

PART III

Translation and Study



## A Translation and Study of the *Sullam*

The task of the translator must be grounded in certain principles and commitments that ought to be articulated clearly at the outset. Translations can aim to convey the aesthetic quality and texture of a text or adopt a style that, disregarding such a quality, simply produces an affect in the target environment as it did in the original; they may be strictly literal or expository; they may be aimed at a specialized audience or a general one. Or they may be produced with regard to another set of objectives altogether. My position is that none of these considerations—let alone the specific choices they avail—is *essentially* tied to the task of the translator. The choices are determined by the aim; and the aim can be determined freely.<sup>1</sup>

My methods of translation are consistent with my earlier practices. They are grounded in the idea that translation should not be conquest; rather than domesticating a text, it should facilitate entry into the original environment.<sup>2</sup> These methods are rather simple and are as follows. First, inasmuch as the sense of the text can be conveyed, I render it as literally as possible, with minimum interventions forced by the demands of the target idiom or exposition. Second, where the case requires my participation in the text, I enclose my own words in square brackets, such that, in principle, one would be able to reconstruct the Arabic if such brackets were removed. The potential reconstruction of the Arabic is not the aim per se. Rather, the translation practice displays to the reader the extent to which a single Arabic word or the concatenations of such words may be laden with expanded meaning and nuances; and it also makes transparent the extent to which I have read into the text. Third, with the exception of basic scholarly equivalents of the Arabic in English—such as *sylogism* for *qiyās* and *first figure* for *al-shakl al-awwal*—my translation reduces the Arabic to its simple parts. Sometimes, I prefer to render the Arabic literally even when handy specialist equivalents are available, because, to my ear, these latter take one to specific traditions in the history of philosophy:

for example, I translate *‘aks an-naqīd* as *contradictory conversion* and not as *contraposition* or *conversa per contrapositionem*. I recognize that this choice is partly subjective and is a function of my formation. Fourth, I have tried to be consistent in my translation choices, unless the context of the argument dictates alternatives. And finally, I intend for the overall effect of the text to reflect its reception by its premodern audience. This is a pithy, allusive, and dense text, and this is how the translation generally reads. However—and this is an abiding commitment of mine—a translation must, most importantly, deliver the *sense* of the text to the reader, and it must do so in the manner adopted by the author. My minimalist approach is geared toward satisfying the latter criterion. The former—namely, the fuller sense and import—is served by the extended study of the text in the form of my commentary in the endnotes to this chapter. With respect to the latter, too, a specific rule was in effect: I did not endeavor to track the historical background and development of a given position or argument of the *Sullam* unless my gaze was so directed by the commentaries that I consulted. I was driven primarily by the task of making sure that the reader understands what the *Sullam* is saying, especially as understood by its hypertexts, leaving the task of its historical analysis to the cases mentioned in the chapters above.

In preparing this translation, I have relied on the text found in the lithograph of Muḥammad Barakatallāh’s *Iṣ‘ād al-fuhūm* (bibliographical information below). This latter print was used as the textual base simply because it is readily available and is pervasively used by various South Asian *madāris*. In other words, it is the latest non-*mamzūj* text-cum-commentary of the *Sullam* to gain wide acceptance in South Asia. This lithograph can easily be found online.<sup>3</sup>

A proper edition of the *Sullam* is certainly a desideratum, although, in view of the observations about authorship above, I should note that such an exercise may be misguided if it presupposes that texts and authors were fixed or were intended to be so in the world of the commentary. A *historical* critical edition—that is, one that systematically displays the contraction and dilation of the lemmata—as discussed above (as opposed to one that solely intends to deliver the autograph), would be far more valuable and a proper fulfillment of informed philology in such a case.<sup>4</sup>

Finally, my explanatory notes rely heavily on the commentary of Mullā Mubīn, *Mir‘āt al-shurūḥ*, although I also turn to a number of other commentaries, where suitable. As I mentioned above, it was Mubīn’s commentary that, owing to its blinding lucidity, vitiated the *practice, effort, participation*, and *sharpening of the wit* that was the purpose of the *muṭāla‘a* of a text such as the *Sullam*. For this reason, students were advised to ignore it. As my capacities are much more modest than those of the premodern students of the *Sullam*, I am glad to have overlooked this proscription.

THE LADDER OF THE SCIENCES:  
TRANSLATION AND STUDY

In the Name of God, the Kind and Merciful

*Proem*

1. Praised be God! How great are His works! He is neither defined nor conceptualized.<sup>5</sup> He neither begets nor changes. He is above genus and modes. He made the universals and particulars. How wonderful an assent [to His existence] is belief in Him! How excellent is the victory that is to seek refuge in Him! May blessings and peace be upon the one sent with [His religion's] proof, in which is the cure for every sick [soul], and upon his family and companions, who are the vanguards of religion and the proofs of right guidance and certainty.<sup>6</sup>

*Preface*

2. Now we continue [onto the main subject]. This is a treatise on the discipline of the [correct] balance [in thought]. I have called it the *Ladder of the Sciences*. Lord, make it among base texts like a sun among stars!<sup>7</sup>

*On Knowledge*

*Introduction.* 3. Knowledge is conception; and it is what is present for the one who apprehends. The truth is that it [i.e., knowledge] is among the most apparent of primary [apprehensions], like [the apprehension of] light and happiness. Granted, an examination of its reality is truly difficult.<sup>8</sup>

*Conception and Assent*<sup>9</sup>

4. If [knowledge] is a belief in a predication relation [between a subject and a predicate], it is an assent and judgment.<sup>10</sup> Otherwise, it is a simple conception.<sup>11</sup> These are necessarily two distinct species of apprehension. To be sure, there is nothing that prevents [the] conceptualization [of a thing]; for [conception] is related to everything.<sup>12</sup>

Now, there is a well-known doubt [about the distinction between conception and assent]. It is that knowledge and that which is known are one and the same in virtue of their very selves.<sup>13</sup> So, if we were to conceptualize assent, the two would be one.<sup>14</sup> But you said that they were distinct in reality. The solution [to this conundrum], one that I am unique in [offering], is that knowledge, with respect to the issue of [its] self-sameness [with its object, is to be understood] in the sense of the form that is knowledge. For insofar as [this form] comes to obtain in the mind, it is an object of knowledge; and insofar as its subsistence in [the mind is concerned], it is knowledge.<sup>15</sup>

Then after examination, it came to be known that this form [of knowledge that comes to obtain in the mind and is the thing known] becomes knowledge only because the apprehending state had mixed in a unified, linked manner with it [insofar as it] exists as imprinted [in the mind]. [This is] just like [when] the state of tasting [is mixed] with things tasted, so [that this state] becomes the form associated with tasting; [or it is like the relation of the state of] hearing to things heard; and it is thus [in the case of knowledge].<sup>16</sup> This state is divided, in reality, into conceptualization and assent. The distinction between these two is like that between sleep and wakefulness, both of which come to inhere in a single substrate. Yet the two are distinct with regard to their realities. So ponder this!

It is not the case that the whole of each of [conception and assent] is primary; otherwise you would be able to dispense with theoretical [investigation]. Nor [is the whole of each of the classes of conception and assent] theoretical; otherwise, [the derivation of each] would be circular and a thing would precede its own self within two steps [of the derivation];<sup>17</sup> indeed [it would precede itself] within an infinite [number] of steps.<sup>18</sup> For circularity entails an infinite series, which is absurd. [The reason for its absurdity is proved by the following argument]. The doubled number is more than the original [of which it is a double]. And of every two numbers the added part of one that is greater occurs after all the units of that to which something is added have been run through. For one cannot imagine adding to the starting point [of that to which something is to be added], while the middle parts [preceding this starting point] are sequentially ordered. And so, if that to which something is added is infinite, the addition would attach to the infinite side; and this is absurd, [given] that the finitude of number entails the finitude of the thing counted. So ponder this!<sup>19</sup>

Conception is not known via assent; likewise is the converse. [The former is the case] because that which informs [about something] is predicated [of that thing]. [The latter is the case, because] conception is indifferent to the relation [of two sides].<sup>20</sup> So, some of each one of [conception and assent] is primary and some theoretical. That which is simple cannot lead to the acquisition [of something else by the assembly of parts]; for acquisition requires the compositional ordering of things. And [this ordering] is [called] theoretical [investigation] and cogitation.<sup>21</sup>

### *On the Purpose of Logic*

5. Here [we may mention] a doubt, which was addressed to Socrates, and it is that the sought conclusion is either known—so that the act of seeking is [nothing other than] making something obtain that has [already] obtained—or it is unknown—so how can one seek it [in the first place]? To this is responded that it is known in one aspect and unknown in another. [The challenger would then] say that the aspect in which it is known is known and the aspect in which it is unknown is unknown. The solution to this is that the aspect in which it is unknown is not absolutely unknown, so as to preclude the seeking. For the known aspect is [still]

*its* aspect. Do you not see that what is sought is the reality known with respect to some considerations? [So take] this!

Not every ordering [of things] is useful or natural. It is owing to this [fact] that you see the opinions [of people] contradict [each other]. So there must be some [body of] rules that confers immunity from error; and this is logic. Its subject matter is intelligibles insofar as they lead to conception and assent.<sup>22</sup>

### *On the Inquiries*

6. That by which an inquiry is framed is called a question. The foundational questions are four: what, which, whether, and why. "What" is for seeking conceptualization by way of an explanation of the noun, so that it is called an explanatory ["what"]; or [it is for seeking it] with respect to the reality [of a thing], so that it is called the real ["what"]. "Which" is for seeking something that distinguishes [a thing from another] with respect to [its] essential or accidental [elements]. "Whether" is for seeking assent to the existence of a thing in itself; [in this case] it is called the simple ["whether"]; or [it is for seeking assent] with respect to its attribute, so that it is called the compound ["whether"]. [Finally,] "Why" is for seeking the proof for mere assent or [for seeking the proof] for something with respect to its very given self.<sup>23</sup> As for what is sought of [the questions] "Who," "How much," "How," "Where," and "When," well, these are either extensions of [the question] "Which" or they fall under the rubric of "Whether" [in the] compound [sense noted above].

## ON CONCEPTUALIZATIONS

### *On the Absolutely Unknown*

7. We present conception first because it occurs first by nature. For no judgment can be passed on that which is absolutely unknown.<sup>24</sup> It is said that a judgment is [indeed being] passed [on the absolute unknown] in the [very claim];<sup>25</sup> so [the original claim] is false. The solution [to this conundrum] is that [the absolutely unknown] is known per se and absolutely unknown per accidens.<sup>26</sup> Thus the judgment and its negation are with respect to two [different] considerations. [An explanation of this] will come [later].<sup>27</sup>

### *Signification and Semantics*

8. Communication only comes about by way of signification. [This latter] is [1] related to the intellect, which [presumes] an essential relation [between two things], or [2] conventionally posited and [exists] because someone made it so, or [3] natural and is generated by a nature. Each of [these three types of significations] is either an utterance or not. Now, since man is political by nature and is highly dependent on teaching and learning, and since [that signification which falls in the category of] the conventionally posited utterances is the most general and inclusive

of them, we should consider [such signification here]. It is clear that utterances are posited for meanings insofar as they are what they are; [they are not posited] for mental forms or extramental individuations, as it is said.<sup>28</sup>

The signification of an utterance for the totality of that for which it is posited, insofar as [the utterance] is posited as such, is [called signification by] correspondence. [Its signification] for a part of it is [called signification by] inclusion—and it follows from it [i.e., correspondence,] in compound [meanings].<sup>29</sup> [And its signification] for what is extraneous [to the conventional posit is called signification by] compound-implication.<sup>30</sup> [This last] requires a verifying relation based on the intellect or custom [that allows the transfer from the originally posited to the entailed signification].<sup>31</sup> It is said that signification by compound-implication is excluded in the sciences, because it is based on the intellect; but this last position is refuted by [appeal to the case of signification] by inclusion.<sup>32</sup> [Our position is] that what is implied by [signification by inclusion and compound-implication] is [signification by] correspondence, but not vice versa.<sup>33</sup> And the mind is not always led to [consider] that [the thing signified by correspondence] is not other than itself.<sup>34</sup> As for [signification by] inclusion and [the idea that it also signifies by] compound-implication, well, there is no [mutual] implication between the two [types].

#### *On Simple and Compound Utterances*

9. Being simple and compound are, in reality, attribute[s] of an utterance, because, if a part of it signifies a part of its meaning, then it is a compound [utterance] and it is called a statement and a composite. Otherwise, [it is called] a simple [utterance]. If [an utterance] is a mirror for [supplying] the knowledge of something other [than itself], then it is a particle.<sup>35</sup> The truth is that existential verbs are among [such particles]. For “to be,” for example, has the sense that a thing is something that is not yet mentioned.<sup>36</sup> [The existential verbs] are called “verbs” because they conjugate and signify time. Otherwise, if [an utterance] signifies time, by means of its morphology, it is called a verb. Not everything [considered] a verb among the Arabic [grammarians] is called a verb among the logicians. For example, [things] like “I walk” and “You walk” are verbs for the former, but not verbs [for the latter]. This is so because [such verbs] can be true or false, as opposed to “He walks.”<sup>37</sup> [If it does not refer to time,] then it is a noun. Among properties specific [to a noun] is that judgment may be passed on it. Now, their statements, “‘From’ [is a particle] governing a genitive case,” and “‘He hit’ is a past simple verb,” do not refute [this position], because this is a judgment about the sound itself, not its meaning;<sup>38</sup> and it is [the meaning] to which [the judgment] is specific. The same is also the case for indefinite [nouns].

#### *On Particulars and Universals*

10. If the meaning [of the simple utterance that is a noun] is unified, then, given the specification [of this utterance] for [this meaning] by the act of imposition, it



is a particular. Pronouns [such as “you”] and demonstrative nouns [such as “this”] are included among [particulars]. For the imposition for these two is general, but that for which they are posited is specific, according to verification.<sup>39</sup> Without [the specification, the simple utterance] is a [universal] that applies equally [to various instances] if the individual instances are equal with respect to [the meaning’s] truthful application [to them]. Otherwise, it is a modulated [universal]. They limited the difference [of the individual instances participating under a universal] with respect to primariness, priority, intensity, and increase.<sup>40</sup> [Yet] there is no modulation in quiddities<sup>41</sup> or in accidentals,<sup>42</sup> but in the description of individual instances [of the universal] by [the accidentals]. For there is neither any modulation in body nor in blackness, but in *that* which is black.<sup>43</sup>

The meaning of one of two individual instances being more intense than another is that the intellect extracts [from the stronger case], with the help of the estimative [faculty], examples of the weaker [type]; and it resolves [the stronger case into the weaker].<sup>44</sup> Thus, the general understanding is led to [believe] that [the stronger] is composed [of the weaker]. So understand [this!]

#### *Other Forms of Utterances*

11. If the meanings [of a noun] are multiple, then if [the noun] is posited for each [meaning] at the original moment [of imposition],<sup>45</sup> then [this is called] a homonym. The truth is that [this homonymy] exists even between two contraries, except that, [in this case,] there is no overlap in [the meanings] in reality. It is said that an arbitrarily invented [utterance for a meaning] falls under the homonym; and it is [also said] that it falls under [the class of utterances that are] transferred [from their original meaning].<sup>46</sup> Otherwise, [if the utterance is not posited for each meaning at an original moment of imposition, then,] if it becomes widespread with respect to the second [meaning that occurs for it at a later stage], then it is a transferred [utterance] that is either legislative or customary; and the [latter] is either specific or general.<sup>47</sup> al-Sibawayhi states that proper nouns are all transmitted [utterances]. [This position is] in opposition to the vast majority.

#### *Literal and Metaphorical Speech*

12. [If the aforementioned options do not apply], then the [utterances] are either literal or figurative. [The latter] must have some connection [to the literal]. And if [this connection] is a simile, then there [comes about] a metaphor; otherwise, it is nonmetaphorical figurative [speech], which is limited to twenty-four types. [In these cases,] it is not necessary that one hear the particular [cases of usage from anyone], though hearing their general [underlying] types [of connections] is necessary.<sup>48</sup> The telltale sign of a literal [utterance] is the immediacy [with which its meaning occurs to the mind] and its dispensing with any contextual clue.

And the telltale sign of figurative speech is its application for that which is impossible [in literal speech] and the usage of the utterance for [only] some of [the instances] of its meaning, such as [the usage] of *dābba* for the donkey. [In cases of doubt, taking an utterance as] transferred and figurative is more suitable than [taking it as] homonymous; and [taking it as] figurative is more suitable than [taking it as a] transferred [utterance]. In virtue of its very self, figurative [speech] is grounded in the noun. As for the verb, the rest of the derivatives, and the particle, well, it is found in them only derivatively.

### *Synonyms*

13. The multiplicity of utterances with respect to one meaning is [called] synonymy. And [synonymy] exists in actual fact owing to the multiplicity of the manners [of communication] and [owing to] the liberties [of expressions needed] in stylized [speech]. [However,] it is not necessary for each [synonym to be able] to stand in place of another, though they both be from the [same] language. For the soundness of [each] composition is among the accidentals [specific to each synonym].<sup>49</sup> [Thus,] it is said *ṣallā 'alayhi* and not *da 'ā 'alayhi*.<sup>50</sup>

### *Statements and Propositions*

14. Is there synonymy between a simple and a compound utterance? There is a dispute over this matter.<sup>51</sup> If it is correct to maintain silence [on hearing] a compound [utterance], then it is a complete [compound utterance].<sup>52</sup> [The complete compound utterance is called] a statement and a proposition if a report about something actual is intended by it.<sup>53</sup> And so it is necessarily described by truth and falsity.

### *Liar Paradox*

15. One [may] say that “This speech of mine is false” is not a statement because a report [that reports] about itself is nonsensical. The truth is that [, when this statement] is taken, along with all its parts, on the side of the subject term, then the relation [within the subject term] is considered in a compressed form, so that [the relation] is that about which there is a report. And insofar [as the matter] pertains to generating [a statement] by means of [the relation,] the latter is considered in an expressed form; so it is a report [about its own self]. So the difficulty is resolved in all its manifestations.<sup>54</sup> A corresponding [example] of this is our statement, “Every praise is for God.” For this [too] is a praise and belongs in the class of “every praise.” Thus the report is that about which something is reported. So ponder [this]! For this is an irrational root.<sup>55</sup> If [this is not a report,] then it is a non-truth-bearing utterance, which includes commanding and forbidding, desiring, hoping, interrogating, and so on.

*Other Compound Utterances*

16. [If] it is not correct [to maintain the aforementioned silence], then it is a deficient [compound utterance] and includes restricted, mixed, and other [forms].<sup>56</sup>

*On Universals and Particulars*

*Section.* 17. In terms of [its mere] conceptualization,<sup>57</sup> if the intellect allows for the multiplicity of a sense, then it is a universal.<sup>58</sup> [There are three types of universals:] impossible, such as the supposed universals, or not [impossible,] such as the necessary, and the possible.<sup>59</sup> Otherwise, [the sense] is a particular. The sensing of a child in the early phases of life and of the old man with weak eyesight and the imagined form of a specific egg—all these are particulars because the intellect does not allow the multiplicity of any of them by way of their being collected [together under one rubric].<sup>60</sup> And that is what is intended [by universal] here.

There is a well-known doubt [about particulars] and it is that the extramental form of Zayd and the form that obtains from the former—conceptualized by a group in their minds—are true of each other. Now verification [has shown that the correct doctrine] is that it is things that by themselves come to obtain in the mind, not by means of their simulacra or by means of what is similar to them; so the [extramental] form has [become] multiple. And thence it becomes clear that the real [extramental] particular is a predicate. And [they claim] this is the truth.<sup>61</sup>

One should not respond [to this doubt by saying] that one intends by [a universal] that [the form] is true of many *and* that it is a shadow for them, having been extracted from them.<sup>62</sup> In the case at hand, it would follow that there are multiple shadows [for the one form,] not that there is [one] shadow of many things.<sup>63</sup> What is needed [for the definition of a universal, however,] is the latter.<sup>64</sup> [This response is not correct] because the mutual truth [of the extramental for the mental and of the mental for the extramental forms] entails both [that the extramental form] is extracted from and is a shadow of [the mental forms]. [This is so] because the two [types of forms] are one and the same.<sup>65</sup>

Rather, the response [to this doubt] is that what is intended [by the universal] is the multiplicity of the sense with respect to what is extramental.<sup>66</sup> The form of Zayd that obtains in the [multiple] minds cannot have multiplicity with respect to the extramental [world]. Rather, all these [mental forms] are ipseities of [the one and same extramental] Zayd.<sup>67</sup>

As for supposed universals and secondary intelligibles, the intellect, in simply conceptualizing them, does not abstain from allowing their multiplicity in the extramental [world], because they do not include specific denotation. So it is said that supposed universals are universals in relation to existing realities.<sup>68</sup> So [take] this!

Being universal and particular are attributes of the object of knowledge. It is [also] said that [they are] attributes of knowledge. The particular is neither something from which [knowledge of something else] can be acquired nor something [the knowledge of which] is acquired [from something else]. [Finally, the particular] may be said of whatever falls under another universal. [Such a particular] is specified as a relative [particular], just like the first [type that is specified as] the real [particular].<sup>69</sup>

If two universals are both true entirely [of each other's individual instances], then they are called equal.<sup>70</sup> Otherwise, they are mutually differentiated. If [this differentiation] is with respect to all [individual instances], then the two [universals] are mutually distinct. If [the differentiation] is partial, then either it exists with respect to both [the universals], in which case they partially overlap [with each other];<sup>71</sup> [or] they are [distinct] only with respect to one [universal].<sup>72</sup> So, each is more general and specific in an absolute fashion [in relation to the other].

### *On Contradictories of Universals*

18. Know that the contradictory of each thing<sup>73</sup> is its removal. So the two contradictories of two mutually equal [things] are mutually equal; otherwise, the two would differ with respect to their truth [over individual instances], so that the truth of one of two equal things would follow without that of the other. This is absurd.<sup>74</sup> Now there is a strong doubt [about this proof] and it is that the contradictory of [two things that have] the same truth-value [in relation to all instances] is the removal [of their mutual truth for these instances], not the truth of their [mutual] differentiation.<sup>75</sup> Indeed the contradictory of two equal [things] may be something that has no individual instance with respect to the way a very thing is given, such as the contradictories of concepts that encompass [everything].<sup>76</sup> [In this case,] the first [i.e., the removal of the mutual truth of the two things] would be true, not the second [i.e., the truth of the mutual differentiation of the two things].

The statement [in refutation of this last argument]—that the truth of the negation [of a thing for a thing] does not require [this thing's] existence, so that the removal of the mutual truth [of two equal things for all their instances] does entail their mutual differentiation—well, granting this is farfetched.<sup>77</sup> This [argument] can only be granted if the [universal] concepts were existential, such as “thing” and “possible.” As for when they are negative [encompassing concepts], such as “the non-Participant with God” and “the nonjoining of two contradictories,” well, there is no way out of this. [To this critique] there is no response except by making the claim specific to those [things that are] not contradictories of these [types of encompassing] concepts.<sup>78</sup> So [take] this!

[In cases where one thing] absolutely encompasses [another,] their contradictor[ies] stand in a converse [relationship]. For the passing away of the general entails the passing away of the particular; but the converse is not

[the case].<sup>79</sup> [This is true,] given the verification of the meaning of “general.”<sup>80</sup> There is a doubt that is raised [about this rule] in that “the nonjoining of two contradictories” is more general than “man,” though there is a mutual differentiation between their contradictories.<sup>81</sup> Similarly, the general possible is more general than the special possible. So every nongeneral possible is a nonspecial possible;<sup>82</sup> and every nonspecial possible is either necessary or impossible. [Yet] both of them are general possibles.<sup>83</sup> So every nongeneral possible is a general possible.<sup>84</sup> The answer is what has [just been said about] the specification [of cases by nonencompassing concepts].<sup>85</sup>

There is a partial mutual differentiation between the two contradictories of [two] overlapping [things], as is [also] the case of [the contradictories of] two [things] that are mutually differentiated.<sup>86</sup> This is a distinction with respect to a totality, because there is [some] mutual distinction between the two exact things.<sup>87</sup> So, when one of these exact [things] is true, the contradictory of the exact other is true.<sup>88</sup> This [mutual partial distinction] may come about within the ambit of a complete mutual distinction [between two things]. [This is the case of] nonstone and nonanimal and man and nonrational.<sup>89</sup> Or [the mutual partial distinction] may come about within the ambit of an overlap [relation between two things]. [An example of this] is white and man and stone and animal.<sup>90</sup> Regarding this [set of rules] there is a question and the answer is within the scope of what has already been mentioned [about the specification of cases by means of the exclusion of encompassing concepts].<sup>91</sup>

#### *The Five Universals: Essential and Accidental*

19. The universal is either the exact reality of the individual instances or it is included in [the reality of these instances, such that] it is shared completely by the [reality of the instances] and another species; or it is not shared [in this total way].<sup>92</sup> These [universals] are called essentials, [a term] that may be used to refer to that which is internal [to a reality]. Alternatively, [the universal] may be external [to the reality of the instances], while being specific to a [single] reality. Or it may not [be specific in this way]. Both these latter [two] cases are called accidentals.<sup>93</sup> The majority are of the [opinion] that, in reality, the accident is something other than the accidental and that [the accident] is [something] other than the substrate [wherein accidents inhere].<sup>94</sup> One of the eminent scholars<sup>95</sup> stated that the nature of the accident, [when] unconditioned [by any modality of existence], is an accidental; [when] conditioned with something, it is the substrate; and [when] conditioned absolutely, it is an accident, which is distinguished from substance.<sup>96</sup> For this reason, it is correct to say that the women are four and that the water is a cubit.<sup>97</sup> Given this [unity among the three,] he said that that which is derivative [i.e., the accidental,]<sup>98</sup> does not indicate either the relation [between the accident and the substrate] or the thing described, in a general or specific manner.<sup>99</sup> Rather, its meaning pertains only to the extent

of the description. And this is the correct [view].<sup>100</sup> What Avicenna states aids him [in his doctrine, i.e.,] that the existence of accidents in themselves *is* their existence for their substrates.<sup>101</sup>

*On the Nature of the Five Universals*

20. The universals are five. The first is genus and it is a universal that is said of many things that are different with respect to their realities.<sup>102</sup> [It is said] in response to “What is it?” If it is a response about the quiddity and about *all* that is shared [by the various quiddities,] then it is a proximate [genus]; otherwise, it is the [genus that is more] distant.<sup>103</sup>

There are investigations [about genus]. The first is that “What is it?” is a question about the totality of a quiddity that is specific [to singular entities, species, and so on]. If [the question] is limited to a single thing, then the species or the complete definition is given in response. [If the question is] about the totality of the shared quiddity, then, if the [various] things are brought together [and] if they have a shared reality, then species is given as a response; [however,] if [these things] have different [realities,] then genus [is given in response].<sup>104</sup> Given this, it is deduced that one quiddity cannot have the possibility of two genera on the same level.<sup>105</sup>

The second [investigation] is that the existence of the genus is [exactly] the existence of the species both mentally and extramentally. For [the genus] is predicated of [the species] in both [modes of existence].<sup>106</sup> The source of this [doctrine] is that the genus has no positive existence before the species, though it does have a nontemporal priority [over it].<sup>107</sup> For example, if color occurs to us, we are not satisfied that a stable thing has obtained in actuality [in our mind]. Rather, something additional to the sense of color is sought, so that it may obtain in actuality.<sup>108</sup> As for the nature of the species, well, the positive obtaining of its meaning is not sought; rather, the positive obtaining of an indication/pointing [is sought].<sup>109</sup>

The third [investigation pertains to the issue of] the difference between genus and matter. For it is said of body, for example, that it is a genus of man; so it is predicated [of man]. And it is said that it is [man’s] matter; so it is impossible to predicate it of [man]. We say that when body is taken with the condition that nothing should be added to it, it is matter.<sup>110</sup> And [when] it is taken with the condition that something is added to it, it is species.<sup>111</sup> [However,] when it is taken unconditionally,<sup>112</sup> however it may be—be it with a thousand constitutive meanings included in the totality of [what leads to] the positive obtaining of its meaning—then it is genus. [In the last case, body] is unknown and it is not known in what [exact] state it is. It is predicated of every composite of matter and form, be the [form] one or one thousand. And this [rule, i.e., that from one consideration, a nature is matter and, from another, it is genus] encompasses that whose essence is composite and that whose essence is simple.<sup>113</sup> However, in the case of the composite, the positive obtaining of [its] meaning as genus is very difficult and complicated and, in the case of the simple, the extraction of [its meaning as] matter is difficult and hard.

For making something that is specifically individuated into something divested and specifically individuating something that is divested is a greatly [challenging] task.<sup>114</sup> This is [also] the difference between specific difference and form. Given this, you will hear them say that genus is taken from matter and specific difference is taken from form.<sup>115</sup>

The fourth [investigation is that] they say that the universal is a genus of the five [predicables].<sup>116</sup> So it is both more general and more particular than the genus.<sup>117</sup> The solution is that the universality of the genus is with respect to the consideration of the essence [of genus] and the being-genus of the universal is with respect to the consideration of the accident [that comes to relate to the universal].<sup>118</sup> Consideration with respect to the essence is other than consideration with respect to the accident. The status [of things] differs with respect to the difference in [their various] considerations. Given this, the solution [to the following problem] becomes clear: that the universal is an individual instance of itself; so it is other than itself; [but] the negation of a thing of itself is absurd.<sup>119</sup> Yes, it does follow [from the forgoing] that the reality of a thing is the very individual instance of itself and [also] something other than itself. However, when [this is an outcome] owing to two considerations, then it poses no difficulty. Given this, it is said that, were it not for [various] considerations [of a thing], philosophy would be falsified.

[The fifth investigation is that], if the universal were existent, then it would be individuated. So how could it be said of many things? Otherwise [i.e., if it were not existent], how could it be constitutive of existent particulars? The solution [to this problem] is that it is granted that every existent is the substrate of [an] individuation [that comes to inhere in it and whereby it is individuated]. And [its being the substrate of individuation] is the proof [both] of [the universal's] being divided [into particulars] and of its being common [to particulars].<sup>120</sup> That individuation should be internal to each existent is impossible.<sup>121</sup>

The second [universal] is species and it is that which is said about shared realities in response to the question, "What is it?" Each reality, in relation to its parts, is a species.<sup>122</sup> [Species] may be said of a quiddity of which and of another [quiddity] genus is said in response to the question, "What is it?" [However, this would be so] provided this response is not mediated [by anything]. The former [i.e., a universal in relation to its parts] is the real [species] and the latter is the relative [species].<sup>123</sup>

Between the [real and relative] species there is [a relation] of partial overlap, [though] it is said that this is a complete encompassing [relation]. Like the genus, [species] is either simple or ordered.<sup>124</sup> The most particular of all [the species] is the low [species] and the most general of all [the species] is the high [species].<sup>125</sup> The [species] that is more particular and more general [in relation to some species] is the intermediary [species]. Since being a genus is in consideration of generality and being a species is in relation to particularity,<sup>126</sup> the lowest species is called the species of the species and the highest genus is called the genus of the genera.

The third [universal] is specific difference. It is that which is said in response to “Which thing is it with respect to its substance?”<sup>127</sup> That which has no genus, such as existence, has no specific difference. If [the specific difference] distinguishes [a thing] from that which shares [some reality] with it with respect to its proximate genus, it is [called] the proximate [specific difference]. If it distinguishes it with respect to its] distant genus, it is called the distant [specific difference]. [The specific difference] has a relation to the species [insofar as it] constitutes it; so it is called constitutive; and every [specific difference] that is constitutive of the higher [species] is constitutive of the lower, though this is not the case conversely. [The specific difference has a relation] to the genus [insofar as it] divides it; so it is called the dividing [specific difference].; and every [specific difference] that divides the lower [genus] divides the higher, though the converse is not the case.

The philosophers say that the genus is an ambiguous thing that does not have a positive reality except owing to the specific difference. So the [latter] is a cause for it. [Given this,] no specific difference of the genus can be a genus of the specific difference. And one thing cannot have two proximate specific differences; [a specific difference] can only constitute a single species; [a specific difference] can only stand in relation to a single genus on a single [layer of the ordered] rank [of universals]; and the specific difference of substance is substance, as opposed to what the Illuminationists say.<sup>128</sup>

Given [the foregoing,] there is a doubt from two perspectives. The first is what is mentioned in the *Shifā'* [of Avicenna] and it is that each specific difference is a [mental] sense among other [mental] senses. So it is either the most general of predicates or [it falls] under [such a predicate]. The first [possibility] is false.<sup>129</sup> And so [a specific difference] is distinguished from other shared [predicates, such as property and common accident] by means of a specific difference. [But] then each specific difference will have a specific difference, so that this will [result as] an infinite regress.<sup>130</sup> The solution [to this problem] is that we do not grant that each sense [in the mind] is distinguished [from others] by means of a specific difference. [To be distinguished in this way] would only be necessary if the general sense [under which the specific difference falls] were constitutive of it.<sup>131</sup>

The second [doubt] is what has made itself apparent to me. It is that, just as a universal is true of one of its individual instances, so it is also true of many of them in the same way. So [man by itself, horse by itself, and] the collection of man and horse [are all] animal. [As a consequence, the collection] has two proximate specific differences.<sup>132</sup> It cannot be said [as a solution to this problem] that [the premise grounding this problem] would entail “cause” to be [said] truthfully of the compound effect, because the latter is a collection of the material and formal [causes]. This [consequence] is impossible.<sup>133</sup> [Such an objection to the doubt-producing premise cannot be accepted] because we do not accept that it is impossible [that “cause” should be predicated of the compound effect]. This is so because the [compound] effect is one and it is a cause [insofar as it is composed of] many



[things]. The multiple aspects of being an effect do not entail the multiplicity of the effect in reality.<sup>134</sup>

[The following also] cannot be said [as a solution to the doubt]: that the collection of “two participants with the Creator” is “the participant with the Creator.” So, some “participant with the Creator” is a compound. Every compound is possible, though the “participant with the Creator” is impossible. [This objection would not hold] because we do not grant the possibility of every compound. For the fact that the collection needs [its parts] with the determination of [its] supposed existence does not affect the impossibility with respect to the way things are given.<sup>135</sup> Don’t you see that [the possibility of “the Participant with the Creator”] entails an absurdity in virtue of its very self, so that it cannot be possible? So reflect on this!

The solution [to this second doubt] is that the existence of two [things] entails the existence of a third, which is the collection. And this [latter] is one. It cannot be said [as an objection] that, given this, an infinite number of things would obtain when two things obtain, because from the addition of the third, a fourth would obtain. And so on. [This objection does not have an effect] because we say that the fourth [thing] is something [produced] owing to a [mental] consideration. For it obtains when a single thing is [mentally] considered twice. Infinite regress in things that are [products of mental] considerations can come to an end when [such considerations] are brought to an end. So understand [this!]<sup>136</sup>

The fourth [universal] is property. It is something external [i.e., nonessential, to a thing] and is said of [instances] that fall under a single reality that is a species or a genus. If it is generally [said] of all individual instances, it is [called] inclusive; otherwise, it is noninclusive.

The fifth [universal] is the common accident. It is something external [i.e., non-essential, to a thing] and is said of different realities.

If it is impossible to separate [property and common accident] from that in which they inhere, then they are necessary concomitants; otherwise, they are separable concomitants.<sup>137</sup> The latter may pass away quickly or slowly or not pass away.<sup>138</sup> Next, if it is impossible for the necessary concomitant to separate from the quiddity absolutely [i.e., mentally or extramentally] owing to a cause or a necessity, it is called the necessary concomitant of the quiddity. Or [it may fail to separate from the quiddity] with respect to either extramental or mental existence. This latter [i.e., that which fails to separate mentally] is called a secondary intelligible.<sup>139</sup> [Returning to the claim above,] perpetuity must [in fact] issue from a causal entailment.<sup>140</sup>

[Next, we must ask] whether existence in an absolute sense has any necessary part to play in [determining] the concomitants of an essence.<sup>141</sup> The truth is that it does not. For necessity is not such that it should be caused after the existence of [its] cause is first necessitated, as [is the case with] the existence of the Necessary (may He be exalted), according to the doctrine of the theologians.<sup>142</sup>

In addition, the necessary concomitant is either obvious, such that its conceptualization follows from the conceptualization of that of which it is a concomitant. It may be said that the obvious concomitant is such that from the conceptualization of [the concomitant and that of which it is a concomitant] the judgment of this concomitance follows. This latter [type of obvious concomitant] is more general than the former.<sup>143</sup> Or [the concomitant] is nonobvious, as opposed [to the obvious]. The relation [of particularity and generality] would be the converse [in this case]. And both [the obvious and nonobvious concomitants] exist necessarily.<sup>144</sup>

Given [the foregoing], there is a doubt [that is raised]—namely, that the concomitance is [itself] something that is a concomitant; otherwise, the underlying principle of mutual concomitance [between the concomitant and that of which it is concomitant] would be nullified. And so the [many] concomitances would regress infinitely.<sup>145</sup> Its solution is that concomitance is among the [mentally] considered and [secondarily] abstracted meanings that obtain only in the mind once the [mental] consideration [has been effected]. So [this regress] would come to an end once the [mental] consideration does so as well. Certainly, that from which it is taken and its source obtain [in reality], and [this source] preserves the independent givenness [of the thing]. The secondarily abstracted things may be finite or infinite, arranged or unarranged. So their statement that the infinite regress in [such cases] is not an absurd impossibility is true because the subject [—i.e., infinite regress—] is nonexistent. So reflect on this!<sup>146</sup> [This is the] end [of the discussion on the five universals].

### *On Logical, Natural, and Mental Universals*

21. The [mere] sense of the universal is called the logical universal and that in which this sense inheres is called the natural universal.<sup>147</sup> The collection of the accidental and that in which it inheres is called an intellected universal.<sup>148</sup> Thus are the five universals, [each one divided into the] logical, natural, and intellected.<sup>149</sup> Next, the natural [universal] has three [mental] considerations. [The first is] with the condition that it is not conditioned [by any accidentals] and it is called the abstracted.<sup>150</sup> [The second is] with the condition [of some attached accidentals] and it is called that which is mixed [with accidentals]. [The third is] unconditioned and it is called the absolute. [This last] is neither existent nor nonexistent insofar as it is what it is; nor are there any accidentals [in this grade]. Thus, with respect to this [third type] both something and its contradictory [can be] removed.<sup>151</sup>

The natural [universal] is more general than the absolute [universal] owing to the consideration [that the latter is unconditioned]. So it does not follow that a thing is divided into itself and that which is other than it.<sup>152</sup>

Know that the logical [universal] is among the secondary intelligibles. Given this, nobody holds that it exists extramentally. And given that, if the logical [universal] does not exist, the intellected [universal] would not exist, [so that] only

the natural [universal] is left [as existing extramentally]. There is a disagreement [about this latter position]. The doctrine of the verifiers—and among them is the Principal [Scholar, Avicenna]—is that it exists extramentally as the very existence of [its] individual instances. So the existence [of the two types—the natural universal and the individual instances—] is one [and the same] in itself [extramentally] and that which exists is two [only mentally]. [Existence] comes to inhere in the two, [i.e., the natural universal and its instances] insofar as these two are one [extramentally].<sup>153</sup> [Then] anyone who holds that there is no specific individuation [for the natural universal]<sup>154</sup> also holds that [the natural universal] is sensible generally, [i.e., whether accidentally or essentially].<sup>155</sup> And this [latter position] is correct.<sup>156</sup>

A small group of philosophasters hold the position that the [extramental] existent is the simple ipseity and that the universals are mentally dependent and intellected extractions.<sup>157</sup> I wish I knew [how this would make sense. For] if Zayd were, for example, simple in every way and he were considered insofar as he is what he is, without [reference to] anything shared or distinct—even [without reference to a shared] existence or nonexistence—how could one imagine mentally extracting mutually different forms from him? This [requirement of extracting multiple forms from Zayd] would inevitably force on them the doctrine that, on the level of its constitution and its positive existence, the real simple has two distinct forms that correspond to [the simple]. And this is the doctrine that two mutually exclusive things [can both be the case].<sup>158</sup> This [difference regarding the extramental existence of the universal] pertains to the mixed and absolute [universals]. As for the abstracted [universal], nobody holds that it exists extramentally except for Plato. And this is the Platonic Form for which he is defamed. Does [the abstracted universal] exist in the mind? It is said that it does, and it is said that it does not. This is the correct position.<sup>159</sup> For there is nothing that impedes conceptualizations.<sup>160</sup>

### *On Definitions*

*Section.* 22. That which identifies a thing is what is predicated of it either [insofar as] it causes one to obtain its conceptualization or [insofar as] it elucidates it. The latter is [merely] verbal [elaboration], whereas the former is the real [identification]. For with respect to [the latter] a form that did not already obtain is caused to obtain.<sup>161</sup> If [that which is being identified] is known to exist [extramentally,] then [the real identification] is with respect to reality. Otherwise, it is with respect to the name [only].<sup>162</sup> That which identifies [a thing] must be better known [than that thing]. [Identification] cannot be correct when the two are equal with respect to being known; nor [can it be correct] when [that which identifies] is more obscure, although both [must] be equal with [with respect to truth].<sup>163</sup> For [in this way] both would necessarily exclude and include [the same instances]. [Given this,] it is not correct that [the identification] be by means of that which is more general or

more particular.<sup>164</sup> Identification by means of example is identification by means of a specific similarity. The truth is that identification may be allowed by means of that which is more general.<sup>165</sup>

[Identification] is definition if that which distinguishes [a thing from another] is an essential; otherwise, it is a description. If it consists of the proximate genus, it is a complete [definition or description]. Otherwise, it is a deficient [definition or description]. The complete definition consists of the proximate genus and specific difference. It is that which leads to the true nature [of a thing]. It is considered better to place the genus first; and it is necessary to restrict the one with the other.<sup>166</sup> [A complete definition] is not susceptible to increase and decrease. The simple is not [something that can be] defined, though one may define by means of it. The composite is defined, and one may or may not define by means of it. Providing a real definition is difficult. For the genus resembles a common accident and the specific difference [resembles] property; distinguishing [between these] is among the [most] inscrutable things.

Next, there are [some points of] investigation. The first is that even though the genus is ambiguous,<sup>167</sup> insofar as it is intellected, the mind may create an individual existence for it in the mind. [The mind] then adds something additional to it, not in the sense that [this latter] is extraneous [and] comes to attach itself to it. Rather, [the mind] restricts [the genus] with [this addition], so that the former may have a positive existence and individuated specification and may include [the latter]. Thus, when [the genus] comes to have a positive existence, it does not become something else. For the positive existence does not change it; rather, it causes it to obtain.<sup>168</sup> So, when you look into the definition, you find it to be composed of many meanings, each one like a scattered pearl, [each] distinct from the other, owing to a kind of [mental] consideration.<sup>169</sup> For [in the definition composed of several meanings] there is multiplicity in actuality, so that one [part of the definition] is neither predicated of the another nor [is one part predicated] of the collection [of the parts]. With a view to this consideration, the meaning of the definition is not [the same as] the meaning of the intellected thing that is defined.<sup>170</sup>

However, if the ambiguity of one of two [parts] is observed and the one is restricted by the other in a way that [the first part] includes [the second] within itself and [this ambiguous thing] is described,<sup>171</sup> so as to cause a positive existence to obtain and to be constituted, [then the definition, with a view to such a consideration,] comes to be something other [than what was described above and] it leads to the unified form that the defined thing has; and it causes [the defined thing] to be acquired.<sup>172</sup> An example is “rational animal” [which is given] as a definition of “man.” From it is understood one single thing that is exactly animal; and the latter is exactly rational. [And] just as the predicative connection conveys a unified form that the subject has with the predicate in extramental reality—except that, in that case, there exists a sentence-making composition, so that there is a judgment in it—likewise, in this case, there exists a restrictive composition that

conveys only the conceptualization of unity. The collection of the conceptualizations of the parts insofar as they are discrete (that is, the definition) leads to the single conceptualization of all the parts insofar as they are nondiscrete (that is, the thing defined).

Thus, one can defend against the doubt of al-Rāzī that identifying the quiddity is either by means of its very self or by means of all its parts, which [collection of parts] is its very self; so to identify is to make something obtain that has already obtained.<sup>173</sup> Or [the identification of a quiddity] is by means of accidentals, but a reality cannot be known except by means of the knowledge of the true nature/core [of a thing]; and accidentals do not supply this [kind of knowledge]. Given this, all types [of identification] are null [for him] and he adopted the doctrine that all conceptualizations are primary.<sup>174</sup>

The second [investigation] is [on the question whether] nominal identification belongs among topics [in the category of] conceptualizations. For it is [said in response to] “What is it?” and everything said in response to “What is it?” is a conceptualization. Don’t you see that when we say, “The simba exists,” and the addressee says, “What is a simba?” then we express it as lion. Thus there is no judgment [involved] in this case. Indeed, the clarification that an utterance is originally posited [for a certain meaning] in response to [the question,] “Is this utterance originally posited for a [certain] meaning?” is an investigation about words. [The response] is intended to be established by means of proof in the discipline of language and lexicography.<sup>175</sup> So anyone who states that it falls within the category of assent does not distinguish between nominal identification and the linguistic investigation of utterances.

The third [investigation pertains to the point] that that which identifies is like a painter who paints a simulacrum on a tablet. So the act of identification is an act of producing a sheer picture in which there is no judgment.<sup>176</sup> So nothing that can preclude [its existence] is directed against [the act of identification]. Indeed there are implicit judgments [in such cases], such as the claim that [an identification is] definitional or on the level of supplying a sense [for something] or that it is fully exclusive and inclusive of relevant instances, and so on. So one may preclude such judgments. However, [and despite these considerations,] there was a consensus of scholars that there is no identification that can be precluded [from existing]. Yet [this position] was like a divine law that was abrogated before one acted in accordance with it.<sup>177</sup> Indeed [an identification can be] nullified, for example, when the principle of exclusion and inclusion is nullified.<sup>178</sup> The challenging proofs that a person sets up against his opponent can only be imagined with respect to real definitions, since the reality of a thing is only one (as opposed to descriptions).<sup>179</sup>

The fourth [investigation concerns the claim that] a simple utterance does not indicate discrete [parts] at all. Otherwise, unipartite propositions would obtain.<sup>180</sup> Given this, they say that when a simple [utterance] is identified by means of a composite utterance in a nominal identification, the discrete [elements] obtained

from that composite are not intended.<sup>181</sup> The Shaykh said that, among utterances, simple nouns and verbs correspond to simple intelligibles in which there are no discrete elements, composition, truth, or falsity. In fact [the simple utterance] does not even supply [any] meaning.<sup>182</sup> Otherwise, this would lead to a circularity. [Such utterances] only bring [a meaning] into the presence [of the mind]. So [simple utterances] may supply identifications only nominally.<sup>183</sup>

## ON ASSENTS

### *On Judgments: To What Do They Pertain?*

23. Judgment is compressed/nondiscrete and it is the disclosure, all at once, of the unity between two things. Or [judgment] is expressed/discrete and it is the logical [judgment] that invokes multiple expressed/discrete and individuated forms. The relation [among these forms] enters [into the consideration] of the object of judgment only in a dependent fashion, because [relation] is among the particle-meanings that are not considered independently. [A relation] is only a mirror for observing the state of the two extremes, [i.e., the subject and predicate, in relation to each other]. In reality, the judgment only pertains to what is the outcome of the compositional form--that is, the unity [of the subject and predicate].<sup>184</sup> So reflect on this carefully!

### *Parts of a Proposition*

24. Next, a proposition is only complete by means of three things. The third of these is a sentence-making relation that reports [that something holds for something].<sup>185</sup> Given this, it becomes apparent that mere belief [in a proposition] is a simple concession [to the claim of that proposition]. Otherwise, the parts of a proposition would be four.<sup>186</sup> The more recent [philosophers] claimed that doubt concerned the restrictive relation and that [this type of relation] is [also] a base for judgments.<sup>187</sup> They called this [restrictive relation] the intermediate relation.<sup>188</sup> As for judgment in the sense of the occurrence [of the predicate for the subject] and the nonoccurrence [of the predicate for the subject], well, only assent pertains to it. Their statement confuses me. Do they not understand that oscillation [in the case of doubt] does not occur in reality for as long as it does not relate to the occurrence and nonoccurrence [of the predicate for the subject]? So that which is apprehended in the two cases [of assent and doubt] is one<sup>189</sup> and the difference in the apprehension is that [one] is an allowance [of something for something] and [the other] is an oscillation [of opinion]. So the statement of the ancients is the correct one.<sup>190</sup>

Now there is a doubt [raised about this]. And it is that the three known things are the totality of the parts of the proposition [also] obtain in the case of doubt. However, [a proposition] does not obtain [in this case], according to the

well-known position.<sup>191</sup> It is said as a solution [to this problem] that, in relation to these [three] known things, the proposition is whole [and complete] per accidens. So it does not follow that it should obtain, as in the case of “writer” for “rational animal.”<sup>192</sup> I say that, given this, it is necessary that something else be considered after [the information-bearing relation] has occurred. And this [other thing] is nothing other than the apprehension [that the relation has obtained].<sup>193</sup> And [apprehension] is something extraneous [to the occurrence of the relation] by consensus. [However,] to take the obtaining [of the relation only] with the condition of [the] generation [of assent to this relation] is to grant the soundness of [the doctrine that] the essential is created [for the essence for which it is essential]. And this is absurd.<sup>194</sup> [Moreover,] the communication [of a meaning] is prior to the generation [of the assent to the relation between subject and predicate]. The proposition does not wait so as to have a positive existence [once something else has obtained] after [the communication of the meaning]. Thus the consideration of the generation [of assent] to the occurrence [of the relation] is something that has no bearing on the obtaining of the reality [of the proposition].

The truth is that our statement, “Zayd is standing,” is a proposition with respect to each determination, [i.e., in the case of doubt or assent]. For it communicates a meaning that carries the possibility of truth and falsity. In the case of doubt, the oscillation exists only with respect to the correspondence of the report [with reality], not with respect to the original [nature] of the report itself or the possibility of [its truth or falsity]. Yes, propositions that are considered in the sciences are those to which assent pertains, since no perfection [that is sought via the sciences] exists in the case of doubt. Although this [foregoing discourse] is something that has not reached your ear [before], it is in fact [the conclusion based on] verification.

### *Types of Propositions*

25. Next, given that the parts [of a proposition] are three, then it is suitable that [these three] be signified by three expressions. So that which signifies the relation is called the copula; sometimes, the language of the Arabs elides the copula, finding the diacritics sufficient as entailing signifiers for it.<sup>195</sup> [In this case,] it is called a bipartite proposition. Sometimes, [the copula] is mentioned, so that it is called a tripartite [proposition]. Although [the copula] that is mentioned is a particle, sometimes it is in the guise of a noun, such as “it,” and is called a nontemporal copula. *Estin* in Greek and *ast* in Persian are among [nontemporal copulas].<sup>196</sup> Sometimes, [the copula] is in the guise of a verb, such as “was,” and is called a temporal copula.

If the affirmation or negation of a thing for a thing is judged in a proposition, it is called an attributive [proposition]; otherwise, it is a conditional [proposition]. [The first part in the attributive proposition,] that about which something is judged, is called the subject; and [the first part is called] the antecedent [in a

conditional proposition]. That which is judged [about it, the second part in the attributive proposition,] is the predicate; and [the second part is called] the consequent [in a conditional proposition].<sup>197</sup>

### *Conditional Propositions*

26. Know that the doctrine of the logicians is that the judgment in a conditional [applies to the tie] between the antecedent and the consequent.<sup>198</sup> The doctrine of the grammarians is that it [applies to] the apodosis and that the protasis is a restriction for the predicate in [the apodosis], in the [sense of] being a state or circumstance [in which the predicate obtains]. So it is in the *Miftāh* [of al-Sakkāki].<sup>199</sup>

Al-Sayyid [al-Jurjānī] said that the first [position]<sup>200</sup> is the correct [one], because the conditional may be true with certainty, though the consequent may be false in actual fact. [An example is] our statement, “If Zayd were a donkey, he would bray.” If, however, the [truth-bearing] sentence were the consequent, then the truth of [the conditional] could not be conceived, along with the falsity [of the consequent]. [This is due to] the necessity that the negation of the absolute entails the negation of the restricted.<sup>201</sup>

‘Allāma al-Dawānī states that the falsity of the consequent at all actual times does not entail its falsity at times that have been determined [by a mental restriction]. For the being-braying at all times at which the being-donkey of Zayd is determined [as a restriction] is affirmed for him, even though it is negated of him with respect to actual times. Don’t you see that [the proposition,] “Zayd is standing in my mind,” is not falsified with the negation of his standing in actual fact? That which is mentioned [by al-Jurjānī] about entailment is granted [as a principle], but we do not grant that the absolute, in the case [at hand], is negated. For [the absolute] is taken in a sense that is more general than that which is with respect to the way things are given.<sup>202</sup> The most one need say is that this expression [i.e., “Zayd brays,”] is not posited so as to lead to this [kind of absolute] meaning [by means of signification by] correspondence.<sup>203</sup> And there is no harm in this. [An explanation] like this [also] resolves the doubt concerning the “nonexistent corresponding equal.”<sup>204</sup>

I say<sup>205</sup> that they—and among them is the Verifier al-Dawānī—allowed that a thing may entail its contradictory and two contradictories.<sup>206</sup> [This position] is based on [their granting] that an absurdity may entail an absurdity. They hold fast to this [principle as their base] in a number of cases, including in the answer to the indiscriminately applicable and well-known [following] paradox: the claim is affirmed; otherwise, its contradictory is affirmed; whenever its contradictory is affirmed, something is affirmed; so, whenever the claim is not affirmed, something is affirmed. This undergoes a contradictory conversion as our statement, “Whenever nothing is affirmed, the claim is affirmed.” This is absurd.<sup>207</sup>



Having laid this groundwork, we say that, if the condition [i.e., “whenever nothing is affirmed”] were a restriction for the predicate in the apodosis [i.e., “the claim is affirmed”], then the joining of two contradictories would follow in the [case of that conditional] in which the antecedent entails the two [contradictories].<sup>208</sup> For our statement, “Zayd is standing,” at the time when nothing is affirmed contradicts our statement, “Zayd is not standing,” at that self-same time. This is known a priori. As for the case when the judgment in the conditional [proposition] pertains to the connection between the two things, then [the joining of two contradictories] does not follow. For the contradictory of the connection [between two propositions] is its removal, not the existence of some other connection. So the doctrine of the logicians is the correct one.<sup>209</sup>

### *On the Subject Term*

*Section.* 27. If the subject is a particular, then the proposition is singular. If [the subject] is a universal, then [1] if a judgment is passed about it without the addition of any condition,<sup>210</sup> it is ambiguous for the ancients; and [2] if a judgment is passed about it with the condition of [its] mental unity,<sup>211</sup> then it is natural; and [3] if a judgment is passed in [the proposition] about the individual instances [of the subject], then [A] if the quantity of the individual instances is explained in it, it is quantified; and that whereby [the quantity is] explained is called a quantifier. The quantifier may be mentioned on the side of the predicate. In such a case, the proposition is called distorted.<sup>212</sup> [B] If [the quantifier] is not explained, then [the proposition] is ambiguous for the later [logicians]. Given this, the [later logicians] state that [the ambiguous proposition] mutually entails the particular [proposition].<sup>213</sup>

Know that the doctrine of the verifiers is that the judgment in a quantified [proposition] applies to the reality itself because it obtains in the mind in reality.<sup>214</sup> The particulars [that fall under it] are known per accidens; so the judgment applies to them only in this way. Perhaps it would be opined that, if this is so, then an affirmation would require the existence of the reality [about which the judgment holds] in reality. For that about which something is affirmed is [the same as] that about which something is judged in reality. However, [it is obvious that the reality] may be nonexistent, indeed negative.<sup>215</sup> The truth is that, even if the individual instances are known from an aspect,<sup>216</sup> they are that about which the judgment is passed in reality. Do you not see that, in [the case of] general positing and the particular thing for which something is posited, that which is known from an aspect is [the same as] that for which something is posited in reality?<sup>217</sup>

The response [to the aforementioned opinion] is that, what is communicated [in an] affirmative [proposition] simpliciter<sup>218</sup> is the existence [of the predicate for a subject] simpliciter.<sup>219</sup> So, every judgment that exists for individual instances exists [also] for [their] nature in some general way.<sup>220</sup> As for the manner in which [this judgment applies—] whether it applies first and in itself to the nature or to

the individual instance—well that is a sense that is additional to the reality [of the sense of what an affirmation is].<sup>221</sup> So reflect on this!

### *On Quantification and Subject Terms*

28. There are four quantifiers: the affirmative universal, whose quantifier is “all” and the definite particle [*al-*] that encompasses [all cases];<sup>222</sup> the affirmative particular, whose quantifier is “some” and “one”; the universal negative, whose quantifier is “nothing” and “not one” and the occurrence of an indefinite after the negation;<sup>223</sup> and the particular negative, whose quantifier is “not all” and “not some” and “some are not.” Each language has quantifiers specific to it.

*Further Reflection.* [The logicians have a general] habit of expressing the subject term by *J* and the predicate by *B*. The more common [thing to do] is to articulate [each of] these two as a compound noun, like the mysterious Qur’ānic letters.<sup>224</sup> This [common habit] is suggested by the fact that they use the expressions “the *jīm*” “the *jīm*-ness” and “the *bā*” and “the *bā*’-ness.” In sum, if they intend to express the universal affirmative, for example, such that the [logical] judgments [apply to all material cases], they abstract [the universal proposition] from [its specific] matters. [They do this,] so as to preclude the opinion that the [proposition] is limited [to specific subjects and predicates]. And they say, “Every *jīm* is *bā*’.”

There are four things [in the universal affirmative proposition]. So let us verify their state in [the following] investigations.

The first is that “every” is in the sense of the universal, as in “Every man is a species.” [It is also] in the sense of a collected whole, as in “This house does not have enough room for the totality of men.” [Finally, it is also] in the sense of “every” with respect to each of the instances.<sup>225</sup> The difference between these three senses is clear. It is the third sense that is used in syllogisms and in the sciences. [That proposition,] which consists of [this third type of “every,”] is quantified. As for the first [type], it is the natural [universal] and, [as for the second,] it is the singular or ambiguous [proposition].<sup>226</sup> And [that proposition,] which consists of “some” in the collected [sense], well, it is the ambiguous.

The second [investigation] is that by *J* we do not mean that whose reality is *J*. Nor [do we mean] that which is described by it. Rather, [we mean] something more general than these two [senses]. [We mean] those individual instances of which *J* is true. These individual instances may be real, such as the particular instances or species instances. Or they may be [instances] that are [a product of mental] consideration, such as the animal genus. For [the latter] is more specific than animal simpliciter. However, customary usage takes [only] the first type [noted above] into consideration.<sup>227</sup>

Next, al-Fārābī reckoned that the truth of the tag of the subject applies to its substrate possibly. [Given this,] a Byzantine would fall under “Every black.”<sup>228</sup> When the Shaykh found this to be contrary to customary usage and language,

he reckoned that its truth applies [to the substrate] in actuality, either in extra-mental existence or in mental supposition, in the sense that the intellect reckons the description [of the substrate by the tag] such that [the substrate] exists in this way [i.e., as picked out by the tag,] in actuality with respect to the way things are given.<sup>229</sup> It is all the same whether [the substrate] exists or does not exist. Thus the substrate perpetually devoid of blackness does not fall under “every black,” according to the Shaykh. Anyone who claims that it is [in fact] his opinion that it falls under it has made an error, owing to his limited contemplation of one of his expressions.<sup>230</sup> Of course nonexistent substrates that are black in actuality after they come to exist do fall under it.

### *On Predication*

29. The third [investigation pertains to predication]. Predication is the unity of two things that are distinct owing to a kind of intellection [and that are unified] with a view to another kind of existence.<sup>231</sup> This unity is either per se or per accidens.<sup>232</sup> [By predication] is meant either that the subject is exactly the same as the predicate; in this case, it is called a primary predication. And [primary predication] may also be theoretical.<sup>233</sup> Or [predication] is limited to the mere unity [of the subject and predicate] in existence; [in this case,] it is called the customary and commonly known predication. It is this [predication] that is considered to be apt in the sciences.<sup>234</sup> [Predication may also] be divided—with respect to whether the predicate is essential or accidental—into predication per se or predication per accidens. [And predication may also] be divided [into types] with respect to whether the relation of the predicate and the subject is mediated by “in,” “being endowed with,” or “having.” [This kind of predication] is [called] predication by derivation.<sup>235</sup> Or [predication may be] unmediated, [indicated by] the expression “of.”<sup>236</sup> [This is] predication by complete overlap.<sup>237</sup> The more suitable thing is that the latter two [types, i.e., predication by derivation and predication by complete overlap,] are called predications homonymously.

Know that every sense is predicated of itself by means of a primary predication.<sup>238</sup> Given this, you hear that the negation of a thing of itself is an absurdity. Now, there are some senses that are predicated of themselves by means of a customary [and commonly known] predication, such as “sense” and “common possible,” and so on.<sup>239</sup> There are [also] some [senses] that are not predicated of themselves in this latter fashion; rather, their contradictories are predicated of them, such as “particular” and “nonsense.”<sup>240</sup> Given this, in the case of contradiction[s], one must take into account the unity of the kind of predication [in question].<sup>241</sup> [This condition of the unity of the kind of predication in question] is over and above the well-known eight kinds of unities [that must be considered in cases of contradiction].<sup>242</sup>

At this point, a well-known doubt presents itself and it is that predication is impossible because the sense of *J* is either exactly the same as the sense of *B* or

something else. Being exactly the same negates [the possibility] of difference. And being different negates [the possibility] of unity. The solution is that difference from one aspect does not negate [the possibility] of unity from another aspect. Indeed, it is necessary for the predicate to be taken unconditionally, so that two things [—the difference and unity of the subject and predicate—] may be conceptualized with respect to it.<sup>243</sup>

That which is considered in the customary predication is the truth of the sense of the predicate for the subject—whether it is essential [to the subject] or is a description that subsists in it, whether it is [a concept] abstracted from it without any relation [to anything extraneous to the subject] or [abstracted] owing to [such an extraneous] relation.<sup>244</sup> Thus the affirmation of evenness for five does not make true our statement that five is even.<sup>245</sup>

The fourth [investigation—also on predication—] has [subtle] parts. The first is that the existence of a thing for a thing that obtains in a context<sup>246</sup> depends on the actuality of that for which it exists; and [the existence of the former] entails the existence [of the latter] in that very context.<sup>247</sup> Among [the types] is what exists for something that has obtained mentally; [the proposition pertaining to it is called] a mental [proposition]. [Then] there is that [which exists for something that is] is determined [mentally; the proposition pertaining to it is called] a mentally real [proposition]. There is [that which exists for] something that has obtained extramentally; and [the proposition pertaining to it is called] an extramental [proposition]. Or [it exists for something that is] determined [extramentally]; and [the proposition pertaining to it is called] an extramentally real [proposition]. Or [there is that which exists for something that obtains] simpliciter; and [the proposition pertaining to it is called] a real simpliciter [proposition]. [These latter are] like geometrical and arithmetical propositions.<sup>248</sup> As for negation, well, it does not require the existence of the subject. Indeed, it may be true [even] with the absence [of the subject]. Of course, the sense of the negative [proposition] does not obtain except owing to the existence [of the subject] in [the mind] *only* at the time of the judgment.

The second [subsection of the fourth investigation is as follows]. The absurd, insofar as it is absurd, has no form in the intellect. So it is nonexistent both mentally and extramentally. Given this fact, it becomes clear that everything existent in the mind—as mentally determined<sup>249</sup>—exists with respect to the way things are given.<sup>250</sup> Thus, no judgment is passed of it [i.e., of the absurd], whether it be, for example, an affirmative [judgment] that it is impossible or a negative [judgment] about its existence.<sup>251</sup> [This is the case] except with respect to something universal, when its conceptualization is among things that are possible.<sup>252</sup> Every object of judgment that has been determined [in the mind] is a conceptualized nature.<sup>253</sup> And everything that is conceptualized exists. So, the judgment about it [i.e., the conceptualized nature] that it is impossible and similar [judgments] are not correct insofar as it is what it is.<sup>254</sup> However, when [this thing about which the

judgment is passed] is considered with a view to all or some of [its individual instances] that are the sources of its positive obtaining, then the judgment of impossibility, for example, is correct. So impossibility is affirmed of the [conceptualized] nature; and it is true owing to the fact that the [existence of the individual instances] that are the sources of its obtaining is denied. Thus there is no issue with respect to propositions whose predicates oppose existence, such as “The Participant with the Creator is impossible” and “The joining of contradictories is absurd” and “The absolutely unknown has no judgment passed of it” and “The absolutely non-existent is the opposite of the absolutely existent.”

As for those who said that the judgment applies in reality to the individual instances,<sup>255</sup> well, among them is one<sup>256</sup> who said that these are [actually] negative [propositions].<sup>257</sup> [Yet] there is no doubt that this is an arbitrary [solution]. And among them is one<sup>258</sup> who said that, even though these [propositions] are affirmative, they only require the conceptualization of the subject at the time of the judgment. [This is the same arbitrariness] as is the case with negative [propositions], without any difference. [However,] it is obvious that this is something that clashes with an *a priori* [sense of what a proposition is].<sup>259</sup> And among them is one who said that the judgment applies to supposed individual instances that have been determined to exist. It is as if he states that everything that is conceptualized by means of the tag “Participant with the Creator” and the truth [of this tag] is supposed for it—[such a thing] is impossible with respect to the way things are given. [Yet] it is not hidden from you that this [position] entails that the existence of the description is more than the existence of that which is described. For the impossibility [predicated of the Participant with the Creator] obtains with respect to the way things are given, as opposed to the individual instances [that do not obtain in this way].<sup>260</sup> So reflect on this!

The third subsection [of the fourth investigation is as follows]. Describing [a subject by a description] that is added [to the subject] requires that the two sides [i.e., the subject and predicate] obtain positively in the [same] context in which the describing occurs, as opposed to [describing a subject with a description] that is extracted [from the subject]; the latter only requires the existence of that which is described [i.e., the subject].<sup>261</sup> So [the act of] description in an absolute sense does not require the existence of the description in [the same] context; as for the existence [of the attribute] in an absolute sense, well, this is necessary.<sup>262</sup> For it is impossible for that which does not exist in itself to exist for anything [other than itself]. [The actual] act of describing [something by something] does not obtain extramentally, lest it be [posited that] the description [must] obtain [extramentally in all cases]. [This is so] because [the act of describing claims] a relation and every relation obtains [only] insofar as the two things that are related obtain. Rather, [the description] obtains in the mind, even though it is the case that that which is described in an inclusive extramental description is united with its attribute, [as exemplified] in [extramental] individual essences,

such as *body* and *white*, and that, in the extramental description by extraction, [this unity occurs] with a view to [extramental] individual instances, such as the *sky* and *upness*.<sup>263</sup>

The fourth subsection [of the fourth investigation is as follows]. The later [logicians] invented a proposition and called it a negative-predicate [proposition]. They distinguished it from a negative [proposition] in that, in the negative [proposition], the two extremes are conceptualized and a judgment of negation is passed, whereas, in the negative-predicate [proposition,] the negation reverts [from its original place] and is predicated of the subject.<sup>264</sup> They judged that the truth of affirmation in [this proposition] does not require the existence [of the subject], just as in the case of a [traditional] negative [proposition]. Rather, it is the negative [proposition] that requires [the existence of the subject], just as in [the case of a traditional] affirmative [proposition]. Your natural inclination judges that the affirmative copula simpliciter<sup>265</sup> requires the existence [of the subject].<sup>266</sup> Given this [latter view], it is said that the truth is that [this new type of proposition] is a mental proposition; all conceptualized senses exist with respect to the way things are given, either as obtaining or as determined [to obtain].<sup>267</sup> Thus, there is a mutual entailment with respect to truth between [the negative-predicate affirmative proposition] and the negative [proposition].<sup>268</sup> Yet [this position] has its problems. So recall [them]!<sup>269</sup> Now that you have verified [the nature of] the universal affirmative [proposition], [determine the nature of the] rest of the quantified [propositions] by analogy.

#### *On Divested Propositions*

30. Next, the particle of negation may be made part of an extreme. In this case, [the proposition] is called divested. [Such a proposition] is either divested with respect to the subject or divested with respect to the predicate or with respect to both extremes. Otherwise, it is a positive [proposition]. “Zayd is blind” is a divested [proposition] insofar as it is intellected, [but] a positive [proposition] insofar as it is uttered.<sup>270</sup> The name “affirmative [proposition]” may be specified by the positive [proposition] and [the name] “negative [proposition]” [may be specified by] the simple [proposition].<sup>271</sup> This latter, [i.e., the simple negative proposition,] is more general than the affirmative [proposition] that is divested with respect to its predicate and the copula in it comes after the utterance of the negative [particle], whether [the copula] is uttered or not.<sup>272</sup> In the negative-predicate affirmative [proposition] there are two copulas and the negation [is posited] between the two.<sup>273</sup>

#### *On Modals*

31. With respect to the way things are given, every relation is either necessary or impossible or possible. These qualities are the matters [of the proposition]. The mode signifies them. That [proposition,] which includes [the mode,] is called

modalized. The [proposition of this sort is called a] simple quadripartite, if its reality is only an affirmation and only a negation; and [it is called a] compound [quadripartite], if it is composed of both [an affirmation and a negation].<sup>274</sup> In naming [the compound quadripartite proposition as affirmative or negative,] one has to take the first part into consideration; otherwise, [i.e., if the proposition does not have a mode, it is called] absolute and ambiguous with respect to modality. If the [mode] corresponds to the matter, the proposition is true; otherwise it is false. The verification of this [position] is that the matters [discussed in] philosophy are [the same as] the modes [in] logic.<sup>275</sup> It is said that they are different;<sup>276</sup> otherwise, the necessary concomitants of quiddities would be necessary in themselves.<sup>277</sup> The answer [to this claim] is that there is a difference between the necessity of existence in itself and existence owing to another. The former is absurd and is not something that is entailed; the latter is entailed and is not absurd.<sup>278</sup> This is according to the opinion of the ancients.

As for the opinion of the moderns, well, matter is an expression [that refers to] every quality that belongs to the relation, such as perpetuity, being within temporal limits, and so on. Given this, modalized [propositions] are infinite.<sup>279</sup> So, if it is judged with respect to [a modalized proposition] in an absolute way that it is impossible for the relation [between the subject and predicate] to be severed, then it is an absolute necessity [proposition]; or [if it is judged that the relation is impossible to sever] for as long as the description [of the subject by its tag is true], then [it is a] common conditioned [proposition]; [if it is judged that the relation is impossible to sever] for a specific time, [then it is an] absolute temporalized [proposition]; [if it is judged that the relation is impossible to sever for] a nonspecific [period of time, then it is] an absolute spread [proposition]. [If the judgment is that] the severance [of the relation] is nonexistent in an absolute sense, then it is an absolute perpetual [proposition]; [if the severance is nonexistent] for as long as the description [of the subject by the tag is true], then it is a common conventional [proposition]. [If it is judged that the severance is nonexistent] in actuality, then [the proposition] is a common absolute. [If it is judged that the severance is not impossible,] then it is a common possible [proposition]. [If it is judged that] neither extreme, [i.e., that neither the affirmation nor the negation of the severance,] is impossible, then it is a special possible [proposition]. In the latter, there is no difference between an affirmation and a negation, except with respect to the utterance [of affirmation or negation].<sup>280</sup>

[Some] have considered [it apt] to restrict the two common<sup>281</sup> and the two absolute temporalized<sup>282</sup> [propositions] with essential nonperpetuity,<sup>283</sup> so that they are called the special conditioned, the special conventional, the temporal, and the spread [respectively]. [When] the common absolute is restricted by essential nonnecessity and non-perpetuity, it is called the nonnecessity existential and nonperpetual existential. The latter is the Alexandrian absolute [proposition].<sup>284</sup>



[The section on modalities ends with] a conclusion in which there are [several] investigations. The first [is as follows]. The identification of the absolute necessity [proposition] has become widespread as that [proposition] in which the necessity of the affirmation or of the negation of the predicate for the subject is judged [with the qualification] “for as long as the substrate of the subject exists.” There is a doubt about this [position] from two perspectives. The first is that if the predicate were “existent,” the mutual exclusion of the necessity [proposition] and the special possible [proposition] would not be entailed.<sup>285</sup> The response [to this problem lies] in the difference between necessity with respect to the *time* of existence and [necessity] *owing to* the condition [of existence].<sup>286</sup> [A further] critique is mentioned and it is that [absolute necessity] would be limited to eternal necessity, in which it is judged that [the predicate holds of the subject] by means of a necessity relation in pre- and posteternity. [So, absolute necessity] would not be more general [than perpetual necessity,] because, when the existence of the subject is not necessary [at the time of its existence], nothing would be necessary for it at the time of its existence.<sup>287</sup> [This challenge] is contravened by [reference] to the existence of essentials [for their essences]. For [this existence of the essential] is necessary for [the] essence perpetually, without the condition of the existence [of the essence]. Otherwise, the animality of man would be generated [for man by something external to the essence of man]. So understand [this]!<sup>288</sup>

The second [investigation is as follows.] [A negative proposition in which] the negation [holds] for as long as [the substrate of the subject has] existence is not true without [the existence of the substrate]. So the negative [necessity proposition] is not more general than the affirmative divested [necessity proposition].<sup>289</sup> This entails that it is not true that, by necessity, nothing that is a griffin is a man.<sup>290</sup> It is said in response that “for as long as” is a context for the existence [of the predicate for the subject] and the negation applies to [this affirmation insofar as it is so conditioned].<sup>291</sup> Thus the truth [of the negative proposition] is allowed [even] with the denial of the [existence of] the subject and of the predicate, either at all times or at some. [An example is] “Nothing that is a moon is eclipsed by necessity.”<sup>292</sup> The objection to this [solution] is that it entails that possibility [and necessity] are not mutually exclusive. For every moon eclipses in actuality. So it is possibly true [that it eclipses].<sup>293</sup> [In addition,] their statement—that the negative necessity perpetual and absolute [negative necessity] are equal—would be falsified. For the negation of the more general is more particular than the negation of the more particular.<sup>294</sup> In sum, innumerable errors, which are not hidden from one who reflects, would be entailed [from this proposed solution]. In the end, it could be responded that existence is more general than that [existence] that has obtained and that [existence] that is determined.<sup>295</sup> [Yet] there are criticisms [of this position].

The third [investigation is as follows.] The identification of the absolute perpetuity [proposition] is commonly [held to be] “that in which it is judged that a perpetuity of relation [holds between the predicate and the subject], for as long as the



substrate of the subject exists.” There is a doubt [about this] and it is that it entails that essential perpetuity is no different from the general absolute with respect to a proposition whose predicate is “existence.”<sup>296</sup> So there is no contradiction between the two.<sup>297</sup> It is said as a solution to this [problem] that the immediately apparent [sense] of the identification [of the perpetual proposition requires] that the predicate be something other than existence. So there is no essential perpetuity in this case. I say, “The Active Intellect is nonexistent in actuality” is false. So the truth of its contradictory is entailed--that is, an absolute perpetuity [proposition,] whose predicate is existence.<sup>298</sup>

The [fourth investigation is as follows.] The common conditioned [proposition] is sometimes taken in the sense that there is a necessity of relation [between the subject and predicate] on the condition of the description [of the substrate] by the tag; and sometimes [it is taken] in the sense that there is a necessity [of such a relation] at all times at which the description [holds]. The difference is that, in the former, the description must have a role to [play] in the necessity, as opposed to the latter [case]. There is a [relationship] of overlap between these two [interpretations].<sup>299</sup>

[The fifth investigation is as follows.] Some people adopted the position that the common possibility [proposition] is not a proposition in actuality, owing to the fact that it does not carry a judgment [that the predicate applies or fails to apply to the subject]. And so [if it is not a proposition,] it is not modalized [either]. This is an error. Do you not see that possibility is a quality of the relation and the basis of a relation is affirmation?<sup>300</sup> Granted, [affirmations in possibility propositions] are of the weakest order. Given this, they say that necessity and impossibility signify the firmness of the copula and possibility [signifies] its weakness. Affirmation by way of possibility is a subcategory of affirmation in an absolute sense. Ultimately, [one may say as a critique] that the immediately apparent sense [of an affirmation] in an absolute sense is the occurrence [of the predicate for the subject] in actuality. [However, this apparent sense] does not affect adversely the generality [of occurrence], as they say with respect to existence.<sup>301</sup> And if the possibility [proposition] is modalized, then it is more suitable [to take the] absolute [to be modalized as well].<sup>302</sup>

The sixth [investigation is as follows.] Nonperpetuity indicates the common absolute and nonnecessity [indicates] the common possible.<sup>303</sup> [The members of each respective pair] oppose each other with respect to their qualities [of affirmation and negation] and coincide with respect to their quantities [i.e., being universal and particular,]<sup>304</sup> owing to the fact that these propositions are restricted by [the modalities of nonperpetuity and nonnecessity]. [This is so] because [the modalities of nonperpetuity and nonnecessity] remove the relation [between the subject and predicate], without there being any difference [between them and their respective pairs with reference to quantity]. So the compound [modalized proposition] is [actually] more than one proposition, because the consideration

of its unity and multiplicity pertains to the unity of the judgment. And the multiplicity of [the latter] is either owing to its difference with respect to quality or subject or predicate. There is no fourth [reason for its multiplicity].<sup>305</sup>

The seventh [investigation is as follows.] The four relations that [can] hold between [two] simple [concepts] are with respect to the truth [of the application of each concept] of a thing.<sup>306</sup> In propositions, [however, this] cannot be imagined, because they are not predicated [of anything]. [These four relations] obtain in [propositions] only with respect to their truth in the actual world.<sup>307</sup> Next, one judges that [one of these four] relations holds [between two propositions] with a view to the senses [of propositions that occur to the mind] with immediacy [i.e., not on the basis of reflection]. As for basing this discourse on subtle principles that are demonstrated in philosophy, well, that is a level [of discussion that one gets into] after this discipline [of logic] has been completed.<sup>308</sup> [However,] given that [it is not the subtle principles that are at stake,] they say that the absolute necessity [proposition] is more particular, in an absolute way, than the absolute perpetuity proposition.

Then it should not be difficult for you to extrapolate the relations among the aforementioned modalized [propositions]. If you dive deep, you will know that the common possible is the most general of propositions and that the special possible is the most general of compound [modal propositions]. [You will also discover that] the absolute possible is the most general of [propositions] with respect to actuality, that the absolute necessity [proposition] is the most particular of the simple [propositions], and that the special conditional is the most particular of [all] the compound [modal propositions] with respect to an aspect.<sup>309</sup>

### *On Conditionals*

*Section. 32.* A conditional [proposition] is one in which judgment is passed that a relation [between a subject and predicate] exists on the determination that another [relation holds]. [Such a judgment] is either [owing to the fact that, with respect to each other, the two relations stand in a state of] entailment, mere chance, or absolutely. [Depending on the state of this relation, conditionals are] entailing connectives, chance [connectives], or absolute [connectives]. If it is judged [in the conditional] that the two relations mutually exclude each other—whether it be that [1] they both cannot be true and both cannot be false or [2] *only* that both cannot be true or [3] *only* that both cannot be false (whether as cases of mutual opposition or by chance or in an absolute sense)—then it is [1] a real disjunctive or [2] anti-joining disjunctive or [3] anti-empty disjunctive.<sup>310</sup> [And each of these is such that the disjunct holds owing to] mutual opposition or by chance or in an absolute sense.<sup>311</sup>

With respect to the anti-joining and anti-empty disjunctives, one may consider the mutual exclusion of the truth [of the two relations] and of the falsity [of the two relations] in an absolute sense. In this sense, these two would be more general [than the originally offered senses of these two types].<sup>312</sup>

These are the realities of the affirmative [conditionals]. As for the negative [conditionals], well, they are the removal of the affirmations. Thus, the negative entailing connective is one in which is judged that the entailment [between the antecedent and the consequent] is negated, not that the negation is entailed.<sup>313</sup> On the basis of this [general rule,] analogize the rest [of the cases].

Next, if the judgment in [the conditionals] is according to a specific and exact determination [found in the antecedent], then it is a singular [conditional proposition]. Otherwise, if the quantity of the judgment is made clear, in that it applies in all determinations of the antecedent or in some of them, then it is a quantified universal or particular [conditional proposition]. Otherwise, [if no such clear determination is given], then it is an ambiguous [conditional] proposition. The natural [conditional] is nonsensical.<sup>314</sup>

The quantifier of the universal affirmative in the connective [conditional] is “when” and “whenever it is the case” and “whenever.” In the disjunctive, it is “perpetually.” The quantifier of the universal negative in both [conditionals] is “it is not at all the case.” The quantifier of the particular affirmative in both [conditionals] is “it may be”; and the quantifier of the particular negative in both [conditionals] is “it may not be.” [The quantifier of the latter may also be constructed] by means of the inclusion of the particle of negation with the quantifier of the universal affirmative [conditional]. For the ambiguous [conditional proposition, one employs] “if,” “when,” “or,” and “either/or.” The Shaykh said “if” intensely signifies entailment, “when” [does so] weakly, and “since” is like that which is between [the two]. This is problematic.<sup>315</sup>

There is no judgment with respect to the extremes of the conditional [proposition] at the moment [the two extremes are part of the conditional]. [This judgment] is neither entailed before [the two extremes are joined] nor after their analysis [i.e., after they are separated]. Given this, the determining factor in the truth and falsity of the conditional [proposition] is the judgment about the conjunction or disjunction [of the two extremes], just as [the determining factor] in the affirmation and negation [of the conditional is the affirmative and negative judgment of conjunction and disjunction].<sup>316</sup> Indeed, [the two extremes of a conditional proposition] resemble two predicates or two conjunctives or two disjunctives or two different types.<sup>317</sup> The mutual implications among the [various types of] conditionals and their mutual oppositions are treated in the lengthier works, though these are not very useful [to know].<sup>318</sup>

[The following] is the conclusion [of the discussion of the conditionals and] it consists of [various] investigations. The first [is as follows.] It is a prevalent [belief] among people that, [in] two mutually entailing things, one must be a cause of the other or that both must be effects of a single cause. [An example of such a case is that which exists between] two things in a subjoined relation.<sup>319</sup> This is something for which there is no proof. However, one can seek a proof for the falsity of [this position] in that the nonexistence of the nonexistence of the Necessary the Exalted

entails His existence; and vice versa. And if the nonexistence of the Necessary the Exalted were impossible in itself, then the nonexistence of the nonexistence [of the Necessary] would not depend on something else. [This is so] because, if one of two contradictories is impossible, then the other contradictory is necessary. [Now] it is clear that His existence is not an effect, so that there is a mutual entailment between existence and the nonexistence of nonexistence, without any causal [aspect]. So reflect on this!<sup>320</sup>

The second [investigation is as follows]. There is a disagreement about [the possibility] of an absurd antecedent, with respect to the way things are given, entailing a consequent, with respect to the way things are given.<sup>321</sup> Among them is one who denies [this possibility] absolutely and one who denies it when the consequent is true.<sup>322</sup> The statement of the Shaykh suggests this latter [position] and, given this, he states that the removal of both contradictories entails their joining and that there is no entailment in [the proposition,] “If five is even, then it is a number” with respect to the way things are given.<sup>323</sup> Among them is one who claims that the entailment exists when the consequent is a part of the antecedent.<sup>324</sup> This is an arbitrary [specification of a general principle]. Among them is [also] one who claims that [the entailment between an absurd antecedent and either an absurd or true consequent] exists when there is a relation between [the antecedent and the consequent].<sup>325</sup> This is the most widely known position. Given this [requirement of a relation], he states that the absurd antecedent must not stand in a relation of mutual exclusion with the consequent. For mutual exclusion [forces] the separation [of two things], whereas mutual entailment precludes it.<sup>326</sup> Against this [condition of the absence of mutual exclusion between the antecedent and the consequent is the argument that] this [i.e., the entailment *along with* the mutual exclusion of the antecedent and the consequent] will reduce to two affirmative entailing [conditionals], the consequent of one of which is the contradictory of the consequent of the other.<sup>327</sup> [However,] the opponent does not grant that these two [entailing connective conditionals] exclude each other.<sup>328</sup> Among them is [also] one who states that the intellect does not *resolutely* declare that an absurdity entails an absurdity or a possibility at all.<sup>329</sup> However, there is no objection in [the intellect’s merely] allowing for this [possibility as a mental determination].<sup>330</sup> And this is the true [position]. For the intellect judges [only] with respect to the world of actuality. If something lies outside [this actual world], it does not fall under the judgment [of the intellect].<sup>331</sup> Its mere supposition of [this thing] as being from [the actual world] is of no use in [the possibility] of judging [this thing with respect to the actual]. That the judgments with respect to actuality carry over into the world of [mere mental] determination is doubtful.<sup>332</sup>

The third [investigation is as follows]. In the explanation of the universal [entailing and mutually opposing conditionals], the Principal [philosopher] restricted mental determinations and contexts to those that may be compatible with the antecedent, even if these [determinations] should be absurd in

themselves.<sup>333</sup> He explained that if we make the [determinations] general, then it will follow that [the entailing and mutually opposing conditionals] would not be universal at all. For if the antecedent is supposed along with [the determination of] the nonexistence of the consequent—or with its existence [in the disjunctive]—it does not entail the consequent—nor does it nullify it [in the case of the disjunctive].<sup>334</sup> An objection is raised [against this position] in that an absurdity may entail two contradictories or it may exclude them both. Given this, we do not concede that the [universal conditional with unrestricted determinations of the antecedent] is not true.<sup>335</sup> It is responded that the intention [by his statement, “the universal [conditional] will not be true at all,”] is that no certain resolve will obtain for its truth. For possibility does not supply necessity.<sup>336</sup> I answer that one must apply the restriction with reference to possibilities in themselves. So understand [this]!<sup>337</sup>

The fourth [investigation is as follows]. In the chance [conditional], one may take into account the truth of the two extremes or one may suffice with the truth of the consequent only. So it may be composed of an absurd antecedent and a true consequent. For that which is true with respect to the way things are given remains [as such], along with the supposition of each absurdity. The Principal [philosopher] made this [composition] explicit. The truth is that if the consequent opposes the antecedent, the chance [conditional] is not true. Otherwise, the joining of two contradictories would be possible.<sup>338</sup> The first [type of chance conditional, i.e., one in which both extremes are true,] is called the special chance [conditional] and the second, [i.e., one where only the consequent need be true,] is called the common chance [conditional].<sup>339</sup>

It is said that the chance [conditionals also] consist of a link [between the antecedent and the consequent], because [one thing’s] being-along-with [another] is something that is possible [i.e., not necessary]. So there is a cause [for the two possibly being together].<sup>340</sup> [Thus, it is said that] the difference [between the chance and entailing conditionals] is that, in the entailing [conditionals, one is] conscious of [the link], as opposed to the chance [conditionals]. There is an objection [to this position], namely, that being-along-with is something that may be by chance and that something’s being a cause in an absolute sense does not necessitate a link [between the two things that occur with each other] when [the cause] is with respect to two different aspects. [Remember] this!<sup>341</sup>

The fifth [investigation is as follows]. They say that real disjunction [in a real disjunctive proposition] can only be between two parts, as opposed to the anti-joining and anti-empty [disjunctive].<sup>342</sup> A group holds the doctrine that disjunction in an absolute sense obtains only from two [parts], neither more nor less.<sup>343</sup> [Indeed, propositions] like “Every sense is either necessary or possible or impossible” are composed of a predicative and a disjunctive [part].<sup>344</sup> Some claimed that, in an absolute sense, the [disjunction in the aforementioned case] may be composed of more than two parts.<sup>345</sup>

The truth is [that the] second [position is correct].<sup>346</sup> [This is so] because disjunction is a single relation and a single relation can only be conceptualized between two [parts]. [Against this view, there is an objection] that is mentioned, namely, that in this [argument] there is a prepositing [of the sought conclusion]. [This is so] because if, [in positing this rule,] one intends every single relation, whether it be disjunctive or something else, then this is [precisely] what is being disputed.<sup>347</sup> Otherwise, [this rule] is not useful. One would reject [this objection] by means of that whereby the [supposed circular] implication of the Major [premise] of the first [figure by its conclusion] is [also] rejected.<sup>348</sup> So contemplate [this]!

So the real [disjunctive] is only composed from a proposition and its contradictory or what is equal [to the contradictory]; the anti-joining [disjunctive] is formed from [a proposition] and that which is more particular than its contradictory; and the anti-empty [disjunctive] is formed from [a proposition] and that which is more general than its contradictory.<sup>349</sup> [Remember] this!

The sixth [investigation is as follows]. Among them is one who claimed that the particular entailment [holds] between every two things, even [between] two contradictories. [Given this,] the universal negative entailing [connective conditional],<sup>350</sup> the universal affirmative real [disjunctive conditional]<sup>351</sup> and the universal chance [conditional]<sup>352</sup> would be false. [This claimant] demonstrated [his position] by means of the third figure. It is [as follows]. Whenever the collection of two things obtains, then one of them [also] obtains; whenever the collection obtains, then the other [of the two things also] obtains. [One can prove this] in the first [figure] by converting the Minor [premise].<sup>353</sup> [Given this,] some verifiers desired to rid themselves of [this problem by the argument] that the collection entails the part only if each of the parts has a role to play in [the collection's] requiring [the entailment of any part].<sup>354</sup> And it is clear that, [in the case in question,] the other part has no role to play [in such an entailment]. Rather, it is like something extra.

Against this [argument is the objection] that entailment does not require [that one thing] necessitate or effect [another]. For [entailment] is only the impossibility of the separation [of two things]. So the connection of two things in this manner [of nonseparation] is sufficient in [the case of entailment].<sup>355</sup> The Shaykh said that when the antecedent is supposed along with the nonexistence of the consequent, it entails the nonexistence of the consequent. So he holds to the doctrine that the collection entails the part [without the aforementioned requirements of necessitation].<sup>356</sup> Some of them desired [to be rid of the problem] in [stating] that we do not concede that universal [proposition],<sup>357</sup> because the collection may be impossible. When [such a collection] is [mentally] determined to exist, it is separated from [its] part.<sup>358</sup> This is the correct [position].

One thing remains and it is that we claim this [particular] entailment [to exist] between each two actual things. We demonstrate [this entailment] by taking this

universal [proposition]<sup>359</sup> with a consideration of actual determinations.<sup>360</sup> [Given this,] the special chance universal is false. So contemplate [this]!<sup>361</sup>

### *On Contradiction*

*Section.* 33. Two things are contradictories of each other when one of them is the removal of the other. Given this, they say that contradiction is [a kind of] repeated relation<sup>362</sup> and that everything has [exactly] one contradictory. The doctrine that conceptualizations have no contradictories [pertains to] a different sense [of contradictory].<sup>363</sup>

There is a doubt [about contradictories] and it is that, if we take all the senses such that nothing is left out of [this totality of all senses], then the removal [of the totality] would be its contradictory. [Yet] this [contradictory of the totality] would be included in the totality.<sup>364</sup> So the part would be the contradictory of the whole. And this is absurd. Something similar to this [argument] is used to critique [the doctrine that] a relation and the two things between which it is a relation are mutually distinct.<sup>365</sup> The solution is that the consideration of meanings does not come to an end at a limit. However, the nonexistence of an addition requires coming to an end at a limit. Thus, taking the totality in this fashion is to consider two mutually exclusive things [to be valid]. So consider this!<sup>366</sup>

The mutual contradiction of two propositions is their difference such that the truth—by virtue of itself<sup>367</sup>—of each [proposition] requires the falsity of the other and vice versa. And this [difference] takes place via the affirmation [of one proposition] and the negation [of the other] when the removal [in the negation] is of the exact [affirmation]. Thus [for the contradiction to be valid] there must be a unity of the predicative relation, which they enumerated as the famous eight unities [of predication].<sup>368</sup> Some of them subsumed some [of these elements of unity] under some others.

Regarding [contradictories,] there is a doubt; and it is [as follows]. Affirmation is the contradictory of negation. Anyone who denies this goes against consensus. The negation of negation is also [an act of] removing it. Thus one thing has two contradictories. Anyone who adheres [to the idea of the] self-sameness [of these two contradictories] commits an error. For the difference in meaning is necessary and, for me, it is a sufficient [reason for the validity of the doubt].<sup>369</sup> The sound solution is that, in reality, negation is not put in an additive relation to anything except an existence with respect to its very self or [an existence] that is for another.<sup>370</sup> So the negation of a negation is the removal of the existence of negation, which [existence of negation] has either the same force as an affirmative negative-subject [proposition] or an affirmative negative-predicate [proposition].<sup>371</sup> So the negation of the negation that belongs to the negative [proposition]<sup>372</sup> is a negative [proposition of the negative-subject or negative-predicate type], [which] is the contradictory of the affirmative negative[-subject or affirmative negative-predicate proposition



respectively. The contradictory of the negation of a negation] is not the positive/simple negative [proposition].<sup>373</sup> So reflect [on this] and be thankful!

Then, [two contradictory propositions] differ with respect to their quantities owing to the fact that two universals [may both be] false and that two particulars [may both] be true. [They also differ] with respect to their modalities; for the removal of a [modal] quality is another [modal] quality. One who affirms [contradiction] between two temporal absolutes, imagining [for himself] that they are like singular [propositions,] has made an error.<sup>374</sup> For the removal of the existence [of a thing] at a specific time may occur by the removal of [that] time.<sup>375</sup>

Thus the contradictory of the [absolute] necessity [proposition] would be a common possible. For the perpetuity [proposition], it would be a common [absolute], which is more general than the absolute spread [proposition] in which the judgment is that the relation is actual at some time. [The contradictory] of a common conditioned [proposition] is a temporal possibility [proposition] in which it is judged that the necessity [relation] that is by virtue of the description [of the substrate by the subject tag] is negated. [For] the common conventional [proposition, the contradictory] is the temporalized absolute [proposition] in which it is judged that the actuality [of the relation] that is by virtue of the description [is negated].<sup>376</sup> [The contradictory of] the absolute temporalized [proposition] is the possibility temporalized [proposition] in which it is judged that the necessity [of the relation] that is by virtue of a [specific] time is negated. [The contradictory of] the absolute spread [proposition] is the perpetual possibility [proposition] in which it is judged that the necessity [of the relation] that is by virtue of a [temporal] spread is negated. Thus they hold [to be the case]. [These rules] are only effective when the condition<sup>377</sup> in the negations of these modalized [propositions] is a condition of that which is negated, not of the negations.<sup>378</sup>

The compound [modal proposition] is a proposition [composed of] multiple [parts]. The removal of that which [has] multiple [parts] is [also] something [that has] multiple [parts]; and it is [tantamount to] the removal of one of the two parts in the manner of the anti-empty [disjunctive].<sup>379</sup> The universal [compound modal proposition] does not differ when it is analyzed [into parts] and [when it remains] compounded. So its contradictory is an anti-empty [disjunctive] compounded of the two contradictories of the two parts.<sup>380</sup> When something more general than the explicit [form] and the implied equivalent is meant by the contradictory, then it ought not to be considered problematic that a conditional [disjunctive proposition should be a contradictory of a predicative proposition] or that an affirmative [proposition should be a contradictory of a modalized affirmative proposition].<sup>381</sup>

[The case of] the particulars [that are compounded] is different. For in them, the subject of the affirmation and negation is the same [when the parts are compounded].<sup>382</sup> So the two particulars [that constitute the analyzed parts of the compound] are more general [than the compound particular].<sup>383</sup> The contradictory of the more general is more particular than the contradictory of the more particular.<sup>384</sup>



The way [to find the contradictory is to allow] oscillation between the two contradictories [of the predicate] of the two [analyzed] parts with respect to each of the individual instances of the subject.<sup>385</sup> So [the contradictory] is a predicative proposition that oscillates with respect to its predicate.<sup>386</sup>

Having been informed about the realities of compound [propositions] and the contradictories of the simple [propositions,] you should [now] be able to extract the details [for various cases]. In the conditional propositions, the difference in quality and quantity [between two contradictories is retained, but the contradictories must be] the same with respect to their genus and species. So understand this!<sup>387</sup>

### *On Conversion*

*Section.* 34. Symmetrical and equivalent conversion is the switching of the two extremes of the proposition, while retaining the truth-value and the quality. [The term *converse*] may be applied to the proposition that is obtained owing to [the switching] when it is the most particular of the entailed [conversions].<sup>388</sup>

The universal negative [proposition] converts to [a proposition] like itself [in quantity and quality] by means of an absurdum proof. In this case, it involves joining the contradictory of the converse with the original [proposition] to yield an absurdity. Thus the truth of the contradictory [of the converse], along with the original [proposition], is impossible. So the [posited] converse must be true along with it; and this is what was sought.

If our statement, “Nothing that is a body extends infinitely in [any of the] directions,” is taken as an extramental [proposition], its converse is true when the subject is nullified, owing to the falsity of the infiniteness of extensions. If it is taken as a real [proposition], we refuse the truth [of the original proposition], because it is true that everything that extends infinitely into directions is a body.<sup>389</sup> The particular [negative proposition] does not convert because of the possibility of the generality of the subject [in a predicative proposition] or of the antecedent [in a conditional proposition].<sup>390</sup>

The affirmative simpliciter—whether it be a universal or a particular—converts to a particular [affirmative] because affirmation is a joining [of the subject and predicate via instances].<sup>391</sup> But [it does not convert] as a universal, because the predicate or the consequent may be [more] general [than the subject and antecedent respectively].<sup>392</sup> The predicate in our statement, “Every old man was young,” is the relation [i.e., “was young,” not just “young”]. So its converse is “Some of those who were young are old.” Our statement, “Some species is man,” is false because “Nothing that is a man is a species” is true. The latter converts to that which contradicts [“some species is man”].<sup>393</sup> The secret in [resolving this problem] is that, in customary predication, it is the truth of the sense of the predicate [for the instances of the subject] that is taken into account, not the sense of the predicate itself.<sup>394</sup>

Neither the disjunctives nor the chance [conditionals]<sup>395</sup> have converses because [the conversion] lacks benefit.<sup>396</sup> As for [conversion] with respect to the modes,<sup>397</sup> well, among the universal negatives, the two perpetuals [i.e., the absolute necessity and absolute perpetuity] and the two commons [i.e., the common conditional and the common conventional] convert like themselves [i.e., while maintaining the modes]<sup>398</sup> by means of *ad absurdum* [proofs]. The way to make the proof correspond to this claim about the [conversion] of necessity [propositions] is [as follows]. If [the necessity converse] is not the case, then the possibility [converse] is true. The truth of the possibility [proposition] entails the possibility of the truth of the absolute [proposition]. For by necessity we mean here the most general meaning.<sup>399</sup> However, the truth of the absolute [proposition] is absurd. So its possibility is absurd; and so the truth of the possibility [proposition] is [also] absurd.<sup>400</sup> Determine, by analogy to this [case,] the explanation about the common conditional [proposition]. For the relation of the temporal possibility [proposition, which is the contradictory of the common conditional proposition,] to the absolute temporal [proposition] is like the relation of the [common] possibility [proposition] to the [common] absolute [proposition, as was just noted].<sup>401</sup>

It is commonly believed that the necessity [proposition] converts to the perpetuity [proposition] and that the common conditional [converts] to the common conventional [proposition]. The conversion of the necessity [proposition] to the perpetuity [proposition] is proved [in the following way]. If we mentally determine that what is ridden by Zayd is limited to a horse, along with the possibility [that it may be] a donkey, then it would be true that, by necessity, nothing that is ridden by Zayd is a donkey. The necessity converse [i.e., “By necessity, nothing that is a donkey is ridden by Zayd”] would not be true.<sup>402</sup> To this [argument] one responds that this [foregoing outcome] requires the separation of perpetuity from necessity with respect to those things that are universal.<sup>403</sup> And owing to [this disagreement on the issue of necessity conversions,] they differed about the conversion of the two possibility [propositions].<sup>404</sup> Anyone who held the doctrine that necessity [propositions] convert like themselves, likewise held the doctrine of the conversion [of the possibility propositions like themselves]. And anyone who did not [hold it to be so], did not [hold the other to be so either].<sup>405</sup> Next, this difference [exists] only according to the opinion of the Shaykh.<sup>406</sup> As for the opinion of al-Fārābī, well, their conversions to what is like them is agreed on.

On the [issue of the conversion of the perpetual negative proposition to itself], there exists a doubt of al-Rāzī in the *Mulakhkhaṣ*. [The doubt] is that writing is possible for man and that which is possible is perpetually possible. Otherwise, a transformation [of possibility into necessity or impossibility] will follow. Thus, perpetual negation is [something] possible.<sup>407</sup> So, if [perpetual negation] converts [to itself], then “perpetually, nothing that is a writer is a man” will be true. And this [latter] is absurd.<sup>408</sup> [This absurdity] does not follow by virtue of the

supposition that the possibility [actually occurs]. Otherwise, it would not be [the kind of thing that is] possible.<sup>409</sup> So it must be by virtue of the conversion.<sup>410</sup> The solution is that the possibility of perpetuity does not follow from the perpetuity of possibility. Don't you take into account nonstable things whose possibility is perpetual and whose perpetuity is not possible?<sup>411</sup> Do you doubt that the persistence of motion is impossible by virtue of its very self? Given this, it becomes clear that the eternity of possibility and the possibility of eternity do not entail each other. So take this [solution to heart]!

The two special [universal negative] propositions<sup>412</sup> convert to two common [propositions], along with [the condition of] "nonperpetuity with respect to some [cases]." [This is so] because the nonperpetuity of the base [proposition] is [equivalent to] an absolute affirmative and it only converts to a particular [absolute affirmative]. If you reflect on our statement, "Nothing that is a writer is stationary, for as long as he is writing, not perpetually," you will grow certain that the two [special propositions] do not convert to [propositions exactly] like themselves.<sup>413</sup>

The rest [of the modalized negative propositions] do not have converses.<sup>414</sup> For the most special of these is the temporal and it does not convert to a possibility [proposition]<sup>415</sup> because of the truth of "Nothing that is a moon is eclipsed at a specific time [i.e., at the time of quadratures], but not perpetually," along with the falsity of "Possibly, something that is eclipsed is not a moon."<sup>416</sup>

Among the particular negatives, only the two specials [—the special conditional and the special conventional—] convert. For these two convert to [modes] like themselves [i.e., to specials]. [This is so] because the two descriptions [i.e., of the subject and the predicate] mutually exclude each other with respect to the same underlying substrate, given the status of the first part [of the proposition]; [but the two descriptions] come together in [the underlying substrate at other times], given the status of the second part. So just as this underlying substrate is not *B* for as long as it is *J*, it is not *J* for as long as it is *B*. And this is what the sought conclusion is.<sup>417</sup>

Among affirmative [propositions,] the two existential, the two temporal, and the common absolute [propositions] convert as common absolutes by a *reductio* and *ekthesis* [proof]. [The proof is as follows]. We suppose the substrate of the subject as something and predicate upon it the description of the subject and the description of the predicate. Then we say: let us suppose the *J* which is *B* as *D*; so *D* is *B* and *D* is *J*. So some *B* is *J* in actuality, via the third [figure]. [The proof] via conversion is that the contradictory of the converse converts, so as to revert to that which is incompatible with the original [posit].<sup>418</sup>

The two perpetuity and the two common [propositions] convert to absolute temporals via the [various] aforementioned means.<sup>419</sup> The two special [conditional and conventional affirmative propositions convert] as temporal, nonperpetuity [propositions]. As for [their being] temporal, well, this is because [temporals] are entailed by the two common [propositions] and that which is entailed by the common is detailed by the special.<sup>420</sup> As for [their being] nonperpetuity [propositions,]

well, if it were not so, then the tag would be perpetual. And so the predicate would be perpetual. Yet it had been supposed that it was not perpetual.<sup>421</sup>

### *On Contradictory Conversion*

*Section.* 35. Contradictory conversion<sup>422</sup> is to [take] the contradictories of the two extremes and to flip [their positions], while preserving the truth and quality [of the original proposition].<sup>423</sup> This is [the position of] the ancients. For the later [logicians] it is the making of the contradictory of the second [part] into the first [part] and [the making] of the first [part] exactly as it is into the second [part], while [generating] a difference in quality and preserving the truth [of the proposition].<sup>424</sup> In the sciences, it is the first [type] that is considered [to be suitable]. [As for conversions,] the case of the affirmatives is [the same as] the case of the negatives in straightforward [conversions] and vice versa.<sup>425</sup> The explanation of [these types of conversions] is the [same as the] explanation [for regular conversions].

Now there is a doubt from two perspectives. The first is that our statement, “Every nonjoining of two contradictories is what is not a participant with the Creator,” is true, although its [contradictory] conversion, “Every Participant with the Creator is the joining of two contradictories,” is false. You have to derive its truth as a *ḥaqīqī* [proposition]. So understand [this]!<sup>426</sup> [If this conversion is accepted,] then it would be possible for you [to claim] the entailment of the mutual truth of all impossible [propositions]. So impossibility would be one nonexistence, just as existence is one existence. [Thus] the permissibility of an absurdity’s entailment of another absurdity, in an absolute fashion, would be confirmed.<sup>427</sup>

The second [doubt is as follows. First,] let us lay out a premise: it is “Whenever the existence of something does not entail the removal of an actual nonexistence [i.e., one that immediately precedes this existence,] it is perpetually existent.” Otherwise, its existence entails the removal of that nonexistence. So we say, our statement, “Whenever that which is generated exists, its existence entails the removal of a nonexistence in actuality,” is true. This converts, by means of this [contradictory] conversion, to that which stands opposed to the premise that was laid out.<sup>428</sup> The solution is to deny that there is a mutual exclusion between the two affirmative entailing [conditionals], even if their consequents are contradictories.<sup>429</sup> This [conundrum] is [called] the “doubt of entailment.” It has other presentations that shake [the ground under one’s] feet.

### *Syllogisms: Definitions*

*Section.* 36. That which leads to assent is [called] argument and proof.<sup>430</sup> [In arguments and proofs] there must be a suitability [between the signifier and the signified] either by way of inclusion or by way of entailment.<sup>431</sup> [Proof] is limited to three [types].<sup>432</sup> Its underlying foundation is the syllogism,<sup>433</sup> which is a statement composed of propositions, from which, by virtue of their [very selves], another statement is entailed. By means of [this restriction of] “entailment by virtue of their

very selves," [the logicians] excluded [from the category of syllogisms] those [syllogisms that conclude] by virtue of an extraneous premise.<sup>434</sup> [1] Either [this extraneous premise] does not follow [from one of the premises of the syllogism,] as it is the case in the equivalent syllogism. This latter is composed of two propositions, wherein that which is related to the predicate of the first [proposition] is the subject of the other [proposition]. [An example is] "A is equal to B" and "B is equal to J." From [this equivalent syllogism] follows—by means of [the extraneous premise,] "Everything that is equal to the equal of J is equal to J"—that "A is equal to J." For when [this extraneous] premise—such as [a premise of] entailment or dependence—is true, then the conclusion is true. Where [the extraneous premise is] not [true]—as in the case of halving and duplicating—[the conclusion] is not [true].<sup>435</sup>

The limitation [of proof to the three types] is not compromised by the exclusion [of the equivalent syllogism] because [a proof] leads [to assent] by virtue of itself.<sup>436</sup> As for the case of [the aforementioned syllogism,] along with the [extraneous] premise, well, it reduces to two syllogisms, given that it is a syllogism in relation to the fact that A is equal to that which is equal to J.<sup>437</sup> There is no proof that indicates that the [middle] term must be repeated in its entirety.<sup>438</sup>

[2] Or [syllogisms may come about by virtue of extraneous premises that] are entailed [by the original premises, but] with contradictory terms.<sup>439</sup> [An example is] your statement, "The nullification of a part of substance necessitates the nullification of the substance; whatever is not a substance does not necessitate the nullification of substance." From this is entailed, by means of the contradictory conversion of the second premise, that "the part of a substance is a substance."<sup>440</sup> I do not know of a strong way of excluding this type [of syllogism from the category of syllogisms]. For [a contradictory conversion] is like the equivalent conversion, except that the mutual contradiction of terms makes it something very distant from nature.<sup>441</sup> [Against this last point] there is a certain objection.

Next, if, [in the definition of syllogism], the entailment [of the conclusion] is taken with respect to the way things are given, then [the conclusion is also] in this respect.<sup>442</sup> And if [its definition] is considered in accordance with [one's] knowledge—and this is the more popular [view]—then the intended [sense of entailment] is [that the conclusion] obtains following on one's grasping of [the fact that the minor term] is subsumed [under the middle term]. [This latter is] Avicenna's doctrine. The [following of the conclusion upon one's knowledge of certain facts] is [1] owing to [God's] habit or [2] owing to causal generation. Or [it is by way of] the preparation [of the mind].<sup>443</sup> [These are the three positions] according to the differences of the schools.

### *Types and Parts of Syllogisms*

37. [A syllogism] is exceptive<sup>444</sup> if the conclusion or its contradictory is mentioned in it with respect to its form, [not just with respect to its matter]. Otherwise, it is a connective [syllogism]. If [the latter] is composed of plain predicative

[propositions], then it is a predicative [connective syllogism]. Otherwise, it is a conditional [connective] syllogism. The subject of the sought [conclusion] is called the minor [term] and that in which [the minor term is found] is the Minor [premise]. The predicate [of the sought conclusion] is the major [term] and that in which [the major term is found] is the Major [premise]. That which repeats is called the minor [term].

The proposition that is made a part of a syllogism is [called] a premise and its two extremes are [called] the two terms. The connection of the Minor with the Major is [called] a tie and a mood. The form and relation of the middle to the two extremes of the sought [conclusion] is [called] a figure. [When] the middle is the predicate of the Minor and the subject of the Major, [one gets] a first [figure syllogism. [It is called the first figure] because it is according to a natural ordering. [When the middle is] the predicate of both [the extremes, one gets] the second [figure], which is so close to the first [figure] that someone claimed it is obvious in terms of its producing a conclusion. [When the middle is] the subject of both [extremes,] one gets the third [figure]. [When a syllogism] is the converse of the first [figure, one gets] the fourth [figure]. [This latter] is very far [from the natural ordering], so that the two shaykhs dropped it from consideration. Each form reduces to the other by means of the conversion of that with respect to which it differs from it. There is no syllogism [formed] from two particular or from two negative [premises]. The conclusion follows the lesser of two premises with respect to quantity and quality, [as is discovered by complete] induction.

### *Conditions of Syllogisms*

38. In the first [figure,] the affirmation of the Minor and the universality of the Major is a condition, so that [the minor may be] subsumed [under the middle]. There are sixteen possible moods for each figure. Here [in the first figure,] the condition of affirmation causes the exclusion of eight [moods] and the condition of universality [removes] four [moods]. So four [moods] are left: the two affirmatives, along with the two universals, which yield four sought [conclusions] by necessity.<sup>445</sup> [The fact of yielding four conclusions] is among the specific properties [of the first figure,] as is the [fact of yielding a] universal affirmative [as a conclusion].

Now there is a well-known doubt, which has two aspects. The first is that the conclusion depends on the universality of the Major and, conversely, [the universality of the Major depends on the conclusion]. [This is so] because the minor [term] is among [those things that fall under] the totality of the middle [term]. So this is circular.<sup>446</sup> Its solution is that the expressed [form] depends on the compressed [form] and the judgment differs with respect to the differences of the descriptions [supplied by each term].<sup>447</sup> So there is no difficulty [here].

The second [doubt] is [the following]. Our statement, "The vacuum does not exist; everything that does not exist is not sensed," which yields the conclusion

["the vacuum is not sensed"], even though the Minor is a negative [premise]. Indeed, whenever the negative relation is repeated, it yields a conclusion. Its solution (as it is said) is that [the Minor] is [actually] an affirmative negative-predicate [proposition and that] this is indicated by [the fact] that the negative relation is made a mirror for the instances in the Major.<sup>448</sup> I say that it is up to you to prove, from this point on, that this affirmative [negative-predicate proposition] does not lead to the claim of the existence [of the subject, i.e., the vacuum]. So reflect on this!

In the second [figure, the condition is] that the two premises should be different with respect to quality and that the Major should be universal. Otherwise, differences [in the conclusions] will be entailed.<sup>449</sup> [Differences in conclusion are] the proof of [a syllogism's] sterility. So the two universals conclude as a universal negative. Those [premises] that differ with respect to quantity conclude as particular negatives by an *ad absurdum* [proof] and by means of the conversion of the Major or Minor, whereupon the ordering [of the premises is converted]; and then the conclusion [is converted].

In the third [figure, the condition] is that the Minor should be an affirmative and that one of the two [premises] should be universal. Thus the two affirmatives, either with the affirmative universal [as the Major] or with the [affirmative] universal [as the Minor], along with the particular affirmative, conclude as a particular affirmative. [And the two premises,] either when the universal negative [is the Major] or the universal [affirmative Minor], along with the particular negative [Major], conclude as a particular negative. [This comes about] either by means of an *ad absurdum* proof or by means of the conversion of the Minor or the Major, whereupon the ordering [of the premises is converted]; and then the conclusion [is converted]. Or [this comes about] by means of the reversion [of the syllogism] to the second figure, by means of the conversion [of both premises].

In the *Shifā'*, [it is said that] though these two [figures, i.e., the second and third] revert to the first, they still have a [special] property. [The special property] is that it is natural with respect to some premises that one of the two extremes is specified for subjecthood or predicatehood, such that, if [the premises] were converted, they would not be natural. Thus it may be that the natural arrangement comes about only via one of these two [figures]. So one cannot dispense with them. [Remember] this!

[The condition] in the fourth [figure] is that both [premises] must be affirmative and that the Minor must be universal; or [the condition is that] they must both differ [with respect to their quality] and that one of them should be universal. Otherwise, differences [in the conclusions will be produced]. So the universal affirmative, along with the four [other premises that are productive in the first figure], yields a conclusion; the particular [affirmative Minor produces a conclusion], along with the universal negative; the two [Minor] negatives [produce a conclusion], along with the universal affirmative [Major]; and the universal



negative [Minor], along with the affirmative particular [Major yields a conclusion]. [In these cases, the conclusion] is a particular affirmative, if there is no negation [in the premises]. Otherwise, [it yields] a particular negative, except with respect to one [of the moods], by means of an *ad absurdum* [proof] or by means of the conversion of the order [of the syllogism], after which the conclusion [is converted]. Or [the conclusion is derived] by means of the conversion of the two premises or of the Minor or of the Major.

### *Modal Syllogisms*

39. As for [the conditions of productivity] in view of the mode in mixed [syllogisms], well, in the first [figure], the actuality of the Minor [is a requirement,] according to the doctrine of the Shaykh. [This is so] owing to [the explanation] that has preceded.<sup>450</sup> He and the Imām [Fakhr al-Dīn al-Rāzī] held the position that the common possibility [Minor] yields a conclusion, because it is a possibility [premise], along with [any] Major [premise]. So it is possible [for the possibility] to be actual, along with [the Major]. For no absurdity is entailed from the supposition of [a possibility as] actuality. So the conclusion is entailed.<sup>451</sup>

It is sometimes responded that the possibility of the existence [of a thing], along with [another thing], is not entailed by the existence of the possibility of [that] thing with the other [thing]. Do you not see that it is possible that the actualization of the Minor may nullify the truth of the Major? [This response has] a critique.<sup>452</sup>

At other times, [the challenger responds by] precluding the entailment of the conclusion on the determination of the actualization [of the Minor. This is so] because the judgment in the Major [applies] to that which is the middle in actuality with respect to the way things are given. So reflect [on this]!<sup>453</sup> The truth is that to take possibility in the most particular sense is [to take it as the] equivalent of absoluteness, [in the same manner] as perpetuity is equivalent to necessity in the most general sense.<sup>454</sup> So the conclusion follows; otherwise, it does not. Next, the conclusion will be like the Major [in terms of its modality,] if [the Major] is not among the four descriptive [propositions].<sup>455</sup> Otherwise, [the conclusion's mode] will be like the Minor, [though] the restriction of existence and of the necessity that is specific to the Minor would be dropped from it. To the [conclusion] would be added the restriction of existence [that is found] in the Major.<sup>456</sup>

In the second [figure, the conditions are the following]. [1] The Minor must be a perpetuity [premise] or the Major must be [one of] the negatives that converts and [2] the possibility [premise must occur] with the necessity [premise] or the Major [must be] a conditioned [premise].<sup>457</sup> The conclusion is a perpetuity [proposition], if [one of the premises has] perpetuity. Otherwise, [the conclusion will have the mode of] the Minor, [though] the restriction of existence and necessity [found in the Minor] is dropped [from the conclusion].<sup>458</sup> There is a critique [of this position].<sup>459</sup>



In the third [figure, the conditions are] what [they are] in the first [figure]. The conclusion is like the Major [in its mode] in those [cases] in which it is other than the [four] descriptives. Otherwise, [the mode of the conclusion] is like the [mode of the] converse of the Minor, with the restriction of nonperpetuity [found in the converse] dropped from [the conclusion], and [the restriction] of the nonperpetuity [found] in the Major added to [the converse]. You will come to know the status of the mixed [modals] in the fourth [figure] in the lengthy works.

### *Conditional Syllogisms*

40. Next, the conditional [syllogism] is composed of two conjunctives or two disjunctives or a predicative and a conjunctive or a predicative and a disjunctive or a conjunctive and a disjunctive. The four figures are produced from them and the foundation [of these five types] is the first [type].<sup>460</sup> The natural one is that wherein the two premises share a complete part.<sup>461</sup>

The conditions for yielding a conclusion and the state of the conclusion in [the conditional] are as they are in [connective syllogisms formed of] attributives. That two entailing [conditional propositions] yield an entailing [conditional] as a conclusion is obvious. Now, there is a doubt. It is that it is true that “Whenever two is odd, it is a number; and whenever [two] is a number, it is even” though the conclusion [“whenever two is odd it is even”] is false. Its solution is as it is said, [namely,] that the Major is precluded from being an entailing [conditional]; it is only a chance [conditional].<sup>462</sup> [To this solution] the response is given that our statement, “Whenever it [i.e., two] is a number, it [i.e., two] exists,” is an entailing [connective conditional], because the numberness [of two] depends on the existence [of two]. Likewise [is the case of our statement,] “Whenever it [i.e., two,] exists, it is even.” Thus, given your own claim, this yields as a conclusion what you precluded.<sup>463</sup>

I say [in response to the foregoing] that you should preclude the Minor [from being accepted as valid]. For we do not concede that the numberness of the odd two has existence as its cause, because things that are impossible are not caused.<sup>464</sup> And [you may] preclude the Major [from being accepted] on the basis of the fact that the general does not entail the particular, because the existence of the odd two falls within the totality of the existence of two.<sup>465</sup> Indeed, [this Major premise] is true as a chance [connective conditional]. If you hold fast to [two’s being even] as among those things that are the necessary concomitants of the quiddity [of two], then the truth of the supposed conclusion entails its falsity with respect to this answer. So ponder [this]!<sup>466</sup>

As a solution [to this doubt], the Shaykh chose, on the basis of his opinion [i.e., that an absurd antecedent does not entail a true consequent], that the Minor is false.

I say, our statement, “Whenever two is not a number, it is not odd,” is true as an entailing [connective]. For the nullification of that which is general entails the

nullification of that which is particular. [Then] by means of contradictory conversion, it converts to that Minor.<sup>467</sup> Given this, the weakness of the doctrine [of the Shaykh] becomes obvious. The truthful answer is that it is precluded that falsity [exist in the given] conclusion, given that it is allowed that two mutually exclusive things may entail [each other].<sup>468</sup> The rest of the investigation [of these points] is in the expanded works.

### *Exceptive Syllogisms*

41. The exceptive [syllogism] is composed of two premises—a conditional and a positive or negating [premise].<sup>469</sup> [The conditional] must be an affirmative entailing or an excluding [type].<sup>470</sup> Either the conditional or the exception [must] be universal. With respect to the conjunctive [conditional premise,] the positing of the antecedent [as the second premise] yields as a result the positing of the consequent. [This is so] because the existence of that which entails entails the existence of that which is entailed. [However,] the converse is not the case, because that which is entailed may be more general [than that which entails].<sup>471</sup> [Again, with respect to the conjunctive conditional,] the negation of the consequent [entails] the negation of the antecedent. For the nullification of that which is entailed entails the nullification of that which entails. [However,] the converse is not the case.

There is a doubt [concerning all this; indeed,] it is said that it is extremely difficult to resolve. [The difficulty is] that the [consequent's] negation may not entail the negation [of the antecedent] owing to the fact that it may be impossible for that which is entailed [i.e., the consequent] to be nullified. So, if [this impossibility of the consequent's nullification] were to be actual, no entailment would remain [between the antecedent and the consequent], along with [this actualization]. So the entailment of the nullification of that which entails [i.e., the antecedent] would not be entailed.<sup>472</sup> I say [that] its solution is that, [in] reality, entailment [means] the impossibility of the disengagement [of two things] at all times. So the time of disengagement—that is, the time when entailment ceases to remain—is included in [that] totality [of time]. So [the time of] *this* preclusion [of *modus tollens*] reduces to [the time of] the preclusion of the entailment, though [this entailment] was already supposed [as given]. This is absurd.<sup>473</sup>

In the disjunctive [conditional], the positing [of a side of the disjunction] yields the negation [of the other side], as [in] the anti-joining [disjunctive]. The negation [of one side yields as a conclusion] the positing of the other, as [in] the anti-empty [disjunctive]. The real [disjunctive] yields the four conclusions.<sup>474</sup>

### *Compound Syllogism*

42. A compound syllogism—with explicit conclusions or implicit [conclusions]—[comprises several] syllogisms.<sup>475</sup> Among [compound syllogisms] is the *ad absurdum*. It is that in which is intended the affirmation of the sought [conclusion] by

means of the falsification of its contradiction. This [syllogism] reduces to the connective and exceptive [syllogism].

### *Induction*

43. Induction is a proof in which, on the basis of the status of the many, something is proved about the totality. [An example is] your saying, “Every animal moves its lower jaw when it chews, because man and horse and cow and other [things] that we have encountered are such.” [Induction] only gives mere belief because it is possible [that a falsifying case] has not appeared. [In this example, such a case] is as it is said about the alligator.<sup>476</sup> Claiming [that the universal] binds [all the particulars] is not necessary, as [it is found] in the doctrine of al-Sayyid [al-Jurjānī] and his followers.<sup>477</sup> Otherwise, [induction] would proffer certain resolve, even if the [resolve in an induction] is grounded in [the mere] claim [that the same judgment applies to the unknown cases]. Indeed, [in induction,] positing the claim [that] most [of the instances are such and such] is necessary, because belief follows that which is more general and which overwhelms [that which is the lesser case]. For this reason, the judgment [in the induction] remains [valid] as it was, [i.e., as a universal,] for that which is other than the alligator.<sup>478</sup>

Now, there is a doubt. [Let us] suppose that there are three people in a house—two Muslims and one non-Muslim—but it is not known exactly which particular one [is Muslim and non-Muslim]. So, each one that you see should be believed to be Muslim, on the basis of the rule regarding majorities.<sup>479</sup> Then, whenever you are certain that two precise ones of them are Muslims, you are certain that the remaining one is a non-Muslim, based on the [original] supposition [that two of the three are Muslims] and the [principle] that the belief in that which entails entails the belief in that which is entailed. So it would follow that each one of them is believed to be a non-Muslim and this nullifies that which was originally asserted, [i.e., that each one would be believed to be a Muslim].<sup>480</sup>

Its solution is that, when that which entails is two things, the fact of its belief entailing the belief in that which is entailed requires the belief that both of the [former two] obtain together. [It is not suitable] that each one of them should be believed [to obtain] separately.<sup>481</sup> The second [i.e., the belief in each one being a Muslim separately,] does not entail the first [i.e., the belief in each two being Muslims together]. And that which obtains is the second. So there is no difficulty. Reflect [on this!]<sup>482</sup>

I say [that this response may be] challenged [in the following manner]. The existence of the third [i.e., the existence of the two together,] is entailed by the existence of the two [separately]. So the former obtains just like the latter. If you say that that which obtains of the third [i.e., the two together,] is that between whose individual [cases] there is separation—[as such,] it is taken into account [with reference to its parts,] one by one—[whereas] that which entails is the consideration of the individual [cases] taken together,<sup>483</sup> then I say that that which entails

certainty [with respect to the outcome]<sup>484</sup> is the certainty in the third, [i.e., the existence of the two parts] in an absolute sense.<sup>485</sup> Both types, [i.e., overwhelming belief and certainty in that which entails,] entail.<sup>486</sup>

However, it may [now] be said that there is no difference in the two forms of the certainty that entails owing to the absence of something that necessitates the separation [between the parts]. Rather, the difference [between these two forms] by virtue of [mental] consideration. However, that with which we are concerned, [i.e., overwhelming belief,] well, it is other than this. So ponder [this!]<sup>487</sup>

### *Analogy*

44. Comparison is to prove something about a particular on the basis of [another] particular by virtue of something shared [between them]. The legal scholars call it analogy. The first [particular] is the root; the second is the branch; and that which is shared is the cause that joins [them]. There are [various] ways of establishing that something is a cause [of the sort mentioned above]. The foundational [aspects of this are two. The first] is concomitance and it is called copresence and coabsence. It is the tie [between two things] with respect to existence and nonexistence. They say that concomitance is an indication that that which stands as the base is a cause [of the judgment] that revolves [about it].<sup>488</sup> [The second aspect] is repeated examination. It is called classification and successive elimination. It is to probe the attributes [of the root] and to nullify some of them, so that the rest may be specified [as the cause].<sup>489</sup> [Analogy] offers mere belief. The details are in [books of] legal theory.

### *Principles of Demonstration*

45. The disciplines [related to assent] are five. The first is demonstration. It is a syllogism that has premises that are certain. [These premises] are derived from the intellect or are transmitted. For transmission may give certain [knowledge]. Of course, pure transmission [without any foundation in and dependence on reason] is not like this.<sup>490</sup> Certainty is a firm conviction that is unshakeable and that corresponds to that which is actual.<sup>491</sup>

The principles [of demonstration] are [as follows]. [(1) The first is] primary propositions, which are those with respect to which the intellect has firm resolve, owing to the mere conceptualization of the two extremes; [this conceptualization may be] a priori or theoretical. [Primary propositions] differ [from each other in that some are] obvious and some are obscure. That the a priori ones are a priori is [as obvious as the fact that] to know is to know [that one knows] is among [primary propositions]. And this is the correct [view].<sup>492</sup>

[(2) The second principle is] propositions that are dependent on one's natural orientation. These are those [propositions] that need a tie [between the two

extremes] that is not absent from the mind. They are called propositions whose syllogisms are [found] alongside them.<sup>493</sup>

[(3) The third principle is] propositions related to things witnessed. [These are obtained] either by means of the external senses—and these are [(3a)] sensible propositions—or by means of the internal senses—and these are [(3b)] internally induced [propositions]. Among the latter are [(3b1)] estimative [propositions that relate] to things that are sensed [externally]<sup>494</sup> and [(3b2)] those [propositions] that we discover in ourselves without the means of our [external sensible] instruments.<sup>495</sup> The truth is that the senses do not offer anything except a particular judgment. Those who deny that they offer [even a particular judgment] are deaf and blind.

[(4) The fourth principle is] intuited propositions. This is the occurrence [to the mind] of ordered principles all at once. [In the case of these propositions,] no witnessing [of sensibles] is necessary, let alone the repetition [of such witnessing, contrary to] what is said. For sought conclusions that are [purely] intellective may be intuited.<sup>496</sup>

[(5) The fifth principle is] propositions based in experience. [For these propositions] there must be a repetition of an act, so that one may have firm resolve [in accepting them]. Some [logicians] disputed whether they are among the propositions of certainty, just as [they disputed about whether] intuited propositions [are certain].

[(6) The sixth principle is] propositions that are universally circulated.<sup>497</sup> [These] are the reporting of a group such that the intellect determines their collusion in the fabrication [of the report] to be impossible. The determination of a [specific] number [of reporters] is not a condition [for such reports]. Rather, the determining factor is a numerical limit [of reporters] that offers certainty. It is necessary [in such propositions that they] end with the senses and that there be an equality [of the number of reporters] in the [whole range of the transmitted report], the ends and the middle [included].<sup>498</sup>

These three [propositions, i.e., those intuited, those based in experience, and those universally circulated,] may not be elicited as proofs against someone unless he shares [in believing these propositions, along with the opponent].

One of them limited the [classification of] primary certain [propositions] to a priori [propositions] and propositions related to things witnessed. And he has a certain reason [for doing this].<sup>499</sup>

### *Types of Demonstrations*

46. Next, when the middle [term] is a cause for the judgment in actuality, then a demonstration *propter quid* [occurs]. Otherwise, a *quia* demonstration [occurs], whether [the middle term] is an effect [of the joining of the extremes] or not.<sup>500</sup> [When it is an effect, the *quia* demonstration] is called a proof.<sup>501</sup> A proof on the basis of the existence of the effect of something that it has a cause is [still a

demonstration] *propter quid*. [An example is] your statement, “Everybody is composed; everything that is composed has something that composes it.” [That this is a demonstration *propter quid*] is correct. For in a *propter quid* demonstration the fact of the middle’s being a cause for the existence of the major for the minor is what is taken into account. [The middle’s being a cause] for the existence of the major in itself [is not taken into consideration]. There is a big difference between [the first and the second consideration].<sup>502</sup>

There is a doubt [about the division of demonstration into these two types. The doubt] is that the Shaykh held the doctrine that certain knowledge of that which has a cause does not obtain except with a view to [the knowledge of] the cause. That which does not have a cause is either obvious in itself or is such that any explanation of it with respect to certainty is to be abandoned.<sup>503</sup> Is this not but the razing of the palace of *quia* demonstration?<sup>504</sup> The solution is that perhaps his intention is that universal knowledge—and this is perpetual certainty—is either obvious with respect to the cause or obvious with respect to itself. Particular knowledge may come about by necessity or by means of a demonstration other than the *propter quid*. So reflect [on this!]<sup>505</sup>

### *Dialectics*

47. The second [discipline related to assent] is dialectics. It is composed of commonly accepted [propositions] that are judged [by the intellect to be valid]. [Their validity is] [granted] owing to the agreement of [people’s] opinions [on a given matter] because of the concern with general welfare or the sympathy or pride in one’s heart or moral or humoral influences. [These propositions] are true or false. Because of this, it is said that humoral constitution and habits have a role to play in beliefs. Each people have their specific commonly accepted [propositions]. Sometimes [these kinds of propositions] get confused with primary [propositions] and they are distinguished [from them] when [the intellect] is freed [of its contents]. Or [dialectics is composed] of propositions that are merely granted to be true by two opponents, such as a legal scholar’s granting that the command [form indicates] obligation. The objective [of dialectics] is to force the opponent [to one’s position] or to defend [one’s own] opinion.

### *Rhetoric*

48. The third [discipline related to assent] is rhetoric. It is composed of accepted opinions that are taken from one about whom one holds a good opinion. [Such a person can be from among the] friends of God and sages. Anyone who counts that which is taken from prophets, upon them be peace, to be among [such propositions] has made an error. [Or rhetoric is composed] of propositions presumed to be true which are judged [to be valid] owing to the preponderant [possibility of their truth]. Among the latter are included propositions based on experience,

intuited propositions, and universally circulated [propositions] that have not reached the point of being resolutely believed. The aim [of rhetoric] is to cause those things to obtain that are beneficial or harmful for earthly or otherworldly life. [This is] as the rhetoricians and orators do.

#### *Poetics*

49. The fourth [discipline related to assent] is poetry. It is composed of image-eliciting [propositions]. These are propositions whereby one is made to imagine [something], so that the soul is affected in being sad or happy. For [the soul] is more submissive to the imagination than it is to assent, especially when [poetry] is in accordance with a fine meter or is recited with a sweet voice. The objective [of this discipline] is to affect the soul, [so that] it is caused to be attracted to or to flee from [something]. [This effect] is like its conclusion.<sup>506</sup>

#### *Sophistics*

50. The fifth [discipline related to assent] is sophistics. It is composed of estimative propositions, such as "Everything that exists can be pointed out." The soul is subservient to the [faculty of] estimation. So estimative [propositions] are sometimes not distinguished by the soul from primary [propositions]. Were it not that the pure intellect defends against the judgment of the estimative [faculty], the confusion [between the two types of propositions] would be perpetual. Or [sophistics] is composed of those propositions that resemble true ones either in form or in meaning. [An example of propositions that resemble true ones in terms of their meaning is] when things that are extramental are taken to be mental or vice versa.<sup>507</sup> The objective [of sophistics] is to cause the opponent to fall into error. Sophistry is more general [than sophistics]. For the former is false either in terms of its form or its matter.<sup>508</sup> If a sophist confronts a philosopher [with sophistry], then the former is [called] a philosophaster; if he confronts a dialectician [with it], then [he is called] a disturber of the peace. [Remember] this!

#### *Final Thought*

51. That [argument,] which is composed of the superior and inferior [types of propositions, falls in the category of the] inferior [type].<sup>509</sup> So figure this [out!]

#### *Conclusion*

52. The parts of the sciences are [only] the problemata. The principles are among the means [whereby one resolves the problemata].<sup>510</sup>

END