

IS ARISTOTLE'S RESPONSE  
TO THE ARGUMENT FOR FATALISM  
IN *DE INTERPRETATIONE* 9 SUCCESSFUL?

M. A. ISTVAN JR.\*

Texas A&M University-United States of America

**ABSTRACT**

The goal of this paper is to figure out whether Aristotle's response to the argument for fatalism in *De Interpretatione* 9 is a success. By "response" it is meant not simply the reasons Aristotle offers to highlight why fatalism does not accord with how we conduct our lives, but also the solution he devises to block the argument for fatalism. This paper finds that a) Aristotle's argument for fatalism is essentially bivalence plus that the truth of a proposition implies necessity, b) that Aristotle's solution is to restrict bivalence, c) that this solution is coherent, and d) that while this solution does not rule out the possibility of fatalism, it does succeed in blocking the argument for fatalism offered within chapter 9.

*Keywords:* Aristotle, fatalism.

.....  
*Artículo recibido: 15 de septiembre del 2012; aceptado: 19 de noviembre del 2012.*

\* [maistvanjr@gmail.com](mailto:maistvanjr@gmail.com)

## ¿ES EXITOSO EL ARGUMENTO DE ARISTÓTELES RESPECTO DEL FATALISMO EN *DE INTERPRETATIONE* 9?

### RESUMEN

El objetivo de este trabajo es esclarecer si la respuesta de Aristóteles al argumento a favor del fatalismo en *De Interpretatione* 9 resulta exitosa. Por “respuesta” se entienden no solo las razones que da Aristóteles para destacar porqué el fatalismo no concuerda con la manera en que llevamos nuestras vidas, sino también la solución que ofrece para bloquear el argumento a favor del fatalismo. El artículo plantea a) que el argumento de Aristóteles respecto del fatalismo consiste esencialmente en la bivalencia más el hecho de que la verdad de una proposición implica necesidad; b) que la solución de Aristóteles es restringir la bivalencia; c) que esta solución es coherente, y d) que si bien esta solución no elimina la posibilidad del fatalismo, sí logra bloquear el argumento a favor del fatalismo ofrecido en el capítulo 9.

*Palabras clave:* Aristóteles, fatalismo.

## O ARGUMENTO DE ARISTÓTELES A RESPEITO DO FATALISMO EM *DE INTERPRETATIONE* 9 É BEM-SUCEDIDO?

### RESUMO

O objetivo deste trabalho é esclarecer se a resposta de Aristóteles ao argumento a favor do fatalismo em *De Interpretatione* 9 é bem-sucedida. Por “resposta” se entendem não somente as razões que Aristóteles dá para destacar por que o fatalismo não está de acordo com a maneira em que levamos nossas vidas, mas também a solução que oferece para bloquear o argumento a favor do fatalismo. Este artigo propõe que: a) o argumento de Aristóteles a respeito do fatalismo consiste essencialmente na bivalência mais o fato de que a verdade de uma proposição implica necessidade; b) a solução de Aristóteles é restringir a bivalência; c) essa solução é coerente, e d) embora essa solução não elimine a possibilidade do fatalismo, consegue bloquear o argumento a favor dele oferecido no capítulo 9.

*Palavras-chave:* Aristóteles, fatalismo.

There has been a recent bloom of scholarship on *De Interpretatione* 9 (9). Intellectuals tend to turn to this controversial text of Aristotle's for one of two reasons: to figure out both the argument for fatalism and the solution to it presented within (*cf.* Anscombe 1-15; Whitaker 1996; Hintikka 1964; Ackrill 1993 and Frede 1985), or else to use it as a platform for debating whether or not a proposition about a contingent future event should be evaluated as one of either true or false prior to the occurrence of that event (*cf.* Prior 1953; Lukasiewicz 1967b; Baylis 1936; MacFarlane 2003; Bourne 122-128; Tweedale 2004 and Brogaard 2007). Less often is the main focus to see if Aristotle's counter to the argument he presents for fatalism, the doctrine that whatever happens was always bound to happen, succeeds. I think that the argument does succeed.

In section one of this paper, I contend that the argument for fatalism in 9 is essentially the principle of bivalence (PB) plus that the truth of a proposition that an event will happen in the future entails that this event will necessarily happen (a premise I abbreviate hereafter as "truth entails necessity"). In this section, I also contend that Aristotle's solution to this argument is to restrict PB, but not the law of excluded middle (LEM), when it comes to propositions about contingent future events. In section two, I address problems for my interpretation of Aristotle's solution, problems both to the effect that it does not align with the text and that it is an incoherent position in itself. In section three, I argue that the examples Aristotle gives as to why fatalism seems false are only meant to bolster, not prove, the antifatalist assumption to which he personally ascribes: that many possible futures could actualize. I explain as well that his solution, PB-restriction, does not rule out the possibility that fatalism is true, that is, that whatever future does not actualize was not truly possible. Nevertheless, I argue that his solution does succeed in blocking the argument that he presents for fatalism in 9.

## I

There seem to be three principle ways to understand the argument for fatalism in 9. a) PB –each proposition is one of either true or false (and no other option)– plus truth entails necessity. b) LEM –the disjunction between a proposition and its negation is true– plus truth entails necessity. c) RCP –for each contradictory pair of propositions, one member is true and the other false– plus truth entails necessity.

If a) is how the argument works, then here is how it looks. Since each proposition is one of either true or false, any given FCP must be so too. If the FCP is true, then the FCE it describes is certain to happen, that is, it is necessary that it will happen (*cf.* Cicero 21). That the truth

of the FCP implies the necessity of the FCE it describes is clear in that if the FCE does not end up happening, then it is wrong to say that the FCP was true at the time of utterance. The same argument applies if the FCP is false. The falsity of the FCP entails the impossibility of the FCE it describes. Therefore, fatalism is true.

If b) is how the argument works, then it looks the same as the above. For the only way I see LEM being useful for the fatalist view is if it entails PB. If LEM did not entail PB, in which case saying that  $p$  and not- $p$  exhausts all the options (LEM) does not mean that each is one of either true or false (PB), then I do not see how it could help the argument for fatalism. After all, if there are many possible futures branching from now, some of which lead to  $p$ -event at the future date in question and some of which do not, then while it will be true that  $p$  and not- $p$  exhaust all the options, the threat of fatalism will not appear if  $p$  is not currently one of true or false. Now, what reason do we have to suppose that LEM entails PB when LEM only tells us that the options are  $\neg p$  or not- $p$ —whereas PB tells us that each proposition must be one of either true or false? The reasoning seems to be as follows. It is true that either  $p$  or not- $p$ . If  $p$ , then  $p$  is true. If not- $p$ , then  $p$  is false. Since it is either true that  $p$  or false that  $p$ , it follows that  $p$  must be one of them: true or false. If c) is how the argument works, then here is how it looks. Since for each contradictory pair of propositions one must be true and the other false, one FCP must be true and the other—its contradiction—false. Assume  $p$  is true. The FCE ( $p$ -event) that  $p$  predicts cannot fail to occur, then. This just means that it is necessary that it occur. Therefore, fatalism is true.

Those who read the argument for fatalism in terms of a) think that Aristotle's solution is either to restrict PB for FCPs or to deny that truth entails necessity. Those who read the argument for fatalism in terms of b) think that his solution is either to restrict LEM for FCPs or to deny that truth entails necessity. Those who read the argument for fatalism in terms of c) think that his response is either to restrict RCP for FCPs or to deny that truth implies necessity.

Concerning those who see Aristotle denying that truth implies necessity, I am aware of two approaches. If the FCP  $p$  is “a sea-battle will happen on 4-27-3003”, then—assuming that when 4-27-3003 comes around a sea-battle does happen—either  $p$  already has this value of true at any time prior to  $p$ -event happening or it has a value corresponding with what is more probable at the given time at which it could have been uttered, even if that value is not the same as what it turns out to have. Concerning those who see Aristotle as restricting LEM for FCPs, I am aware of two approaches: either restrict LEM and PB along with it or (*cf.* Bernstein 70) restrict LEM and keep PB. Concerning those who

see Aristotle as restricting PB for FCPS, I am aware of two approaches: either restrict PB and keep LEM<sup>1</sup> or restrict PB and LEM along with it.<sup>2</sup> Concerning those who see Aristotle as restricting RCP for FCPS, there is only one approach on the assumption that the solution of RCP-restriction is not simply a function of one of the other restrictions and is therefore just one of those restrictions: keep PB and LEM but affirm that it is not yet settled which member of the pair is true and which one false.

If Aristotle thinks that the fatalist argument is essentially LEM plus truth entails necessity, then his solution definitely is not to restrict LEM. He maintains LEM in 9, explaining that "It is necessary for there to be or not be as sea-battle tomorrow" (19a27). His claim here that the disjunction between  $p$  and not- $p$  is necessary, that it is necessary that these are the only options, clearly means that this disjunction is true, that it is true that these are the only options. Aristotle maintains LEM in *Metaphysics* too. He explains that one thing must be either asserted or denied of any one subject (cf. 1011b). That is to say, the only options are either  $b -x$  is A- or not- $b -x$  is not A. This is precisely LEM. Finally, that Aristotle seems unwilling to restrict LEM just makes good sense. What other possibility is there besides a sea-battle happening on 4-27-3003 or a sea-battle not happening on 4-27-3003? A sea-battle *half* happening on that date? But even if it is one-sixteenth happening *it* is still happening. If this is not the case, that is, if a sea-battle one-sixteenth happening does not suffice for a sea-battle happening, then this just means that a sea-battle is *not* happening. So the disjunction between  $p$  and not- $p$  seems to have to be true. The three aforementioned interpretations that have Aristotle restricting LEM for FCPS should be abandoned, then.

Let us move on to the interpretation that the argument for fatalism is RCP plus truth entails necessity, and that Aristotle's solution to it is to restrict RCP in the case of FCPS without as well restricting PB (or LEM) for RCP (cf. Whitaker 110-112). According to this interpretation, RCP is violated for Aristotle in the case of FCPS because, given that the future situation in question is not yet settled, it is not yet settled "which member of the pair [of FCPS] is true and which is false" (*id.* 111, 130).

Here is the problem with this interpretation. How is PB preserved, as Whitaker claims that it is (cf. 112), when the truth-values have yet to be distributed to the members of the contradictory pair?

- .....
- 1 Kneale and Strang say that this is what Aristotle is trying to do (cf. Kneale and Kneale 1962; Strang 1960). Many have said that this maneuver is, as Anscombe says, "a howler" (9).
  - 2 Lukasiewicz explicitly says that Aristotle denies bivalence. But in the many-valued logical system Lukasiewicz comes up with (primarily because of 9), LEM is restricted too for disjunctions between  $p$  and not- $p$  when  $p$ -event is a FCE (cf. 1967a 16-18).

One explanation is that by  $\text{PB}$  Whitaker, the chief and original proponent of this interpretation, really means  $\text{LEM}$ . If so, then when he says that  $\text{RCP}$  is restricted and yet  $\text{PB}$  is preserved he means that while it is not yet ineluctably settled how the two possible truth-values are to be distributed between the members of the contradictory pair (meaning that  $\text{RCP}$  is restricted), it is still the case that the only options are that a sea-battle will occur on 4-27-3003 or that one will not (meaning that  $\text{LEM}$  is preserved).

Alas, this does not seem to be the right explanation. Whitaker defines  $\text{PB}$  rightly as every proposition is one of either true or false, not as that the disjunction between a proposition and its negation is true ( $\text{LEM}$ ) (*cf.* 111). The question arises once again, then. How can  $\text{PB}$  be preserved, and yet  $\text{RCP}$  be restricted in the way that Whitaker says  $\text{RCP}$  is in the case of  $\text{FCPS}$ -restricted not in the sense that a) both members are true or that b) both are false, but that c) it is not yet settled which is which? I understand how  $\text{PB}$  is maintained with the other two violations of  $\text{RCP}$  that Aristotle points out in the previous two chapters: 7 and 8. These concern how both members of a contradictory pair can have the same truth-value, which clearly does not violate  $\text{PB}$  since regardless as to whether the members are both false or both true it is still the case that each on its own is one of either true or false. But how can Whitaker say, on the one hand, that each member of the contradictory pair is one of either true or false and yet say, on the other hand, that the two possible truth-values of the contradictory pair have yet to be distributed among the members. How can it be that it is not ineluctably settled which member is true and which false when it is still the case that each is one of either true or false? I would think that if  $\text{RCP}$  is violated (as Whitaker takes it to be), then  $p$  would be neither true nor false, which Whitaker unequivocally agrees would be a  $\text{PB}$  violation (*cf.* 112). I would think that to deny that it is settled which one gets what value is to deny that each disjunct, taken in isolation, is one of either true or false. And I would think that to affirm that  $p$  is one of either true or false and that  $\text{not-}p$  is too is to affirm that the truth-values have in fact been distributed. Whitaker's interpretation thus seems incoherent to me. The only thing I can think of is that perhaps when Whitaker says that it is not yet settled which member gets what truth-value he just means that, due to our lack of knowledge, we do not know how it is in fact already settled. The problem with this is that he unequivocally denies that this is what he is saying (*cf. id.* 111).

If it is not that by  $\text{PB}$  Whitaker means  $\text{LEM}$ , or that by  $\text{RCP}$ -restriction he means that we just do not *know* how the truth values are distributed, then what other explanation can there be for one holding such an interpretation? In addition to these two, I can only conceive

of one more explanation for Whitaker saying that, for Aristotle, even though members of a contradictory pair are one of either true or false it is not yet settled which one is true and which one is false. Perhaps Whitaker is making a distinction between a) a proposition *actually being* one of either true or false, on the one hand, and b) a proposition *having to be* one of either true or false, on the other. And when he is saying that, in the case of FCPS, PB is upheld even though RCP is not, he is saying that each member of the contradictory pair of FCPS has to be one of either true or false where that does not as well mean that each *actually is* one of either true or false. If my diagnosis is correct, then he is being lured by the fact that a) and b) are to some extent different in sense: a) stresses the reality and b) stresses the rule. Nevertheless, if it is a *rule* that a proposition must be either true or false, then –lest the rule be restricted– the proposition must *actually be* one of the two. The separation is illegal in this case.

Even if Whitaker's view is incoherent, that is no definitive argument against it being *Aristotle's* view. Nevertheless, I do think that a quite definitive case against it being Aristotle's view can be made.

First off I should say that I agree with Whitaker that Aristotle does restrict RCP when it comes to FCPS. Contrary to Whitaker, however, I think that this restriction is a consequence of Aristotle's restriction of PB. Here is strong piece of textual evidence showing that a major premise in 9's fatalist argument is RCP. Aristotle explicitly says that fatalism is the queer result that follows "if it is necessary, for every affirmation and negation either about universals spoken of universally or about particulars, that one of the opposites be true and the other false" (18b27-30). And now here is a strong piece of textual evidence that Aristotle's solution is to restrict RCP for FCPS. Just as he ends the two prior chapters that showed restrictions to RCP, he ends 9 by saying "it is not necessary that of every affirmation and opposite negation one should be true and the other false" (19a39). Aristotle is ending 9 by saying the following, in effect: "I have once again shown –as I did two previous times (one in chapter 7, the other in chapter 8)– that RCP need not always obtain between contradictory pairs."

On now to why Whitaker's interpretation is not true of Aristotle. That Aristotle restricts RCP but not as well PB when it comes to FCPS is evident in that the argument for fatalism in 9 does not always proceed by saying that fatalism follows if out of FCP pair  $p$  and  $\text{not-}p$  one must be true and the other false (RCP). Sometimes it proceeds just on the basis of the fact that if an isolated FCP must be one of either true or false (PB), then fatalism follows. As the fatalist in 9 says: if the desk is white now it was true ten thousand years ago to say that it would be white (*cf.* Aristotle 18b9). To be sure, every affirmation has its negation (*cf.* Aristotle 17a30).

So with the FCP “the desk will be white exactly ten thousand years from now” we are dealing with a member of a contradictory pair –the other member being: “the desk will not be white exactly ten thousand years from now”. But here the fatalist is just concerned with an isolated member rather than with the rule that one must be true and the other false. It suffices that the one he is considering alone is one of either true or false, as PB would have it.

What does Whitaker’s Aristotle have to say to the fatalist that does not want to talk about contradictory pairs, but only isolated FCPs? Scold him for not cooperating? Whitaker might insist: If you are talking about a FCP, then you are, like it or not, talking about a contradictory pair because the FCP in question is a member of such a pair. That is why Aristotle’s solution can simply be to say that it is not yet settled which member is true or which one is false.

To this the fatalist should offer the following response: “But didn’t you say I can still have PB?” After Whitaker responds “Yes”, the fatalist will just say that whatever value this one FCP has, it makes certain –if true– or impossible –if false– what it predicts. This I take it the fatalist meant from the beginning of his argument when he said: “if every affirmation or negation is true or false it is necessary for everything either to be the case or not be the case” (Aristotle 18a34). Because he has granted that PB is preserved, Whitaker cannot respond that this FCP has no value yet. His view then would have to shift to an interpretation that has Aristotle’s solution being that truth does not entail necessity, which Whitaker does not want.

Another problem for Whitaker’s interpretation is that, contrary to what Whitaker believes (*cf.* 1996 113), the first line of 9 seems to refer to PB –asserting that PB obtains with respect to statements concerning the present or the past. This is significant because the last line of the first paragraph seems to say –and this Whitaker seconds– that the principle to which the first line refers is not going to hold for FCPs. Let us look at how Aristotle opens 9.

[1] With regard to what is and what has been it is necessary for the affirmation or the negation to be true or false. [2] And with [a)] universals taken universally it is always necessary for one to be true and the other false; and with [b)] particulars too, as we said; but with [c)] universals not spoken of universally it is not necessary. But with [d)] particulars that are going to be it is different. (18a28-18a33)

It is clear that in the second line Aristotle is saying a) that when an affirmation and its negation are about universals taken universally (“every man is white” and “not every man is white”), or b) about particulars taken universally (“Socrates is white” and “Socrates is not



white”), then they are contradictory (as opposed to contrary) pairs –since the negation of an affirmation is its contradiction (*cf.* Aristotle 18a9)– and one member of each of these pairs must be true and the other false (RCP). Where RCP does not hold up, as Aristotle disclosed in the previous two chapters and is now reminding us in c), is in pairs of contradictory propositions about a universal not taken universally (“a man is noble” and “a man is not noble”). Then he says in d) that things are going to be different, that is, that this is not the case, when it comes to particular propositions about the future.

When it comes to c), sentence 2) rules out the possibility that 1) refers to RCP. Here is why. In c) Aristotle is referring to the two previous restrictions that he made to RCP. In particular, these restrictions showed that regarding what is, that is, what is present, it is not necessary for one member of the contradictory pair to be true and the other false. The thing is, if 1) refers to RCP, then 1) –the statement that it is necessary for the affirmation or negation about the past or present to be true or false– would be the statement that it is necessary that out of every affirmation-negation pair about the past or present one member must be true and the other false. This is significant because c) directly contradicts this. Hence if Whitaker is right about 1) referring to RCP, then Aristotle would be affirming something with sentence 1) that he directly contradicts in the very next breath, in part c) of sentence 2). And if that were not bad enough, the very lines prior to 1) state one of the cases of RCP-restriction to which c) is referring. What we have on Whitaker's reading of 1), then, is that 1) would be both a direct contradiction of the sentences directly preceding it as well as the sentence directly proceeding it. Although Whitaker takes the fact that 1) is sandwiched between references to RCP to be evidence that 1) must be referring to RCP (*cf.* 113), this cannot be the case.

From what I have shown, it is clear that 1) ought to be saying something that holds both at times when RCP is restricted in one of the two ways Aristotle previously pointed out it could be and at times when it is not. The only other option is that 1) is referring to PB and thus is saying that it is necessary for both the affirmation and the negation about the past or the present to be one of either true or false. But does PB hold when RCP is violated in the previous ways mentioned? And does it hold as well when RCP obtains? The answer to both is yes. When a pair of affirmations and negations about the past follows RCP, then clearly PB holds. And the two RCP-restrictions Aristotle brought up previously involved either both members of the contradictory pair being true or both being false. Clearly in either case PB holds.

Now that it is clear that PB is the rule to which 1) is referring, let me show that d) must be stating that this rule is not going to hold for

FCPS. If d) is not stating that PB is not going to apply to FCPS, then the only other option is that it is stating that the rule-restriction that was mentioned right before it in c), RCP-restriction, is not going to hold for FCPS. In one sense at least this is a quite natural reading. For d) says that in regards to FCES this will not be the case, and it is natural to understand by “this” here what the preceding line, c), stated: RCP-restriction. If this is the correct reading, then this means that RCP *will* hold for future-tense propositions about particulars. In this case, we will have as well PB preserved. And so for fatalism not to follow, it must be the case that Aristotle is denying that truth entails necessity. The thing is, it does not seem that RCP is what is upheld. As the end of 9 shows, the opposite is the case. Aristotle ends, as he did in the previous two chapters, with voicing how RCP is *restricted* for FCPS:

it is not necessary that of every affirmation and opposite negation one should be true and the other false. For what holds for things that are does not hold for things that are not but may possible be or not be. (19a39ff)

We ought to go with the other view, then: that 1) is what d) is not going to be like, in which case FCPS will not be either true or false.

If Aristotle begins with saying there will be a restriction of PB, is it not odd that he concludes with saying there is a restriction on RCP? Not when it is precisely the restriction of PB that entails a restriction on RCP, which is something that should already be clear given that a) RCP requires PB and that b) Aristotle goes back and forth about talking about pairs of contradictory FCPS (how if one must be true and the other false then fatalism seems to follow) and FCPS in isolation (how if every FCP is one of either true or false then fatalism seems to follow). Let us look at the end again.

[I]t is not necessary that of every affirmation and opposite negation one should be true and the other false [RCP-restriction]. For what holds for things that are does not hold for things that are not but may possible be or not be. (Aristotle 19a39ff)

As Aristotle told us at the beginning of 9 when he said that each affirmation and opposite negation about the present or past will be one of either true or false, what holds for things that are, *present* things, is precisely PB. He is saying, then, that PB is what does not hold for things that are not but may possibly be, and that this is precisely the reason for the RCP-restriction. So because PB does not hold for these things, we have now an explanation for what turns out to be, as Whitaker is right to note, the third exception to RCP in 9. Unlike the other restrictions of RCP, what is unique about this one is that it is a consequence of a restriction of PB.

“Wait”, one may interrupt me here. “Could not it be the case that ‘by what holds for things that are’ (19a39ff) Aristotle means RCP?” Here is one reason not to accept this. If this view is supposed to mean that, in the end, PB is maintained whereas RCP is not, then what is suggested is going to be restricted at the beginning does not end up being restricted at the end. In addition, we get the incoherent view again of Whitaker’s that I addressed above. Moreover, by the “what” in “what holds for things that are” (19a39ff) Aristotle cannot mean RCP. Indeed, this is for the same reason that he could not mean RCP in the first sentence of 9: it is not the case that, out of any affirmation and opposite negation about *all* things that are, one will be true the other false. Aristotle has shown that there are exceptions to RCP for contradictory pairs of propositions for *things that are*. Therefore, while Aristotle is restricting RCP at the end of 9 (*cf.* 19a39), the reason he gives for it is that he is restricting PB (*cf.* 19b2).

Now is a good opportunity to move on to the interpretation that sees Aristotle denying that truth entails necessity as opposed to restricting PB. No view of necessity could be meant by “what holds for things that are but does not for FCES”. This rules out the interpretation since it is precisely the denial or restriction of that which Aristotle means to indicate by the term *what* here that is Aristotle’s solution to the argument for fatalism. Let me explain why this is the case.

First let me lay out the options for what Aristotle can mean for “what holds for all things that are here” (19a39ff). By “what holds for things that are” (*ibid.*), Aristotle can mean that the propositions about them have one of the two possible truth-values, that they are unconditionally necessary, that is, have always been bound to occur at all times prior to when they occurred and so are unalterable even before they are occurring or have occurred, or that they are merely temporally necessary, that is, made unalterable merely by the fact that they are already occurring or else by the fact that they have already occurred. In short, by *what* in “what holds for things that are” (*ibid.*) Aristotle could mean PB, unconditional necessity, or temporal necessity.

Now, let me explain why Aristotle is not going to mean either of these two senses of necessity by the term *what* here. Clearly he is not going to mean that unconditional necessity holds for things that are. That would be to admit fatalism, which he denies (*cf.* Aristotle 19a24). And this is not even to mention the fact that if Aristotle’s solution to the argument for fatalism is to deny that truth implies unconditional necessity, then there would be no reason for him to be restricting RCP here at the conclusion of 9 anyway. Now, it is also clear that Aristotle is not going to mean that temporal necessity holds for things that are but does not hold for things that are not but may possibly be or not be.

Again, temporal necessity refers both to the necessity something has when it is (insofar as when it is it cannot at the same time not be) and to the necessity something has when it is past (because it cannot now be undone) (*cf.* Taylor 10-11). So think about it. It being the case that temporal necessity does not hold for all things that are not but purportedly may be or not possibly have yet to arise, that is, it being the case that all supposed FCEs have not been made unalterable since they have not even happened yet, does nothing to thwart fatalism. When one of the purported FCEs in question has been made unalterable by the lapse of time, the fatalist will just say that it was true from time immemorial that that FCE was going to happen. So the solution to the fatalist's argument must be either a) to restrict PB for FCPS or b) to deny that truth implies unconditional necessity. As I just argued, however, the interpretation that the solution is b) is ruled out by the text.

I believe that what I have said rules out the interpretation that Aristotle's solution to the fatalist's argument is to deny that truth implies necessity. Nevertheless, I will take the time to address individually the two ways to construe Aristotle's denying that truth implies necessity. My reason for continuing to build a case against this interpretation is not simply because more evidence cannot hurt. And it definitely cannot hurt given that some have claimed, I believe, that Aristotle did not write the last two sentences of 9, which are the sentences from which I have drawn most of my previous arguments against this interpretation. Continuing to build a case against this interpretation will also give me the opportunity to explain why I believe that the restriction of PB is necessary for FCPS. Not only will this count (at least slightly) as additional evidence for my claim that PB-restriction is Aristotle's solution to the argument for fatalism in 9, it will also show that this solution makes good sense, which I want to do since the task of my paper is to show that Aristotle's solution succeeds.

Now, what are the two ways to construe Aristotle's denying that truth implies necessity? a) Aristotle could be denying that truth entails necessity in spite of the fact that the FCP always has the truth-value of what will be true, that is, in spite of the fact that whatever ends up turning out true was always true. Or else, b) he could be denying that truth entails necessity because a FCP being true is only a matter of it being more probable than it being false at the given time it is imagined to be uttered, and its being false is only a matter of it being less probable than it being true at that given time.

What b) has going for it is that if what is true is what is merely probable, then (unlike the case with a)) it is clear why the truth that an event will occur is not guaranteed. What is merely probable is by

definition what is not guaranteed. So assuming that  $p$  is “a sea-battle will occur on 4-27-3003,” it follows according to b) that if at the time of imagined utterance –say 1-11-1000–  $p$ -event occurring was more probable than it not, then  $p$  is true. But since true only means probable here,  $p$ -event is not certain to happen. What b) does not have going for it, though, is that (unlike the case with a)) even if it happens to be that  $p$ -event does not occur when 4-27-3003 comes around, it seems not to be the case that on 1-11-1000  $p$  was false. Again, this is because on 1-11-1000  $p$  was true insofar as it was more probable to occur. The problem is, it just feels right to say, as Aristotle himself seems to (cf. 18b9), that if  $p$  proved false on 4-27-3003, then it was true to say, even back at 1-11-1000, that  $p$  was false.

To this, a proponent of b) will respond in the following way, I think. Once it has already been settled by the lapse of time that not- $p$  is the case, then it is the case indeed that on 1-11-1000  $p$  was false. How can this be when on 1-11-1000  $p$  was true –true because it was more probable? We must make a distinction here. On the one hand, there is  $\alpha$ -1-11-1000, that is, 1-11-1000 as it is before the event (and so too before the future-coursing path that led to it) actualized *before the event (and so too before the future-coursing path that led to it) actualized*, where by this I mean to indicate the 1-11-1000 that only has possible-to-be-actualized but nonactual future-paths forking from it. On the other hand, there is  $\beta$ -1-11-1000, that is, 1-11-1000 as it is before the event (and so too before the future-coursing path that led to it) actualized *after the event (and so too after the future-coursing path that led to it) actualized*, where by this I mean to indicate the 1-11-1000 that only has one actual future coursing from it: the one that ended up actualizing. It is because at  $\alpha$ -1-11-1000 the predicted  $p$ -event was more likely to occur than not that I say  $p$  is true at 1-11-1000. And it is because at  $\beta$ -1-11-1000 the predicted  $p$ -event could not but fail to occur that I say  $p$  is false at 1-11-1000. Realize that  $\alpha$ -1-11-1000 and  $\beta$ -1-11-1000 capture two deep-seated intuitions that we have. On the one hand,  $\alpha$ -1-11-1000 captures our intuition that if the future is truly open to some extent (which itself we find intuitive), then FCPS being true or false is going to be a matter of the FCES they pick out being more or less probable to occur than not to occur. If today “the admirals are confident and in a fighting mood, and their intelligence underestimates the power of the enemy” (Hintikka 488), then –unless some additional states of affairs obtain that actually make it unlikely that the battle will begin–tomorrow’s sea-battle is likely to occur, in which case the prediction that it will is true now. On the other hand,  $\beta$ -1-11-1000 captures our intuition that once the future date in question unfolds, such that any

predictions about it are now settled, it would be strange to say that a prediction that turned out true was not true prior to the future unfolding. “When we are actually standing on deck with a sea-battle going on all around, it is tempting to think that my earlier assertion [that there would be a sea battle on this date] was true” (Brogaard 327).

This proponent of b) makes a good point. She is onto something important, I think, with this distinction between  $\alpha$ -1-11-1000 and  $\beta$ -1-11-1000. There is at least one fatal flaw with b) being true of Aristotle, however: Aristotle thinks that some FCEs are equally likely to occur as not to occur. To be sure, some things are more probable to occur than not for Aristotle. As a rule, we might say, men do not live past 150 years of age. In this case, it is more probable that I will not live past 150 years of age than that I will –although, Aristotle says, it is still possible that this will not happen (cf. 19a22). However, he says that “some things happen as chance has it, and of the affirmation and the negation neither is true rather than the other” (19a19). By this he means that some things are equiprobable to occur.<sup>3</sup> For right after he says “some things happen as chance has it” (19a19) he says “with other things it is one rather than the other as a rule, but still it is possible for the other to happen instead” (19a20). Things that happen more often than not as a rule are those things that are more probable than not to occur. The implication of Aristotle describing these more-probable-to-occur-than-not-to-occur things as the “other things” is that the first things are those that are equally likely to occur or not occur. So because he does believe that some events are equally likely to occur, if the FCE that FCP  $p$  picks out is equally likely to occur as not occur at least at the time when it is imagined  $p$  is being uttered ( $\alpha$ -1-11-1000, of course), then she would have to admit that  $p$  is not one of either true or false. For at  $\alpha$ -1-11-1000 there are, as the proponent of b) herself admitted, many possible paths forking forwards to the future date in question: 4-27-3003.

It may be that Aristotle considers some FCPs true when the FCEs they pick out are, given the ontological states of affairs at the imagined time of utterance, more likely to occur than not.<sup>4</sup> But surely it is odd to say that since not- $p$  –“on the next toss of the die the result will not be a three”– has a probability of 5/6 it is true. Would not it be right just to say that it is *more likely*? I guess on this interpretation the usual strength of the word “true” will be found in the phrase “necessarily true” or as Boethius and Ammonius, who might also be

3 Hintikka seems to be making the same criticism of this view, although he does not address Anscombe as the one who holds it (Hintikka 488).

4 Anscombe, a proponent of b), seems to believe that this is the case (cf. 8).

advocates of this view, say: “definitely true” (*cf.* Sorabji 93).<sup>5</sup> In this case I guess it is not odd that not-*p* is true because we still have a way to indicate true-true (with “necessarily true”), and not-*p* is not true-true. It will only become true-true, necessarily true, when the lapse of time settles the issue. But even if all this is true of Aristotle, this still does not do away with my interpretation that Aristotle restricts PB. For there truly are FCEs that, for him, are equally likely to occur as not to occur. This, along with other pieces of evidence, is why interpretation b) must be dropped.

I will turn now to interpretation a), that FCPs have always had the truth-value they will have when the issue is settled, and yet that does not mean that the FCEs they predict must occur. According to this interpretation, if *s* actualized on 4-27-3003, then the FCP predicting it was always true, even on 1-11-1000. See, PB holds for all propositions, including FCPs. And surely it is the case that the existence of a proposition does not rely on it having been uttered. In this case, at any arbitrary point in the actual past, such as 1-11-1000, we can imagine one uttering this FCP, and it will have been true then. And yet, so the view goes, its truth does not entail the necessity of this event.

How can this be? Turn to the previous distinction between  $\alpha$ -1-11-1000 and  $\beta$ -1-11-1000. There are two ways to regard the actual point in time 1-11-1000. On the one hand, there is  $\alpha$ -1-11-1000, that is, 1-11-1000 as it is prior to *s* actualizing, and thereby prior to the actualization of the one and only path to 4-27-3003 that will end up actualizing from the actual point at 1-11-1000, when in the future beyond 1-11-1000 myriad merely possible but nonactual paths forking towards 4-27-3003 is all there is. In short, there is 1-11-1000 considered relative to *before s* and this path actualized, considered relative to before these actualized in the sense of relative to when any of the possible but non-actual paths forking into the future truly had a chance at actualizing. It is of course permitted to regard 1-11-1000 in this way, which is something with which Aristotle would agree given that he holds that not everything that is necessarily is (*cf.* 19a24). For on the assumption that fatalism is false, that is, on the assumption that “the future is partially undetermined and in its very nature ambiguous” (Taylor 26) such that “an omniscient being would have to comprehend it just that way” (*ibid.*), there had to be a 1-11-1000 from which forked into the future many merely possible but non-actual paths –paths any one of which could actualize. For this reason, one who said that *p*-event

5 Boethius and Ammonius say that all FCPs are one of either true or false for Aristotle. It is just that they are not definitely true or false until the lapse of time settles the issue (*cf.* Sorabji 93).

might or might not occur, and thus that  $p$  is not one of either true or false, would be right on 1-11-1000 considered this way.

On the other hand, there is  $\beta$ -1-11-1000 as it is prior to  $s$  actualizing, and thereby prior to the actualization of the one and only path to 4-27-3003 that did end up actualizing from the actual point at 1-11-1000, when in the future beyond 1-11-1000 the one and only path to 4-27-3003 that actualized from the actual point at 1-11-1000 is all there is. In short, there is 1-11-1000 considered relative to *after*  $s$  and this path actualized, considered relative to after these actualized in the sense of relative to when there was only one path that could have actualized: the one that did. It is of course permitted to regard 1-11-1000 in this way, which is something with which Aristotle would agree given that he does give voice to the highly intuitive fact that if  $p$ -event occurred it would have been true to say it would occur (*cf.* 18b9). For even on the assumption that fatalism is false, 1-11-1000 regarded this way has only this one path shooting from it that could have actualized. For this reason, one who said that  $p$ -event will occur would be right on 1-11-1000 considered this way. Fatalism, of course, is not entailed by 1-11-1000 considered this way because the reason why there is only one path shooting from it is not that that path was necessitated to occur prior to it occurring, but rather simply because the lapse of time imposed a necessity upon it. The idea is, then, that fatalism is not entailed by  $\beta$ -1-11-1000. After all, it was true that  $\alpha$ -1-11-1000 really obtained.

It is plain to anyone that if we are saying that on  $\alpha$ -1-11-1000  $p$ -the FCE stating “ $s$  will actualize on 4-27-3003” –was true, then this means that  $s$ , the nominal terminus of  $q$ -path and many other possible paths as well, was fated to actualize. It is plain to anyone that if FCP  $q$ , which predicts that the path that did end up actualizing from the actual point at 1-11-1000 to 4-27-3003 will actualize, was true on  $\alpha$ -1-11-1000, then the  $q$ -path was fated to actualize. Think about it. On the supposition that fatalism is false, there is such a 1-11-1000 as  $\alpha$ -1-11-1000. From  $\alpha$ -1-11-1000, which we are supposing to be the nominal terminus of an actual path stemming from the remote actual past, myriad possible-to-actualize but nonactual paths from 1-11-1000 fork towards 4-27-3003:  $n$ -path,  $o$ -path,  $p$ -path,  $q$ -path,  $r$ -path, and so on. If FCP  $q$ , which says that  $q$ -path will actualize, is true on  $\alpha$ -1-11-1000, then that just means there really is no plurality of possible paths after all. Is not it so very clear, then, that  $q$  must not be one of either true or false on  $\alpha$ -1-11-1000?

If 4-27-3003 has already arrived, then when one thinks of  $q$  being uttered on 1-11-1000, one must be careful not to let the fact that the issue has already been settled prevent one from considering 1-11-1000



as  $\alpha$ -1-11-1000, the way 1-11-1000 was prior to any path starting to actualize from it towards the future. That, I think, is what is happening with these people who think that  $q$  being true on 1-11-1000 does not entail that the  $q$ -path was fated. Instead of assessing  $q$  relative to all the possible-to-actualize paths, that is, relative to  $\alpha$ -1-11-1000, they assess  $q$  only relative to the one path that did in fact actualize:  $q$ -path. What else could explain why they are so confident that  $q$  being true on 1-11-1000 does not entail that  $q$ -path was fated to occur except that they in effect assess  $q$  only relative to  $\beta$ -1-11-1000?<sup>6</sup>

Here is the problem. The mere fact that  $q$  is true on  $\beta$ -1-11-1000 does not suffice to show that  $q$  can be true on 1-11-1000 without any implications of fatalism. A necessary condition of  $q$  not having been fated is that there actually was  $\alpha$ -1-11-1000. For the explanation for why  $q$ -path did not have to actualize is that forking into the future from 1-11-1000 were myriad possible but non-actual paths, any of which could have actualized, among which  $q$ -path –as it was only as a mere possible path, of course– was only one. So if we are being thoroughgoing in our investigation as to whether or not  $q$  being true on 1-11-1000 testifies to fatalism, then we cannot avoid seeing what is meant by  $q$ -being true on  $\alpha$ -1-11-1000. Think about it.  $q$  being true on  $\beta$ -1-11-1000 only tells you that  $q$ -path has already actualized and so is now past and so has the irrevocability that the lapse of time imposes on all things, even the contingent. To be sure, that  $q$ -path has such temporal necessity does not mean that it was fated to actualize in the first place the way that for Aristotle the sun rising is.<sup>7</sup> However, that does not mean that it was not fated either. The thing is, that there was  $\alpha$ -1-11-1000 guarantees that it was not fated. Therefore, given the assumption to which the interpreters in question themselves say they ascribe, that fatalism is false, one must assess  $q$  relative to  $\alpha$ -1-11-1000. What we find when we do is that  $q$  is not one of either true or false. For forking from  $\alpha$ -1-11-1000 are many possible paths any one of which could actualize, not just  $q$ -path.

Let me repeat the point in a different way. On the one hand, intuition tells us that since myriad other *truly* possible-to-actualize paths forking into the future *truly* could have actualized,  $q$  is not one of either true or false on 1-11-1000. After all, that  $q$ -path might or might not have actualized is a necessary inference from the fact that other paths besides it *truly* could have actualized. This intuition, it is clear, is only correct when we are considering 1-11-1000 qua  $\alpha$ -1-11-1000,

6 I have in mind people such as Baylis (*cf.* 162).

7 On this idea that Aristotle would regard the sun's rising to be a matter of necessity see Anscombe (*cf.* 14).

though. On the other hand, intuition tells us that since  $q$ -path did actualize,  $q$  is true on 1-11-1000. After all, that  $q$ -path was going to actualize is a necessary inference from the fact that it did actualize (cf. Cicero §18; Aristotle 18b10). This intuition, it is clear, is only correct when we are considering 1-11-1000 qua  $\beta$ -1-11-1000, though. Now, nothing precludes us from considering 1-11-1000 qua  $\beta$ -1-11-1000 even on the supposition that fatalism is false; fatalism being false does not necessarily mean that this second intuition leads us wrong, in other words. It is just that there is  $\alpha$ -1-11-1000 as well on the supposition that fatalism is false. But if there is  $\alpha$ -1-11-1000, then it is absurd to hold the view that PB always applying to FCPs does not testify to the fact that fatalism is true. The FCP  $p$  is not one of either true or false on  $\alpha$ -1-11-1000 due to considerations of symmetry:  $p$ -event is slated to actualize on some possible paths into the future but not on others.<sup>8</sup> Indeed, Aristotle would even say that since the future is thus unsettled in regards to whether  $p$ -event will actualize,  $p$  at  $\alpha$ -1-11-1000 is actually *caused* to be unsettled in regards to its truth-value. The idea is that  $p$ 's truth-value does not just reflect (cf. Aristotle 4b8, 19a32), but is actually caused by the way things are (cf. Aristotle 14b22), and the way things are is unsettled.

In the end it is important to realize that the PB-restriction when it comes to  $p$  relative to  $\alpha$ -1-11-1000 not only is required both in truth and for Aristotle on the assumption that fatalism is false, but it also actually explains why the determinate truth-value assigned to it after what it predicts comes true does not testify to the fact that fatalism is true. Regarding this second point, then, the interpretation that Aristotle denies that truth entails necessity is only incorrect so far as it is construed as excluding the interpretation that he restricts PB when it comes to FCPs.

## II

Aristotle's view is as follows: while a disjunction of FCP  $q$  and not- $q$  is always true (LEM), and while both  $q$  and not- $q$  are one of either true or false on  $\beta$ -1-11-1000 (PB), neither  $q$  nor not- $q$  is one of either true or false on  $\alpha$ -1-11-1000 (PB-restriction).<sup>9</sup> I will now field some objections

8 Since the FCE will actualize on some possible future and yet not on others, the FCP that picks it out is not true in every case and yet not false in every case. Hence it is not one of either true or false. If, say, the FCE did actualize on every possible future, then symmetry considerations would compel us to say that it was true. For more on this idea, see van Fraassen (1966 28-35).

9 Many agree that something like this is Aristotle's view in 9 (cf. Kneale 47; Prior 1953 325-326 and Taylor 2).

either to the effect that Aristotle did not hold this or that this is incoherent in itself.

*Objection 1:* Aristotle tells us at the end of Chapter 4 that for the rest of the time he will only be dealing with propositions, or what he calls “statement-making sentences” (16b33-17a7) of which affirmations and negations are types (cf. 17a20-21). These are the sentences that are not merely significant, as are all sentences, but are also true or false. So lest we suppose that Aristotle is breaking his promise, this must mean that FCPS are true or false. Indeed, what he says a little bit later corroborates this. He explains that when “is”, “was”, “will be”, or something of the sort is combined with a name or some other significant spoken sound the result is a sentence that is always true or false (cf. 16b3, 17a11). Yet you are saying that Aristotle's solution is to make FCPS neither true nor false, in which case you would have him contravene his own position: that PB holds for affirmations and negations, that is, for statement-making sentences (cf. 16b35-36).

*Reply:* FCPS are one of either true or false in a sense: the  $\beta$ -1-11-1000 sense, if you will. This alone, I know, does not save me. For it is still the case that on  $\alpha$ -1-11-1000 FCPS are not one of either true or false. But I bring it up in order to highlight that it is not so simple to say that PB does or does not apply to them. Given the complexity of the issue, it is reasonable to assume that Aristotle avoided getting into it for the sake of clarity. At these earlier points in the text, such as at Chapter 4, his objective is to express how significant spoken sounds come to have truth and falsity ascribed to them. As a rule they must have a verb or an inflexion of a verb (cf. Aristóteles 17a10). Aristotle would have needlessly complicated things by pointing out that adding “will be” does not always make the significant spoken sound one of either true or false when the matter being predicted by the resultant proposition is a FCE. And he would have complicated things a whole lot more if he then turned around and pointed out that there is, however, a sense in which the resultant proposition predicting the FCE can be –so long as the issue has already been settled– nevertheless one of either true or false. Moreover, it is just not typical of a dialectal thinker like Aristotle to jump the gun by mentioning this thorny issue to come. He is building up to it in front of us so that it comes up organically. Indeed, by not addressing exceptions to the rule as to how significant spoken sounds become one of either true or false, when he does bring it up it stands forth more starkly, which I think is somewhat the point. The effect is that in dealing only with statement-making sentences he “comes upon” the ones that seem to entail fatalism.

*Objection 2:* It is wrong to say that LEM, the rule that, “two contradictory propositions cannot be false simultaneously” (Lukasiewicz

1967b 52), can obtain and yet not as well PB. If the only options are *p*-event or not-*p*-event, then it must be one of them. Say it is *p*-event. In this case the FCP predicting that *p*-event would occur is true. Restricting PB demands restricting LEM, which is what Lukasiewicz –himself no mean logician– seemed to realize (cf. 1967a 16-18). But as you pointed out, Aristotle affirms LEM. This fact alone does not guarantee that he does not restrict PB. However, if you look at *Categories* 2a8 and 13b2 he does seem to endorse PB, which I would guess is because he so wholeheartedly endorses LEM.<sup>10</sup>

*Reply:* First, in *Categories* 2a8 Aristotle says that “every affirmation, *it seems*, is either true or false” (emphasis added). I think the “it seems” is significant here. Aristotle at least had an intuition that, in the case of FCPs, this principle is violated.

Second, in 13b2 Aristotle says that in regards to an affirmation and its negation “it is necessary always for one to be true and the other one false.” This is not an expression of PB, but rather RCP. Moreover, RCP gets violated in many ways, as we know. The importance of this is not only that one of these restrictions is a consequence of PB-restriction, as I have shown. It also allows me to remark that if Aristotle is able to restrict, as he clearly does in 19a39ff, a principle that he worded so strongly as to suggest it never could be violated –and here I call your attention to his phrase “it is necessary always” in the above 13b2 passage– then surely he is willing to restrict a principle he worded so weakly as to suggest he was unsure about whether there were any violations –and here I call your attention again to his phrase “it seems” in the above 2a8 passage.

Third, and most importantly, you *can* restrict PB without restricting LEM in the case of FCPs. Indeed, the ontological states of affairs demands it. Some futures lead to *p*-event actualizing, others do not. No future, however, does not lead to one or the other. Hence *p* or not-*p* exhausts the possibilities, meaning that LEM is true. The thing is, we cannot say *p* is one of either true or false precisely because there are myriad possible futures any of which can actualize. As I noted above, in fact, *p* is actually *caused* to be bereft of truth-value precisely for the reason that *p*-event obtains in some possible futures but not in others. So while the ontological state of affairs demands the preservation of LEM since every possible future either contains or does not contain *p*-event, the ontological state of affairs also demands the restriction of PB since it is unsettled which future will actualize.

.....  
10 Sorabji points these two passages out as evidence that Aristotle endorses PB (cf. 95). Williams says that all theories that deny that a proposition about the future is one of either true or false are absurd (cf. 294).

*Objection 3:* You say that  $p$  is not one of either true or false and that the same goes for not- $p$ . It follows that you say that neither  $p$  nor not- $p$  is true. This is something the denial of which Aristotle endorses (cf. 18b17-25), which thereby disallows your interpretation of what Aristotle's solution to the argument for fatalism is. That he would reject this solution is for good reason. For even if what you have said is sound proof for the fact that  $p$  is neither true nor false and that the same goes for not- $p$ , and thus that neither  $p$  nor not- $p$  is true, this entails an absurd result: that the 4-27-3003  $p$ -event neither will nor will not happen. But if  $p$ -event neither will nor will not happen, then it follows that  $p$ -event certainly will not happen. This is either because other events will occur on 4-27-3003 to prevent it or because, given the impossible states of affairs of both  $p$ -event happening and yet not happening, reality itself is destroyed, undone. To be truer to Aristotle, I suggest that you not go with the latter given that he holds that some things, such as certain celestial movements, are eternal and thereby cannot be abolished (cf. 1072a21-25). Regardless of your choice, though, it is patent that this just means that  $p$  is false, *not* neither true nor false. What we have, then, is PB after all. You yourself just said that every possible future leads either to  $p$ -event or, if not, then not to  $p$ -event. Yet strangely you say that  $p$  being neither true nor false reflects this open future. How can it reflect that future when never in the future can  $p$ -event neither actualize nor not actualize?<sup>11</sup>

*Reply:* PB not holding for  $p$  on  $\beta$ -1-11-1000 would entail these problems. That would mean, you see, that despite the fact that the future has already been settled, neither  $p$ -event actualized nor not- $p$ -event actualized; it would mean something impossible: that the future ends up being no way regarding  $p$ -event. However, PB not holding for  $p$  on  $\alpha$ -1-11-1000 does not entail these problems.  $p$  being neither true nor false on  $\alpha$ -1-11-1000, and therefore corresponding with the state of affairs in which there are myriad possible paths forking into the future, just means that the future is not settled concerning this matter, that is, that it is not already locked in whether  $p$ -event will occur or not. That is all. This fact highlights why  $p$  being neither true nor false on  $\beta$ -1-11-1000, relative to which the future *is* already settled, would be problematic. Relative to  $\beta$ -1-11-1000,  $p$  must reflect the future as it truly unfolded, as it was settled by the lapse of time. For this reason,  $p$  must be one of either true or false. To say otherwise, that  $p$  is neither true nor false, would be to say that the future turned out no way regarding  $p$ -event, that  $p$ -event neither happened nor did not happen. Those who

.....  
 11 This general sort of criticism is presented by many commentators (cf. Albritton 1957; Hintikka 482; Sorabji 93; Cicero §38; Anscombe 4).

raise the objection in question are acting as if I am claiming that it is neither true nor false on  $\beta$ -1-11-1000, which would be absurd.

I do not deny that if neither  $p$  nor  $\text{not-}p$  are one of either true or false then that means that both are not true. Some who try to counter the objection at hand avoid saying that both being not true means that both are false, sometimes even saying that it is wrong to say this (cf. Taylor 2). Why do they? Because they know that the usual implication of both being false is that each one's opposite is true, which is how the fatalist for whom Aristotle is speaking in this bit of text is taking it, but which is not how Aristotle in his own voice takes it. Realize, though, that we do not have to deny that both not being true means that both are false. Instead, we just have to be open to the fact that their both being false indicates something different than what we may normally think, which again is that each one's opposite is true. For Aristotle, that both are false does not testify to an impossible state of affairs obtaining in the future, which we are led to think it does if we take neither  $p$  nor  $\text{not-}p$  being true as affirming that each one's opposite is true. Rather, it just testifies to the fact that the future is undecided as of yet whether  $p$ -event will occur (cf. Aristotle 19a37).<sup>12</sup> The fatalist who is raising this objection in 18b17-25 is assuming, for his own benefit, that both being false means, however, that each one's opposite is true, not that each is undecided. Insofar as he does, he is taking advantage of the fact that that is the usual implication if members of a contradictory pair are both false. Aristotle should not be read as personally ascribing to this sense of what it means for neither to be true. After all, at this point in the text he is speaking for the fatalist.

*Objection 4:* I think that we can avoid restricting  $\text{PB}$ , and so too avoid the quandaries that arise when we do, and yet still retain the encouraging results that came with restricting it: that the future is open to some extent. Relative to all the possible futures that course from  $\alpha$ -1-11-1000,  $p$  is surely not true for the reason that you have expressed: the future in front of it is not yet settled. But instead of saying that  $p$  is not one of either true or false, we ought to just say that  $p$  is false. And, for the same reason, we could say that  $\text{not-}p$  is true (cf. Prior 1967).

*Reply:* The problem with this solution is that it is only an apparent preservation of  $\text{PB}$ . See,  $p$  is false on the account just given because it is not true. As you admit, it is not true because it is not yet settled. The thing is, that it is not yet settled just means that it is not one of either true or false, that it is neither true nor false. You can retort: "But that it is neither just means that it is false." In turn, I could say that it is false

.....  
12 Sorabji does not see this second sense. He just points out that the view that both propositions are false contradicts 18b17-25. Neither does Hintikka nor Anscombe.

because it is not true, and that it is not true because it is not settled, which means that it is neither true nor false.

It only takes circling this circle a couple times to see that your notion of false is special. The ordinary false would mean that the opposite is true: there will be a sea-battle on 4-27-3003. Your notion of false, however, is different from the ordinary false, the false intended when  $p$ -event turns out not to happen. Your false really means neither true nor false. Surely you will be eager to admit this when –assuming that  $p$ -event occurs –you are confronted by a mob yelling: “It is ludicrous that you say the prediction was false when –look– it came out true. Your view is no good.” If you care about the mob you will explain: “No, I meant false in a different sense –a sense that does not mean that its opposite is true”. And when the mob looks like they are about to burn you for such witch talk, you will finally assert: “I mean false in the sense of neither true nor false.” Your so-called restoration of PB, then, is just an expression of PB-restriction.

*Objection 5:* You affirm that if the FCP is true in advance, then the event it predicts will actualize is fated to actualize. There is never any argument for this, though. Explain to me why it the case that “if it is already true that a thing will happen ... there can be no possibility that it will not” (Albritton 38).

*Reply:* FCP  $p$  uttered at  $\beta$ -1-11-1000 is true. Yet that does not mean that  $p$ -event had to happen. The only reason for this, though, is that there truly is  $\alpha$ -1-11-1000. The thing is,  $p$  being true here *does* mean that there can be no possibility that it will not happen. You say no argument is given for why. But it is actually quite simple:  $p$  being true on  $\alpha$ -1-11-1000 means that every possible future extending from 1-11-1000 contains  $p$ -event, in which case  $p$ -event is bound to actualize.

*Objection 6:* As you just suggested, there seems to be something about the world on  $\alpha$ -1-11-1000 that makes it the case, on your view, that  $p$  is not in fact one of either true or false. But if this FCP's truth-value or lack thereof really depends on how the world is as the time when it is considered being uttered, 1-11-1000, do not you have to deny not only that  $p$  is one of either true or false but also, and contrary to what you want to do, that the proposition about a contingent event in the past prior to 1-11-1000, proposition  $z$ , uttered on 1-11-1000 is one of either true or false? It would seem you do. See, if you are to be consistent, the present that is 1-11-1000 must be such a way as to provide for the truth of  $z$  just as you are demanding that it be such a way as to provide for the truth of  $p$ . The thing is, nothing about the present state of the world at 1-11-1000 seems to provide for the truth of  $z$ ? Do you see the problem? If you are going to argue that the prediction about the future is not one of either true or false on the grounds

that there is no fact presently that requires it being so, then you must say –absurdly– the same things about the past. Now, you personally can always take what seems to be the Lukasiewicz route and say that  $z$  is no longer true on 1-11-1000. But I think what I just pointed out compels us more so to question the restriction of PB for FCPS (cf. Baylis 162; Williams 294-295).

*Reply:* With regard to the past we are talking about the past that actualized, the path from the past to now, which as you said we are assuming to be 1-11-1000. For sure, there are other histories branching back from now, whether we consider now qua  $\alpha$ -now or qua  $\beta$ -now. However, they are surely not actual given that only one history actualized: the one that actualized. And while they were at one point possible paths to the future, that is, to our now (1-11-1000), they no longer have the possibility of becoming actual because the issue has been settled by the lapse of time: one of the paths already did actualize. Now, we may not know if the past event in question occurred. But it either did or did not. That is for sure. *Plus* it *has* already been settled which, it being the past and all. Things are different when it comes to the future –the future relative to  $\alpha$ -now, of course. We know that the event predicted by the FCP uttered on  $\alpha$ -now did not yet occur. But it either will or will not happen. That is for sure. *Yet*, lest fatalism be true, it *has not* been decided which, it being a FCE and all.

Although you do not realize it given that  $p$ -event is in the future relative to 1-11-1000, by considering 1-11-1000 qua  $\beta$ -1-11-1000 you conceive of  $p$ -event in terms of a past event.  $p$  in turn put on a par with the proposition that picks out something contingent in the past, it is no coincidence that you find it odd that  $p$  cannot be one of either true or false when a proposition about the past can be.

### III

I have argued both that Aristotle's solution to the argument for fatalism is to restrict PB for FCPS and that this solution is coherent. The solution being in itself coherent of course still does not guarantee its particular success as a counter to the argument for fatalism in 9. This counter I see as being composed of two moves: a) a highlighting of why fatalism does not accord with how things stand to us in our everyday lives and b) a restricting of PB for FCPS. I will now explain that while a) does not refute fatalism it does have the rhetorical effect of emphasizing that the burden of proof is on the fatalist and that a fatalist victory will not come so easily. Then I will explain that while b), even in light of a), does not refute fatalism either, it nevertheless does block the implicit reductio argument for fatalism presented in 9.



The supposition that fatalism is false is well-founded phenomenologically. Were fatalism true there would be no need to do what we normally do: deliberate and trouble ourselves with such thoughts as “if I do this, that will happen; and if do not do this, that will not happen” (cf. Aristotle 18b31). This is because whatever will happen was always bound to happen at every point in time prior to the actual happening. But we do deliberate. This is significant because the practice of deliberating about how to act seems to presuppose that those undertaking this practice have a genuine say in the matter, where to have a genuine say in the matter means that the choosing of what to do in light of the deliberating has not already been decided.

Of course, the very fact that we do deliberate is not sufficient to show that fatalism is false. That the falsity of fatalism is not the condition of the possibility for deliberation is clear in that in a fatalistic universe we can still deliberate. We will be sitting there, trying to figure out how to act, as if we really have a choice in the matter. Now, it may be that *genuine* deliberation does require fatalism being false, our having true choice in the matter. Alas, Aristotle never makes an argument to show that humans do engage in this so-called *true* deliberation. Because all he ever says on this issue is simply *that* humans deliberate, and does not as well demonstrate why the behavior we might label “deliberation” is in fact a considering of alternative futures each of which could very well come about, it is clear that his bringing up the fact that we deliberate, while not sufficient to disprove fatalism, highlights that fatalism is inimical to how things stand to us, and thus is effective at bolstering the antifatalist position to which he personally ascribes.

The same can be said for the other case Aristotle makes as to why fatalism being true does not align with our practical belief in a future that is open to some extent. He points out that if fatalism is true, then at any point in time before John's cloak wore out it was bound to wear out. Aristotle's response is that we can easily observe –especially in light of the fact that John's wife had been threatening for years to cut his cloak up– that this cloak wore out *before* it was cut up. The thing is, saying that the cloak wore out *first*, that is, before it was cut up, suggests that it was *possible* for the cloak to have been cut up.

Now, if this were truly possible, then fatalism would be false. Just like before, however, Aristotle does not definitively prove that this is truly possible. All he notes is that we find it normal, intuitive, to point out that it wore out first, before getting cut up, which means we find it normal, intuitive, to think some things could have been otherwise. That it was truly possible for it to be cut up, though, is not the condition of the possibility for our observing that it wore out first, before

it was cut up. Aristotle knows this. It is obvious that in order to see if something is possible to happen, such as this log catching fire, you cannot just attend to the nature of the thing in question. Attend only to the nature of the log and you will find that it possibly could burn or not burn. What really matters, though, is if in the grand scheme of things, that is, when all things are considered, there really is possibility in both directions. If Laplacian determinism obtains, and the log has been determined from the remote past never to burn, then the log having the inherent capacity to burn matters not one bit in establishing that it is truly possible for it to burn. To think it does in this case is just to say that what is possible is what seems to us possible, that in effect the illusion of things not being fated suffices for fatalism being false. This surely is not a strong enough account.

Why such appeals to how things appear do not refute fatalism is brought into relief by the fact that the fatalist can make such appeals himself. For example, many people entertain the question “Would I want to know when and how I was going to die?” This suggests that they accept, at least sometimes, the idea that their future is already written. Or I could just say, to drive the point home, that these cases Aristotle brings up to show that fatalism is, as Strang puts it, “contradicted by our own experience and the plain evidence of our senses” (457) would not move the fatalist. The fatalist is well aware that his position is astonishing.

Let us now turn to the implicit *reductio* for fatalism in 9. Assume for *reductio* that the future is open to some extent. As Aristotle emphasized with his deliberation and cloak cases, this assumption is in accord with how things appear. Still, if this desk is white now, on 4-27-3003, it was true to say a couple thousand years ago, on 1-11-1000, that it would be white. But if it was true on 1-11-1000 (or any other arbitrary time in the past for that matter) to say that it would be white, it could not fail to end up being white as it in fact did. But if something cannot fail to happen (as the situation with how the desk cannot fail to end up being white expresses in a particular case), then:

it is impossible for it not to happen; and if it is impossible for something not to happen it is necessary for it to happen. Everything that will be, therefore, happens necessarily. So nothing will come about as chance has it or by chance (Aristotle 18b13-15).

In a successful *reductio*, nothing that follows from the assumption to be shown absurd can prevent the opposite of the assumption from arising. That the fatalist’s argument is not a successful *reductio* can be easily discerned. We know that when the fatalist says “if *p*-event is actual now, which assume is 4-27-3003, then *p*, the FCP

predicting that it will be actual on 4-27-3003, was true on 1-11-1000”, that just means that  $p$  was true on  $\beta$ -1-11-1000. Given the assumption that fatalism is false, however, we know that this is not the only 1-11-1000. There is also  $\alpha$ -1-11-1000, 1-11-1000 where PB does not hold for  $p$ . The fatalist argument is persuasive only when it tricks us into thinking that  $\beta$ -1-11-1000 was the only 1-11-1000. Aristotle's solution, PB-restriction, blocks this argument precisely because the restriction of PB is the affirmation of  $\alpha$ -1-11-1000. That  $\alpha$ -1-11-1000 is no fantasy on the assumption that there are FCES requires that PB be restricted in the case of FCPS. This is why I say his solution blocks the argument. But this is really the same as saying that the assumption of the reductio, that there are real contingencies, blocks the reductio itself.

Of course, because this is only a block of the fatalist argument, Aristotle cannot be said to have disproved fatalism. He has, however, shown that fatalists have more work to do to prove their case. They cannot just appeal to PB. They need to do something more, something that requires PB to apply to FCPS. Perhaps they can do what Spinoza seemed to think he has done and show that everything has to be absolutely necessary for reasons of ontology –namely, due to the nature of God.

## References

- Ackrill, J.L. “Notes *De interpretatione*”. *Aristotle: Categories and De Interpretation*. Trans. Ackrill, J.L. Oxford: Clarendon Press, 1993. 113-155.
- Albritton, R. “Present Truth and Future Contingency”. *Philosophical Review* 66.1 (1957): 29-46.
- Anscombe, G. E. M. “Aristotle and the Sea Battle”. *Mind* 65.257 (1956): 1-15.
- Aristotle. “De Interpretatione”. *Aristotle: Categories and De Interpretation*. Trans. Ackrill, J.L. Oxford: Clarendon Press, 1993. 43-68.
- Baylis, C.A. “Are Some Propositions Neither True nor False?” *Philosophy of Science* 3.2 (1936): 156-166.
- Bernstein, M. “Fatalism”. *The Oxford Handbook of Free Will*. Ed. Kane, R. Oxford: Oxford University Press, 2002. 65-81.
- Bourne, C. “Future Contingents, Non-Contradiction, and the Law of Excluded Middle”. *Analysis* 64.2 (2004): 122-128.
- Brogaard, B. “Sea Battle Semantics”. *Philosophical Quarterly* 58.231 (2007): 326-335.
- Cicero, M.T. *De fato*. Cambridge: Harvard University Press, 1992.
- Frede, D. “The Sea-Battle Reconsidered: A Defense of the Traditional Interpretation”. *Oxford Studies in Ancient Philosophy*. Vol. 3 (1985): 31-87.
- Hintikka, J. “The Once and Future Sea Fight: Aristotle's Discussion of Future Contingents in *De Interpretatione IX*”. *The Philosophical Review* 73.4 (1964): 461-492.

- Kneale, W. and Kneale, M. *The Development of Logic*. Oxford: Oxford University Press, 1962.
- Lukasiewicz, J. "On Three-Valued Logic". *Polish Logic 1920-1939*. Ed. McCall, S. Oxford: Oxford University Press, 1967a. 45-70.
- Lukasiewicz, J. "Philosophical Remarks on Many-Valued Systems of Propositional Calculus". *Polish Logic 1920-1939*. Ed. McCall, S. Oxford: Oxford University Press, 1967b. 40-65.
- MacFarlane, J. "Future Contingents and Relative Truth". *The Philosophical Quarterly* 53.212 (2003): 221-336.
- Prior, A. "Three-Valued Logic and Future Contingents". *Philosophical Quarterly* 3.13 (1953): 317-326.
- Prior, A. *Past, Present and Future*. Oxford: Oxford University Press, 1967.
- Sorabji, R. "Tomorrow's Sea-Battle: An Argument from Past Truth". *Necessity, Cause, and Blame: Perspectives on Aristotle's Theory*. Ed. Sorabji, R. New York: Cornell University Press, 1980. 91-103.
- Strang, C. "Aristotle and the Sea Battle". *Mind* 69.276 (1960): 447-465.
- Taylor, R. "The Problem of Future Contingencies". *Philosophical Review* 66.1 (1957): 1-28.
- Tweedale, M. "Future Contingents and Deflated Truth-Value Gaps". *Noûs* 38.2 (2004): 233-265.
- Whitaker, C.W.A. *Aristotle's de Interpretatione: Contradiction and Dialectic*. Oxford: Oxford University Press, 1996.
- Williams, D.C. "The Sea Fight Tomorrow". *Structure, Method, and Meaning: Essays in Honor of Henry M. Sheffer*. Eds. Henle, P., Kallen, H. M. and Langer, S. New York: Liberal Arts Press, 1951. 282-306.