

## Ibn Sina: Qiyās iv.3

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

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في القياسات المختلطة من الإمكان والضرورة في الشكل الأوّل الممكنة  
والإضطرارية  
iv.3 On mixed syllogisms of possible and necessary in the first  
figure of possible and necessary

أما إذا كانت الصغريات ضرورية والكبريات ممكنة، فلا شك أنّ النتيجة  
[4.3.1] [In the first figure] when the minor premises are necessity propo-  
sitions and the major premises are possibility propositions, there is no doubt 199.5  
that the conclusion  
{*Prior Anal* i.16, 35b23, 36a18.}

تكون ممكنة بسبب القول على الكلّ.

will hold as a possibility proposition, because of the universal quantifica-  
tion.

{The default in Aristotle’s modal syllogisms, which Ibn Sīnā seems to fol-  
low, is that possibility is strict, i.e. it is contingency. Aristotle divides the  
present syllogisms into two cases, according as both premises are affirma-  
tive or one is negative. If one is negative, it has to be the major premise,  
by the flattening principle (every sound modal syllogism remains sound  
under at least one way of removing the modalities). Ibn Sīnā ignores this  
distinction, since he has only the same comment on all cases (though that’s  
true of Aristotle too). Aristotle comments that these syllogisms are perfect.

My suspicion is that Ibn Sīnā's 'there is no doubt that' means there is no doubt in the mind of the reasoner (rather than that of the logician), and is his way of saying that the syllogisms are perfect. His explanation of the perfection lies in the major premise — the only one with a universal quantifier in all cases — which tells us that whatever is said of all *Bs*, viz. that they are possibly *As*, will be true of anything included in the *Bs*. So the syllogism convinces because it's obvious that the minor premise says among other things that every *C* is a *B*. *Iṣārāt* succeeds in making this point more snazzily. }

199.6 وإن كانت الكبريات ضرورية، فهناك

[4.3.2] If the major premises are necessity propositions, then in that case

يحتاج إلى بيان يتبين به أنّ القياس منتج، وذلك كقولنا: كلّ ج ب

one needs a proof to establish that the syllogism is productive. Thus we say

- (1) Every *C* is a *B* with possibility;  
and every *B* is an *A* with necessity.

{Barbara LM(broadposs)}

بالإمكان، وكلّ ب آ بالضرورة، فينتج أولاً نتيجة ممكنة بالمعنى العام. فإثباتها

In the first instance it entails a conclusion that is a possibility proposition in the broad sense. Thus

{'In the first instance': He says this because we can make a first stab at finding the conclusion by adapting Aristotle 34a34, and the outcome is that the conclusion is broad possible. In *Najā* he goes on to show that the conclusion can't be contingent; putting these two arguments together shows that the conclusion is necessary, a view he reaches by a different argument below. Street p. 152 comments that he 'cannot understand' the first proof in *Najā*. For that reason I sketch it below. }

إن لم تكن ممكنة، كانت غير ممكنة أن تكون كلّ ج آ، فيكون بالضرورة

if the conclusion fails to hold as possible, it is not possible that every *C* is an *A*, and we have that

بعض ج ليس آ، وبالضرورة كلّ ب آ، فيكون بالضرورة بعض ج

- (2) With necessity some *C* is not an *A*.

Now with necessity every  $B$  is an  $A$  [(by (1))], and so with necessity some  $C$  199.10

ليس  $\bar{B}$  ، وكان بالإمكان الحقيقي كل  $\bar{C}$   $\bar{B}$  .  
is not a  $B$ , though we had [(by (1))] that with strict possibility every  $C$  is a  $B$ .

وكذلك إن كانت سالبة  
[4.3.3] Likewise if [the major premise] is a negative 199.11  
{Here he uses Baroco LLL, cf. 121.12ff.}

ضرورية كقولك: كل  $\bar{C}$   $\bar{B}$  بالإمكان، وبالضرورة لا شيء من  $\bar{B}$   $\bar{A}$  ،  
necessity proposition, as in

Every  $C$  is a  $B$ , with possibility;  
(3) and with necessity no  $B$  is an  $A$ .  
Then it is possible that no  $C$  is an  $A$ .

{Celarent LMM}

فيمكن أن لا يكون شيء من  $\bar{C}$   $\bar{A}$  ، وإلا فليس بممكن. فبعض  $\bar{C}$   $\bar{A}$  ،  
For otherwise this is not possible, and so some  $C$  is an  $A$

بالضرورة، وبالضرورة لا شيء من  $\bar{B}$   $\bar{A}$  ، فينتج ما علمت.  
with necessity. But with necessity no  $B$  is an  $A$ , and you know what follows.  
{The sense requires that the  $j$  in the Cairo text should be  $b$ , though there is no ms support for this. }

وأما هل تكون  
[4.3.4] As to whether 199.14

هذه النتيجة ضرورية أو مطلقة أو تكون ممكنة صرفة، فقد قيل في التعليم  
this conclusion is necessity or absoluteness or pure possibility: 199.15

الأول - فيه - قولاً كلياً: إنَّ الكبرى الضرورية إن كانت موجبة،  
the First Teaching states as a universal rule that a necessity major premise,  
if it is affirmative,  
{At 35b28ff Aristotle says that when one premise is affirmative and the

other is negative, if the affirmative is necessary then the conclusion is possible, but if the negative is necessary then the conclusion can be possible or truth. }

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أنتجت ممكنة فقط، ولم تجب مطلقة؛ وإن كانت سالبة أنتجت ممكنة ومطلقة  
entails just a possibility conclusion, which doesn't have to be an absolute-  
ness proposition; and if it is negative it entails both a possibility conclusion  
and an absoluteness

{Note that Aristotle 35b29 says not that the conclusion is absolute but that  
it holds; but Theodorus' translation has *mutlaq*. }

غير ضرورية.

conclusion that is not a necessity proposition.

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### Aristotle proves absolute conclusion for Celarent poss nec.

ولم نعرض لبيان هذا في الضرب الموجب، ونعرض لبيان ذلك في هذا الضرب  
[4.3.5] [In the First Teaching] we don't find a proof of this in the affir- 200.3  
mative mood, but we do meet a proof of it in this second mood,  
{Aristotle on Celarent }

الثاني، بما يمكن أن يجعل دليلا على أنّ النتيجة ضرورية. فإته قيل فيه ما هذا  
where it's possible to construe [Aristotle] as indicating that the conclusion  
is necessary. He explains it

عبارته: فيجب أن لا يوجد آ في شيء من ج إذا لم تجعل لفظه « يجب » دالة  
there as follows: 200.5

So it has to be that  $A$  is not true of any  $C$ .

Here the expression 'has to be' refers not to the  
{This is verbatim from Theodorus' translation of *Prior Analytics* i.16, 36a10  
(apart from some uncertainty between *yūjadu* and *tūjadu*, not affecting the  
sense); see Jabre 241.8. }

على لزوم النتيجة، بل على أنّ النتيجة في نفسها واجبة، وتكون لفظه « ف »  
دالة

fact that the conclusion necessarily follows, but rather to the fact that the  
conclusion is a necessity in itself. The word 'so' signifies

على ذلك اللزوم، ويكون الوجود هو اللازم. فكأنه لما قاس قال منتجا:

the entailment, and the thing that 'has to be' is the conclusion of the entailment. It's like when he expresses a syllogism and says that the conclusion is

فبالضرورة ليس آ في شيء من ج̄ ، فإقتصر بالفاء على دلالة اللزوم والإتباع،

So with necessity  $A$  is not true of any  $C$ .

and by the 'So' he means only that the conclusion is a consequence [of the premises].

ثمّ بيّن ذلك بالخلف على ما إعتبر عنه بأن قيل: فلتوضع أنّ آ موجودة في كلّ [Aristotle] goes on to prove [the case we are considering] by absurdity. He expresses this by saying

Then let it be posited that  $A$  is true of every or some  $C$ .

{In place of the correct technical term *tūda'* the Cairo edition has *nū.da.h*, noting that *nū.da<sup>c</sup>* appears in several manuscripts. It's possible that Ibn Sīnā was working from a faulty text. The original of this phrase follows immediately after the passage quoted above from *Prior Analytics* 36a10. }

أو بعض ج̄ ، وإتما قيل في كلّ مقدّما بيان مثل ذلك في النتيجة السالبة

He just says

200.10

of every

first in order to explain that in cases like this where the conclusion is negative and

الجزئية التي نقيضها كلّية موجبة. وأما قوله: فلتوضع، فمعناه أنّه لما قيل

existentially quantified, the contradictory negation of the conclusion is universally quantified and affirmative. When he says

Let it be posited

he means that when it has been said

{Again correcting the Cairo *nūda.h* to *tūda'*. }

أنّه تكون النتيجة سالبة كلّية ضرورية، قيل بعده: فإن لم يكن بالضرورة

that the conclusion is a negative existentially quantified necessity proposition, the next thing one says is: If it is not the case that with necessity

لا شيء من ج  $\bar{A}$  ، فليكن ليس بالضرورة ولا شيء من ج  $\bar{A}$  ، فيمكن بالإمكان  
 no  $C$  is an  $A$ , then suppose that it is false that with necessity no  $C$  is an  $A$ ,  
 and hence that it is possible with

العام أن يكون بعض ج  $\bar{A}$  . فلنفرض ذلك موجودا، فإنه لا يلزم من فرض الممكن  
 broad possibility that some  $C$  is an  $A$ . So let us assume that that is the case.  
 Now when a proposition is possibly true, the assumption that it is in fact  
 true doesn't entail

موجودا محال، ولنفرض كل ج  $\bar{A}$  ونضيف إليه أيضا قولنا: بالضرورة  
 an impossibility. So let us assume

200.15

(4) Every  $C$  is an  $A$ .

We add to it our [previous] sentence [(3) 2nd],

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لا شيء من  $\bar{A}$  ب ، عكسا للضروري، وردّا إلى الأوّل، لزيادة البيان؛ وإن لم يفعل،

converting it to a necessity proposition

(5) With necessity no  $A$  is a  $B$ .

and [thus] reducing [the two propositions] to a first figure syllogism, which allows us to supply a proof. (Even if this is not what Aristotle did, {The reduction is to Celarent with absolute minor premise and necessity major premise, as considered at 129.5 above, where the conclusion is necessity. }

كان ذلك بيانا من الثاني. فلما فعل هذا، أنتج من إختلاط المطلق والضروري  
there is a proof from the second figure.) If one does that, the conclusion, from a mixture of absolute and necessity premises, is  
{The proof from second figure is by leaving the original major premise unconverted, so we get Cesare with absolute minor premise and necessity major. At 131.8 he says this is uncontroversial with a necessity conclusion. }

أن لا بعض أو لا شيء من  $\bar{C}$  ب ؛ وذلك بالضرورة، وكان ممكنا أن يكون  
that

(6) No  $C$  is a  $B$  — and that is with necessity.

But [we assumed that] it was possible for

كلّ  $\bar{C}$  ب ، هذا محال.

every  $C$  to be a  $B$ . This is an impossibility.

### Getting an absolute conclusion for Celarent

فهذا وجه بيان برهاني، تبين به أنّ النتيجة ضرورية، وإليه ذهب في التعليم  
[4.3.6] Now this is one way of giving a demonstrative proof which proves 201.5  
that the conclusion is necessary, and this is the direction that [Aristotle]  
took in the

الأوّل، لكنّ الصدر والإقتصاص المذكور قبل التفصيل يبطل هذا التأويل.



First Teaching. But [Aristotle's] introductory comments, which we mentioned before dividing [into the separate moods], go against this reading of him.

فلننظر كيف يمكن إستنتاج المطلقة عن هذا. فنقول: إنه يمكن على هذه

So let us look into the question how this mood could have an absoluteness conclusion. We say: It can happen as

الصفة، وهو ما عليه الظاهر من التفسير، فنقول: إنه لا شيء من  $\bar{C}$   $\bar{A}$  ،

follows, which is a straightforward commentary [on Aristotle's text]. We state that

(7) No  $C$  is an  $A$ .

وإلا فليكن هذا باطلا؛ وليكن الحق أن بعض  $\bar{C}$   $\bar{A}$  ، وبالضرورة لا شيء من

For otherwise let (7) be false, and suppose the truth is that

(8) Some  $C$  is an  $A$ .

Also

(9) With necessity no  $B$  is an  $A$  [= major premise of (3)].

$\bar{C}$   $\bar{A}$  ، فبالضرورة لا كل  $\bar{C}$   $\bar{B}$  ، وكان كل  $\bar{C}$  يمكن أن يكون  $\bar{B}$  . وهذا البيان

So

201.10

(10) With necessity not every  $C$  is a  $B$ .

But

(11) Every  $C$  is possibly a  $B$  [(= minor premise of (3))].

[This is impossible.] This proof

{(10) follows from (8) and (9) by Cesare with absolute minor and necessity major, which is at 131.7f. }

يبيّن الإطلاق بالمعنى العائلي، ولا يبيّن الإطلاق الذي لا ضرورة فيه، وذلك لأنّ

proves absoluteness in the broad sense. It doesn't prove the kind of absoluteness that excludes necessity, because

قائلا إن قال: إنه ليس إذا كان لا شيء من ج آ بالإطلاق باطلا يلزم منه أن يكون

someone might well say:

If (7) is false with absoluteness, it doesn't follow that

بعض ج آ حقا؛ بل يجوز أن يكون الباطل أنه لا شيء من ج آ بالإطلاق

(8) is true. It could be that what is false is (7) with the kind of absoluteness

لا ضرورة فيه، ويكون الحق أنه لا شيء من ج آ بالضرورة، ولا يلزم أن

that excludes necessity, and the truth is (7) with necessity. So it doesn't follow that

يكون بعض ج آ حقا.

(8) is true.

201.15

فإذن هذا البيان لا يصلح لإثبات أن النتيجة مطلقة بإطلاق لا ضرورة فيه،

Therefore this proof is not valid for establishing that the conclusion is absolute in the sense of 'absolute' that excludes its being necessary. 201.16

ولكن يصلح لأن يبين به إطلاق عام،

But it is valid when it is used to prove broad absoluteness.

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### Getting a necessary conclusion, also for Barbara

ثمّ يبقى البحث عن الضرورة. فإنّ هذا

[4.3.7] It remains to look into the necessity [of the conclusion]. The proof above 201.17

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البيان لم يبين به البتة أنه ليس ههنا ضرورة، ولا يتبين به أن فيه إمكانا حقيقيا،  
doesn't show in any way that the conclusion is not a necessity proposition,  
but neither does it show that the conclusion is a strict possibility proposition —

إلا أن يتكلف الإمكان بمعنى السور، وعلى ما سلف مرارا.  
that is, unless the possibility under scrutiny is possibility in the sense of the  
quantifier, which is something we have met a few times already.

لكني أقول: إن النتيجة في هذا وما أشبه ضرورية؛ وأقول: إن الضرب  
But for myself I say: The conclusion in this and similar cases is a necessity  
proposition. And I say: Both the

الموجب والسالب الذين كبراهما ضرورية ينتج نتيجة ضرورية. مثال الأول:  
affirmative and the negative moods whose major premises are necessity  
propositions entail a necessity conclusion. An example of the affirmative  
case is:

كل ج ب بالإمكان، وكل ب أ بالضرورة، فكل ج أ بالضرورة،

Every  $C$  is a  $B$  with possibility;  
(12) and every  $B$  is an  $A$  with necessity;  
so every  $C$  is an  $A$  with necessity.

وإلا فيمكن أن لا يكون بعض ج أ . فلنضع هذا الممكن موجودا، فينتج  
Otherwise it is possible for some  $C$  not to be an  $A$ . And so let us posit that

(13) Some  $C$  is not an  $A$ .

is true. Then this [and the major premise in (12)] form a productive  
{I read as that (13) is true, not as that the possibility of (13) is true. This  
implicates Ibn Sīnā in the false rule of possibility, but that's his normal  
practice. Ibn Sīnā hasn't yet come to second figure mixtures of possible  
and necessary; but as I have it he is using Baroco with absolute minor and  
necessary major, which at 151.8 he says is standard, but he doesn't say that  
the conclusion is necessary. }

من الشكل الثاني: يمكن أن لا يكون بعض ج ب ؛ بل لا يمكن أن يكون  
 syllogism in the second figure, entailing: it's with possibility that not some  
 $C$  is a  $B$ ; or rather,

(14) It is not possible that every  $C$  is an  $A$ .

كَلَّ ج ب ؛ فهذا خلف لزم لا من الصادقة، بل من المشكوك فيها.  
 This is an absurdity. It follows not from the premise [(13)] that was counted  
 as true, but from the one that was considered dubious.  
 {Here he repeats the move at 196.8, of shifting the blame for a contradiction  
 away from the 'false but possible' premise. }

ولنبين

[4.3.8] Let us prove the same thing

202.8

ذلك من الشكل الأول بعينه، ولنضع أنّ كَلَّ ج ب بالوجود، وكَلَّ ب أ  
 in the first figure. Suppose that

(15) Every  $C$  is a  $B$  in fact,  
 and every  $B$  is an  $A$  with necessity.

{Using Barbara with absolute minor and necessary major, 125.9. }

بالضرورة، فكَلَّ ج أ بالضرورة. وإذا كان فرضنا الممكن موجودا يجعل  
 Then

202.10

(16) Every  $C$  is an  $A$  with necessity.

If [in the minor premise] we have assumed that a thing that is possible is  
 true, this makes

هذه النتيجة ضرورية فلا يمكن أن ينتقل عن الضرورة؛ فإنّ قولنا: كَلَّ ج أ ،  
 this conclusion a necessity proposition [in the original syllogism], and there  
 is no way of translating it into something that is not a necessity proposition.  
 In fact the sentence

(17) Every  $C$  is an  $A$  with necessity.

بالضرورة، معناه: أنّ كَلَّ ما هو موصوف باته ج ما دام ذاته موجودا

means

(18) Everything that fits the description  $C$  fits the description  $A$  for so long as its essence is satisfied — even if it changes in any [other] way.

- وإن تغيّر عليه أي وصف كان - فهو موصوف بأته آ . فيلزم أن كلّ ج

So it follows that that every  $C$

فما دام ذاته موجودا فهو آ بالضرورة. فإذا كانت ذاته موجودة فهو آ  
is an  $A$  for so long as its essence is satisfied, with necessity. So while its essence is satisfied, it is an  $A$

بالضرورة. وإذا كانت ذاته موجودة ولم تكن موصوفة ب ب بالفعل فلا يخلو إمّا

أن

with necessity. While its essence is satisfied and it doesn't in act fit the description  $B$ , either 202.15

يكون موصوفا بأته آ دائما، أو لا يكون فإن كان موصوفا بأته آ ، سواء  
it fits the description  $A$  permanently, or doesn't. So it fits the description  $A$ , regardless of whether

وجد ب أو لم يوجد وفي كلّ وقت، فالنتيجة ضرورية.

it is a  $B$  or not, and at every time, and thus the conclusion is a necessity proposition.

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وإن كان عند ما يصير  $\bar{B}$  يصير  $\bar{A}$  ، فإن لم يكن  $\bar{B}$  لم يكن  $\bar{A}$  ، فليس ما دام ذاته

[4.3.9] And if while it is a  $B$  it is an  $A$ , but when it is not a  $B$  it is not an  $A$ , then it is not an  $A$  while its essence continues to be  
[NB 'so long as', 'at the moment when'.]

موجودا يكون  $\bar{A}$  ، بل ما دام ذاته موصوفا بأنه  $\bar{B}$  . وقلنا إنه موصوف  
satisfied, but rather while its essence continues to fit the description  $B$ . But  
we said that it does in fact fit  
{From this point on the manuscripts are in chaos about whether what moves  
is the human (masculine) or his essence (feminine). }

بذلك ما دام ذاته موجودا، كان موصوفا بأنه  $\bar{B}$  أو لم يكن، وهذا خلف.  
that description so long as its essence continues to be satisfied, regardless  
of whether or not it fits the description  $B$ . This is an absurdity.

وبالجملة فاعلم أنّ ما يمكن أن يصير ضروريًا فهو ضروري دائما وإمكانه الإمكان  
In general know that what can possibly be necessary is necessary perma-  
nently, and its possibility is possibility in the broader sense.  
{NB Possibly necessary implies necessary. }

الأعمّ. وذلك لأنه إذا صار وقتا ضروريًا، ويجوز أن تزول عنه الضرورة،  
This is because if it becomes necessary at some time but can then lose its 203.5  
necessity

وذاته موجودة، فيكون لم يصير ضروريًا، لأنّ معنى صيرورته ضروريًا: أن  
while its essence is still satisfied, then it won't [really] have been necessary,  
because what it means to say that it becomes necessary is that

يكون الموضوع عند ما يصير هذا المحمول ضروريًا له موصوفا بأنه ما دام ذاته  
when this predicate becomes necessary for the subject, the subject contin-  
ues to fit the description given by that predicate for as long as the essence  
of the subject continues

موجودا موصوف بذلك المحمول. وإذا كان ذاته موجودا وهو غير موصوف به  
to be satisfied. But if during the time while its essence is satisfied, it fails to  
fit the description

قبل أن صار ضروريًا له، فقد صار ضروريًا له، وليس هو له بضروري،  
until the description becomes necessary for it, and then the description be-  
came necessary for it, but [now] it is not necessary for it,

وهذا محال. ومثال هذا: كل إنسان يمكن أن يتحرك، وكل متحرك جسم  
then this is an impossibility.

203.10

An example of this:

- Every human can move;  
(19) and every moving thing is a body with necessity;  
so every human is a body with necessity.

بالضرورة، فكل إنسان جسم بالضرورة. فأما كان كل متحرك ما دام ذاته  
Consider the fact that every moving thing, so long as its essence continues  
to be

موجودا - يتحرك أو لم يتحرك - موصوفا بأنه جسم، وكان الإنسان عندما  
satisfied — whether or not it moves — fits the description 'body'. It is true  
of a human as soon as

يتحرك صادقا عليه أنه جسم بالضرورة أي ما دام ذاته موجودا كيف كانت  
he moves that he is a body necessarily, i.e. so long as his essence continues  
to be satisfied, whatever

أحواله، يلزمه أن يكون - وإن لم يتحرك - جسما، لأنه جسم ما دام ذاته  
else happens, and it follows that he is — even when he doesn't move — a  
body, because he is a body for so long as his essence continues

موجودا لا عندما هو متحرك فقط. فهو ما دام ذاته موجودا جسم، وهو قبل  
to be satisfied, not just while he is moving. This holds for so long as his 203.15  
essence continues as a body, and he was a body before

الحركة جسم، وبعدها جسم، لا أنه إنما يستفيد هذا عندما يتحرك. فإن الشيء  
the movement and he is a body after it. It's not as if a thing reveals [that it's  
a body] only when it moves. The fact that a thing has property X

لا يستفيد أمرا من أمر عند وجوده يكون ذلك الأمر له حاصلا قبل وجوده،

is not something it reveals by its having property  $Y$  when it does have  $Y$ ,  
if  $X$  is a property that it had before it had  $Y$  —

Transcription checked 7 Sep 12. Readings checked 9 Nov 12.



204

حتى لو لم يوجد، لم يكن له ذلك. فإن ذلك محال،

as if it wouldn't have had property  $X$  if it hadn't already had  $Y$ . That would be absurd.

{Not in fact absurd. A plate can reveal that it had a weakness by breaking, even if the weakness was invisible before the breakage. Was Ibn Sīnā nodding here? }

كذلك الحال في التي كبراه

[4.3.10] The same goes for syllogisms whose major premise

204.1

سالبة ضرورية أن نتيجته سالبة ضرورية.

is a negative necessity proposition; their conclusion is a negative necessity proposition.

والعجب كل العجب أن مثل هذا البيان الذي ذكر، حيث الكبراه سالبة

It's quite remarkable that [Aristotle uses] a proof like this one mentioned above, where the major premise is a negative 204.3

ضرورية، ليبين به أن النتيجة قد تكون ضرورية، وقد كان يمكن أن يذكر

necessity proposition, to prove that the conclusion can be a necessity proposition, when he could already have said the same

{NB Here he says that a proof proves 'that its conclusion is necessary', not that it proves a conclusion which is a necessity proposition (or a necessary proposition). I have an impression that he does this elsewhere too. Check. }

في الموجبة، فقد حكم في الصدر بما يوجب الفرق في ذلك بين التي كبراه

about the affirmative case; and that [Aristotle's] introduction reckons that one has to make a distinction of this kind between the syllogisms with affirmative major premise 204.5

موجبة والتي كبراه سالبة في هذا المعنى. ومن العجائب أنه لما كانت الكبرى

and those with negative major premise. And it's remarkable that when the major premise is

مطلقة سالبة مخلوطة بالممكن تمحل لها نتيجة ضرورية ممكنة، ولما صارت

an absolute negative proposition and is combined with a possibility premise, he contrived to show that it can have a necessity conclusion, but when

ضرورية جزم أن تكون نتيجة ضرورية. هذا، وأما إذا كانت الممكنة سالبة،  
 [the major premise] is [affirmative], he determined that the conclusion is  
 [not] a necessity proposition. This in spite of the fact that when it is the  
 possibility premise that is negative,  
 {There is a problem of getting the Cairo text to say something that agrees  
 with Ibn Sīnā's analysis of the logical situation. I don't see an alternative to  
 correcting the *darūriyyatan* at the beginning of line 204.8 to *mūjibatān*; per-  
 haps the curious *darūriyyatan mumkinatan* in the previous line distracted  
 an early copyist. Then we need to negate the second *darūriyyatan*; one ms  
 moves in this direction by writing *haraja* for *jazama*, but loss of a *lā* is a com-  
 moner and more probable error. A better suggestion would be welcome.  
 }

فينتج بعينه ما أنتجت الموجبة. ولا يمكن ردّ النتيجة عن الإيجاب إلى السلب؛  
 it implies precisely the same [modality] as when [the possibility premise]  
 is affirmative. Reducing the conclusion from affirmative to negative is not  
 possible,  
 {When the possibility premise is negative, e.g. with Celarent with neces-  
 sary minor and possible major, we have a possibility conclusion by 199.5.  
 Switching the negative to affirmative gives Barbara with necessary minor  
 and possible major, which again by 199.5 has possibility conclusion. }

إذ ليس الإمكان فيه خاصيًا، بل عاميًا. 204.10  
 since the possibility in it is the broad one and not the narrow one.  
 {This sentence has all the marks of being a marginal note by a reader who  
 hadn't quite thought it through. The point seems to be that Aristotle couldn't  
 have seen the parallel between the affirmative case and the negative one by  
 making a straight reduction from one to the other. But the suggested reduc-  
 tion, of a possibility conclusion in the affirmative case to a possibility con-  
 clusion in the negative case, is irrelevant to the issue. Ibn Sīnā's point was  
 that Aristotle could have got an affirmative conclusion already in the affir-  
 mative case and not just in the negative; so the relevant reduction would  
 have been from a negative necessity conclusion to an affirmative one. }

وإعلم أنّ أكثر ما يشتمل عليه في التعليم 204.10  
 [4.3.11] Be aware that most of what the First

الأول من أمر الاختلاطات إمتحانات، وليست فتاوى حقيقة. وسيتضح لك

Teaching contains about mixtures of modalities consists of tests rather than authoritative rulings. The true facts about them

حقيقة ذلك في مواضع يذكر فيها بعض ما مضى من هذه الاختلاطات، أو

will become clear to you when some of the facts above about mixtures of modalities are mentioned or used in later topics,

{Where are these later topics? I've not seen any modal syllogisms in *Jadal*. }

يستعمل فيها بعض ذلك، فتكون الفتوى فيها حينئذ على ما يوجبه الحق. وقد

So far you have seen

مضى لك من جملة ذلك واحد، وأنت تعرف المقاييس الجزئية من هذه.

only one [or two] of the cases [in this figure], but from these cases you can tell the facts about the syllogisms with existentially quantified premises.

{Darii and Ferio. Aristotle discusses them at greater length, i.16, 36a31ff. }

وبالجملة فإن العبرة للكبرى، فإنها إن كانت ممكنة فالنتيجة ممكنة، أو ضرورية

The general rule is that the choice of modality for the conclusion lies with the major premise. If this premise is a possibility proposition then the conclusion is a possibility proposition, and if it is a necessity proposition 204.15

فالنتيجة ضرورية.

then the conclusion is a necessity proposition.