multiple definitions in respect of multiple names. All these are in respect of multiple attributes and descriptions. For instance, "human" [may be named and defined] insofar as he is body, animal, human, writer, doctor, or knower. He has a definition in respect of each of [these] names. Nevertheless, even though a definition would be in respect of names, it is only a definition insofar as it belongs to the existent thing named, so that the result is an existing true reality. It is in relation to the thing defined that it is a definition.

[T16] Abū l-Barakāt, *Mu'tabar*, vol. 1, 66.5–13

[*nominal definitions suffice to express knowledge*]

We say: if [specific differences] are unknown, then this is either just insofar as they are distinguishing specific differences [in the mind], or insofar as they are [extramental] attributes that exist in the subject of attribution. If [they are unknown] as the attributes that belong to the subject of attribution, then one cannot know them. You have learned that someone who understands something (*ʿarif*) names whatever he has understood, just insofar as he understood it, and defines that which he has distinguished just insofar as he has distinguished it. Definition is a definition in terms of name (*bi-ḥasab al-ism*); and the name and the definition are in terms of understanding (*al-maʿrifa*). Now, someone who has named something just insofar as he understands it then explains (*yufassiru*) the name with a definition, which is a detailed analysis of [his] understanding (*tafṣīl al-maʿrifa*). The unknown does not enter the definition, insofar as someone has given a name and a definition. If something is unknown, this does not undermine the knowledge of what is known insofar as it is knowledge. For instance, when we understand of something, like snow, that it is a white body, but don't know whether it is cotton or snow, our ignorance as to whether it is snow or cotton does no harm to our understanding of its being a body and its whiteness. So, if we give it a name that refers to whatever we have managed to understand, and then define it in respect of this name, we have just performed the explication of a name and displayed our understanding, insofar as we understand it. But whatever we did not know remains unknown to us until we learn some other way.

[T17] Al-Rāzī, *Muḥaṣṣal*, 16.5–18.5

[two paradoxes of inquiry]

When we perceive a true reality, we either express it just in itself, without making any negative or affirmative judgment about it—which is conceptualization—or we do make such a judgment, which is assent. On my view, no [conceptualization] can be acquired [epistemically], and this for two reasons:

[17] (a) If one is not aware of the object of inquiry, inquiry is impossible. For, if one is entirely unaware of something, the soul undertakes no inquiry into it. If on the other hand one *is* aware of it, inquiry is again impossible, since it is absurd to make something available when it is already available (*taḥṣīl al-ḥāṣil*). If someone says: [the inquirer] is aware of [the object of inquiry] in some respect or other, I respond: the respect in which he is aware of it is distinct from the respect in which he is not aware of it. He cannot inquire into the first [respect], since it is [already] available. Nor can he inquire into the second [respect], since he is absolutely unaware of it.

(b) A quiddity may be understood (*taʿrīf*) either (b₁) through itself, (b₂) through that which is intrinsic to it, (b₃) through that which is extrinsic to it, or (b₄) through a combination of these last two options [that is, both intrinsic and extrinsic features]. (b₁) It is absurd that one should come to understand [a quiddity] through itself, since what allows understanding is known before that which is understood. If we understood a thing through itself, we would need to know it before knowing it, which is absurd. (b₂) It is absurd that one should come to understand it through intrinsic features. For the understanding of it would be either (b_{2a}) through the totality of its intrinsic features—which is wrong, since [the object of inquiry] is identical to that totality, so that understanding it through the totality would just mean understanding it through itself, which is absurd [because of the argument against (b₁)]—or (b_{2b}) it would be through only some parts [of the intrinsic features], which is absurd. For one understands a composite quiddity only by means of understanding its parts. If a part of the quiddity allowed us to understand it, then that part would allow us to understand all parts of the quiddity. Then this part would allow us to understand itself—which is absurd [in itself]—as well as the other parts, implying that something gives us to understand that which is extrinsic to it. (b₃) This is in fact the third option, but it is absurd [too]. For different quiddities can share the same concomitant. This being so, an extrinsic attribute cannot help us to understand a quiddity whose attribute

it is. If it did, one would need to know that it is attributed only to this and to nothing apart from it. But knowing this would require either a conceptualization [18] of this thing to which [the extrinsic feature] is attributed, or of everything other than it. This is absurd, because the former implies a vicious circle, while the latter would require that one first conceptualize the infinite totality of other quiddities all at once, as distinguished from one another. (b4) As for grasping it through a combination of the intrinsic and the extrinsic, the falsehood of the last two options implies the falsehood of this one.

Let no one say: but we find souls inquiring into the quiddity of “angel” and “spirit,” so what do you say about this? *For we respond:* this is a matter of inquiring after an explanation of a name, or a demonstration of the existence of the thing that has been conceptualized. But both are a matter of assent.

[T18] Al-Rāzī, *Manṭiq al-Mulakhkhaṣ*, 105.2–7

[*Meno's paradox and the distinction between conceptualization and assent*]

You should know that the ancients already posed this problem about the impossibility of grasping the unknown. A response has been given, concerning inquiries that involve assent (*al-maṭālib al-taṣḍīqiyya*): when we inquire whether the world is originated or not, there is already conceptualization of “the world” and “origination”; what is unknown is the relation between them, which is either affirmed or denied, and so on. When we discover the object of inquiry, we know that what has been discovered is what we were seeking in the first place, through conceptualizations that were already known. However, this solution does not apply to conceptualizations.

[T19] Al-Rāzī, *Manṭiq al-Mulakhkhaṣ*, 111.2–11

[*nominal definitions are not proven, but real definitions are*]

On the fact that definition cannot be acquired through proof

This is because definition is nothing but a detailed analysis (*tafṣīl*) of something that a name signifies vaguely (*bi-l-ijmāl*). There can be only verbal argument about such a thing, and this does not amount to an intellectual inquiry. Besides, argument [only] concerns assent.

Further, the definition of something is the sum of its essential [constituents]. But for any given thing, nothing is better known than the sum of its constituents, but a proof would require that this be the case. Hence definition cannot be acquired through a proof.

However, this only applies if the definition concerns a name. If it concerns true reality—where one indicates a concrete existent and claims that its true reality is composed out of this and that—then obviously a proof is required.

[T20] Al-Rāzī, *Maṅṭiq Al-Mulakhkhaṣ*, 118.2–10

[*the difficulty of defining and nominal vs. real definitions*]

On the difficulty of composing a definition

This is owing to the difficulty of grasping the proximate genus and the proximate specific difference, as has been established. Once the Master [sc. Avicenna] established this, the author of the *Mu'tabar* [sc. Abū l-Barakāt] disagreed, saying: in fact this is very easy, since definitions are definition of names, and names are names of items grasped by the intellect. When any item is grasped in the intellect, surely one will have a perfect grasp of the part that is shared with other things, and also of the part that is distinctive of it. From this point of view, definition is easy.

Fair judgment: if the goal of [the definition] is to provide a detailed analysis (*tafṣīl*) of the referent of a name, then it is as the author of the *Mu'tabar* says. But if its goal is to grasp existent quiddities, then this is very difficult.

[T21] Al-Rāzī, *Nihāyat al-ʿuqūl*, vol. 1, 110.3–111.7

[*the “form of arrangement” is not a solution for definition*]

Someone might say: understanding (*taʿrif*) the true reality through the sum of its parts is inconceivable. For that which provides understanding⁶ of this true reality would be either (a) each of those parts singly, or (b) the totality, when they are put together.

(a) The first is false, for two reasons. (a1) Firstly, because it will be shown that one single part of a true reality cannot provide understanding of the true reality as a whole. (a2) If this were the case, mentioning just one of the parts would be enough, without mentioning all of them.

6 Reading *muʿarrif* instead of *maʿrifa*.

(b) The second is false, because the totality of true reality's parts is either (b₁) identical to the true reality, or (b₂) a part of it, or (b₃) external to it. Case (b₁) would imply understanding something through itself, and you've already learned that this is false. In case (b₂), the totality of a thing's parts would be among its parts, which is absurd. In case (b₃) the totality of a true reality's parts would have to be distinct from the true reality, which is [111] obviously false. And even if we conceded this, the understanding in question would be descriptive (*rasmīyyan*) [i.e. an extrinsic signification, not real, definition]. [...]

[111.3] *One cannot say*: we grasp the form of the arrangement of those parts (*hay'at al-ijtimā'*) through those parts, or vice-versa. *For we say*: the form is among the parts of that composite quiddity. Yet it is extrinsic to the quiddities to which it applies, and vice-versa. Therefore understanding such an accident through that to which it applies, or vice-versa, would be understanding something through that which is extrinsic to it; but this is different from the option we are presently discussing.

[T22] Al-Rāzī, *Nihāyat al-'uqūl*, vol. 1, 112.7–18

[*specification problem for descriptions*]

There are also problems with understanding (*ta'rīf*) a true reality through its concomitants. For if we say, about a specified true reality, that it is the one that implies a certain concomitant, then what we are seeking to understand is either (a) the specificity (*khuṣūṣīyya*) of that true reality in itself, or (b) the fact that it implies this concomitant. (a) The first is false. For knowing that [that true reality] produces a certain concomitant does not require knowing its specificity. Things that differ in true reality can share one and the same concomitant. Given that this is possible, when the knowledge that [the true reality] produces this concomitant is present, this doesn't necessarily entail the presence of that specific quiddity. True, sometimes concomitants are such that they belong to only one subject of concomitance; but this specification can be understood only once one has understood the subject of concomitance, and [once] sensation or demonstration has indicated that it is specified with that concomitant. In which case, understanding the subject of concomitance is prior to understanding that specificity, and it cannot be acquired through this concomitant, on pain of circularity. (b) The second is false too, since the fact that it produces such a concomitant has been posited as what makes it possible to understand it. So, if we made it the same as the sought conclusion, then this would be understanding something through itself, which is absurd.

[T23] Al-Rāzī, *Nihāyat al-ʿuqūl*, 115.3–116.12

[*how arguing about definition is possible at all*]

If it is said: mightn't someone assume that "human" is, for instance, rational animal? This would be an assumption (*daʿwā*) on his part, so why can't he seek a proof that would confirm his assumption? *We say:* His statement that "human" is rational animal might be put forward (a) as a definition, in which case it cannot be rejected, or (b) as an assumption, in which case its rejection is possible. (a) In the former case, which is when the one who says "human is rational animal" intends to indicate this conceptualized quiddity, without making any affirmative or negative judgement about it, one cannot reject it or seek a proof [for it]. (b) But in the latter case, which is when the intention is to judge that animality and rationality hold of the essence of human, one can undertake to reject it or seek [a proof] for it. This would not be a definition, though, but rather an assumption.

If it is said: it follows from what you have said that one cannot undertake any objection or dispute against a definition; yet inquirers agree that these may be undertaken. [116] *We say:* The truth, on our view, is that so long as one adds no assumptions to the definition, one cannot undertake any objection to it. For instance, when someone defines "knowledge" as that which makes its subject [sc. the knower] qualified by attributes of action, and someone else says to him, "this is prone to the objection that there can be knowledge about the necessary and the impossible, for this is knowledge yet it would be wrong to ascribe the attributes of action [in this case]," then this objection is undertaken only in light of having conceded that there is knowledge connected to the impossible. Once one concedes this and agrees with it, then surely the objection to this definition may be undertaken. But if we suppose that there has been no concession to this assumption, then the objection cannot be undertaken against the definition alone. Similarly, one cannot dispute a definition unless one has conceded some assumption. For true realities do not [on their own] contradict each other in their quiddities. If someone disputes the above definition [of knowledge] by saying that [knowledge] is a belief that yields acquiescence in the soul (*sukūn al-nafs*), there will be no contradiction between those two true realities. For the true reality of that which implies that its subject may be qualified by attributes [of action] does not, just insofar as it is this true reality, conflict with the true reality of a belief that yield acquiescence in the soul, just insofar as it is that true reality. And if there is no conflict between the true realities, then no dispute over the definitions can ensue.

[T24] Al-Rāzī, *Ma'ālim*, 13.6–7

[*immediate and acquired conceptions*]

Immediate (*badhiyya*) conceptions are, for instance, when we conceptualize the meaning of heat or cold; acquired conceptions are, for instance, when we conceptualize the meaning of angel or jinn.

[T25] Al-Suhrawardī, *Ḥikmat al-ishrāq*, 9.11–11.6 [trans. Walbridge and Ziai, mod.]

[*definitions are in fact merely descriptions*]

(§ 14) Some use the term “definition” for a formula that signifies a thing’s quiddity. Such a formula indicates essential [constituents] and the features that are intrinsic to the thing’s true reality (*ḥaqīqa*), whereas a formula that allows the true reality to be known by means of external accidents is called a “description.” Yet, consider the example of body. Some affirm that body has parts, but others are in doubt, while still others deny it. (You will learn later what these “parts” are.) For most people, these parts do not belong to the meaning (*mahfūm*) of the thing named. Instead, the name signifies only the totality of the concomitants that they conceptualize. Or consider water and air. When it is affirmed that these have parts that cannot be sensed, some people will deny it. So those parts are not included in the meaning of “water” and “air” for them. Even if body is a part of every corporeal reality, and is as we have said, people will only conceptualize those parts apparent (*ẓāhira*) to them. It is those aspects that are intended by the name, both for the one who coined the name and for them [sc. the people who deny invisible parts]. If this is the case with sensible things, how will it be with something that cannot be sensed at all! Further, [10] consider that humans have something through which they have the true reality of humanity, but this is unknown to most people and even to the elite among the Peripatetics. For the latter define “human” as “rational animal,” even though the disposition for reasoning is accidental and posterior to the true reality [of human]. But the soul, which is the principle of these things, can be known only through concomitants and accidents. If this is so for the soul, than which nothing is closer to the humans, how will it be with other things when it comes for us to say what is necessarily [true of] them? [...]

[*paradox of inquiry, cf. the second paradox from t17*]

(§ 15) [10.10] [The Peripatetics] concede that the unknown can only be attained through the known. However, the essential feature that is proper to a thing [sc.

the specific difference] will be unfamiliar to someone who is ignorant of its applying to other subjects. But if it is familiar as applying to anything other than the thing being defined, it will not be proper to the latter. So if the essential feature is proper to the thing, and is neither evident (*ẓāhir*) to sensation nor [immediately] familiar [from this very thing], it will remain unknown, as will the thing defined. If, however, one learns to understand (*ʿurifa*) this proper feature too, then it is understood in the light of things that are more general than it, without that which is proper to it—but then it does not come to be known, given that the situation for the part that is proper will be the same as stated above [in the case of the whole thing]. Thus, the only⁷ recourse is features that are sensible, or evident in another way, and that taken together are proper to the thing. You will learn the gist of this in what follows.

Furthermore, someone who enumerates the essential features he understands cannot be sure that he has not overlooked the existence of some other essential feature. Thus, a questioner or opponent may ask him about this, and at that point the person trying to make the thing known cannot say, “if there were [11] some other attribute, I would have known about it,” for many attributes are not evident. Nor does it suffice to say, “if the thing had had another essential feature, we couldn’t have come to understand the quiddity without it,” since one may respond, “the true reality is understood only when all its essentials are understood.” Thus, if it remains possible that some other essential feature has not yet been perceived, one cannot be certain of understanding the true reality. Thus, it is clear that no one can construct a definition in the way the Peripatetics require, a difficulty which even their master [Avicenna] admits. Therefore, we have definitions (*taʿrīfāt*) only by means of things that are proper when taken all together.

[T26] Al-Suhrawardī, *Ḥikmat al-ishrāq*, 51.14–52.9 [trans. Walbridge and Ziai, mod.]

[*we know through immediate awareness, not definition*]

The Peripatetics have made it impossible to understand anything. For substances have unknown specific differences, and they explain substantiality only through a negative criterion [sc. that a substance is what is not in a subject]. So do soul and the separate [substances], according to them, have unknown

⁷ Walbridge and Ziai’s text omits *illā*, present in Corbin’s edition.

specific differences. They define an accident, like blackness for example, as a color that contracts vision. But contracting vision is accidental, and you already know what's the matter with being a color. [52] Thus bodies and accidents would be impossible to conceptualize. And according to them, existence is the most evident of things—you know what's the matter with it [as well].⁸

Furthermore, if conception is assumed to take place by means of concomitants, the concomitants will also have specific properties, and the same difficulty will apply to them too. This cannot be, since it would imply that one cannot understand (*yu'arrafu*) anything that exists.

The truth is that blackness is just one simple thing. It can be grasped intellectually, with no part of it remaining unknown. It cannot be understood by someone who has not observed what it is like (*yushāhiduhu ka-mā huwa*), but anyone who has observed it doesn't need to come to understand it (*ta'rif*). It has a form in the mind, just as it has a form in sensation. There is no coming to understand such things. Rather, composite realities are grasped from simple realities: one conceptualizes the simple realities separately, and comes to understand the composite ones by bring them together in some single subject.

[T27] Al-Suhrawardī, *Mashāri'*, *Mantiq*, 87.11–88.14

[*the impossibility of defining simple things*]

There is no statement to signify the simple thing that has no parts. For if each part of a composite statement signifies the same simple quiddity, then these [parts] will be synonyms. If, on the other hand, some of [the parts of the statement] signify the [simple] thing while others signify something extrinsic to it, then the totality will not in fact be a definition of [this thing]. Finally, if each part of the expression signifies only part of the meaning, then the thing turns out to be composite, but we assumed it was unitary.

[88] You should know that, when someone acknowledges that the plane is not a magnitude plus something else, both occurring in concrete individuals, but rather its being a magnitude is just the same as its being a plane in con-

8 Al-Suhrawardī considers both being a color and existence as conceptual considerations (*i'tibārāt 'aqliyya*), meaning that our knowledge of either does not constitute knowledge of any independent entity outside the mind. See further the chapters on "Essence and Existence" and "Universals" in the *Metaphysics and Theology* volume.

crete individuals; and that color does not occur in concrete individuals having some differentiating feature with independent existence, with the combination of the two being blackness, but rather blackness is one simple thing; and that what has no part in concrete individuals has none in the mind either, since the mental form must correspond to the concrete one, so that if the concrete form has no constitution at all in its true reality, then *a fortiori*, neither does the mental form, given that a thing's constituent cannot be separated from it, either mentally or concretely; then, once all this is acknowledged, it follows that there is no definition for such a thing, but merely a description, if it is to be made known (*yu'arrafu*).

If the "being a color" of blackness means that it is perceptible to the sense of sight, then this must be subsequent to its quiddity, because something must first be real and only then may it be perceived by the senses. If, alternatively, one took as the specific difference of blackness that it contracts sight, this too would be accidental. For the fact that something contracts sight, or the disposition to do so, is subsequent to its true reality, which is prior in occurrence. That's why the Master Abū 'Alī [Avicenna] claimed, in the fascicles which he related to the *Easteners* (which are only available split up and incomplete), that simples can be described but not defined.

[T28] Al-Sakkākī, *Miftāḥ al-'ulūm*, 438.7–16

[*response to al-Rāzī's paradoxes*]

The solution to this puzzle is that "making something known (*ta'rīf*)" can mean two different things: (a) a detailed explanation (*tafṣīl*) of the parts of what is defined, (b) or a mere indication of it, by mentioning a meaning that is concomitant to it without making any further claims. (a) An analogy for defining in the sense of a detailed explanation of all parts what is defined would be: it's like taking up the pearls in the storehouse of forms that belongs to one's interlocutor, and stringing together a necklace in front of him with nothing left over. (b) An analogy for indication by means of a concomitant, be it intrinsic or extrinsic or both, would be: it's like taking up one of those forms in [the storehouse], and pointing at it, and no more. It's for this reason, we say, that one cannot simply reject a definition. For in light of what has just been said, doing this would be like saying, "I do not accept what you have built." Yet one must still be able to give objections [to a definition]. For when someone who has given a definition turns to some other definition, one that undermines the correctness of the first definition, this is like demolishing and knocking down what one has built. Now you should understand.

[T29] Al-Āmidī, *Kashf al-tamwīhāt*, 74.10–75.12

[critique of al-Rāzī's analysis of descriptions]

The commentator [Fakhr al-Dīn al-Rāzī]⁹ said: you should know that investigation is needed here: the concomitant feature that allows one to understand something cannot be more general than that thing, nor more specific. Rather it has to be equal [in extension]. Yet such a concomitant feature can be understood only by means of that which has the concomitant, which is its cause, so that each is understood by the other [yielding an absurd circularity].

He [al-Rāzī] said: a solution would be that we take, from among the concomitants, those that are more general, and then restrict them by certain [other concomitants], so that the result becomes equal [in extension] to the thing, which implies no circularity. For instance, we might make "quality" understood as "a stable form (*hay'a*) which can be conceptualized without conceptualizing anything extrinsic to it, or relation, or division in its own parts or those of its bearer." Each of the qualifications in this explanation is more general than "quality," so that knowing them does not result in knowing "quality." But then, after we restrict [75] some of them by others, they become equal [in extension] to quality, so that if we mention them in order to understand "quality," no circularity follows.

Our Master [al-Āmidī], *may God help him*, said: his proposed solution to the problem is incorrect, for two reasons. (1) Not every specific feature used in descriptions is of the sort mentioned. Otherwise describing "human" as "the one who writes" would be wrong, since the solution indicated for describing "quality," by restricting certain general attributes by others, would not apply here. (2) The problem is solved only if the point had been as follows: "the true reality of the concomitant feature cannot be understood without first having understood the true reality of that which has the feature. So, if understanding that which has the concomitant feature were to depend on understanding the feature, circularity would result." If however the point is this: "understanding the true reality of something that is being described, on the basis of a concomitant feature, depends on conceptualizing the *fact* that it is concomitant to that which is being described; for it would be absurd to describe something by that which is not concomitant to it. But understanding the *fact* that the feature is concomitant does depend on conceptualizing that which has the feature, since it is absurd that we conceptualize that one thing be concomitant to another

9 Cf. Fakhr al-Dīn al-Rāzī, *Sharḥ al-Ishārāt*, vol. 1, 117–118.

without conceptualizing the latter,” then circularity will [still] follow, even if the understanding of the true reality of the concomitant feature does not depend on the conceptualization of that which has the feature.

[T30] Al-Āmidī, *Abkār al-afkār*, vol. 2, 106.2–11

[*on partial knowledge*]

On knowing something in one respect, and not in another

There is disagreement concerning this. Some of our companions [sc. the Ash‘arites] said it is possible, since when one knows that substance exists, but not that it is space-occupying, one does indeed know something in one respect and not in another.

However, the Qāḍī Abū Bakr [al-Baqillānī] said that the known, as such, cannot be unknown in any respect. When someone knows that substance exists, what they know is, in itself, not unknown in any respect. What they do not know, namely that it is space occupying, is something additional (*zāʿid*) to that which is known. What is known is different from what is unknown; it is ruled out that one and the same thing be known in one respect and unknown in another. On the other hand, those who wanted to say that something can be unknown in some respect and known in another, as we have mentioned, said it is possible. But the debate is simply a matter of usage and expression. The truth, though, is what the Qāḍī mentioned.

[T31] Al-Āmidī, *Daqāʿiq al-ḥaqāʿiq*, 90.16–91.22

[*second- and third-order definitions*]

Someone might say: this is coming to understand one definition through another, but doing this would imply an absurdity, so it is itself absurd. The explanation of its implying an absurdity is that it would follow that there is a definition for the definition. But if there is a definition for the definition, then one will have to give a definition of the definition of the definition, and so it would involve an infinite regress, which is absurd. And whatever implies an absurdity is itself absurd.

Certain clever people responded: if we give an absolute definition (*al-ḥadd al-muṭlaq*) for definition, then the definition of a definition of a definition is already covered by it, as is everything that applies to definitions insofar as they are definitions. So no further definition is needed. This would be along the lines

of defining the "even" as that which is divisible into two equal [parts]: that includes the "even" which are the [number of] hands belonging to Zayd and 'Amr, and the like.

But this calls for further inquiry. For, even though [the definition of a definition] includes [the definition of the definition of a definition], it does only insofar as it is a definition absolutely, since the definition of the definition [91] of a definition is, in its true reality, just like the definition of the definition insofar as it is a definition. Yet this does not absolve us from defining it insofar as it is the definition of the definition of a definition. As such, it does differ from the definition of a definition. For actual definition of a definition is a statement that signifies the quiddity of the definition or its conceptualization. So, even though the definition of the definition of a definition does fall under the definition of a definition, just insofar as it is a definition, it does not fall under it with regard to its distinguishing feature, namely its signifying the definition of the definition of a definition. For instance, the definition of "human" is "rational animal." Though it does fall under definition absolutely, insofar as it is a definition, it does not fall under it in respect of its distinguishing feature, which is its being the definition of "human." For definition taken absolutely does not express [the definition of "human"] even though it does express it insofar as it is a definition. How could it be otherwise, given that the definition of a definition of something is not the same as the definition of this thing itself? For the definition of "human" is that he is "rational animal"; but the definition of his definition is not "rational animal." Rather it is "a statement signifying that by which human is what he is." Likewise, the [third-order] definition of this [second-order] definition is not the same, but rather: "statement signifying that by which the statement is what it is, this latter signifying that by which the quiddity of human is what it is." So in this way, the actual definition of a definition is a statement signifying that by which the definition is what it is, while the definition of the definition of a definition is a statement signifying that by which the statement is what it is, this latter statement signifying that by which the quiddity of the definition is what it is. Although all these definitions do share in the meaning of "definition" taken absolutely, none of them express what is distinctive of the others. Rather, each has a distinctive definition that is different from the definitions of the others.

Still, even though this does yield an infinite regress, as they have argued, it does not mean that whenever we actually mention definition of definition, we have to mention the definition of the definition of its definition, and the definition of the definition of the latter, and so on without end. For to mention the definitions of some things, one does not necessarily have to mention the defin-

itions of all things. Rather, we mention some easy definitions, and avoid the difficult ones. In fact we may avoid them even if they are easy. Nor does it mean that, whenever we actually mention a definition for certain things, we have already actually mentioned the definitions of all things. Rather, what is actual is only what is mentioned and [the mention of everything] is only potential. Hence, though it may be conceded that there is an infinite regress, and no end [to the procedure], still no absurdity results.

[T32] Al-Khūnajī, *Kashf al-asrār*, 63.9–64.1; 64.10–65.12; 66.13–67.17

[*logical analysis of Meno's paradox, with solution*]

Regarding the first [paradox, i.e. Meno's paradox], *it was said*: if it were true that “everything of which one is aware cannot be inquired into,” then by contradiction this converts into “everything that cannot be inquired into is not that of which one is aware,” which in turn converts to “Something of which one is not aware can be inquired into.” But you already said [as well], “Everything of which one is not aware cannot be inquired into,” so this is a contradiction. We can also put together [the premise], “Everything which can be inquired into is that of which one is not aware,” together with the other premise [namely “Everything of which one is not aware cannot be inquired into”] to yield the conclusion, “Everything which can be inquired into cannot be [64] inquired into,” [which is absurd]. [...] ¹⁰

[64.10] *Response to this* [i.e. the logical problem], with both premises as predications: the claim “everything conceptualized as something you're aware of, is something you cannot inquire into,” implies “everything you can inquire into, is not a conceptualization you're aware of.” But this is more general than “being a conceptualization you're not aware of.” Hence there is no contradiction between the implication of the first [premise] and the second premise, since you can negate a particular [proposition] in the more general case while affirming the universal [proposition] in the more specific case.

10 The logical analysis of Meno's paradox is also present in al-Abharī's *Kitāb al-Shukūk*, al-Shahrazūrī's *Shajara*, al-Kātibī's *Munaṣṣaṣ*, al-Ḥillī's *Asrar*, and al-Samrāqandī's *Qisṭas*, usually formulated in a similar way as we find in the current quotation from al-Khūnajī. According to al-Kātibī, *Munaṣṣaṣ*, fol. 45.29, the logical way of formulating the issue was suggested by certain Sharaf al-Dīn al-Madkūr al-Maraghī who is an otherwise unknown figure.

The aforementioned difficulty generally applies to every dilemmatic argument in which the same predicate is said of opposed subjects. The response given applies only when both subjects are one and the same object, which is described with the opposed predicates. [65]

But *a more general response*, which reveals that the aforementioned difficulty is spurious, is a second one, which goes as follows. If both [premises] are predications, and both are read as dealing with extramental existence, then the second premise cannot be true so long as its subject is read as a negation in some matter [of the proposition]. For then the syllogism would mean, "all for which A holds extramentally is B extramentally" and "all for which A does not hold extramentally is B extramentally." But this is absurd, because the impossible, and other non-existent items, cannot be affirmed as being A extramentally, nor can it be true that they are B extramentally. Otherwise, they would exist extramentally. Therefore the [proposition] need to be metathetic with respect to the subject (*ma'dūlat al-mawḏū'*), so that it would mean "all for which not-A holds extramentally is B extramentally." Furthermore, the conversion by contradiction of the first [premise] does not require a metathetic [proposition] with respect to the predicate, since it might be that the predicate is something common too all extramental existents, being concomitant to them. Then there would be no individual instance of the contradictory among the extramental existents, so that the contradictory of the subject would not hold for it extramentally. [...]

[66.13] The *response to the first question* [i.e. Meno's paradox] is that, if one is to undertake inquiry into something, it suffices to be aware of the thing in some respect or other. This does not require that one is aware of it insofar as it is a topic of inquiry. For instance, people inquire into the true reality of angels, without being aware of anything [about them] other than that they are created, celestial, and sent to prophets for the sake of revelation. Similarly one inquires into geometry being aware only that it is useful and surely brings honor. In fact, one may inquire after the referent of a certain name while being aware only that it is the referent [67] of this name. [Al-Rāzī's] claim that the known aspect (*i'tibār*) cannot be a matter of inquiry, because it is already available, while the unknown aspect cannot be a matter of inquiry because one cannot start inquiring into it, is false. For if one is ignorant concerning something, yet is aware of certain aspects that hold true of it, one can undertake an inquiry into it, as has been shown. Instead, you are only unable to undertake an inquiry into something when you are unaware of that thing and of any aspect that holds true of it; but this is hardly troubling.

The *response to the second question* [i.e. the 4 options paradox] is as follows. We do not concede the impossibility of coming to understand something through some of its parts. Nor is it impossible to gain understanding of the whole without having gained understanding of the part. Rather, while understanding (*ma'rifa*) of the whole is impossible without understanding of the part, it is not impossible that one *come to understand* (*ta'rif*) the whole without coming to understand the part. For sometimes there may be no need for you to come to understand the part, whereas there is a need for making the whole understood. Or at other times, one might need to come to understand the part as well, but this may be achieved through something other than that by which one comes to understand the whole. Some claim, "the one who bestows existence upon the whole bestows existence upon the part," but this is not necessary. For if by "the one who bestows existence" is meant that on which the existence of the whole depends, then the invalidity of the claim is obvious. Otherwise each part would stand in need of itself [that is, because the whole depends on the parts]. If it instead means the complete bestower of existence, which is independent in its act of bestowing existence, then the claim still doesn't follow. For sometimes, one thing may be composed out of two others, with one of these preceding the other in time, like the chair that is composed out of wood which is its matter, and the form, which comes along later. Hence, if that which bestows existence upon the whole necessarily bestowed existence upon the part, then there would follow either a delay of the effect after the complete cause [is already present], or the priority of the effect over the cause. For if that which bestows existence upon the whole already existed previously together with the earlier part, then the former would follow; otherwise the second will follow, given that this cause is the cause of the earlier part, too.¹¹

[T33] Al-Abharī, *Kashf al-ḥaqā'iq*, 48.6–20

[*solution of the "four options" paradox from T17*]

Regarding [Fakhr al-Dīn al-Rāzī's] claim that the totality of a thing's parts is identical to the thing itself, *we say*: if, by "the totality of a thing's parts," you mean the parts without the form of arrangement (*al-hay'a al-ijtimā'iyya*), then we do not concede that they are identical to the thing itself. For the form of arrangement too is a part of the quiddity. If, however, you mean by it all the

11 Cf. the analysis of the relationship between parts and wholes in *Metaphysics and Theology* volume, 8T58.

parts including the form of arrangement, then we admit that this is identical to the quiddity. But in that case, why can't we come to understand [a thing] on the basis of the totality of [its] parts without the form of arrangement?

You might say: the parts without the form of arrangement are *some* parts in reality, and coming to understand something by means of [understanding] some of its parts is absurd, since understanding a thing just is understanding all its parts. *But we say:* we do not admit this. For something can make the totality understood, insofar as it is the totality, without making each of its parts understood.

Then there is his claim that understanding something through an extrinsic feature would presuppose understanding that it belongs specially to the quiddity [of that thing], but this would in turn presuppose [already] understanding the quiddity. *We say:* we do not admit this. For two attributes could belong to a quiddity, and we might know that whenever one of them belongs to something specifically, then so does the other, despite our not knowing the quiddity as such. On this basis, we have a reply to his claim it is absurd to understand something through a combination of intrinsic and extrinsic features.

[T34] Al-Abharī, *Talkhīṣ al-ḥaqā'iq*, 61^r19–61^v1

[on the same paradox]

We do not admit that understanding something through a definition means understanding the totality of its parts [which would amount to grasping a thing through itself]. Rather, one understands an individuated quiddity (*li-l-māhiyya al-mushakkhīṣa*) by understanding its parts, which are distinguished in the intellect. The totality of the parts distinguished in the intellect [61^v] is not identical to the totality of the parts of an individuated quiddity.

[T35] Al-Abharī, *Shukūk*, 11^r4–11^v1

[on the same paradox]

As for [al-Rāzī's argument] that understanding (*ta'rīf*) a quiddity through the totality of its parts implies understanding a thing through itself, which has already been ruled out, *we say:* what they mean by claiming that it is absurd to understand something through itself is that, if one and the same thing is signified by two expressions as corresponding [to that thing], then when asked about one of the expressions, one cannot just answer with the other [expression]. For instance, if asked "what is a human?" one cannot just answer, "a

person.” But if asked “what is a human?” it is possible to respond to this [question] with an expression that combines all the singular terms that signify its parts, by saying that “human” is “rational animal,” even though “human” and “rational animal” do both signify the same true reality (*ḥaqīqa*). The reason is that the thing you called “facilitator of understanding (*muʿarrifan*)” is not the complete cause through which knowledge of a quiddity arises. Rather it instills a disposition (*istiʿdād*) in the soul to receive the form that is sought, from a separate principle. So the totality of a thing’s parts can allow us to understand it in the sense that they instill a disposition in the soul to receive what is sought from the separate [principles] of emanation, just as the presence of two premises in the mind instills a disposition in the soul [11^v] to receive the conclusion from the separate principle.

[T36] Al-Abharī, *Muntahā*, 221.11–13

[*on the same paradox*]

As for his claim that understanding something through the totality of its parts is understanding it through itself, we do not admit this. Rather one understands it as equivalent in meaning (*mafḥūm*), and this kind of understanding is a detailed analysis (*tafṣīl*) of what the name vaguely signifies. By “understanding through the totality of parts” we mean nothing other than this.

[T37] Al-Abharī, *Tanzīl*, Quoted in Al-Ṭūsī, *Taʿdīl*, 157.15–17

[*solution to Meno’s paradox*]

We do not admit that if a quiddity is unknown, then it is impossible to inquire into it. For it might be unknown, while there is knowledge of one of its accidents; the soul can undertake an inquiry into it by means of its awareness (*shuʿūr*) of the accidents.

[T38] Al-Kashshī, *Ḥadāʾiq al-ḥaqāʾiq*, 30^r9–31^v8

[*in defence of definitions*]

[The acquisition of definitions is possible] despite being heedlessly rejected by an eminent scholar from Khorasan in his answers to the doubts raised¹² by

12 Deleting the first *awradahā*. Note that the expression “answers to the doubts” likely does

my Shaykh, Instructor, and Master Fakhr al-Ḥaqq wa-l-Dīn al-Rāzī, may God sanctify his resting place, and make his final abode in the highest echelons of paradise, on the different ways to convey understanding (*aqsām al-ta'rifāt*) at the beginning of his book that he called *Mulakhkhaṣ* and in other of his books, may God have mercy upon him and be pleased with him.

[*form of arrangement solution*]

The quiddity that is composed out of parts and components is not identical to those parts, whichever they may be. Rather it is those parts together with a specified, unitary form of arrangement (*hay'a ijtimā'iyya*) through which it is what it is. Furthermore, that composite quiddity can be referred to with a singular name that refers to it either by way of correspondence, or inclusion, or implication, as has been mentioned. That kind of reference is called "nominal inclusive reference (*dalāla ismiyya ijimā'iyya*)," meaning that when the mind conceptualizes it, the mind is not turned to the conceptualization of its distinct parts in an explicit way (*mufaṣṣala*), even if the parts are conceptualized when the quiddity is conceptualized. [...]

[30^{v2}] This composite quiddity can also be referred through the name of its genus, its specific difference, and the names of its parts, explicitly and in order. That is called a definition and detailed explication of that which a name signifies inclusively (*tafṣīl mā dālla 'alayhi al-ism bi-l-ijmāl*). In this case its parts are conceptualized explicitly in the mind. Or, the mind¹³ may pass from the conceptualization of its parts, which are in a specific and determinate order, to conceiving them as a composite quiddity that is put together from them in accordance with its specific form, in keeping with the composition of those parts and their order. This way of coming to understanding is called understanding through a definition which collects the parts of a quiddity and excludes that any other parts enter into it. This is why one says that a definition must be both inclusive and exclusive.

We have already mentioned that a quiddity is not equivalent to the collection of its essential parts, whichever they may be. Rather it is equivalent to them together with a collective form of arrangement that occurs in the mind when it conceptualizes its essential features in accordance with specific composi-

not suggest that he objected to Fakhr al-Dīn. Instead, it appears that he pushed Fakhr al-Dīn's position to an outright rejection of real definitions. The identity of this scholar from Khorasan remains a matter for further research.

13 Deleting *lā* after *aw*.

tion and concrete order, as we have mentioned. So when we make a quiddity understood through the collection of its essential features, we are not making something understood through itself, since as we have mentioned, the separate parts of something that are predicated [of that thing] are not identical to [the thing] itself.

[relation between nominal and real definitions and aspects solution]

When a form arises in the mind through definition, description, name, or any of the other causes of understanding, [this form] being in its meaning equal to and in correspondence with something that exists, and its generality and specificity are the same as [that of] the existent thing in extramental reality, then this is how there arises the conceptualization of that thing in its core nature (*bi-l-kunh*), in accordance with the object itself and [its] true reality. [...]

[31^{r5}] This is why it is said that definition indicates the quiddity of something only with the proviso that the conceptualization belongs to someone who knows that that thing exists. If someone does not know this, then in his case [the definition] refers only to the meaning of a name and explains what it conveys (*mafhūm*). But once the knowledge that it exists arises for him, then that very same statement comes to refer to the thing's quiddity in respect of the object itself and its true reality, so long as it is a statement that is put together from all its essential features. If it is not, then it is not [a real definition].

The conceptualization that must precede assent is conceptualization regarding the meaning of a name, and not regarding the object itself. Conceptualization regarding the object itself must come after knowledge that the thing exists, and after assent to it through a definition and explanation.¹⁴ It is possible that the understanding (*ta'rif*) that comes before assent is not through all the essential features, but only some of them, or through something accidental. This is the case with most conceptualizations that common folk affirm about intellect, soul, spirit, the heavens, nature, matter and other such obscure intelligibles. [...]

[31^{v.1}] If the conceptualization regarding real object comes only after one knows the thing exists and assents to it, it follows that the conceptualization of the object of inquiry must be known in some respect (*wajh*), in order that the mind can turn to it and focus on it, [but also] be unknown in another respect, in order that it can attain knowledge of it in that respect in which it was still

14 We are unable to read one word here, after *sharḥ*.

unknown. Take for instance the soul: it is known to be an entity (*amr*) that moves the body and cognizes universals, yet its substance and its spiritual features are unknown. So one turns one's focus to it insofar as it is known, and inquires into its substance and its spiritual features, because one knows all this is still unknown to one.

[T39] Al-Ṭūsī, *Talkhīṣ al-Muḥaṣṣal*, 7.6–8; 7.18–23; 8.18–9.2, 9.15–19

[on al-Rāzī's objection to the proposed solution to Meno's paradox in T17]

This argument is obviously sophistical. For the object of inquiry is not either of the two different aspects [i.e. one that is known and one that is unknown]. Rather, both aspects pertain to one and the same thing. One is neither wholly aware of it, nor wholly unaware of it, rather there is a third option. [...]

[solutions to the "four options" paradox]

[7.18] *I say*: his statement that the totality of a quiddity's parts is identical to the quiddity is incorrect. For the part is by nature prior to the whole, and if [multiple] things are prior to another, posterior thing, they cannot be identical to that posterior thing [altogether]. So [the parts] can become a quiddity when taken together as a totality, and this [the quiddity] is posterior [to the parts]. So an understanding of [the quiddity] does occur through [the parts], just as knowledge of genus, specific difference, and determining composition (*al-tarkīb al-taqyīdī*) is prior to knowledge of the genus that is determined by the specific difference: [the genus, specific difference, and composition] are the parts of [the determined genus] through which knowledge of it arises. [...]

[8.18] *I say*: the understanding of a subject of attribution depends on the attribute's giving rise to understanding, so that the mind passes over from conceptualizing [the attribute] to conceptualizing the quiddity to which it is attributed. But it does not depend on knowing that the attribute is like this [sc. uniquely tied to the quiddity], which would yield the absurdity mentioned by [al-Rāzī]. As for the fact that this attribute applies to the subject of attribution but not to anything else, this requires that the attribute is either equal [in extension] to the subject of attribution or more specific than it, for instance "capable of laughing" and "writing" for humans, respectively. In both cases it is the attribute that implies the concomitant (*malzūm*), while the subject of attribution is concomitant (*lāzīm*).¹⁵ When the concomitance is intelligible, the intellect

15 That is, in the order of knowledge, since metaphysically it is the other way round.

passes over from a conceptualization [9] of that which implies the concomitant [sc. the attribute] to the concomitant [sc. the quiddity], so that understanding (*taʿrif*) occurs. But it is not a condition that one have knowledge of the concomitance [itself], so this absurdity [inferred by al-Rāzī] does not follow. [...]

[*against al-Rāzī's solution*]

[9.15] *I say*: we can indeed understand an explanation of the word “spirit,” and can have certain knowledge of its existence in all that has spirit. Yet we find that scholars disagree about its quiddity, as [al-Rāzī] will mention himself. Neither of the two assents mentioned by [al-Rāzī] is the target of inquiry into [spirit]. Similarly, there are many things whose names we know how to explain, whose existence we perceive with the senses, and which we definitely know to exist. Despite this many people have difficulty conceptualizing them: for instance, motion, time, place, and so on.

[T40] Al-Ṭūsī, *Murāsālāt bayna l-Ṭūsī wa-l-Qūnawī*, 101.12–102.4

[*did Avicenna hold that we cannot grasp essences? cf. T8*]

As for [Avicenna's] statement [in the *Taʿlīqāt*], “reaching the true realities of things is not in the power of humans,” by “things” he means concrete existents that are called “natures of existents.” He mentioned this simply in order to explain the difficulty of providing definitions. He did not mean by [“things”] the true realities of intelligibles. For how could someone who has yet to reach the true reality of affirmation and negation judge it self-evidently impossible that they be combined? And how could someone who has not reached the true reality of body judge it self-evidently impossible that two bodies coincide in one location (*ḥayyiz*), or that one and the same body be at two different locations at one and the same time? If someone has not reached the true reality of ten [102] and five, how could they judge that ten is the double of five? If someone has not reached the true reality of triangle, how could they judge that its angles are equal to two right angles? In general, all certain sciences are built upon reaching the true realities of intelligibles, that is, their conceptualizations, in order to produce assents built upon these.

[T41] Al-Kâtibî, *Munaşşas*, 47^r3–13

[*against al-Rāzī's nominal definition solution*]

I say: the way [al-Rāzī] intends to deal with the first doubt [i.e. the “four options paradox”] is to say: why do you say that it's impossible to understand through parts? Your argument for this would only imply that it is impossible, if our goal were to understand the true reality of what is to be understood by mentioning its parts. But this is not so. For by “coming to an understanding” we mean only a detailed analysis (*tafşil*) of that which is vaguely signified by the name, in other words, mentioning expressions for the parts of that which the name vaguely signifies. In some cases, knowledge may arise upon the mentioning of expressions for the parts of that which the name vaguely signifies, with the referent of name being realized either through it [i.e. just through this process of mentioning without the AI being involved], or because, upon the mention of expressions for the parts of the name's referent, the soul is disposed to receive an emanation from the Giver of Forms. There emanates upon it the true reality of the name's referent, as soon as a cause sufficient for the emanation is realized.

But the way [al-Rāzī's] intends to use this answer to deal with the second doubt [which is Meno's paradox] raises some difficulties. For the intended solution cannot [be applied] to the first option, namely that [the object of inquiry] is fully known. This is obvious. Nor can it [be applied to] either of the two other options [that is, that the object is entirely unknown, or in a sense known but in a sense unknown]. For, insofar as a detailed analysis of the referent has explanatory value by mentioning expressions for the parts of the referent, in the other two options the parts [remain] unknown: all the parts in the second option, some of them in the third option. This being so, the intended solution does not apply to any of [the three options in Meno's paradox]. [...]

[*solution to the 4 options paradox*]

[47^r13] In order to solve the first doubt, *we say:* why can't one come to understand a quiddity through a totality of its parts, which includes only *some* of those parts? He claims that one knows necessarily that the totality of a quiddity's parts cannot be only some of those parts. But we do not admit this. For here, the meaning of “totality of the parts” is “totality of the *material* parts,” like genus and specific difference, excluding the *formal* part, which is the form of arrangement that brings them together (*al-hay'a al-ijtimā'yya*). According to this account, the totality of the parts [that we use as a basis for knowing the quiddity] is only *some* of the parts from which the quiddity is composed, since the formal part too must be one of the parts.

[T42] Ibn al-Nafis, *Sharḥ al-wurayqāt*, 246.3–5

[*accepts the two aspect solution to Meno's paradox*]

We say: the object of inquiry that we seek to know must have two aspects: one in which it is known, another in which it is unknown. One can only inquire after knowledge of it thanks to the fact that both aspects are present together, not due to either one of the two [by itself].

[T43] Al-Shahrazūrī, *Sharḥ Hikmat al-ishrāq*, 60.1–13

[*nominal and real definitions*]

The Master mentioned in the *Muṭārahāt* that the aforementioned difficulty concerning definition concerns only definition in respect of true reality. But understanding what a name signifies through the parts of the relevant meaning (*al-mafhūm*) is useful in a way closer to hand than [giving a definition] in respect of true reality, since giving true definitions is difficult, as was shown at length. Nothing like that happens with definitions in respect of the meaning: if by “human” one means “animal capable of laughter, that stands upright, possessed of a soul that can perceive universals,” this is a complete definition, and there should be no objection to using it. One can't substitute for [this definition] “rational animal with broad nails and uncovered skin.” For the things that were mentioned in the first [definition] were essential to the meaning and what is meant [by “human”], and there can be no substitution for the essential [constituents] of a definition, and nothing can be added or taken away. This rule about definition in respect of meaning guarantees that no mistakes arise in definition, whereas this is not the case with descriptions, since they [are given] on the basis of concomitants. The person giving a description will acknowledge that the name is not given to these predicates, but rather to thing to which the mind passes from [the description]. But with definition in respect of the meaning, one intends by the name all those attributes that are essential [constituents] in respect of the meaning, and whatever is intended [by the name]. Thus the definition in respect of the meaning is more helpful and more correct than one in respect of true reality, and it is the one towards which the most prominent theorists inclined.

[T44] Al-Samarqandī, *Qistāṣ al-afkār*, 51.3–13; 53.1–7

[*definition is just “spelling out” the meaning of term*]

Doubts concerning coming to understand: (a) if the meaning of the definition is the same as the meaning of what is defined, then [when we give a definition] we would understand something through itself. If on the other hand the two are different, how could one rightly say that the meaning and true reality of that which is defined is the meaning [of the definition]?

Response: the meaning of the definition is indeed different from the meaning of what is defined, with respect to spelling things out (*bi-l-tafṣīl*) but not with respect to the true reality. For the true reality of the definition's meaning is the same as the true reality of what is defined. The former is spelled out, though, whereas the latter is vague. So it is rightly said that the meaning of what defined is this same meaning.

(b) If the composite is nothing more than the totality of simple things, then coming to understand its quiddity would depend on understanding their quiddities. Their quiddities are unknown, though, because they can [only] be described [and not defined]. In fact, what one knows about them is only extrinsic attributes. So it follows that the composite too is known only through extrinsic attributes,¹⁶ in which case the composite is not to be defined, but only described.

Response: “definition” just means spelling out the parts of the things that are defined, regardless whether they are known by description or in some other way. [...]

[*solution to 4 options paradox*]

[53.1] *Response:* we do not concede that coming to understand through the totality of parts is grasping something through itself. To understand something through itself would be to understand it through something that signifies the thing in just the same way as the expression used for the thing, like understanding “human” through “person,” or “motion” through “transposition.” But to understand something by spelling it out is not to understand it through itself in this way. Furthermore, understanding the whole does not necessarily imply that one understands the part; because one might not need to understand it [sc. it's self-evident], or one might understand it through something else. Nor does understanding an extrinsic [attribute] depend on knowing [that the attribute belongs to it] specifically. For knowing the quiddity will follow from knowing

16 Correcting *iḍāfāt* to *ṣifāt*.

[an attribute that belongs to it] specifically, even if one does not know that [it does belong] specifically. Besides, even if we admitted this, it might be enough for knowing [that it belongs] specifically that one conceptualizes the quiddity in some respect or other, like when one knows that a certain body specifically occupies a certain space, without knowing its true reality or the true reality of other things.

[T45] Al-Ḥillī, *Asrār*, 45.10–13; 46.3–5; 48.13–14; 48.16–19; 50.4–14

[*definition paradox*]

It might be said: the definition of definition is a certain definition. So, as long as one does not understand definition, one does not understand its definition [i.e. the definition of “definition”], and a vicious circle follows.

Response: being-a-definition is an accidental feature. So, as long as one does not understand definition, one does not understand the definition of definition, *insofar as it is a definition*. But so long as one does not yet know the object of attribution, one does not understand the definition insofar as it is a definition,¹⁷ but the two aspects differ so no vicious circle follows. [...]

[*defense of the aspect solution to Meno’s paradox*]

[46.3] *Response:* the object of inquiry is neither the aspect that is known, nor the aspect that is unknown. Rather it is the quiddity to which both aspects are attributed. Furthermore, the soul may in the end understand the result that was the object of inquiry, because previously, an incomplete conception of it was available to [the soul].

[*on the 4 options paradox*]

[48.13] *Response:* the parts themselves, that is, the material and formal [parts], are not same as the composite. Rather they are its causes, while the composite is their effect. [...]

[48.16] *As for his claim:* coming to understand something through an extrinsic feature (*al-ta’rīf al-khārijī*) depends on knowing the equal extension [of that feature to the object of inquiry], *we say:* this is a mistake. Rather, it depends on there being equal extension in fact (*fī naḥs al-amr*), but does not require that we *know* this [sc. that the extensions are equal]. Hence, if it happens that

17 As the editors note, the text might be corrupted here.

someone's investigation involves an attribute that is equal in extension, and he then attains knowledge of the quiddity, it may be only at that point that he comes to know that the extensions are equal. Subsequently, if he wants to make someone else understand the quiddity, he can help them understand it through that [feature] he has understood as being equal to it in extension. [...]

[*acquiring definitions*]

[50.4] It is composition (*tarkīb*) that supplies us with definitions. One takes a number of individuals falling under a universal whose definition is a matter of inquiry, then looks for all their predicates, until reaching [predicates] that are maximally general in each case. Then, one distinguishes between essential and accidental features, as usual. Then one puts first the essential feature that is most general of all, and qualifies it with a specific difference. In this way, one composes together the essential features, with the more general among them prior to the more specific, until the last one is reached. The resulting detailed statement is the definition. If, for the general essential features, there is some name that specifically covers all of them, then it does no harm to use it. Or actually one really ought to do this, like "animal" which includes "body," "ensouled," "sensing," and "moving voluntarily."

Secret: definition cannot be had by induction (*istiqrā'*). For if by predicating of individuals one gave a definitional predication, then there would be no definition of the species, since the individuals are something beyond the species. But if one predicates of them without qualification, there will follow from this no predication that defines a species.