## Ibn Sina: Qiyās iii.1

### Trans. Wilfrid Hodges, based on the Cairo text ed. Ibrahim Madkour et al. (DRAFT ONLY)

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125

[3.1.1] We have already spoken about these syllogisms when they consist of absoluteness propositions and when they consist of necessity propositions.

{*Prior Anal* i.9, 30a15.}

وبقيت المختلطات من الضربين في جملة ما بقي. فلنتكلّم في المختلطات إذا كانت Among the remaining cases there are the syllogisms that consist of a mixture of the two kinds of proposition. So let us talk about the mixed syllogisms where

one of the premises is an absoluteness proposition and the other is a necessity proposition.

first figure, which has two universally quantified affirmative premises, with the minor premise an absoluteness proposition and the major premise a necessity proposition. For example:

Every *C* is a *B*, i.e. with absoluteness;

(1) and every *B* is an *A* with necessity. Then we say: Every *C* is an *A* with necessity.

أيّ بالإطلاق، وكلّ بآ أ بالضرورة. فنقول: إنّ كلّ ج أ بالضرورة،

ونقول أوّلا: إنّا قد كنّا نأخذ المطلقة فيما سلف عامّة لما بالضرورة ولما ليس -Our first comment is that we have been taking 'absolute propo][3.1.3]

sition' in the above as including both necessary propositions and

بالضرورة، وإذا أخذناها الآن كذلك إختلط، فما كان من ذلك يوافق مادّة propositions that are not necessary. When we take them like that now, they form mixtures. Some of them correspond to necessary matter; {So what does an absoluteness proposition say?}

الضرورة كان حكمها حكم الضرورة، وما يوافق مادّة لا ضرورة فيها إختلف. these are the ones whose content is necessary. Some of them correspond to non-necessary matter; these are different.

فليعن ههنا بالمطلقات، ما كان من المطلقات غير ضروري. فما كان يلزم من By 'absolute' let us mean here those absolute propositions that are not necessity propositions. When the mixture of an absoluteness proposition with a necessity one

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126

خلطها بالضرورة نتيجة ضروريّة، علمت أنّ ذلك حكم الخلط الّذي من المطلقة entails a necessary conclusion, you know that the mixture is tantamount to the mixture of a necessity proposition and a general absoluteness proposition.

العامّة. وما كان يلزم منها مطلقة ، علمت أنّك لو أخذتها عامّة لزمت مطلقة عامّة In the case where it entails an absolute conclusion, you know that if you take [the premises] as general [absoluteness] propositions, then what follows is a general absoluteness proposition,

ولم تلزم ضروريّة. ثمّ تكون المسافة مقربة. فإنّه لو كانت المطلقة العامّة توجب and no necessity proposition follows. [In each case] the distance [travelled by the syllogism] will be minimal. In fact if a general absoluteness premise entails [with the other premise] a

ضرورة، لكانت توجد في كلَّ جزئي لها. فكانت توجد في هذه الخاصّة الَّتي هي necessity proposition, then each individual instance of it is true, and so each special case [of the conclusion] holds as

126.5

an individual case under the general.

فنقول: إنَّ قوما تعجّبوا من كون هذه النتيجة ضروريّة، [3.1.4] We say: People have been surprised that this conclusion is a ne-

[3.1.4] We say: People have been surprised that this conclusion is a ne- 126.5 cessity proposition

and they have regarded this way of reasoning as implausible. There is just one thing that misleads them, namely that they reckon that

the necessary in this case is anything that is necessary for so long as the essence of the subject individual continues to be satisfied,

{Here Ibn Sīnā gives evidence for what he says at *Burhān* 123.14ff and elsewhere, that essential and descriptional propositions are counted as absolute in *Qiyās* but necessary in *Burhān*. The point here is that descriptional propositions don't behave like necessary ones in this kind of argument. It's not clear what he has against essential propositions here. A common view

today is that the temptation to reject this mixed mood comes from reading the modalities as de dicto. But Ibn Sīnā is emphatic that de dicto modalities should not be mentioned in the same breath as the Aristotelian modal syllogisms, e.g. *Qiyās* 142.13f. A further point: his complaint is in part that people don't distinguish the essential from the descriptional, cf. 126.14ff below. This confirms that Theophrastus, Themistius etc. had an ambiguous formulation. }

أو ضروريّا ما دام موصوفا بما يوصف به. حتّى إذا قيل: إنّ كلّ أبيض فهو or that is necessary for so long as the subject individual continues to fit the description given for it. So when it is said that

(2) Every white thing has with necessity a colour that opens out to the eye.

بالضرورة ذو لون مفرّق للبصر، حسبوه ضروريًا حقيقيًا. وكذلك إذا قيل: they reckon it is a genuine necessity proposition. And likewise when it is said:

(3) With necessity nothing white is black.

they reckon it is a genuine necessity proposition. But when

126.10

Zayd is white;

(4) and everything white is necessarily of a colour that opens out to the eye.

it doesn't entail

(5) Zayd is of a colour that opens out to the eye, with necessity.

since that would say that Zayd is white with necessity.

فكذلك إنَّما كان ينتج لهم في مثال الأسود أنَّ زيدا ليس أسود بالضرورة.

126.15

So likewise for them it would just follow from (3) [and the necessity of the conclusion of this mood] that

Zayd is not black, with necessity. (6)

وكلّ هذا لأنّهم لم يشتغلوا بإستثبات حقيقة المقول على الكلّ قولا ضروريًا، All this is because they don't take the trouble to establish the facts about universally quantified propositions that are necessity propositions.

حتّى يفطنوا للفرق بين قولنا: كلّ أبيض فهو بالضرورة ذو لون مفرّق للبصر، [If they did,] they would realise the difference between [two meanings of] the sentence

Everything white is, with necessity, of a colour that opens out to (7)the eye.

إذ معناه ما يوصف بأنه أبيض، كيف وصف بانّه أبيض، فإنّه ما دام ذاته موجودا،

[The first case is] when its meaning is that whatever thing fits the description 'white', regardless of how that description is given, and so long as the essence of the thing continues to be satisfied, {NB Explication by expansion. }

and regardless of whether or not it is white [at the time], that thing has a colour that opens out to the eye. The other [meaning is that] everything that fits the description 'white'

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127

كيف كان فما دام أبيض فبالضرورة هو ذو لون مفرّق للبصر، [[أو بالضرورة in any way, for as long as it remains white, has with necessity a colour which opens out to the eye; or [that every such thing, for as long as it remains white,] is with necessity

ليس بأسود.]] وأنت تعلم ممتا سلف لك أنّ بين الإعتبارات فرقانا، وكيف وأوّلها not black. You know from the discussion above that you can tell the two interpretations apart by the obvious fact that the first of them {At <sup>c</sup>Ibāra 115.11 Ibn Sīnā describes a criterion for distinguishing interpretations (viz. one of them can be doubted but the other can't). But this criterion wasn't used to distinguish necessary from wasfy-with-necessary-predicate as here. }

is false.

[3.1.5] If they had made their major premise

(8) Everything that is white with necessity, that thing has a colour which opens out to the eye with necessity.

{NB Quantification over modalised subject; the mode is necessity. }

مشتركا فيه؛ وذلك لأنّ الأبيض بالضرورة ليس محمولا على زيد، بل الأبيض common [to the two premises], because what is predicated of Zayd [in the 127.5 minor premise] is not 'white with necessity' but 'white

اللذي ليس بالضرورة أو الأبيض بلا شرط، فإن حذفوا هذه الزيادة كانت without necessity' or 'white' without any condition. If they suppressed this addition

127.3

the major premise would be false, because you can't say that

(9) Everything that with or without necessity is white has a colour that opens out to the eye with necessity.

الضرورة فهو ذو لون مفرّق للبصر بالضرورة. فقولك: « كُلَّ أُبِيض » يشملها When you say 'Every white thing', that includes both [things that are necessarily white and things that are white without necessity]

جميعا، فلا يمكن أن نقول: كلّ أبيض فهو بالضرورة ذو لون مفرّق للبصر. together, so we can't say

(10) Every white thing has with necessity a colour which opens out to the eye.

But the custom of using words in extended senses is what causes the error. 127.10 {Cf. *clbāra* 101.7 on the *cādatu l-majāziyya* and Aristotle's attitude to it. Also *Qiyās* 67.9 on extended senses of 'necessary'. }

[3.1.6] So when we say

(11) Every C is a B.

and then we say

Everything that is either with necessity or without necessity a *B*,

(12) given that it is a *B*, regardless of whether that is temporarily or permanently, is an *A* with necessity and permanently.

فهو آ بالضرورة دائما، دخل 
$$\overline{-}$$
 في المقول على الكلّ. فكدلك إذا قلنا: كلّ then [it follows that] *C* is included in whatever is said of every [*B*]. Like-

wise when we say

(13) Every B [is a C].

QIYAS iii.1 Prior Anal i.9, 30a15

as an absoluteness proposition which includes both cases together, then it has to be that

(14) Every *C* is an *A* with necessity.

الضرب الثاني كذلك. ولكنّ الكبرى مطلقة تنتج مطلقة. مثاله كلّ ج ب

[3.1.7] The second mood is the same [as the first], except that the major 127.14 premise is the one that is an absoluteness premise, and it entails an absoluteness conclusion. An example is

Every *C* is a *B* with necessity;

(15) and every *B* is an *A* with absoluteness; so every *C* is an *A* with absoluteness.

بالضرورة، وكلّ ما هو بّ فهو أ بالإطلاق، فكلّ ج أ بالإطلاق؛

Transcription checked 22 Jan 10. Readings checked 18 Oct 12.

This is because it is given that everything that is a *B* is with absoluteness an *A*, regardless of whether it is a *B* with or without necessity. So

every *C* is an *A* with absoluteness.

128

[3.1.8] It is not correct that the meaning of the absoluteness premise is that everything that is a *B* is an *A* with absoluteness

{In this paragraph he examines various possible refinements of the mood just stated. They take the form of narrowing the major premise; since the mood is valid, they will therefore be valid too. I don't know why he doesn't just say this. Odd also that the rest of the paragraph seems to be based on the assumption that the major premise is a descriptional, which is certainly not required for validity. }

فهو ما دام  $\overline{-}$  فقط لا دائما فهو آ بالإطلاق. وذلك لأنّه ليس كلّ ما هو  $\overline{-}$  but only for as long as it is a B, not permanently. That is because not everything that is a B

لا يدوم له أنّه  $\overline{-}$  ؛ إذ قلنا: إنّ بعض ما هو  $\overline{-}$  ، وهو الّذي هو  $\overline{-}$  ، هو  $\overline{-}$  fails to be a *B* permanently. In fact we have said [in the minor premise] that something that is a *B*, namely what is a *C*, is a *B* 

with necessity and permanently. In the light of this it is not correct for us to 128.5 say

(16) Everything that fits the description B is an A at some time, namely the time during which it fits the description B.

له آ وقتا ما، وذلك الوقت هو كونه موصوفا ب ب . فإنّ بعض ما يوصف In fact [given the minor premise,] some of what fits the description

ب  $\overline{-}$  يوصف به دائما. لكن يمكن أن توجد هذه المقدّمة مطلقة الطلقة الّتي  $\overline{B}$  fits that description permanently. It can be that this [major] premise is

true absolutely, with the kind of absoluteness that

یکون فیہا ضرورۃ ولا ضرورۃ ، کقولنا: کلّ متحرّك فهو متغيّر، ولا يصحّ allows the premise to be either a necessary truth or not one. Thus when we say

(17) Everything that moves changes.

it is not correct

أن نقول: إنّه متغيّر بالضرورة، ولا ما دام متحرّكا وليس دائما؛ بل في وقت r us to sav

for us to say

[Everything that moves] changes with necessity, not while it con-

(18) tinues to move, nor permanently, but for the non-permanent amount of time during which it does move.

كونه متحرّكا الَّذي لا يدوم له: إذ كان بعض ذلك يدوم ذاته متحرّكا، وبعضه This is because some moving things have a permanently moving essence 128.10 and some

لا يدوم؛ وكذلك يكون بعضه متغيّرا بالضرورة، وبعض لا بالضرورة. فلا يصحّ don't. Likewise some moving things change with necessity, and some moving things change but not with necessity. Nor is it correct

أن نقول: إنّ الكلّ كذلك بالضرورة ، ولا إنّ الكلّ كذلك لا بالضرورة ؛ بل for us to say

(19) Everything that moves changes with necessity.

nor

(20) Everything that moves changes without necessity.

Instead we should say that the premise holds

نقول: مطلقا. ويكون الإطلاق العامّ. فإذا صدقت هذه القدّمة على هذه الصفة، absolutely; this is an example of broad absoluteness. But then if this premise is true when read as a broad absoluteness proposition,

Prior Anal i.9, 30a15

so that every B is an A with this kind of absoluteness, the conclusion follows, and moreover it is

مطلقة ضروريّة. لأنّ هذه النتيجة تكون مطلقة كالكبرى، أيّ مطلقة عامّة، necessarily an absoluteness proposition. This is because this conclusion 128.15 will hold as the same kind of absolute as the major premise, i.e. broad ab-

solute. {Appalling exegesis to use *darūriyyatan* this way, if my translation is correct.}

فيدوم Thus every C will be an A so long as it continues to fit the description B. But [by the minor premise] it permanently fits the description B, so it is permanently

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129

(21)

Snow is white with necessity;

and everything white is coloured with a colour which opens out to the eye, with the absoluteness that we said;

so all snow is coloured with a colour that opens out to the eye, permanently.

مفرّق للبصر بالإطلاق كما قلنا، فكلّ ثلج ملوّن بلون مفرّق للبصر دائما. {NB Here he uses 'permanently' and 'with necessity' as synonyms.}

فليتعمّل هذا من يتعجّب من إنتاج الضرورة عن صغرى مطلقة وكبرى ضروريّة. Anyone who is surprised at getting a necessity conclusion from an absoluteness minor premise and a necessity major premise should take a close look at this.

فإنّه يجد الضروريّة تنتج عن كبرى مطلقة إذا كانت الصغرى ضروريّة. He will find a necessity proposition derived from an absoluteness major premise when the minor premise is a necessity proposition.

الضرب الثالث: صغراه كلَّيَّة موجبة مطلقة، وكبراه كلَّيَّة سالبة ضروريَّة.

[3.1.9] The third mood: Its minor premise is a universally quantified 129.5 affirmative absoluteness proposition and its major premise is a universally quantified negative necessity proposition.

For example:

Every *C* is a *B* with absoluteness;

(22) and no *B* is an *A*, with necessity. It follows that with necessity no *C* is an *A*.

[It behaves] as you have already learned. {I.e. for the first mood. }

Prior Anal i.9, 30a15

[3.1.10] The fourth mood is the same but with the necessity and the 129.8 absoluteness the other way round:

Every *C* is a *B* with necessity;

(23)and no *B* is an *A*, with absoluteness. It entails: No *C* is an *A*.

ولا شيء من ب آ بالإطلاق ينتج: لا شيء من ج آ . وعلى ما علّمت It behaves as you have learned

for the second mood.

...

[3.1.12] The sixth mood is the same but with the necessity and the abso-129.12 luteness the other way round.

[3.1.13] The seventh mood: its minor premise is an existentially quan- 129.13 tified affirmative absoluteness proposition, and its major is a negative universally quantified necessity proposition.

[3.1.14] The eighth mood is the same but with the necessity and the 129.14 absoluteness the other way round. Its conclusions take their form from the major premise.

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130

وإعلم أنَّ الجزئيَّة المطلقة لا تمنع الضرورة، ولا الجزئيَّة الضروريَّة تمنع الإتلاق.

[3.1.15] Know that an existentially quantified absoluteness proposition 130.1 doesn't say that [its content] is not necessary, and an existentially quantified necessity proposition doesn't say that [its content] is not absolute.

فإنَّ الجزئيَّتين إذا كانتا لا تتمانعان في السلب والإيجاب فكيف [لا] تتمانعان

In fact, given that neither the negative nor the affirmative existentially quantified propositions place such a restriction, how can we suppose that when they don't place such a restriction

في الضرورة والإطلاق، ويمتنع فيهما المعنى المذكور في الضرب الثاني.

either when they are necessity propositions or when they are absoluteness propositions, they still deny that [their content] has the the meaning referred to in our discussion of the second mood?

{I take him to be saying that the existentially quantified propositions are compatible with the descriptional reading, and using as evidence the fact already discussed, that they are compatible with the content being absolute and with its being necessary. This requires adding a  $l\bar{a}$  in line 130.2 without ms evidence, but noting that one ms omits the earlier  $l\bar{a}$  in the same context earlier in the line. }

#### [Second figure]

وأمّا الشكل الثاني، فالحقّ فيه أنّه إذا إختلفت القضيّتان في الضرورة والإطلاق

[3.1.16] We consider the second figure. The truth about it is that when 130.4 the two propositions differ in that one is a necessity proposition and the other is a narrow absoluteness

{*Prior Anal* i.10, 30b7. But he starts with new material and picks up Aristotle only at 131.7. }

الحاص، وكانتا كلّيّتين، فقيل الأوسط بالضرورة على كلّ واحد من طرف،

proposition, and they are both universally quantified, then the middle term 130.5 is applied, with necessity, to all the individuals under one of the extreme terms,

ثمّ قيل على كلّ واحد من الطرف الآخر بغير ضرورة ، على ما جوّزه صاحب and then it is applied to all the individuals under the other extreme term

but not with necessity, according to what was allowed by a person given to

الفصّ أيضا، فكان لأحد الطرفين حكم الأوسط عند كلّ موصوف، هو أنّه detailed analysis. So for one of the two extreme terms, the content of the

middle term applies to everything that satisfies the extreme term, and it applies to it

دائم له، وعلى الآخر هو أنّه ليس دائما له أيّ لكلّ واحد واحد منه، كان permanently; and for the other extreme term, the middle term applies to [each thing that satisfies the extreme term], but in each case it doesn't apply permanently.

{So he says. But does he mean it is not asserted to apply permanently? }

الحكم سلبا أو إيجابا. فإنّ الطرفين متباعدان يجب سلب كلّ واحد منهما عن The content can be either denied or affirmed. In fact the extreme terms are disjoint from each other, and each of them has to be denied of {NB He is confused about whether the *hukm* includes the quality. In 130.7 the *hukm* was 'the *hukm* of the middle term', but now the *hukm* is either a denial or an affirmation.}

الآخر. وكذلك إن كانت الصغرى جزئيّة. فإنّ البعض الّذي فيها مسلوب عن the other. And likewise if the minor premise is existentially quantified, then 130.10 the 'some' which is in the minor premise is denied of

the major extreme term, because this some and the major term are incompatible with respect to the content [in the middle term].

#### [3.1.17] If you count

وأنت إذا جعلت

130.11

{NB Counting the modality as part of the predicate so as to form a syllogism. Why? In any case it won't work if the modalities in the two premises are different (this being in second figure). }

الدوام وغير الدوام جزءا من المحمول فكان الإقتران، مثلا قولك: كلّ ج ب

the permanence or non-permanence as a part of the predicate, it forms a premise-pair, as when you say

(24) Every C is a B with necessity; and every A is a B with necessity. {Curious he chooses a non-productive premise-pair, twice. I suspect he was careless about the negations. }

or

With necessity no *C* is a *B*;

(25) and no *A* is a *B*, where the negation applies to each individual but not with necessity.

If you do this, you could say

Everything which satisfies the phrase *A* has predicated of it that it is permanently a *B*;

(26) and nothing which satisfies the phrase *C* has predicated of it that it is permanently a *B*; This entails that no *C* is an *A*.

130.15

And likewise if you said

Everything which satisfies the phrase C is a thing of which it is permanently denied that it is a B;

(27) and nothing which satisfies the phrase *A* is a thing of which it is permanently denied that it is a *B*; it follows that no *A* is a *B*, and that is with necessity.

{NB *šay*' here seems to be a concrete individual, but I guess this is a straight quantifier usage. }

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131

Then you can put a single noun in place of the phrase 'thing of which it is denied etc.'.

{NB Using a single noun as short for a phrase.}

In this way you can add the modality of necessity in all of this, and it entails a necessity proposition.

{Presumably he is describing how modalities can be thought of as being added to assertoric syllogisms. ?? }

وأمّا إذا أخذت العامّة مطلقة، لم يجب أن ينتج من موجبتين أو سالبتين، لأنّه

[3.1.18] When you take a general absoluteness proposition [as premise], the syllogism with two affirmative premises or two negative premises shouldn't be productive, because

{Read *al-muțlaqata*  $l^{-c}\bar{a}mmata$  with one ms. Very possibly Ibn Sīnā intended this but wrote carelessly. The paragraph frankly looks like an unfinished note to himself. }

that kind of absoluteness proposition can be true with a content that is 131.5 necessarily true, and with that matter [in the absoluteness premise] there doesn't have to be

a conclusion. And this means that the syllogism is not productive.

فلنعدّ إلى إقتصاص المشهور في ذلك.

[3.1.19] Let us review precisely what is the the standard position about 131.6 [the second] figure.

QIYAS iii.1 Prior Anal i.10, 30b7

(28) Every C is a B with absoluteness; and with necessity no A is a B.

{Cesare. Proved as assertoric case, by converting major premise so as to get Celarent.}

اب، فينعكس إلى الأوّل، فينتج: أنّه بالضرورة لا شيء من ج آ . وهذا It converts to the first figure, and thus it entails

(29) No C is an A.

{The conversion

لا منازعة فيه.

This is uncontroversial.

{I.e. given the controversial position that 'No *B* is an *A*, with necessity' converts.}

والثاني أن تجعل السالبة الضروريّة صغرى.

[3.1.20] The second mood is where you put the negative necessity propo-131.10 sition as the minor premise.

{Camestres, proved like the assertoric case by converting the minor premise to get Celarent. }

وأمّا الثالث فمثل قولنا: كلّ 
$$\overline{-}$$
  $\overline{-}$  بالضرورة، ولا شيء من آ  $\overline{-}$  بالإطلاق  
[3.1.21] The third mood takes the form 131.11

Every C is a B with necessity;

{Cesare again, but with necessity on the affirmative premise we can get a necessity conclusion. }

الغير الضروري. وليكن ممّا ينعكس حتّى يكون فيه تمام المقارنة. وما ينعكس Suppose [the major premise] is convertible, so that the premise and its converse are completely parallel.

Among non-necessary propositions, a proposition that converts can only be a kind of pure absolute, or its meaning is

# ما حصل في الوجود وقتا ما، حتّى ينعكس على نحو ما قيل.

that something was the case at some particular time, so that it converts in the way that was said.

{Reference back to ii.1, but I haven't yet sorted out exactly where. }

فأمّا إن كانت الكبرى مطلقة بالمعنى الأوّل فقد علم أنّها إذا إنعكست صارت [3.1.22] When the major premise is absolute in the first meaning, it was 131.15

already known that when it converts, it becomes

No *B* is an *A* at any time while it continues to fit the description (31) B.

But [in (30)] every *C* is a *B* permanently, and so as you know, the syllogism entails

ضروريّة.

a necessity conclusion.

{This is another example of the descriptional argument, though did he actually mention descriptional Celarent? }

Transcription checked 23 Jan 10. Readings checked 19 Oct 12.

132

[3.1.23] We turn to the second kind of convertible absolute proposition. 132.1 The essence of the composed syllogism in this case is

Everything that in any point or interval of time is a C fits the description B permanently for as long as its essence continues

(32) to be satisfied, not just for as long as it continues to satisfy the description *B*;

and nothing that satisfies A at a certain time has B true of it.

ت. فيجب أن يمتنع أن يكون شيء من  $\overline{-}$ اً ، عند كون القضيّة السالبة صحيحة This is supposed to prevent there being any C which is an A under the assumption that the negative proposition is

factually true. Otherwise [there is such a *C*, and] at every time in which its 132.5 essence is satisfied, it satisfies *B*, and this includes

الزمان أيضا. ويشبه أن لا يحسن أن تعكس هذه القدّمة عكسا، حتّى يتألّف the time in question. But it is fair to say that it would not win approval if we were to convert this premise so as to compose

a syllogism in the first figure along the lines

Everything that is a *C*, under any circumstances, fits the description *B* permanently;

(33) and nothing that is a *B*, under any circumstances, has *A* false of it at the given time.

The major premise

OIYAS iii.1

in (33), on my reckoning, isn't an absolute of either of the two types [that we are considering]. [For an absolute major premise] one would have to say

(34) Every *B* which exists at the given time has *A* false of it.

But it doesn't follow from this that the class C is included in 132.10 {I think he probably means 'Everything that exists and is a B at the given time'. }

ج تحت  $\overline{P}$ . فربّما لم يكن  $\overline{P}$  موصوفا بأنّه  $\overline{P}$  في هذا الوقت، إذا لم يكن ذاته [the subject class of the major premise], since it could be that the individual C doesn't fit the description B at the given time, because its essence is not {For 'the subject ... major premise' the text has 'B'. This is probably Ibn Sīnā writing carelessly. }

satisfied at that time. So if we did follow them in this line of reasoning, the conclusion would not be absolute, [because of the required] condition

وجود الموضوع. نعم إن كان ج موجودا في هذا الوقت فيسلب عنه أنَّه

about the existence of the subject individual. Granted, if the C exists at the given time then it is not

{NB Here it's explicit that he is discussing syllogisms with conditions added. In this line he seems to be returning to the form in 132.1, abandoning the pseudo-converse suggested in 132.10. }

> آ في هذا الوقت، ولا يلزم أن يسلب عنه في كلّ وقت. مثلا إذا كان T

an A at that time, but it doesn't follow that A is false of it at every time. For example if

Prior Anal i.10, 30b7

 $\overline{F}$  أبيض دائما، ثمّ إتّفق في وقت ما أن لم يكن شيء من المتحرّكين أو من the *C* is permanently white, and it happens to be true at a certain time that 132.15 nothing that is moving (i.e.

الباءات أبيض، فيكون حينئذ لا شيء من  $\overline{-}$  الوجود في ذلك الوقت بباء في ذلك an A) is white, then in this case no C which exists at the given time is an A 'at that

{Correcting the two Bs to As as required by the context. This could be Ibn Sīnā's slip since he swapped A and B around a little earlier. }

الوقت، لا في كلّ وقت. فتكون النتيجة مطلقة على نحو إستعمالهم الإطلاق. time' — not 'at all times'. So the conclusion is absolute, [but only] accord-

ing to their usage of the word 'absolute'.

{NB There is something not being said here. If we can take 'A that exists at time t' as a single term, then we have a straightforward Camestres and there is no need to examine the form of the condition. Consider in connection with the question where the line between core and adjunction is drawn. }

فهذه الإتّفاقات كلّها إذا إتّفقت أنتجت هذه النتيجة. لكن ليس يجب من نفس [3.1.24] So if all these things happen, then when they happen they entail 132.18 this conclusion. But the facts of the matter don't necessarily

Transcription checked 23 Jan 10. Readings checked 21 Oct 12.

133

الأمر أن يتفق هذه الإتفاقات. وذلك أنّا إذا قلنا: كلّ لون كسوف فإنّه happen like that. Thus if we say:

(35) Every colour in the shade is with necessity a black colour.

{NB Because of the truth of the sentence, the quantification is over a singleton? No, because for Ibn Sīnā a 'colour' can be an instance of a colour. }

(36) At a certain time, no colour of the heavenly bodies is a black colour.

سوادا، إذ هذا على هذه الطريقة وجودي، لم يجب من هذا أن يسلب السواد and this proposition in the form that it has is an impermanent proposition. But 'black' doesn't have to be false

{The ms that reads *wa*- for *'id* clearly has a point, though Ibn Sīnā is quite capable of writing *'id*. }

عن الكسوفات الموجودة في الوقت حتّى تكون القضيّة وجوديّة. فربّما لم تكن

of things in the shade which exist at the given time in order for the proposition [(36)] to be true. In fact it could be that there are no things in the shade [at that time]

{Reading *mawjūdatan* for *wujūdiyyatan*; no ms support but I think the sense requires it, and one can see how a copyist retained *wujūdī* from the previous line. }

كسوفات موجودة حتّى يسلب عنها. وأيضا لم يجب أن ينعكس، فيقال:

133.5

for 'black' to be false of. Also (36) doesn't have to convert to the form {NB Again the obstacle to converting lies in the choice of where to draw the line between core and condition. Reducing the core allows more kinds of inference but it may run into difficulties with inference types not recognised by Ibn Sīnā. }

Not one black colour in existence is the colour of the heavenly (37) sphere.

It could be in this case that there is nothing black,

موجود لأنّهم يجوزون أن يقول القائل: ليس شيء من الألوان سوادا، أيّ because they permit someone to say

(38)No colour is black, i.e. at a certain time.

{'They': people in general, or specifically Aristotle or his tradition? }

Then it is true that

(39)No colour in the heavens at that time is the colour black.

{I altered the order. But it seems to be needed at (133.10), since without the time incorporated in the proposition, there is no obstacle to converting. {NB The effect is that the time of evaluation becomes part of the proposition. }

بسواد. ويكون القول حينئذ صادقا مطلقا. ثمّ لا ينعكس هذا حتّى يرجع إلى And in this case the sentence is true and absolute. But then it doesn't convert so as to reduce the syllogism to

the first figure.

ولكنّ لقائل أن يقول: إنّ هذا السلب الكلّي صادق، وليس الشرط أن [3.1.25] But one should say:

In fact this negative universally quantified proposition is true [anyway]. The condition that

the subject term is satisfied at the time only applies if the proposition is affirmative, because an affirmation about a determinate time

133.11

133.10

الشكل الأوّل.

can only be true when its subject term is satisfied at that time, whereas a denial can be true when its subject term is satisfied {NB Affirmative sentence with specific time attached to subject term is only about things existing at that time. }

and also when its subject term is unsatisfied. Thus a negative statement can state a truth about its subject term both when the subject term is satisfied and when it isn't, and the truth can be about all times or about a specified time.

But the thing to consider is [not whether the subject term is satisfied but] whether what is asserted of the subject term is true. If [the proposition states that what is asserted] is true permanently then the proposition is a necessity proposition;

{NB The *hukm* here is clearly what is asserted of the subject term. Note also: his statement suggests he is talking about evaluating the proposition, but his example shows that in fact he is talking about what the proposition asserts about the truth of its core. }

if [it states that what is asserted] is true at a certain time, then it is an absolute impermanent proposition. So then if we say:

(40) Every B, however it is, has A false of it at such-and-such a time.

133.15

the sentence [says that the negative assertion] is true at this time.

{NB True at a time?}

If at this time the term *B* does not satisfy the description *A*, then regardless of whether there are or are not any *B*s, {NB not [B] is satisfied but [THE B's] is satisfied. }

Transcription checked 23 Jan 10. Readings checked 22 Oct 12.

134

the term doesn't satisfy the description A. When there are no Bs, then the Bs don't satisfy the description A. When there are some Bs and

moreover the *B*s don't satisfy the description *A*, then at that time there is nothing that is both a *B* and an *A*. So [either way,] the negative universally quantified proposition is true

at that time.

But it would be better if they left this issue to one side and pursued a path that would be more congenial to them than this, {NB *tahrīf*. }

في هذا الباب كنّا أومأنا إليها فيما سلف. ويلزمنا الآن أن نذكرها لهم، وذلك and which we have already pointed out in this context. And now we need to spell it out for them,

لأنّ للقائل منهم أن يقول: إنّا إذا قلنا كلّ ج هو ب بالوجود، أيّ في وقت ما، because one of them might well say: In fact when we say

134.5

(41) Every *C* is a *B* with impermanence, i.e. at a certain time.

لا يجعل الوجود بإعتبار واحد واحد من الموصوفات؛ بل يجعل الوجود للحصر، this doesn't express that what is said is true of each subject individual separately; but rather it expresses that the quantified proposition is true.

Thus when we say

(42) Every C is a B, with truth.

this can be understood as having either of two meanings.

أحدهما، أنّه قد وجد إن كان الصدق هو قولنا: إنّ كلّ ج ب بعدما لم يحب [3.1.26] One of them is that if we say [3.1.26]

(43) Every C is a B.

that is in fact the truth, though it can't be {Where is the other? Also I read '*an* for '*in*. }

ذلك في نفس الأمر؛ لأنّه ربّما كذب هذا الحصر في وقت آخر.

an intrinsic truth because there could be another time when this quantifier is false.

ولا يلتفت في ذلك إلى حال  $\overline{+}$  من  $\overline{-}$  ، أنّه هل هو لواحد واحد منها وجودي [In this meaning] the proposition is not about the relationship of the term 134.10 *B* to the term *C*, namely whether for each separate subject individual *B* 

holds in an impermanent

or a necessary sense. An example is that when we say, at some time when there is no white colour and no red colour or colour

من الأوساط إن أمكن: إنّ كلّ لون فهو سواد، وصدق هذا في ذلك الوقت، ولم intermediate [between white and black] (assuming this is possible):

(44) Every colour is black.

[In this meaning] this proposition would be true at that time, but not {NB Here he explicitly uses a 'possible' time/situation. }

a necessary truth. It would not be meant that every individual that fits the description 'colour' does have

{NB He seems to be saying that the proposition is (narrow) absolute, but nevertheless not an absoluteness proposition.}

له وجودا غير ضروري أنّه سواد، حتّى يجوز أن يبقي ذلك الواحد موجود black colour' true of it, though not necessarily true, so that that individual can continue to have its

الذات أو موجود لونا وقد زال عنه أنّه سواد، حتّى يكون كأنّ حكمنا أيضا essence instantiated, and be a colour, but cease to be black. That would be as if we had judged that

Transcription checked 23 Jan 10. Readings checked 22 Oct 12.

135

لذات فهو سواد، كلًّا. فإنَّ الوجود الغير الضروري في قولنا هذا إنَّما يعتبر

So in fact the non-necessary truth of this sentence of ours just has to do with

في صدق الحصر، لا في أنَّ المحمول الغير ضروري لواحد، أو لكلّ.

the truth of the quantifier, and not with whether the non-necessary predication applies to a single individual or to all of them.

كذلك لا يلتفت في السالب إلى وجود الموضوع؛ بل إلى وجود صدق

[3.1.27] Likewise in the negative proposition the assertion is not about 135.4 whether the subject term is satisfied; rather it is about the satisfaction of the truth

{NB Here he says affirmative must have satisfied subject and negative doesn't need to. But unclear below. }

السلب الكلّي، وإن كان لا بدّ من وجود الموضوع في الموجب حتّى يصدق

of the universally quantified denial. Even if the subject term in an affirma-135.5 tive proposition has to be satisfied if the quantifier is to be true,

الحصر، ولا بدّ من ذلك في السالب. فإنّه إذا كان لا شيء من الألوان في وقت ما the position with the negative proposition has to be as we said. In fact if at some particular time

no colour is white or intermediate [between black and white], and all colours are black and there is no [non-black] colour

البَتَّة، صدق أن لا شيء من الألوان في وقت ما بياض، أيّ في ذلك الوقت؛ at all, it is true that

Prior Anal i.10, 30b7

namely at that time.

لأنّ المعدوم لا يوصف بأنّه بياض ولا بشيء من الموجبات. وإذا لم يصدق This is because an unsatisfied [subject] doesn't satisfy the description 'white colour' or have any affirmative property. When the affirmation is not true

الإجاب، صدق السلب ضرورة. فإذا رعينا ما نقوله، وإلتفتنا إلى وجود الصدق the [corresponding] denial must be true. If we take care about what we say, 135.10 and pay regard to the satisfaction of the truth

في الحصر، أمكننا أن نعكس هذه القضيّة.

in the quantifier, it would be possible for us to convert this proposition.

فإن سلكوا هذه الطريقة ، يكون قد [3.1.28] If they were to follow the path I have presented, they would 13

135.11

كَثَّروا على أنفسهم أصناف القضايا، وحادوا عن الطريقة المثلي، بما إذا تأمَّلت

discover for themselves the great number of different kinds of proposition, but also they would avoid the approach that is like mine which you will have learned about if you have thought about

{I'm not at all sure that this translation is correct, or that the text is. The word *al-mitlī* doesn't convince. }

{NB Discover for themselves the many kinds of proposition. }

بعض ما سلف لك وقفت عليه. فإذا كان كلَّ كسوف قمري سوادا، وكان لا شيء some of what was explained to you earlier. Thus when we have

(47) Every eclipse of the moon is a black colour.

and

(48) No eclipse of the moon at time t is a black colour.

من الكسوفات القمريّة في وقت ما بسواد لأنّ الكسوفات كانت معدومة،

because there isn't an eclipse of the moon [at time *t*],

{An eclipse is anyway an event, not a colour. So there is some stretching of language. In English we say that a dress 'is a reddish colour' etc. }

then

(49) No eclipse of the moon at time *t* is an eclipse [of the moon].

One gets in the same way that no person {By assertoric Cesare. }

135.15

بناس، وكذلك في كلّ واحد من الأمور. وليس له أن يقول: إنّ معناه لا شيء is a person, and likewise with all sorts of things. One shouldn't comment that this means that no eclipse of the moon at time t is an existing eclipse. {Here he rejects a use of quantification over possibly nonexistent things; or is it over actual things that possibly don't satisfy the subject description? It looks as if he rejects it because there is a simpler description, not because it's incoherent in itself. }

من كسوفات القمر في وقت ما بكسوف موجود، فإنّه لم تكن كسوسات القمر من

The fact is that there aren't any eclipses of the moon

Transcription checked 23 Jan 10. Readings checked 23 Oct 12.

136

حيث أخذت حذا أكبر مأخوذة على أنَّها موجودة. لكنّ له أن يقول: إنِّي

when you take this major premise [(49)] as true. What one should say is rather:

In every topic, with negative absolute premises I only consider whether their predicate terms are

{Why does he explicitly say 'absolute'? }

are true [of their subject terms] at that time, and on the strength of that the proposition is confirmed or denied; I don't consider whether the subject term of the

للسلب. فسنسلِّم له ذلك. negative proposition is satisfied. In future we will take this view for granted.

وإنَّما طوّلنا الترديد في هذا الباب، لنزيد المتعلِّم إستبصارا في هذا المعنى، بكثرة

[3.1.29] We have been lengthy and repetitious about this topic, so as to 136.5 give the student a feeling for what the topic is about, by presenting the many

مقدّمات ووجوه فاضلة ، ممّا قد وقف عليه قبل. فنقول: إنّه إذا كانت the superfluous premises and modes have been disposed of. These are things that you have already learned. We say: Absolute propositions

of the kind under discussion can have consequences that are also absolute propositions of this kind.

Prior Anal i.10, 30b7

ولا يبالي فيها بأن تكون القضايا في أنفسها ضروريّة أو غير ضروريّة؛ بل It's of no concern here whether the propositions in themselves are necessary or not necessary. Rather

يكون الإلتفات إلى الحصر، حتّى إذا كان حقّا أنّ بعض الألوان أسود بالضرورة، one must pay attention to the quantifier. Thus when it is true that some 136.10 colour is black necessarily,

وبعض الحيوان إنسان بالضرورة ، فعدمت سائر الألوان وسائر الحيوانات and some animal is human necessarily, and there are no other colours or other animals,

وبقي السواد والإنسان، وبقي البعض من الحيوان الذي هو إنسان بالضرورة، leaving just black and human, [i.e.] leaving only those animals that are human necessarily,

والبعض من اللون الذي هو أسود بالضرورة، وكان حقًا أنّ كلّ حيوان حينئذ and only those colours that are black necessarily, thereby making it true that every animal

إنسان أو كلّ لون أسود، فكان الحمل ضروريّا والمقدّمة غير ضروريّا. وذلك is a human, and every colour is black — [when all this holds,] then the predication is necessary but the premise is not a necessary proposition. This

لأنّ صدق الحصر إتّفق إتّفاقا وكان لا بالضرورة، بل مطلقا مثل صدق قولنا: is because the truth of the quantifier just happens to be the case and is 136.15 absolute and not necessary. The truth of the sentence

(50) Every animal is human.

illustrates this. So even though 'human' is necessarily true of every single one of those

الموصوفات بانّها حيوانات ضروريّا، فإنّ صدق الحصر ليس بضروري. things that fit the description 'animal', the truth of the quantifier is not a necessary truth.

Prior Anal i.10, 30b7

فيجب

136.18

[3.1.30] At the same time,

Transcription checked 23 Jan 10. Reading checked 23 Oct 12.

137

time.

(51) Every animal moves in act.

has to be necessary, since it has to be the case

أن لا يلتفت إلى حال حيوان حيوان؛ بل إلى صدق القول بأنّ كلّ حيوان that it is not concerned with the facts about the animals individually. Rather it is about the truth of the statement that every animal

فإنّه متحرّك وقتا ما أو متنفّس وقتا ما. فيكون هذا الصدق موجودا في كلّ زمان، moves at some time or breathes at some time. This truth holds at every

{NB Nested temporal quantifiers. }

(52) Every existing animal has movement — not while its essence continues satisfied, but rather whenever it moves.

137.5

false. I grant that there could be a time when not every animal is moving.

وهذا لا يناقض ذلك. فإنَّه في الوقت الَّذي يصدق أنَّه ليس كلَّ حيوان متحرَّكًا،

But (52) doesn't contradict that. Even at the time when it is true that no animal is moving,

{NB *laysa kullu*. I think the sense requires here that *kullu* has the wider scope, though more usually it's read the other way. }

أيّ في الوقت يصدق أيضا أنّ كلّ حيوان متحرّك أو متنفّس وقتا من الأوقات

at that same time it is also true that

(53) Every animal moves or breathes at some time at which it exists.

Prior Anal i.10, 30b7

في وجوده ، فإنّ هذا يصدق في كلّ وقت ، وإن كان حيوان لا يتحرّك في وقت ، This sentence [(53)] is true at every time, even if an animal is not moving at some time,

إذ هذا لم يوجب الحركة في كلّ وقت. ويناقض بأن لا يكون حركة في وقت. since (53) doesn't imply that there is movement at every time. It is contra- 137.10 dicted by there not being movement at any time, {Grammar! *ḥaraka* with masculine verb! }

فبالحري أن تكون هذه القضيّة الكلّيّة ليست مطلقة. بل ضروريّة. so it's reasonable to suppose that this universally quantified proposition [(51)] is not absolute but necessary.

[3.1.31] But [the Aristotelians]

137.11

وهم

يأخذونها مطلقة، ولا يأخذونها ضروريّة البتّة. وكذلك قولهم: كلّ متحرّك take it as absolute, and not as necessary at all. Lkewise the sentence

(54) Every moving thing changes.

متغيّر يجب أن لا تكون مطلقة، بل ضروريّة. وقد أخذها بعضهم مطلقة. should be not absolute but necessary. But one of them took it as absolute,

وصدّق من جعل هذه كبرى في الأوّل مطلقة، فأنتج نتيجة مطلقة. وأيضا فماذا and declared that a person who took it as an absolute major premise in the first figure, so as to derive an absolute conclusion, was right to do so. And also what

{Reading *saddaqa* to get a plausible sense. }

يقولون في قول القائل: بعض الحيوان إنسان بالضرورة، وبعض اللّون سواد do they say about someone who says the following?

137.15

(55) Some animal is a human with necessity, and some colour is black with necessity.

Is this proposition necessary or absolute? They recognise that this existentially quantified proposition

{NB I think it has to be 'necessary' rather than 'necessity proposition' here, because the proposition is explicitly a necessity proposition. Note the nested modality. }

الجزئيّة يحب أن تكون صادقة في كلّ وقت، ونقيضها كاذبا في كلّ وقت. فنجدهم

has to be true at every time, and its contradictory negation is false at every time — but we find them

قد نسوا السور فهم غير ملتفتين إلى السور. وكذلك قولنا: بالضرورة ليس كلّ forgetting the quantifier, so they are not reading it in terms of [truth of] the quantifier. The same goes when we say

(56) Necessarily not every animal is human.

حيوان إنسانا، فإنّهم معترفون بأنّ هذه القضيّة ضروريّة. يجب أن يكون جميع They recognise this as a necessary proposition. But all these propositions have to be

Transcription checked 23 Jan 10. Readings checked 24 Oct 12.

OIYAS iii.1

138

ذلك مطلقا إن كانت الضرورة إنَّما ترعى في صدق السور، لا في إعتبار الحال بين absolute if the necessity is just taken care of in terms of the truth of the quantifier, rather than by considering the relation between {NB  $mur\bar{a}^c\bar{a}$  is here explicitly of the necessity. }

the predicate and the subject. If the thing being considered is the quantifier, then the truth of this quantifier is not necessary.

This is because, as they grant, it can be true at different times that every animal is human, and that no animal

بإنسان. فيكون صدق هاتين القضيّتين وجوديّا من جهة سوره في كلّ وقت. is human. So the truth of these two propositions is impermanent from the aspect of its quantifier, and this is the case at every time.

وكذلك أيضا إذا قلنا: كلّ إنسان حيوان فإنَّهم كلَّهم يعترفون بأنَّ هذه القضيَّة Likewise also when we say 138.5

Every human is an animal. (57)

They all recognise this as {'All', so not just one person. }

a necessary proposition. But according to their principles it won't be a necessary proposition. On the contrary, if we imagine

لا إنسان موجودا \_ على ما يفعلون هم ويقولون \_ لم يكن أحد من الناس that no human exists — which is what they say they are doing — then [in that situation] no human

is an animal. This is by analogy with their statement that

(58) When we say 'No eclipse is an eclipse', i.e. an existing eclipse, this is a true sentence.

أيّ كسوف موجود، قول حقّ. وإذا كان يصحّ عندهم أن يكون قولنا If according to them the sentence

(59) Every animal is dumb.

is true at some time, [i.e.] whenever there is no human at all

138.10

بموجود، وإذ يصحّ سلب الحيوان عن الإنسان الّذي ليس بموجود، فيصحّ حينئذ in existence, and since it is true that no human is an animal when there are no humans, it follows that in this situation the sentence

(60) Not one human is an animal.

is true. So the truth of the sentence (57)

إنسان حيوان، صدقا دائما، بل إنّما يكون صدقا وقتا ما، فلا تكون هذه is not a permanent truth, but rather it is just a truth at a certain time. So this premise is not

المقدّمة ضروريّة، بل تكون ممكنة ويستعملونها ضروريّة. فكان يجب أن a necessary proposition but a possible one, and yet they use it as a necessary one. They ought to

deny that these propositions are necessary, though this is contrary to the 138.15 doctrine of their school. Really what they should say it:

If we were to accept it as absolute, we would take care of the time in which we are speaking. In dealing with

في الضرورة والإمكان فيراعي شيئًا آخر، فيكونون قد شوَّشوا على أنفسهم.

the necessary and the possible, [Aristotle] goes in a different direction, so these people's muddle is their own.

{*calā 'anfusihim* not common, but also at 135.12 above and at *cIbāra* 118.9. }

Transcription checked 23 Jan 10. Readings checked 24 Oct 12.

139

فهذه الأبحاث وما يشبهها صرفتنا عن الإلتفات إلى هذا الرأي، وسنستقصى

[3.1.32] These and similar enquiries divert us from paying attention to the theory that is under discussion, [namely the third mood (30)]. So we are going to put into the enquiries in the Appendices

ما يجب أن يقال من الزيادة على ما قلناه في أبحاث اللُّواحق. فقد بان أنَّ هذه

a close study of the other things that need to be said in addition to what we have already said about them. Anyway it is clear that this

القرينة تنتج ضروريّة. وكذلك القول في الرابع، إذا كانت الكبرى موجبة premise-pair entails a necessity proposition. The same should be said about

the fourth mood, where the major premise is an affirmative

مطلقة.

absoluteness proposition. {This will be Camestres again. }

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