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# Looking for the Lazy Argument Candidates (1)

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**Abstract**: The Lazy Argument, as it is preserved in historical testimonies, is not logically conclusive. In this form, it appears to have been proposed in favor of *part-time fatalism* (including *past time fatalism*). The argument assumes that free will assumption is unacceptable from the standpoint of the logical fatalists but plausible for some of the non-universal or part-time fatalists. There are indications that the layout of argument is not genuine, but taken over from a Megarian source and later transformed. The genuine form of the argument seems to be given in different form and far closer to logical fatalism and whose purpose is not to defend laziness. If the historical argument has to lead to the logically satisfactory solution, some additional assumptions and its additional tuning are needed.
**Keywords**: the Lazy Argument, logical fatalism, historical reconstruction, Cicero, Chrysippus, Diodorus, Megarians.

## 1 Introduction

There are two kinds or classes of Lazy Argument variants (LA – the argument is sometimes called the Idle Argument or the Argument from Inactivity). The first belongs to its ancient form while the second, common in modern formulations, imitates some but not all the features of the ancient one. Both kinds are similar insofar as they use apparently common logical principles and also insofar as they intend to reach the same fatalistic conclusion. But, even when presented with the same

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basic kernel, or almost the same, there are many differences between them. The main reason is that there are not any unique, standard or fixed *sources* that could serve as sufficiently solid bases for all further historical interpretations.

Many authors today defend or deny the conclusion of this historical argument without bearing in mind the substantial proprieties of the argument and its historical dimension. According to contemporary approaches, crucial to the argument is its logical schema and motivation to support outcomes of fatalism on logical grounds (some contemporary debates on modern variants are reflected in Buller 1995 and Berčić 2000). But it is neither the case that its logical schema is convincingly transparent and could be interpreted in some unique way, nor that the conception of fatalism laid in its background is universally acceptable for all conflicting sides included in the debate. Differences in interpretations are not only in approaches to the argument and in the way of its reconstructing, but also have their source in insufficient consensus about the question of its intended purpose: what is the intended aim of argument? So, it is necessary to distinguish between two kinds of questions, "What is the correct solution of LA?" and "What are the proposed solutions given by those involved in the debate?"

The argument is frequently discussed as "the standard argument" for fatalism[2] and also used in debates on free will and determinism (especially logical determinism), theological fatalism, etc. However, in this text we will not try to give any rival solution to LA but rather to reflect on some of the historical and philosophical kinds of fatalistic hypotheses that cannot be neglected and that could be of relevance in further approaches to LA and, moreover, that could be helpful in additional tuning of its possible solutions.

There are lots of ancient views on fatalism and not all of them are connected to idleness, which can be found in the conclusion of the argument. We think that LA had its origin in a *wider cluster of ancient arguments* based on the principle of bivalence. Most of these (if not all of them, as it seems) had a common source in the Megarian *cuisine*, probably in the circle around Diodorus. Besides the similarity in the sources, interpretations and elements of their logical structures, there are obvious differences too, since these arguments were used for differ-

[2] However, it is possible to find several *different* formulations of the so-called 'standard' argument in modern literature.

ent purposes in philosophical debates and in confrontations between schools.

## 2 Sources

Several historical sources of LA – and some similar arguments – are known. A pioneering form of the argument can be found in the text of Aristotle.

> These and others like them are the absurdities that follow 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, and that nothing of what happens is as chance has it, but everything is and happens of necessity. So there would be no need to deliberate or to take trouble, thinking that if we do this, this will happen, but if we do not, it will not. (Arist. *de int*. 18b26-33)

This is the oldest form of LA. Aristotle and his commentators frequently used to say that we do not deliberate about what is necessary (*cf. ib*. 19a7-8; *cf.* Alexander, *in de fato* xvi.186.30 *ff*.; *cf.* Ammonius, *in de int*. 148,32 *ff*.). In other words: if every statement is true today, it would appear that nothing anyone can do will alter this since everything is decided in advance. If fatalism is a plausible conception, there is no place for free will or for being troubled over what will be or about what we could do or could have done. The argument results in *idleness* or *futility*. Aristotle's example shows almost the same way of reasoning and the same result of idleness as in LA. He criticizes this conception as inadequate and invalid. According to him, the argument fails because bivalence is not tenable for future tense propositions. Since (a future oriented) fatalism is ungrounded and this conception fails, we are (contrary to argument) able to make decisions and act freely and, what follows, we are able to retain a concept of responsibility.

Probably the most commented upon and popular form of the argument among ancient as well as contemporary philosophers is presented by Cicero (*fat*., xii, 28-29). There are, for some reason, two versions of it:

> A) There is a certain argument which is called the "Lazy Argument" by the philosophers; if we obeyed this we would do nothing at all in life. For they argue as follows:
> a) "If it is fated for you to recover from this disease, then you will recover, whether you call in a doctor or not;

b) similarly, if it is fated for you not to recover from this disease, then you will not recover, whether you call in a doctor or not.
c) But one or the other is fated;
d) so, there is no point in calling in a doctor."

This is Cicero's basic form of LA (and for the first time it is named the 'lazy' argument, *ignava ratio*). According to him, the argument has the same proprieties whether we use the term "fate" or whether we invoke the terms "necessity" and "truth".

B) This kind of argument is rightly named lazy and idle, since by the same argument all activity will be removed from life. For one can change the argument so as not to bring in the name of "fate" and still maintain the same position, as follows:
a) 'If this has been true from eternity, that "You will recover from this disease," then you will recover, whether you call in a doctor or not; and similarly,
b) if this has been false from eternity, "You will recover from this disease," then you will not recover, whether you call in a doctor or not'; and the rest follows.

The phrase 'the rest' in Cicero's text refers to sentences c) and d) from the A-version – *i.e.* the disjunctive proposition ('one or the other is true from eternity)' plus the conclusion ('there is no point in calling in a doctor'). In the B-version of Cicero's text, the term 'fate' is now omitted or substituted with the term 'truth', incorporated into a temporal context ('true from eternity').

Cicero's formulation of both arguments, side by side, seems intended to show two things:

1) that the argument's conclusion would be the same for *events* as well as for *propositions*, and
2) that the argument has the same outcome whether we use in its premises the term 'fate' or whether we have in mind simple 'truth' ('truth from eternity' or 'necessity').

Cicero, as our source, does not give us an explicit sense of a disjunctive sentence. The interpretation of the source can be only estimated because the 'one or the other' option could be read in several ways: *i.e.* 'true from eternity'; simply 'true'; 'necessary'; 'fated' in advance; or 'fated' in respect to all antecedent activities. As it seems, the argument is never just an argument corresponding to the problems of fatalism alone but also about the wider principally logical and metaphysical

questions concerning (among other things) truth, time and causality. Cicero discusses the argument in the wider debate covering Chrysippus' answer in confrontation with the Megarians, the Academics and Epicurus. It seems that the argument is taken over from some Stoics' source, perhaps from Chrysippus or Posidonius.

The argument at the first sight is deficient. Cicero's exposition and conclusion is also not completely compatible with what the argument is claiming. In A) he concludes that the argument is named *ignava ratio* "since by the same argument *all activity will be removed from life*." This conclusion does not correspond to the character of the argument, since in the argument all that is said about fate corresponds to the complementary pair 'to be recovered/to be not-recovered'. According to this, like in Aristotle's version, it is *not fated* that *our side activities* are governed by fate. Further, if one can choose between two excluding options, this would be in conflict with Cicero's claim that *all activity will be removed from life*. In his version, just the predicted outcome is fated though not the activity *to decide* between two options and *to do* one of them. We *have options* to choose freely between two appropriate activities (to call in a doctor or not), even without a corresponding impact on the fated outcome.

There are more ways to interpret this argument so as to see why it is uneven. One solution is to say that the argument is simply unsuccessfully formed and thus fails. It corresponds to the opinions of both Cicero and Origen (*Cels*. 2. 20.) – the argument is a sophism and captious. The opinion could probably be taken over from some common Stoics' source, more precisely, as Diogenianus said, from 'the second Chrysippus book *On fate*' (*apud* Euseb. *praep. ev*. 6.8.25).

## 3 Sophism and parallel argument

Let us look for a moment at what the sophism is and what the parallel argument is. Historical comments, including that of Cicero, usually used to list this argument among sophisms. Ammonius presents this *type of argument* as an *aporia* (*in de int*. 131,20). What did ancient commentators have in mind when they marked LA as a sophism? What is the sophism? Bobzien (1998, 193) thinks that, in a sophism, there must be some bug in inference. But what kind of bug it is? In his *Topics*, Aristotle wrote the following on the sophism:

> When the argument stated is a demonstration of something, but it is something irrelevant which has nothing to do with the conclusion, no inference will be drawn from it about the latter; if there appears to be such an inference, it will be *a sophism not a demonstration*… a sophism is a *contentious inference*… (162a15-16).

About character of such 'inference bugs', we could learn something further from Sextus (PH ii, 229 *ff*.). There, he gives us some of features of the sophism and also claims that the discipline of dialectic is a tool capable of unmasking the sophism's apparent plausibility and thus of solving it. He said:

> They (dialectics) say that a sophism is a plausible and treacherous argument leading one to accept the consequence which is
> a) either false, or
> b) similar to something false, or
> c) unclear, or
> d) in some other way unacceptable.

To these four types of sophism Sextus gives corresponding examples. In the chapter devoted exclusively to sophisms, however, he doesn't forgot to remind us that "other say about sophism other things" (*ibid*., 235). We don't know the real meaning of this last reflection – is it connected with his division or maybe some could defend the same argument as invalid or valid from other grounds, metaphysical or just logical. Several passages latter (*ibid.,* 247), Sextus informs us why the study of sophisms was especially important for training in dialectics – because dialectics is the science concerned with "what is true, false and indifferent". This discipline enables us to recognize and analyze an argument, in an appropriate and precise way, to identify it as either valid or invalid, or indifferent (in the cases of ambiguities and *insolubilia*). This training goal was a part of the educational tradition of the Stoics through the ages. We know that Chrysippus wrote twenty-one treatises (in forty-eight books) on sophisms and other puzzling arguments (Diog. Laert. vii, 195-198). Dialectics is not just about forming valid arguments but also about resolving bad arguments. We will leave aside some extensive details here, but what Sextus notices as necessary to be said about sophisms concerns the structure of an argument. An argument, in general, is 'true' if a true conclusion follows from true assumptions. He continues further by proceeding from a (true or untrue) argument (as a whole) in respect to the relations among (true or untrue) assump-

tions to the conclusion and to valid or invalid procedures of inference. The characterization of the sophism is not exhausted just by invoking the elemental mechanics of inference for the elements of an argument. He continues, saying that a sophism "leads not only to falsity but also to other absurdities" (*atopias*, Sextus, *ibid.,* 251; *cf.* iii, 240) and that such an argument could compel us to agree with something that is absurd. This is the moment where we are not able to find what is wrong with an argument only according to the mechanical procedure of analyzing it, for it seems to be well formed and "a plausible but treacherous argument". To sum up, Sextus' position is that if something in the argument is wrong then it should be considered a sophism and can be classified according to the division given above (even "others say other things").

Origen and Cicero are our prime sources for the argument and it seems that they were following a common source, as Turnebus (1556) first made out. Barnes (1988) makes a successful comparison between these two sources. The text seems to be almost the same: either their source was the same or Origen translates Cicero's text (which is highly improbable, since we have no testimonies indicating he knew Latin). Cicero does not tell us why the argument could be a sophism (*captio*). However, he tries, as it seems, to find an adequate Latin term for the Greek *sophisma* when he states that such arguments, like LA, are 'generis captiones'. This meaning for the expression, in the sense of 'sophism', can be found in more places in Cicero (*ac*. 2. 15. 46; *div*. 2, 17, 41; *etc.*). Since the qualifications of both authors are almost the same, the more probable solution is that either the source was common for both authors or that it comes from the same line of sources (directly from Chrysippus himself as Barnes supposes). Cicero informs us that all these arguments of a 'captious kind' (so, there were more of them) *can be rejected in the same way*, by introducing the difference between *simple* and *cofated* events. Actually, Cicero's suggestion is very likely taken over from Chrysippus, whom he quotes in preceding lines. So, Cicero's source probably contained some kind of answer to our question.

The clearest characterization of the sophism in Galen (*De animi cuiuslibet peccatorum dignotione et curatione* 3,14-17, p. 49sq. De Boer, *transl.* Harkins, 1963) largely corresponds to Sextus, not only in methodology, but also in his purpose, namely, to learn dialectical skills by solving sophisms. Sophisms "bear a similarity to arguments which are true" and for this reason they "are hardly recognizable to those who are inexperienced in dealing with arguments."

> Since… the solution lies in showing the similarity of the false argument to the true, one must first have understood the nature of arguments which are true. For if a man has become so experienced in true arguments that he accurately and quickly recognizes their nature, he would still have no difficulty in recognizing those which are false.

What is of interest for us is that Galen emphasizes that it is necessity to analyze two similar arguments as a pair or a parallel – *i.e.* a sophism beside a corresponding correct argument. But what is a parallel argument?

Origen also compares two arguments, LA and a parallel or mirror argument that contains the example of Laius and Oedipus as taken from Euripides (*Phoenissae*, 18-20). We know that Chrysippus' answer, given in a parallel argument, is this:

> If it is decreed that you should beget children, you will beget them, whether you have intercourse with a woman or not. But if it is decreed that you should not beget children, you will not do so, whether you have intercourse with a woman or no. Now, certainly, it is decreed either that you should beget children or not; therefore it is in vain that you have intercourse with a woman. (*Cels*. 2. 20.)

Chrysippus' interpretation is, according to Cicero, that 'to have intercourse with a woman' is co-fated (*confatalia*) with 'to beget children'. This means that it is fated "*both* that Laius will sleep with his wife *and* that he will beget Oedipus by her" (*fat*. 30). In other words, the necessary condition cannot be omitted in capturing the outcome.

Origen as a source seems to be sometimes more informative than Cicero because he tries to explicitly develop the answer by using a classic Stoic device – rebuttal by the construction of "parallels" (comparison, *parabolé* (Sextus, M, IX 109; *cf*. 97, 134) *Cf*. Shofield 1983). The so-called "parallel argument" employs the same or very similar premises as the argument it counters (*ti antiparaballetai*), but aims to produce an absurd conclusion. Origen (*ibid*.) compares two lines of parallel arguments and tries to explicate why the parental argument is invalid:

> For, as *in the latter instance*, intercourse with a woman is not employed in vain, seeing it is an utter impossibility for him who does not use it to beget children; so, *in the former*, if recovery from disease is to be accomplished by means of the healing art, of necessity the physician is summoned, and it is therefore false to say that 'in vain do you call in a physician'.

If Barnes is right about the authenticity of the Origen passage (as taken over from Chrysippus' source, where the case is analyzed as a sophism), then the parental part of the *parabolé* there is to be treated as a kind of sophism. In a parallel argument here – the pattern argument is a sophism while the other is a mirror argument given for the purpose of unmasking the first. The argument is a *sophism* as well as a part of a *parallel argument* at the same time. There is nothing conflicting in that claim. Moreover, the parallel argument could vividly indicate that the former argument is a sophism.

## 4 Logic of the argument

The simplest logical form of the argument is given by Bozien (1998, 184, 186) and, at first glance, it seems uncontroversial and conclusive. It is given in the form of a *complex constructive dilemma*, an argument form familiar to the Stoics' favorable logical style.

a) If A, then B.
b) If C, then D.
c) Either A or C.

d) Therefore, either B or D.

The conclusion seems not to completely correspond to what Cicero said. The conclusion here has the disjunctive form "either it is fated that *p* or it is fated that not *p*" with the distribution of the predicate 'fated' taken from premises a) and b); it does not correspond with the proposed conclusion of LA in Cicero's text, reflecting idleness – (in A-version) that "there is no point in calling in a doctor" or (in B-version) "all activity will be removed from life". We can only agree with Bobzien (1998, 184) that it is necessary to add *a bridge premise* that relates futility in the conclusion with some of the premises if the argument, in its original form, is based on some non-explicit premise (or premises). Hence, we can conclude that either the argument *is not complete* or that the suggested *inference form is not proper* since, at this stage, it does not look like a validly inferred conclusion. If some bridge premise is missing, then we have to change strategy and analyze the argument as an *enthymeme*.

We don't know a principal logical structure of the argument that would correspond to the intention of its founder. Chrysippus could try to capture the argument by tools that were at the Stoics' disposal

and similar to the preferred style of the Stoics. This is probably what Bobzien had in mind. However, corrected and reformulated according to her conjecture, the argument still remains obviously defective.

Another remark on the form of inference proposed by Bobzien is that the form of the first two premises corresponds neither to the source text nor to the conclusion. According to the form of inference proposed by Bobzien, the conclusion would be: 'you will recover, whether you call in a doctor or not' or 'you will not recover, whether you call in a doctor or not'. However, it does not cover the intended futility.

Third premise in Cicero's explicit A-version is also problematic. "One or the other is fated" could be read in two senses – either 'it is fated that P $\vee$ ~P' or 'it is fated that P or it is fated that ~P', but it should be borne in mind that none of them have a strictly bivalent form as the Stoics accept, since variables A and C are taken not as an exclusively complementary atomic proposition, but as different and unfamiliar propositions ready to be used in a classic constructive dilemmatic argument.

Atomic propositions or rather sub-forms B and D of the first and second premises are taken without explicitly distinguishing the exclusive disjunction inserted and common to both of the sentences ('whether you call in a doctor or not'). Here also sub-forms B and D are taken as unfamiliar different expressions even though they contain mutually opposed same variables ('to be recovered' and 'to not be recovered').

The argument at first glance looks as if it is intended for the Stoics' complex constructive dilemma form of inference and it could, partly, be read Bobzien's way. However, if we more closely inspect Chrysippus' remarks about the argument given in Cicero and if we respect the context of the lines of the debate concerning the argument in *de fato*, this opinion seems to be less probable.

Let us go back to Chrysippus' comment. He criticizes sub-forms B and D of premises a) and b) as not valid since their antecedents have to represent adequate conditions corresponding with their consequents. *Co-fated* (or *con-joined*) things differ from *simple* fated things. A simple fated thing is also necessary but it represents the internal dispositions of a concrete being. For example, 'Socrates will die' is true because of Socrates' 'internal' dispositions, since he is human being and human beings are mortal. But in the sentence 'Socrates will die in the sea', to die in the sea is not an internal disposition of Socrates. He could potentially die in many ways. For this sentence to be true, Socrates has

to be joined with or connected to some external and also necessary antecedent circumstances, which make it possible for Socrates to die in the sea. The conditional sentence has to be formed with an antecedent condition that either recalls an internal or external necessary condition. Chrysippus' comment here is not against causal determination originally proposed by the argument but, as it seems, against futility. It is also in accordance with Origen's observation, though Diogenianus wishes to emphasize rather his alleged agent-determinism option (*apud.* Euseb. *Praep. ev.* 6.8.34-5).

Chrysippus' remark pushes us to the other side of LA arena. What is also interesting is that he neither criticizes the claim about fate or the laziness conclusion or the disjunctive antecedent in premises a) and b), nor does he criticize the disjunctive proposition in premise c). The central subject of his criticism is the nature of the conditional in premises a) and b), which he is not conceptually ready to accept. Commentators of LA agree that Chrysippus' solution is a successful criticism of LA (quoted in certain places by Cicero, Origen, Diogenianus; Seneca, *nat. quest.* ii, 37-38; Nemesius, XXXV, 51; Calcidius, *in Tim.* clxv. 203.15f.; Ammonius, *in de int.* 149,1-3). The idea is that fated outcomes need the fulfillment of necessary conditions. However, what would happen if we made some appropriate corrections according to Chrysippus' critics and use the result as a suggestion for correcting the argument? Let us try it.

Take the first premise. It would be (with or without the simple disjunctive assumption; it doesn't matter) 'if it is fated for you to recover from this disease, then you will recover, if you call in a doctor or if you take some medicine'. It is immediately clear that either of the co-fated conditions, even if necessary, is not strong enough to guarantee recovering in all possible cases. They could play the role of necessary conditions for recovering, but none of introduced conditions are sufficient for the recovering. In the same manner, let us bring in his other parallel example. 'To have intercourse with a woman' is not a sufficient condition for begetting a child. Commentators, together with Chrysippus, all of whom shared the same principles, somewhere missed this fact.

Against whom was Chrysippus' parallel argument proposed? Who will agree with its original form? Even though there are not many candidates, we can only conjecture. Let us inspect it in more detail. If we take a closer look at the premises, all of them could be interpreted as theorems. The idea to read premises a) and b) as theorems is not new

and we can find it in Dummett's modern version of fatalism argument (1978, 340). Both of these premises have the form of an extended version of the paradox of material implication. The third premise or c) looks also like the theorem and has many features in common with the law of the excluded middle. If this is so, the intention of the argument's originator is very close to the logical fatalism approach and to the purpose of proving fatalism on solely logical grounds. However, the conclusion of the argument has the same deficiency we mentioned above. It is not implied by the premises. These premises do not imply futility and in this form it is an obvious sophism.

If formulated in the sense of the paradox of material implication, two premises a) and b) would have approximately the following form: a) $P \rightarrow ((Q \vee \sim Q) \rightarrow P)$ and b) $\sim P \rightarrow ((Q \vee \sim Q) \rightarrow \sim P)$. Moreover, these premises are prefixed in Cicero's A-version of the argument with 'to be fated' while in B-version 'to be true from eternity'. In A-version we have something like a) $f\,P \rightarrow ((Q \vee \sim Q) \rightarrow P)$ and b) $f\,\sim P \rightarrow ((Q \vee \sim Q) \rightarrow \sim P)$. In Cicero's B-version, we obtain, if we apply as an immanent principle that 'true from eternity' could imply or includes 'necessity', these expressions: a) $\Box P \rightarrow ((Q \vee \sim Q) \rightarrow P)$ and b) $\Box \sim P \rightarrow ((Q \vee \sim Q) \rightarrow \sim P)$. The third premise is something very similar to the law of the excluded middle, but not the same, since it is prefixed with the predicate 'to be fated'. In A-version, it could be either $f\,(P \vee \sim P)$ or $f\,P \vee f\,\sim P$. With the B-version of premise c), we can read by analogy either $\Box(P \vee \sim P)$ or $\Box P \vee \Box \sim P$. The dilemma surrounding the assumption of premise c) could be solved by insight into expressions a) and b) and their prefixed antecedents, and, for this reason, would be more adequate to read the disjunction in sentence c) as a disjunction similar to that between the two antecedents from a) and b).

Premises a) and b) in both Cicero's versions have one common peculiarity. They claim that, if something is fated (or 'true from eternity'), it is yet in our power to do one of two mutually exclusive actions before the fated event takes place. It is a peculiar understanding of fatalism and not completely corresponding to the logical form of fatalism usually ascribed to LA. Idleness and futility in the conclusion is the third of the possible options one is able to choose in fatalism understood in this way. Even if it does not correspond with logical fatalism, there are some fatalistic conceptions that will bring both sentences together with the so-called futility option.

Now we will take a tour across different conceptions of fatalism and try to indicate and understand possible candidates who would accept such an interpretation of fatalism. As regards metaphysical principles, there are some historical candidates who would agree with such a reading of sentences a) and b) and with the conclusion of LA.

## 5 Many faces of fatalism

Our intention is to show two things: what could be principally assumed as a fatalistic conception in the Lazy Argument and for whom was the fatalistic argument intended? For this purpose, it would initially be necessary to establish what fatalism is or could be, especially the kind assumed in LA. For easier reading, logical illustrations will be given in the simplest possible forms.

### 5.1 Modern interpretations of fatalism

It is hard to say that a certain formulation of fatalism is the standard or classic. It would be easy to find many formulations and concepts. Some differences among them are subtle, some crude, some probably unimportant from a philosophical standpoint. But our motivation here is not to estimate the consistency of interpretations of fatalism but to point at some important features of these conceptions and to expose what seem to be their main characteristics applicable to LA.

It is not strange that fatalism is almost always contrasted with determinism, since between these two, from a historical standpoint, the demarcation line is not transparent in all cases, if there are any cases where it exists at all. The standard formulation of fatalism that can be found in the literature usually emphasizes *inevitability* with respect to the physical aspect of its interpretation as its main characteristic: if events are fated, then they are inevitable (and, as it seems, vice versa). However, such a poorly-equipped conception, with merely a notion of inevitability and nothing besides, doesn't tell us much. From this poor formulation of fatalism, we have no ground for the claim that events are inevitable or for how they could be so. This simple formulation gives us no further way to find any track toward the tenability of the claim. In this case, we could just take for granted that events are inevitable and nothing else. Moreover, this simple kind of fatalism tells us nothing about the inevitability of events that we are usually interested

in and widely talking about. For this task, we will need some additional points. However, anything added to the simplest formulation of fatalism, marked solely by inevitability, makes this conception more complicated. For if one is talking about the inevitability of future events, she is indirectly enrolled in many additional questions concerning its properties, for example: about her base for present knowledge about the future events; about the status of the future truth and the truth of predictions; about powers and conditions that make events inevitable; about the ability to govern or to anticipate future events; about representations of fatalism that are also connected with conditions that guarantee inevitability; and so on. As we will see latter, not all forms or conceptions of fatalism are equal in the interpretation of inevitability. They differ significantly.

Let us take a closer look at the main differences between determinism and fatalism. Is there any difference between them and what this difference consists in? Let us repeat a known fact, that determinism, too, is not a unique conception and is usually connected with a bundle of properties: causal accessibility, laws or regularities (universality of some kind), necessity, antecedent causes, teleological pressure, forward knowledge, and so on. Sometimes it is connected with predictability but sometimes not – depending on the interpretation and the nature of causes. The simplest formulation of determinism is in the claim that everything has its cause or that everything that happens is determined by an antecedent cause. This formulation, supported by notions of cause and causality, is known as *causal determinism*. For a long time it was presented as a base for scientific knowledge.

In his classic text on the problem, in a chapter entitled *The Lawlessness of Fatalism*, Bunge (1959, 101-2) follows the above-noted poor formulation according to which the character of fatalism is in inevitability. He criticizes Emerson's attitude that "the book of Nature is the book of Fate" as an error, for fatalism is a non-causal principle that differs from causal determinism and scientific determinism by which "the book of nature" could be read or understood. In his attempt to formulate a conception of scientific determinism (both elastic enough to cover new forms of determination and strict enough to exclude unverifiable and irrational notions), he sees scientific determinism as something less ontologically obligated that could also cover statistical and other forms of determination. Unlike Emerson's, Bunge's characterization of fatalism is presented more as a dramatic scene than a serious and consistent

metaphysical conception. For him, fatalism is concerned with inevitability and in the background of this "class of doctrines" he sees a non-naturalistic belief in some supernatural and external power able to assure and to make things happen in this world, a power which pushes things toward their inevitable end. Bunge's classic scene is based on some additional assumption concerning the character of such power. In contrast to scientific determinism, this power ruling Fate is unpredictable, uncontrollable, and indirectly governs things by principles beyond our ability to comprehend. In short, according to Bunge, fatalism is not causal and its inevitability is provided only by the romantic imagination of an unnatural or supernatural transcendent and indirect force of necessity. The fatalistic explanation is just a simulation of the explanatory process and very far from both the scientific and even the causal depiction of determination.

Wilson (1955, 70-2) interprets fatalism almost in Bunge's sense, claiming a causal discontinuity version of fatalism. If the future is inevitable (and not antecedently dependent), then everything is prepared for 'laziness', and his opinion is that, in this version, "human effort, human wisdom, human skills, even human stupidity, have no causal continuity with the future. The same future will occur… no matter what we human beings know or don't, seek or shun." The difference between the two conceptions he sees in this manner: "the fatalist asserts a causal discontinuity between present actions and the future world, where the non-fatalistic determinist asserts causal continuity here as everywhere else." In this interpretation of Wilson's, the kind of fatalism that claims causal discontinuity and puts aside antecedent conditions conflicts with the given formulation of determinism. *Discontinuity fatalism* does not have much in common with (causal) determinism, neither could be implied by determinism.

Grünbaum, in a chapter entitled *The Fallacious Identification of Determinism with Fatalism* in his (1971, 302), shares some opinions of Bunge and Wilson when he says that "fatalism is the appallingly primitive prescientific doctrine that in every situation, regardless what we do, the outcome will be unaffecting by our efforts". Since determinism recalls antecedent conditions (and laws of nature) while fatalism claims just inevitability (without further recalling antecedents), it means that these two conceptions differ. However, if we accept these formulations as adequate, it does not mean that these two are mutually and necessarily excluding one another. According to him, if determinism is true,

fatalism has to be true, too. Fatalism can be seen as an outcome of determinism since determinism implies fatalism. But not vice versa: if everything is inevitable, it does not imply that everything that occurred has its antecedent condition fulfilled. But if everything is necessary, then it is also inevitable. These two conceptions are not equal, but strongly related and similar.

The position of S. Langer (1936, 474, 478) is not far from above. She conjoins fatalism and determinism when she contemplates William James' "The Dilemma of Determinism" and says that modern "scientific fatalism" (the notion we later meet in Bunge in a different sense) is "the assumption that there is a theoretically knowable collection of causes for any act" and that the doctrine of determinism, in its philosophic form, is "a modern version of belief in Fate." She assesses the ancient concept of inevitability projected in a modern derivation from the concepts of necessity, cause and the universality of law, and from the assumption that the future, like the past, is necessary and in the same sense inevitable. Everyone who knows the causes and universal laws could form and infer true sentence about the future. He could make an inference covering the future (inevitable) state of affairs. Langer decidedly denies that such knowledge is possible not just because personal acts are practically unpredictable (for it is impossible to collect such an immense complexity and variety of causes), but also because "all the causes of an act," before the act itself has taken place, form an "illegitimate totality," in the sense of Russell's and Whitehead's *Principia*. However, the logical ground for the character of the relation between determinism and fatalism seems to be still open according to Langer's observations.

We are mentioning just some of the many modern interpretations of the relation between two conceptions. However, these interpretations did not provide us with a more precise or a broader view of the problem. We could also have introduced other modern authors and formulations in this line of reasoning – they are numerous – but the impression will not be significantly different and, what is important for us, not much clearer. Fatalism is, for the above authors at any rate, a strange, impossible, inconsistent and undesirable doctrine, and we agree that, from today's standpoint, such non-continuous fatalism would be a completely eccentric theory. What these positions generally have in common is that determinism is connected with the notions of cause and causality (and generality), while fatalism is connected with the notion

of inevitability and, in some cases, with discontinuity and particularity. Moreover, since determinism and fatalism are frequently understood as (in the same strange way) similar and interwoven conceptions, the notion of inevitability could probably be understood – in some or another sense and in some cases and formulations – as accessible from the notion of necessity. This summary is certainly nothing more than just a sketch. Due to the conceptual mess (interweaving causality and uncaused circumstances, universality and particularity, and so on), we have to know that a precise formulation of the modern understanding of fatalism remains an open question.

Since we could find traces of the above mess in most of the modern interpretations of the Lazy Argument, we have decided to compile a crude registry of historical and ancient conceptions of fatalism and have tried to find some appropriate candidates for what the original defenders of the argument could have been maintaining in the debates. Also, if possible, we have tried to answer the question of who they were. We will not assess the metaphysical consistency of these conceptions, but only wish to select the best candidates that correspond to the historical and conceptual claims given in the argument. As it seems, nothing in the above 'modern' interpretations of fatalism is what we are trying to find. Besides, as it can be seen, let us say in advance, that the names of the conceptions and their contents do not always correspond to the same things. We will try to make it clearer when and if it is possible.

## 5.2 Fatalism as logical determinism

Jordan used to say (1963, 1) that "strict determinism" is the outcome of *the principle of bivalence*, with two additional assumptions: one of them is *the correspondence theory of truth* while the other is *the assumption of the timeless character of the truth*. Woleński recently (1996, 2) stated a similar formulation of this conception: "The view that *classical logic* implies *radical determinism* is called *logical determinism*." He equates *radical determinism* with *fatalism*. When we add the *principle of causality* to the *principle of bivalence*, we obtain *radical determinism* (fatalism). Jordan and Woleński just echoed the words of Schlick (1931), Waismann (1956) and early Łukasiewicz (from his article "On determinism" (1970)). According to them, logical implicature could in some sense cover and express the principle of causation across the correspondence theory of truth.

Łukasiewicz also holds that *logical determinism* is a conception where logic reveals the ontological structure of reality. Actually, in many aspects, he interprets and repeats ancient conceptions. It is a common opinion that he did not make an additional terminological distinction between logical determinism and (logical) fatalism and, from that time on, these two terms seem to be marked in the literature as the same conception. Here, the logical notion of necessity fully corresponds to the fatalistic notion of fate and inevitability, while the notion of cause and the nature of causality could be interpreted (roughly speaking) through the notions of realized antecedent condition and implication. Łukasiewicz formulates this conception with the philosophy of the Stoics in mind as well as their theories of logic and physics. As it is known, he widely criticized this conception, from seemingly the same position as Aristotle, and later introduced three-valued logic systems as the result of his standpoint on the non-identity of the principle of bivalence and the principle of the excluded middle.

Taylor's (1962) 'standard' argument for fatalism is based on the same understanding of logical determinism that we find in the above authors plus something tacitly assumed by others, namely, the interpretation of the nature of time is substantially *symmetrical* in character. Such conceptions and the same starting assumptions also inspired most of the modern interpretations of the 'Lazy Argument' like Ryle, Dummett and Gould, and later Stalnaker, Shields, Irwin and some others. The most of them are dealing with the problem as opponents and critics of this conception and they do not always share all of the same assumptions in interpreting (logical) fatalism and logical determinism. However, almost all of them agree that 'strict' or 'radical' determinism (logical fatalism) is an idea that could be or tend to be proved solely or largely on logical grounds by appropriate application of logical principles.

Logical fatalism or determinism in this sense is not a conception that adequately corresponds to the two key premises of LA. Two sentences containing inserted disjunctions refer to the possibility of a free decision between two exclusive actions: 'either you will do this or you will not do that'. That is, there is an open possibility to do any of the two opportunities. Logical fatalism – if time is symmetrical and reduces all possible worlds to an actual one – will not allow this possibility. What is interesting here is that all ancient critics tolerate this possibility for decision and criticize other aspects of the argument. It is hard to suppose that no one saw this part of the argument as inconsistent – neither

the Stoics nor Cicero nor their commentators. There are no such traces in either the later Peripatetics' or the later Middle Platonists' and the Neo-Platonists' sources. For us, it only means that this possibility could have been tolerated intentionally if, in the background of the argument, there lies an assumption of some specific sort or an understanding of fatalism. If we take these assumptions from the ground of logical fatalism, then the argument is clearly inconsistent, for the key premises are stating something contradictory to the assumptions of radical or strict determinism, which excludes the possibility of behavior that could be covered or illustrated by a form of exclusive disjunction and the possibility to choose freely between two exclusive options. So we must go towards a part-time fatalism and this should be the subject of the subsequent section of our article.

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# Looking for the Lazy Argument Candidates (2)

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**Abstract:** The Lazy Argument, as it is preserved in historical testimonies, is not logically conclusive. In this form, it appears to have been proposed in favor of *part-time fatalism* (including *past time fatalism*). The argument assumes that free will assumption is unacceptable from the standpoint of the logical fatalist but plausible for some of the non-universal or part-time fatalists. There are indications that the layout of argument is not genuine, but taken over from a Megarian source and later transformed. The genuine form of the argument seems to be given in different form and far closer to logical fatalism and its purpose is not to defend laziness. If the historical argument has to lead to a logically satisfactory solution, some additional assumptions and additional tuning is needed.

**Keywords:** Lazy Argument, logical fatalism, historical reconstruction, Cicero, Chrysippus, Diodorus, Megarians.

## 6 Ancient theories of fatalism

In the previous section, we stated that fatalism had and also has many faces. Now, we will try to present some distinctions within the ancient forms of the argument and to assign them corresponding names in trying to find some adequate candidate for the LA's assumptions: *i.e.* to make some elbow room for the assumption of *laziness* or *futility* covered by the conclusion of the argument.

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For the sake of a clearer understanding of the following exposition, we will repeat, from the previous section, probably the most commented and popular form of the argument among ancient as well as contemporary philosophers, as presented by Cicero (*fat.*, xii, 28–29):

> For there is a certain argument which is called the 'Lazy Argument' by the philosophers; if we obeyed this we would do nothing at all in life. For they argue as follows:
> a) 'If it is fated for you to recover from this disease, then you will recover, whether you call in a doctor or not;
> b) Similarly, if it is fated for you not to recover from this disease, then you will not recover, whether you call in a doctor or not.
> c) But one or the other is fated;
> d) So, there is no point in calling in a doctor.'

This is Cicero's A-version of the argument. In the B-version of Cicero's text, the term 'fate' is now omitted or substituted with the term 'truth', incorporated into a temporal context ('true from eternity').

In the previous section, we sketched a character of logical determinism (that is, logical fatalism). We shall name it a **full-time fatalism**. Even though this kind of fatalism today has many names, its common and most important feature is that truths have fixed and continual values across the time. There are no gaps in their applicability in respect to the moment of time some described event could occupy or in respect to any other circumstances, conceptual or hypothetical. It is neither in principle the unpredictable and causally senseless fatalism of Bunge nor the 'discontinuity fatalism' of Wilson.

The approach that follows would seem, at the first sight, like a kind of mystification, as these theories may look a little bit strange and from today's perspective, hardly acceptable and outdated, but, from the other side, this approach corresponds with our intention to find a more appropriate ancient key for the real form of LA's assumptions. Evidently, full-time fatalism is not an appropriate assumption of LA and probably, in respect to its extant form, never was. If it was, critics of LA would make it out easily and probably not refrain to set out their comments. This is our reason to look for other available historical solutions in interpreting LA.

Even Aristotle was an opponent of the way of reasoning found in LA, a theory of fixed truth values can also be found in his works (in his *Phys.* and especially *de Int.* Ch. 9.). Truths are fixed and unchangeable

for stars as well for analytical truths. We could make future predictions true in advance in these spheres since these truths have *omnitemporal* as well as *atemporal* validity. However, in the sublunar sphere, especially where predictions coincide with biological matters, human actions or other contingent things, this is not the case. In the sublunar sphere time is *asymmetrical*. Only past truths are fixed while those of the future are open (or, let us say, almost open). This conception, since it asserts a causal nexus among past events and allows their causal explanation, is usually termed *past fatalism* and is one of our *part-time fatalism* conceptions. It seems that Aristotle would allow that all connections between events are causal by their nature and that they will be causal in the future too. However, some of the future events could be contingent and some could be dependent on human will and as such they would not be either part of our universal knowledge or within our power to know. In some of the non-universal cases we are not able to infer true proposition about future state of affairs. The future (only the sublunar future) is open and there are no existing truth makers of propositions with future reference. It is not completely clear what Aristotle had in mind when he partly allowed that in some cases we can know what will be. As it seems, his compatibilism and agent determinism is deeply rooted in an epistemic understanding of determinism. We have written about it elsewhere (Marko 1999; 2004, 255-258), but the point is, to put it in an illustrative way, that, when the *event* is, in time, nearer to us, then the contours of the future are clearer to our *knowledge* and our *predictions* start to be "more and more true". Further, for future events/propositions we can only claim necessity of the whole disjunction but none of its disjuncts is true in advance. Disjuncts in the brackets are not true, though they are also not false, even when disjunction is necessary and true. This solution presents a ground for Łukasiewicz's motivation to abandon two valued logic and also for van Fraassen's (1966) initiative to introduce the procedure of supervaluation for Aristotelian kind of future cases. For us of interest here is the summary of this past fatalism: the past truths are fixed, those of the future are open; (sublunar) time is asymmetrical; necessity in front of bracketed disjunction is not distributable to disjuncts within brackets.

However, we still don't know how lunar sphere could be determined in advance while the sublunar future is undetermined and why fatalism applies only to the past. The answer is dependent not only on

metaphysical presuppositions but, in the same measure, on the presuppositions of ancient cultural contexts and practices. We will find the answer partly in Aristotle but more clearly within some of his later commentators. Meanwhile, we shall introduce other kinds of part-time fatalisms. Before we proceed, let us say that almost all ancient philosophers (except probably Epicurus, who is a 'random' indeterminist, and perhaps Cleanthes (Cic., *fat.* vi, 14) will agree with **fatalism about the past**. This kind of fatalism usually covers together several principles. We shall introduce here only the most significant. *First*, if something is a case then a descriptive sentence covering it has to be true. Let us call it a restricted form of the 'from case to truth' principle, or a correspondence principle restricted by time-dependent conditions. *Second*, another principle would be a restricted form of the 'from truth to necessity' principle: if some proposition is true than it is necessary. Here, the principle is also restricted by time-dependent conditions. *Last*, among significant principles there is an explanatory principle of causal connection and it relates logical and physical notions of necessity – if something is causally related it is necessary (in both senses, physical and logical). If all of the principles are applied to the past than there is no doubt about their validity. Fatalism about the past, in general, could be a part of full-time fatalism, but is not necessarily so. It is usually interpreted as one that does not obligate its defender to any other form of fatalism. Only sometimes does it play a role by answering questions about time symmetry, with regard to certain epistemological aspects of causality and also to shaping a formulation of causal determinism.

### 6.1 Astrological fatalism – full-time and part-time

Neither for Aristotle nor for his philosophical and cultural surrounding the two regions, the lunar and the sublunar, are completely independent from each other. There is no strict border between them. Astrology was part of the institutional tradition and everyday predictive folklore. For these reasons, astrological fatalism can be interpreted as twofold.

### 6.1.1 Full-time astrological fatalism

In *one sense*, there is no barrier between the lunar and the sublunar spheres. The lunar simply govern the sublunar. In this variant, a physiognomy of fatalism is *full-time* in its character. Fate is written in the stars and there is no escape from it. In other words, the future is determined and on an epistemological level we are able to confirm it by predicting the moments in our lives by reading it from the stars, though, unfortunately, we are not able to escape the power of fate. This kind of fatalism is one of the candidates for laziness assumption. Cicero gives us the Stoics' example of this kind, expressed in a conditional form as an instantiation of a universal rule: "If Fabius has been born with the Dogstar rising, Fabius will not die at sea" (*de fato*, vi, 12). Fabius is a (personal) name that figures as a bound variable in exemplification of a universal statement "If anyone was born during the Dogstar rising…" It is an example of Stoic and Aristotelian *omnitemporal* truth. If someone fulfills the antecedent condition of being born during the Dogstar rising, that makes ground for knowing in advance his future fate according to the universal rule and in regard to the omnitemporality of truth and the strict connection between the lunar and the sublunar sphere. Even if fate could be known, there is no place to escape from it. An illustrative key fragment can be found in Manilius' *Astronomica* (4.14-22, *Goold*). According to him,

> Fate rules the world, all things stand fixed by its immutable laws, and the long ages are assigned a predestined course of events. In dying we are born and our end depends on our beginning… No one can abstain from what is given nor have what is denied, nor take hold of fortune with prayers if she is unwilling, nor flee what is at hand: all must bear their lot.

As we can see, there is no mercy here and there is no escape from fate. Everything is governed by immutable laws; everything is causally connected and determined; antecedent mirrors consequent and vice versa. The truths are eternal; time is symmetrical. This is full-time fatalism and its assumptions could be common to *logical fatalism* as well. Certainly, we could find some differences regarding the epistemological aspects of the two and also in their pragmatic capacities. But their metaphysical ground seems to be the same. Predictability without omission is (in principle) possible and all future truths are written in advance. As

in the case of logical fatalism, this could hardly be our candidate for the same reasons as mentioned earlier.

### 6.1.2 Part-time astrological fatalism

*Another sense* of *astrological fatalism* is connected to a reasonable question regarding the previous kind of fatalism: where is the sense in trying to find prediction if everything is fated and there is no escape from fate? The answers to this question form *the set of part-time fatalism options*. Let us call the first of them by its customary name – **The Egyptian fatalism**, or "The Doctrine of the Egyptian Sages." There is not much known about this kind of fatalism, though probably enough for our present purpose, due to a long text from Iamblichus (*de myst.* 8, 6), Nemesius' testimony (*de nat. hom*. 106.15–20 *Morani*) and Ptolemy's attestation to the medical practice of astrologers (*tetr*. 1.2.2-3). Iamblichus seems to be a creditable source since we are reading words taken from the letter of an Egyptian high priest Abammon addressed to Porphyry who claims that the majority of Egyptians believe that our will "depends upon the movement of the stars." There, Abammon refutes Porphyry's opinion that Egyptian religion relies only on rigid subordination to the inexorable rule of fate and that all aspects of human life are governed by astral gods and daemons. Actually, the mechanism of fate is rather the following. In respect to impact of fate, there is a class hierarchy not just among gods but also among peoples. Priests and physicians are some kind of privileged and exclusive class of mediators. The order of the stars is immutable. However, by applying the institution of sacred rituals, priests, who are able to communicate with the proper gods, those superior to and above the lower gods who are ruling the stars, it is possible, for example, to recover from a fatal illness. The outcome looks to be only the correction of one fate by substitution with another, more favorable. The questions that remain open are: "Is there free will as there is nothing we can personally do about it?" and "Is there at least a tiny line of freedom for changing the path of our destiny?" According to his reaction to Porphyry, Abammon would have answered with 'yes'. It is not so easy to change fate because the chain of dependence is long: our will is dependent on the will of a priest, his will is dependent on the will of higher gods who regulate the wills of lower gods, who at the end control our original destiny. In summary, you can read your destiny in stars and if not satisfied with it, you should go after the priest-physician and delegate him to intervene

at the appropriate address. The logical structure that covers this kind of (astrological) fatalism is the following (here the law of the excluded middle expression $C \vee \sim C$ – to consult or to not consult a prayer – presents an action switch from one destiny governed by stars to another, more favorable destiny):

$$\vdash \{(A \rightarrow B) \,\&\, [A \rightarrow (C \rightarrow D)] \,\&\, [A \,\&\, (C \vee \sim C)]\} \rightarrow (B \vee D)$$

Conditional $(A \rightarrow B)$ above[2] is an astrological prediction (like in Cicero's Fabius example – "If Fabius has been born with the Dogstar rising, Fabius will not die at sea"). The sole letter A in a conjunctive sub-form of the third conjunct is the testimony that the antecedent condition of our fate is fulfilled (instantiated antecedent of prediction, like "Fabius has been born with the Dogstar rising"). If we leave the initially predicted destiny unaffected and *do not consult a prayer* (~C), then our destiny should remain unaffected, bound and governed by the stars and in accordance with former prediction (B); i.e.:

$$\vdash \{(A \rightarrow B) \,\&\, [A \rightarrow (C \rightarrow D)] \,\&\, (A \,\&\, \sim C)\} \rightarrow B.$$

If we *do consult a prayer* (C) the outcome will be a more favorable destiny (D), and the previous unfamiliar predicted event (B) will be avoided, i.e.:

$$\vdash \{(A \rightarrow B) \,\&\, [A \rightarrow (C \rightarrow D)] \,\&\, (A \,\&\, C)\} \rightarrow D.$$

The initially predicted fate, covered by $(A \rightarrow B)$, in this case will yield a different form $(A \rightarrow D)$. The former fated outcome (B) could be escaped by applying the railroad switch (C). Obviously, here we have the case of part-time fatalism. One additional issue could be of interest for us in respect to the nature of the original LA. According to the testimonies of Cicero, Aristotle and Origen, their examples are related to recovering from illness. The practice of Egyptian astrologers was especially known to be successful in cases concerning health, so Egyptian fatalism often takes the name of *medical astrology* (Ptol., *ibid*.). From this angle, such fatalistic reasoning looks very familiar to LA's candidate assumption; however, it seems too far from the lazy futilism we are trying to discover.

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[2] The first conjunct $(A \rightarrow B)$ could also be read in extended form as $[(A \,\&\, \sim C) \rightarrow B]$, i.e. $[A \rightarrow (\sim C \rightarrow B)]$, but we omitted explicit quotation of ~C ('*to not consult a prayer*') as redundant here.

Yet another candidate has no other name except astrological fatalism. However, we must take care not to confuse it with the above two kinds of astrological fatalism since they are different in many respects. So let us temporarily give it a different name – **Virgil's astrological fatalism**. Why? The sentence from the above cited place in Manilius "In dying we are born and our end depends on our beginning," could be read and interpreted in different ways. One meaning can be found in Servius (*ad Verg. Aen.*, viii, 334), in his comment on Vergil words "almighty fortune and inevitable fate / place me on this soil." Here Servius says that Virgil "spoke according to the Stoics who attribute birth and death to fate, all things in between to fortune." According to this conception, key events in life (like birth and death and, according to certain authors, maybe some other important events in life) are subject to fate. The rest belongs to fortune. Only these key moments are governed by fate and can be read from stars. Predictions cover only these events. The other events are unpredictable and not written in the stars. Cicero, as in the case of Fabius (also in some other examples he probably took over from Posidonius, like that of Socrates and another of Laius (*de fato*, xiii, 30)), connects together only these two key events as fated. Let us call the period belonging to chance in between these two key events 'in the meantime.' This seems a good candidate for our purpose though there are some difficulties with it. Let us look at the problems closer.

Since the period 'in the meantime' between the two 'key moments' of our life belongs to chance, there is no place to apply and project the premises of LA into that period. This period is not fated. So, the appropriate interpretation in the context of LA would postulate that the second premise of argument is applicable only in the case of fatal diseases (diseases governed by fate and connected with key moments in our life, i.e. death). According to the argument, "if it is fated for you to not recover from this disease (i.e. that you will die)", then we are able to do one action of an exclusive pair – to this or that. This premise corresponds with the conception. However, if the disease is not fatal (disease connected with our key life moments, like birth or death), then the first premise will not be suitable. Why? If we are able to recover, this moment is no longer a key moment but one 'in the meantime' belonging to chance and not to fate and so it does not correspond with what the second premise claims – "it is fated for you to recover" – for recovering cannot be a fated event (since it is not fatal). That is not what Virgil's as-

trological fatalism (of key moments in life) would allow. This is the reason why the conception could neither be applied to other LA examples known, for example, to those from Diogenianus (*praep. ev.* 6.8. 25-29). Besides, let us note that Bobzien (1998, 201) criticizes Servius' interpretation of 'key events' as not belonging to early Hellenistic philosophy or to Chrysippus' theory of universal fate, though Cicero's examples from Posidonius can be in favor of this conception. An illustration of *Virgil's astrological fatalism*, in a logical manner, could have form of the following theorem:

$$\vdash \{[(A \rightarrow B) \,\&\, (B \rightarrow C)] \,\&\, [(A \rightarrow \sim B) \,\&\, (\sim B \rightarrow C)] \,\&\, (B \vee \sim B)\} \rightarrow (A \rightarrow C).$$

The two square bracketed sub-expressions illustrate the assumption of causality and a causal order; the principle of the excluded middle is the chance principle applied to the period of 'in the meantime'; the conclusion alone expresses inevitability of 'key moments'. We could write this illustration also as

$$\vdash \{[A \rightarrow (B \rightarrow C)] \,\&\, [A \rightarrow (\sim B \rightarrow C)] \,\&\, (B \vee \sim B)\} \rightarrow (A \rightarrow C)$$

though the former expression better stresses the assumption of causality and a causal order. The expressions in square brackets in both forms are also the equivalent to $[(A \,\&\, B) \rightarrow C] \,\&\, [(A \,\&\, \sim B) \rightarrow C]$ though the expressions in parenthesis here are not causally evident and could be captious in respect to a non-logical reading of the so-called 'key moment' A, which is fated, while B and ~B are not, which is not evident from the last squared expressions.

There is yet another difficulty if a causal order is assumed in the manner of *Virgil's astrological fatalism*. This conception seems to have absurd consequences. Let us consider the case of Fabius, who according to astrological prediction will not die at sea. For him, according to this conception, it would be *impossible* to die at sea. If events 'in the meantime' are free and their ordering is causal we can suppose and attach to Fabius agent-determinism during that period. He could do what he wants 'in the meantime.' But he cannot die at sea even if he tries. He even cannot fall in a sea battle. He is unsinkable at sea, simple immortal there. If it is so, not just key moments are fated, but there are more of them regulated by fate also 'in the meantime,' that belong to chance, that are not assumed by this theory. The theory says that just birth and death are fated.

As time passes and Fabius' destiny is coming closer to the fated moment, new problems are rising. His agent-causality freedom to choose is reduced as time passes by and fate has to navigate him toward the shore. The reign of free will successively starts to become more and more governed by fated inevitability. Like in Aristotle's epistemic determinism scenario, one of the two exclusive disjuncts becomes 'more and more true', while the other, conversely, less and less. During his life, Fabius is able to do 'this or that' exclusive disjunctive complement but his disposition for free agency choices are radically reduced, as time passes, by the wider and wider influence exercised by fate with respect to the targeted and fated 'key instant.'

Serious ancient debates are known about this conception. The example of twins has been for a long time a central subject in testing the validity of this conception (Cic., *de div.* ii, 43, 90-45.94; *fat.* Fr. 4; August. *civ. dei*, 5. 2). Twins, born on the same day, should have the same destiny or 'key moments' because their astrological fate must be the same. We know that the Stoics did not agree with the formulation that twins have the 'same' birth situation because there is always some short delay between two instants of their particular birth what makes noticeable differences in their destinies – even very small differences lying in the background of particular birth instants are connected to differences in astrological constellation and determination.

### 6.2 'No matter how and no matter what'

This kind of fatalism corresponds with the intuition Bunge probably had in mind above. As van Inwagen thinks (1986, 28), the conception (he ascribed to his representation of the putative 'strong inevitabilist') simply "den[ies] the reality of cause and effect," like in the Servius example – *Pompeius will triumph three times, no matter what happens* (*ad Verg. Aen*., iv, 696). However, we can imagine two variants of this conception. *The first* variant of the claim speculates on a 'miraculous' or indeterministic instant, in the sense that there is a causal gap after which the predicted or fated event appears. This conception we can imagine without laws and the assumption of causation, and it corresponds with the 'dramatic' conception of the mythical and epic predictions of the Ancient Greeks. The outcome is known in advance, though it is realized in an unexplainable way. But it does not comprise all the possible readings of this conception.

In *the second* variant, we can imagine a different situation, one that covers the 'reality of cause and effect' and which is *non-universal*, like in the case derived from the fact of the mortality of human beings: 'no matter what she does, at some point she will die'. Non-universality is here because it neglects the fact that the fated outcome is an instantiation of a universal connected pair. This conception could also be read in the sense of *Virgil's astrological fatalism* (although only to some extent, because here the 'key elements' pair relation is not presented as definitive). Even this second case is not persuasive and applicable for all situations and types of events, but it is enough to describe those types of situations where the 'reality of cause and effect' could be imagined as continuously present, without unexplainable gaps or miracles. A nice illustration of this fatalism is in Broadie (2007, 38–40). The reduced structure of this kind of fatalism would be the following:

$$\vdash \{[(A \rightarrow B) \,\&\, (\sim A \rightarrow B)] \,\&\, (A \vee \sim A)\} \rightarrow B$$

The outcome is inevitable and none of my actions could forbid it. This conception can act as a basis for Chrysippus' motivation to insist on introducing necessary co-fated suppositions into a causal version of this conception. For if the outcome has to be causally dependent then the antecedent must be represented through the completion of some necessary conditions (C) for the outcome:

$$\vdash \{[(A \,\&\, C) \rightarrow B] \,\&\, [(\sim A \,\&\, C) \rightarrow B)] \,\&\, C \,\&\, (A \vee \sim A)\} \rightarrow B$$

In such a case, however, the outcome can be realized completely without the assumption of our free will decision (here, without assuming the excluded middle component), since our decision is altogether irrelevant for achieving the fated outcome:

$$\vdash \{[(A \,\&\, C) \rightarrow B] \,\&\, [(\sim A \,\&\, C) \rightarrow B)] \,\&\, C\} \rightarrow B$$

This now corresponds with Chrysippus' criticism of LA, that whatever is fated must be followed by accomplishing a complete set of necessary conditions for the outcome. An open question is: what is the status of free will in this case (because an assumption of free will here is completely redundant for the outcome)? The domain of our will is reduced exclusively to the realization of events that are in accordance with (fated) conditions of (fated) consequences or to a sphere that is completely irrelevant to the occurrence of the outcomes. It is hard to say what the Stoics' solution was since the sources are contradictory. Some sources

are, from *one extreme side*, in favor of a *hard determinism* conception – our will operates completely in accordance with fate, like in Zeno's example of a 'dog tied to a cart,' where will is *compelled* to follow fate (Hyppolytus, *ref. omn. haer*. 1.12). A moderate solution to this approach is in favor of *soft* or *agent-determinism* where our will could be teleologically in agreement with fate by our free decision. The *other extreme side* is the one mentioned above in Servius' fragment (*Virgil's astrological fatalism*) – the will is completely free during the 'meantime' period, between two fated events. The list of possible interpretations and variations among them is richer since Stoicism covers different authors from different periods and does not present a completely unique conception.

### 6.3 Escaping and surpassing the fate

The above examples of *full-time* and *part-time* fatalism mostly accept that fated outcomes are inevitable and inescapable. There are, however, other conceptions of fatalism according to which some fated events, in some special cases, are possible to escape. *One* solution is escaping the fate *completely*, while the *other* concerns escaping it for a while, or to *temporarily* put fated events aside. For example, *Egyptian fatalism* is one kind that allows surpassing fated outcomes completely.

The best known theory of the first kind is **hypothetical** or **conditional fate** and **hypothetical necessity**. Tacitus, Nemesius, Alcinous and Calcidius ascribe it to Plato (Tac. *An*. 6.22.2; Nem. *de nat. hom.* xxxviii, 109,17-110,9 *Morani*; Alcin., *Didasc.* 26, 179, 1–34; Calc. *in Tim*. 150-4*f*., 186,13*ff*. *Waszink*). Plato (*Rep.* x) states that souls, even before reincarnation, are *responsible for choosing* their future lives. Cicero ascribes the idea to Carneades (*fat*. ix, 19). In latter times, mostly (Middle) Platonists (ps.-Plutarch, *fat.* 570c-e; Albinus, 26 179.2f.; Calc. *ibid.*) tend to restrict the absolute power of fate and universal necessity and to preserve responsibility by relying on the notion 'up to us.' Plutarch accepts the Stoics' position on fate as the connection between antecedent and consequent. What he criticizes in their interpretation is that the *antecedent is also in accordance with fate* (ps-Plut. *fat.* 570e). Our responsibility is 'up to us' – our choices and decisions are generated by means of what is 'up to us.' After the initial action in which the purpose of the will is realized, outcomes, once initiated, are no longer in our power. The same approach is sketched in Seneca (*nat. quest.* ii. 37), Diogenianus (*apud* Euseb. *praep. ev*. 6.8.25-29) and Oenomaus (*apud* Euseb. *praep. ev.* 6.7.).

Servius (*ad Verg Aen.*, IV, 696) gives the next example of conditional fate: *if* Pompeius after the battle in Pharsalia should touch a bank of Egypt, *then* he will die by a sword. So, *if* A, *then* B. Servius hereafter adds the following: "hic non omni modo necesse erat ut videret Aegyptum, sed si casus eum ad aliam forte regionem duxisset, evaserat, etc." That is, it was not completely necessary for him to see Egypt, but, on the contrary, if it happens to him to be in some different region, he will escape this end. So, *if* ~A, *than* ~B.[3] Fated things are not fixed antecedently from eternity, though once initiated, their outcomes come instantly through the power of fate and are necessary and inevitable. So, *if* A, *then* necessary B. We have no power to make any impact on the consequents of conditional relations and we are unable to change the outcomes in the meantime once the fated process is started. Most of the ancient astrological predictions are suited to the conditional form, as hypothetical statements, quite like the oracle said to Laius: '*if* you beget

[3] I am grateful to an anonymous reader of an earlier version of this essay for his remark that, as it is obvious, Servius' last sentence (*if* ~A *then* ~B) can be logically valid outcome of previous one (*if* A *then* B) only when the previous sentence claims something biconditionally, that is $(A \leftrightarrow B) \rightarrow (\sim A \rightarrow \sim B)$; *i.e.* if it is prefixed with 'only if' instead of simple 'if' (*only if* A *then* B). However, Servius probably has something different in mind. To read this sentence biconditionally would restrict other possibilities for Pompeius to die by a sword, in some other possible circumstances. He does not exclude that Pompeius could, in some other circumstances, die by a sword but not of necessity, for he also, before the moment of decision, had the chance to die in many different ways including by a sword. If Pompeius should touch a bank of Egypt, he will *exclusively* die in such a way while if he doesn't touch a bank of Egypt such an end is no longer necessary, although it is yet possible for him to die by a sword by choosing or not, now or in the future, some other fated options that can also cover death by a sword. Some of the ancient authors were aware of the unwilling outcomes the biconditional formulation of prediction can afford. Let us take Fabius' test example "If Fabius has been born with the Dogstar rising, Fabius will not die at sea" and apply it to the conditional fate conception. In the 'only if' reading of this prediction, if Fabius has *not* been born with the Dogstar rising then he will (inevitably) die at the sea. In this simplified form of Carneades' (probably non-Philonian) formulation, Fabius' death at the sea will be *inevitable* for the case when Fabius has *not* been born with the Dogstar rising, while in Servius' formulation, in this case, for Fabius it *would still be possible* to die at the sea, but *not necessary*. For this reason, I here left these claims as two separate conditional statements linked by a conjunction and omitted the 'only if' reading.

a son, *then* he will kill you'. If the antecedent is not fulfilled, then the consequent will not be realized. *If* the antecedent is realized, the outcomes of such a prediction could not be able to surpass and they come by necessity. Predictions and oracles of this kind relativize the notion of the *absolute necessity of fate* and push it toward *temporally relative necessity*, or necessity *per accidens*.

In an argument quoted by Cicero (*fat.* xiv, 31) Carneades criticizes the Stoics' position that everything comes about by antecedent causes – because something *is* in our power and thus *not everything* which comes about comes about by power of fate. According to him, since future truths are not fixed in advance "not even Apollo could say what is going to be" (*ibid*. xiv, 32). Predictions are possible only if they are restricted to conditionals with a realized antecedent, for these conditionals present the same kind of fated laws or nature of things that is realized inevitably and of necessity. Carneades' conception could be presented by the following expression that assumes an 'alternative fate' ($\sim A \rightarrow \sim B$) and respects his demands that a) 'something is in our power,' b) 'not everything is according to fate' and also covers a tacit assumption in his proof demonstrated in Cicero (*ibid*. xiv, 31),[4] that c) 'not all things come about through antecedent causes':

$$\vdash [(A \rightarrow B) \,\&\, (\sim A \rightarrow \sim B) \,\&\, (A \vee \sim A)] \rightarrow (B \vee \sim B)$$

Servius gives a more refined modal form of the expression:

$$\vdash [(A \rightarrow \Box B) \,\&\, (\sim A \rightarrow \sim \Box B) \,\&\, (A \vee \sim A)] \rightarrow (\Box B \vee \sim \Box B).$$

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[4] Carneades proof is by *reductio* and has two parts. α) P (if all things come about through antecedent causes) → Q (then all things come about in such a way that they are joined and woven together by natural connection); Q (if that is so) → R (then all things are brought about (*eficit*) by necessity); R (if it is true: that all things are brought about (*eficit*) by necessity) → S (then nothing is in our power); ~S (However, there is something in our power). β) F (if all things come about through fate) → P (then all things come about through antecedent causes); Carneades directly concludes that ~F (it is not the case that whatever comes about, does so through fate). Tacit to Carneades' assumption is the logical outcome of the first part of inference α), that ~P (it is not case, that all things came about through antecedent causes), and only from this assumption can we obtain the conclusion of the second part of inference β), ~F (it is not the case that whatever comes about, does so through fate).

In Carneades' case we have a railroad switch principle that corresponds to the dilemmatic form: if we have two conditionals with different fated consequents, then, if we chose one of two antecedents, the consequent of the other conditional is excluded and an alternative fate is avoided. Even at first sight, these two formulations, Carneades' and Servius', look similar according to the principle of their formation, but Servius' modal formulation is more subtle. It is not simply an 'alternative fate' conception, but rather presents an 'alternative to fate,' since, according to his suggestion, an alternative to fate is not fixed but open and expresses richer possibilities for free will ($\sim\Box B$): either $\{[(A \rightarrow \Box B) \& (\sim A \rightarrow \sim\Box B) \& A] \rightarrow \Box B\}$ or $\{[(A \rightarrow \Box B) \& (\sim A \rightarrow \sim\Box B) \& \sim A] \rightarrow \sim\Box B\}$.

It seems that in all possible formulations of a 'conditional fate' fatalism the principle of the excluded middle is redundant in the antecedent part of expression and could be omitted because the meanings of both implicative expressions in the square brackets are mutually excluding options. That is, the expression remains a theorem without the third conjunct, *i.e.* $A \vee \sim A$. According to one possible interpretation, 'conditional fate' fatalism could hardly be an adequate candidate for LA, since it fulfills Chrysippus' remark about the antecedent condition. From the other side, laziness could be applied to the period during the realization of the chosen consequent, after the antecedent is chosen. Even this is not full-time fatalism, we have to note, that here, in the meantime, after the outcome is initiated by the decision for one of the antecedents, conditional fate transforms and functions during that period in accordance with full-time fatalism principles.

Against 'conditional fate' form of fatalism (understood as a kind of universal conditional law) and predictions corresponding to it, there is one strong ancient objection. It comes from the atheist Oenomaus (*apud* Euseb. *praep. ev.* 6, 7), who calls it simply 'shameless'. If particular will is free to choose between two antecedent conditions what would the outcome be if the decisions of the other affected person were included in the same events and started a conflicting stream of fate? If Laius is master of his will, then Oedipus is too. Oenomaus concludes: "and as the latter (*i.e.* Laius) had the power of begetting or not, so the son had the power of slaying or not…" Two fates would be in conflict and their interference will change the fated outcomes in both cases. Oenomaus repeats Carneades' claim that not even Apollo could make the prediction in the case of conditional fate. But unlike Carneades, he criticizes

the conception of conditional fate as altogether untenable. Besides, here it is not completely clear whether the free will only decides for exemplifications of the antecedents of universal conditional laws or whether it can sometimes take a longer rest and act without constant pressure to chose between different fated outcomes? If fated links are restricted only to some kinds of events but not to all, then the will could be free and independent of conditional laws and always have the opportunity to escape fate. If all events are generators of fated outcomes, then escaping one fated chain means only substituting it by some other chain instead. Some answers concerning this problem came from Proclus.

Among those accounts that permit the **complete escaping of fate** we can include another. Proclus (*in Tim.* 3.272, 11–14) defends the Neo-Platonic conception of hypothetical fate. In his list of approaches, he also quotes some rival conceptions. For example, he cites an unknown place in Aristotle, where it is claimed that it is possible to escape the order of celestial motions, cosmic circuits, the intellect of universe, and in such a way "surpassing their fate." A few lines earlier, he introduced the Peripatetics, particularly Alexander, as stating that fate is *individual natural disposition*. Humans are born with a certain set of dispositions. Such dispositions by themselves determine the fate of the person. Fate of this kind could be overcome in different ways – for example, by improving skills, by enriching knowledge, by reflection on one's own dispositions given by *natural* fate. How it is technically possible? This conception assumes some kind of world hierarchy, quite like *Egyptian fatalism*. It is governed from the top to the bottom by the power of providence, followed by fate, and at the end of that process are humans and their individual dispositions. "Fate is the servant of Providence", as Boethius used to say (*cons.* 4, 6, 13) or, Fate is subordinated to Providence and governed by God according to the Law of Providence, as Hierocles thinks (*de prov.* in Phot. *Bib.* 461b28-31). In Hierocles' Neo-Platonic interpretation, the character of this law is hypothetical quite like in the case noted earlier ('if you do this, you will have such-and-such a punishment or reward'). Peripatetics, from the other side, could allow that one *can* overcome his fated dispositions given by antecedent conditions. Alexander said that men's actions and lives and endings "can *for the most part* (V.M.) be seen to be in accordance with their natural constitutions and dispositions" (*de fato*, 170, 20–23, *Sharples*). However, even hypothetical laws are strong, fate can still be completely overcome. In the example of Socrates' physiognomy, he says that it

is possible to override the stream determined by fate through exercising philosophy (*ibid*. 171, 7–17). His solution at the same time supports the usefulness of predictions, since predictions are connected to fated events and these are connected to *current* dispositions. Nevertheless, natural dispositions are capable of being *changed* and 'in some part' are open to our will: if Socrates had not been involved in philosophy, he probably would be governed solely by the power of fate depending on his naturally given dispositions. Prophets, soothsayers, physiognomists, etc. can only predict his *possible future* (not his *necessary future*) according to dispositions or signs related to these, but they are unable to predict possible *individual* transformations and deflections away from the stream of fate.

Boethius' conception of **mutable fate** is very similar to the previous one (*cons*. 5) and in some sense supervenes on that of Alexander. The idea has roots in Aristotle. Fate and Fortune are deity complements and Fate is accompanied by Fortune. Events are determined by Fate, but one can influence it and escape the power of Fate as Calcidius states (*in Tim.* 189). Only if Fate remains without any resistance will fated outcomes be realized. Ignorance leads to the full power of Fate, while resistance is helped by Fortune. Fate is the power governed by the static and unchanging providential plan of God realized through and by Fate, in space and time (*de int*[2] 193, 26 *ff*), while human souls can rise above the level of Fate by rational acting and can gain the mercy of Fortune. The equation is: more Fortune, less Fate; more rational acting, less determination by fate.

This conception, as another in the set of those accounts that permit the *complete escaping of fate* (let us add, sublunar fate), shares some points with *Egyptian fatalism* (celestial dependence, which could be changed and overcome…), with *Virgil's astrological fatalism* (fate is given by birth…) and with Carneades' *conditional fate* (and assumption of agent-determinism). In contrast to the indirect escape found in *Egyptian fatalism*, our will can overcome fated outcomes directly. Plus – there is no 'meantime fatalism' here.

Some authors state that fate can be escaped, but not in full. There are known cases connected with predicted fated events that could be **avoided only temporarily** or that could **happen before their time**. This is a soft version of *Virgil's astrological fatalism*, so let us give an illustration from Virgil's verses referring to the case of death 'before its fate': "For, since she was perishing neither by fate nor by a deserved death,

wretchedly before her day" (*Aen*. iv, 696). A fated *event* and its *date* are foreshadowing – once fated, the event alone is impossible to escape, while the date can be pushed aside for a while or could be reached even before the predicted moment. We could compare this option with aforementioned Oenomaeus' comment about two interfering wills and probably recognize them as grounds for explaining how to stretch fated time. In any case, the possibility of stretching the time dimension of predicted events gives additional sense to and reason for those interested in hearing predictions. However, it is hard to give some general opinion on these kinds of cases and to say whether they are full or part-time fatalism and whether the delay of fated event can be interpreted as an escape at all?

### 6.4 Posidonius' examples and the stretching kind of fatalism

There is a bundle of predictive examples in Cicero's *de fato* and *de divinatione*. Those presented at *de fato* (iii, 5 – 6) are probably taken over from Posidonius and discredited as problematic for different reasons. We will not deal with them in detail here. What is interesting is that these examples show some structure of representation about how fate can operate as well as one understanding of fatalism. Predictions are there presented as *inevitable* but in most of the examples there is some problematic stretching in respect to the 'topology' of prediction, much like before in Virgil's example with the phrase 'before her day'. Predictions cover some more or less strict informative content in respect to the *time*, *place* and *way* the predicted event will occur. Not all three elements are always present or fixed by prediction. In Socrates' example (*fat.* xiii, 30) the date was fixed in advance while in the case of Fabius it is just known that he will not die at sea. Fabius' destiny is not affirmatively formulated or predicted – the place, time or explicit way of death is not introduced.

The fixity of time is not by itself enough for a kind of fatalism to be full-time fatalism (logical fatalism). If one element is fixed but not the others, then this kind of fatalism can fall under its part-time variant. If 'Fabius will not die at the sea', then, when he is at sea, he is completely protected against fate, and, during his time at sea, he would be immortal because there is no necessary condition for his fate to be executed. So, fate is here stretching in its character since there is a way of escaping it.

Why is this aspect of fatalism of interest for us here? The assumptions of LA could be read as this kind of fatalism – like the stretching fatalism of an uncertain topology. LA could be understood also as assuming the absence of topological fixity. Certainly, the argument could be read in different ways and it does not mean that if some elements are omitted from predictions that the event could be not fated in a strict way or in the way of full-time fatalism. Here, we only wish to emphasize that such stretching conceptions were present in ancient times and could be a part of the context of our argument, too.

Probably the strangest kind of fatalism is the **Jerusalem chamber** of Harrison (1983). It looks similar to Cicero's example with Daphitas (*fat.* iii, 5) (for whom it is predicted that he will fall from a horse while he really ended up being thrown from a rock called Hippos – 'The Horse'). Here, no direct topology of the fated event is indicated {*place*, *time*, *mean*} but only an indirect and puzzling one. Even the program of fate could be, after the event, interpreted as fixed. This kind of fatalism is named according to Shakespeare (*Henry IV*, *p*. 2 *act* iv, *sc*. 5). The dying king is carried to the palace named 'Jerusalem Chamber'. There he dies, fulfilling a prophecy that he would die in Jerusalem. That should be enough about fatalism or fatalisms.

What kind of fatalism does encourage idleness? Aristotle criticizes the idleness conclusion but, as it seems, his conclusion is used more against logical fatalism as a conception than against the inference of the argument according to which fatalism implies idleness. At any rate, the form of fatalism that could act as an assumption in LA must assume a) some form of free will and b) fixed fated outcomes. Since only the Platonic-Socratic conception chronologically and conceptually corresponds with LA we suppose that the argument was directed to Plato and his conception of conditional fate understood as a law (*cf*. Alcinous, xxvi, 179, 1–34) or to some Socratic followers. The authors must be skilled in logic and defenders of causal and logical determinism. There are not many candidates from whom to choose since all traces point to the Megarians.

## 7 Further open questions

Why does this argument look to be Megarian? Let us briefly recapitulate the premises of LA as they are given above. The premises of the argument are these:

a) $P \rightarrow [(Q \vee \sim Q) \rightarrow P]$
b) $\sim P \rightarrow [(Q \vee \sim Q) \rightarrow \sim P]$
c) $P \vee \sim P$

Without its prefixes (*i.e.* 'to be fated' in the A-version or 'to be true from eternity' in the B-version), premises a) and b) are paradoxes of material implication while c) is LEM. Let us here recall that Chrysippus' critical notes are against inserting a LEM particle in a) and b) (*i.e.* $Q \vee \sim Q$ or reputedly free will). Chrysippus' request is to put the necessary condition (in his *external* or *internal* sense, *i.e.* of a *simple* fated or *co-fated* condition) instead of this particle. The polemics about LA now clearly grow into polemics about the problem of valid implication and the nature of conditionals. From one side, we have Chrysippus' request that the antecedent condition has to be *connected* with the consequent. From the other side, the argument affirms the claim that variables in implication *need not be connected* and that valid implication is not necessarily tied to its antecedent content. Since all three premises are tautologies we will expect that in the background of the argument is the logical fatalism approach. Furthermore, we could expect that the conclusion has to be reached 'solely on logical grounds' in conformity with the line of the ideal of logical fatalism. Who is or are Chrysippus' opponent(s)?

Some solutions of this form of LA (for example of Dummett, in line with a futility solution) are going toward a confutation against taking any precautions and toward the negation of a free will particle $Q \vee \sim Q$ – "any precautions you take cannot be considered as being effective in bringing about your survival – that is, as effecting it" (1978, 340). However, the negation of the inserted free will LEM particle $\sim(Q \vee \sim Q)$ simply cannot be validly inferred as a conclusion from the above three theorems. The idea of this procedure is very familiar to another historical argument probably originated in the same school and established on the same principles.

In only one place, as we know, LA is mentioned together with The 'Reaper' Argument (RA). Plutarch (Ps.-Plutarch, *fat*. 547e) mentions both as *sophisms*. Stephanus (*in Int.* 34,34–35,10), Ammonius (*in de int.* 131,20; 132,7) and an anonymous commentator of Aristotle (*in Int.* 54, 8–55,5 *Tarán*) held RA to be 'parabolic' – *i.e. the parallel argument*. Both features are common to LA, too. Not all versions of RA given in the literature could be compared to LA, but one of Ammonius' has some in-

teresting features. He is introducing RA as the argument that destroys possibility and leaves true propositions about future events just to necessity. This is the argument:

> 'If you will reap', it says, 'it is not the case that perhaps *(takha)* you will reap and perhaps you will not reap, but you will reap, whatever happens *(pantos);* and if you will not reap, in the same way it is not that perhaps you will reap and perhaps you will not reap, but, whatever happens, you will not reap. But in fact, of necessity, either you will reap or you will not reap'. Therefore the 'perhaps' has been destroyed *(aneiretai),* given that it has no place either in the opposition of reaping to not reaping, one of these occurring of necessity, or in what follows from either of the hypotheses. (*ibid*. 131, 25 – 31)

We could read the premises in this manner: 'if P then ($\overset{\text{not}}{\textit{whatever happens}}$ implies P)'; 'if ~P then ($\overset{\text{not}}{\textit{whatever happens}}$ implies ~P); P ∨ ~P; the conclusion will be about 'destroying possibility', *i.e.* ~(◊P & ◊~P). There are different readings of the argument (*cf*. Seel 1993). Also, different interpretations of the expressions, especially of the phrase 'whatever happens,' are possible. Let us suppose that the phrase instead of 'whatever happens' is something what is negated in the conclusion: *i.e.* ◊P & ◊~P. We omitted a temporal reading of the sentences and a prefix of the future as redundant here. We have:

a') $P \rightarrow \overline{[}(\Diamond P \,\&\, \Diamond \sim P) \rightarrow P]$
b') $\sim P \rightarrow \overline{[}(\Diamond P \,\&\, \Diamond \sim P) \rightarrow \sim P]$
c') $P \vee \sim P$

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d') $\sim(\Diamond P \,\&\, \Diamond \sim P)$

Even though the three premises are theorems, the conclusion is not logically valid. Several things are of interest to us. *One*, the first two premises are paradoxes of material implication, the third is LEM. The same case is in LA. *Second*, the argument is, as it seems according to sources, probably Megarian. *Third*, here we have a truth-functional reading of implication – as not valid only in the case when the antecedent is valid and the consequent not valid, *i.e.* the material reading of Philo. *Fourth*, inference in the argument leads to the negation of the second antecedent (the stable one) of premises a) and b) by help of LEM. *Fifth*, by analogy with RA, the conclusion of LA could have also been similar to a negation of the second antecedent of a) and b). The *sixth*

item is a little bit more complicated. Let us only say that the conclusion, derived from the conjunction of the complementary pair, is the strongest Megarian principle, the principle of plenitude – there are no unactualized possibilities (in the Megarian reading of temporal succession, which is considerably different from Aristotle's non-temporal interpretation of the principle and that equals ◊P and □P). There are several equivalent forms of the principle: one could be found in the RA's conclusion, *i.e.* ~(◊P & ◊~P). Other interesting forms of the statement are ◊P → □P and □P ∨ □~P. Neither of them are theorems. The last, □P ∨ □~P, resembles a principle criticized by Aristotle in *De Interpretatione* Ch. ix – *i.e.* it looks like (one precluded by him) an unrestricted distribution of the necessity operator in front of the bracketed LEM to the particular variables inside brackets. Aristotle does not deny this distribution completely and without restriction, but just for future cases. Distribution is not logically allowed and has nothing in common with LEM, whose legitimate modal version is □P ∨ ~□P (or □P ∨ ◊~P) but not □P ∨ □~P (or □P ∨ ~◊P).[5] However, we could imagine how this distribution is obtained (for example, in Aristotle or in the Stoics) by the application of LEM together with either the 'from truth to necessity' principle or the principles that 'whatever is the case is true' and 'whatever is true is necessary' (*cf.* Fitting – Mendelsohn 1998, 37; Kneale – Kneale 1962, 47-48; Haack 1974, 79-80). All *the past fatalists* (like Aristotle and his commentators were, as well as most of the ancient philosophers, except Cleanthes (Cic. *fat.* vi, 13) and perhaps Epicurus), would agree with such a distribution of necessity for the past since it is in accordance with the principle of past-conservation. What they saw in this step to be problematic is the application of this distribution for the future sentences.

Let us now cast a glance at the so-called 'proofs' – one, (A), is obtained by application of the 'case to necessity' principle, the other (B) by application of the Tarskian correspondence step i.e. by the 'case to truth' principle accompanied by the 'truth to necessity' principle:

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[5] To obtain □P ∨ □Q from □(P ∨ Q), at least in S4.3, it is necessary to fulfill two additional conditions, *i.e.* □(P ∨ □Q) and □(□P ∨ Q); *cf.* Rescher – Urquhart (1971, 256).

(A) $P \vee \sim P$
$P \rightarrow \Box P$
$\sim P \rightarrow \Box \sim P$
$\Box P \vee \Box \sim P$

(B) $P \vee \sim P$
$P \rightarrow TP$
$\sim P \rightarrow T \sim P$
$TP \rightarrow \Box P$
$\sim TP \rightarrow \Box \sim P$
$\Box P \vee \Box \sim P$

The outcomes of both versions would be of help in the version of LA premises extended by prefixed modalities and it corresponds to the phrase 'to be true from infinity' in the B-version of Cicero's source of argument.[6] The modally equipped premises will be:

a″) $\Box P \rightarrow [(Q \vee \sim Q) \rightarrow P]$
b″) $\Box \sim P \rightarrow [(Q \vee \sim Q) \rightarrow \sim P]$
c″) $\Box P \vee \Box \sim P$

If Diodorus really accepts usual interdefinability between necessity and possibility (as Øhrstrøm & Hasle think (1995, 25)), than the expression in c″) perhaps makes sense. Step c″) would be in some sense equivalent to the Diodorean principle of plenitude $\Diamond P \rightarrow \Box P$ (where the implication has to be read in the sense of 'follows after', *i.e.* $\Diamond P_{t1} \rightarrow \Box P_{t2}$, and $t1 < t2$). However, a″) and b″) are no longer valid principles of material implication. They are neither genuine Philo versions nor are they theorems at all (at least not in the usual modern sense). On this basis, the conclusion with a negation of LEM – inserted as the common antecedent in both premises, that plays a role in the negated disjunctive conclusion, i.e. $\sim(Q \vee \sim Q)$ – will not be acceptable, at least not for Diodorus. Here we simply lost the thread of the analogy.

From here onward we can continue only on the basis of not very clearly grounded conjectures and extrapolations. One among many possible solutions of this kind could be to borrow the formulation of an inserted LEM in the second antecedent ('whatever happens') of a″) and b″) and to substitute it for its RA formulation from a′) and b′), i.e. $\Diamond Q \,\&\, \Diamond \sim Q$, and then to transform it in such a way as to obtain the intended negated form in the conclusion, which implies the principle of plenitude, i.e. $\sim(\Diamond A \,\&\, \Diamond \sim A) \leftrightarrow (\Diamond A \rightarrow \Box A)$. This step gives us nothing more than we already know since the outcomes resemble RA – there is

[6] *Cf.* Part 1 of this article.

no possibility for free will either to call or not to call the doctor and everything that could be done is necessitated in advance, since possibilities cannot be unrealized. It is in accordance not just with RA but also with Diodorus' Master Argument (MA). It is in conformity with his intended conclusions toward the logical fatalism position. However, there is nothing in common here with the futility conclusion of LA in the versions quoted in our historical sources. Also, it is hard to imagine some alternative reading of basic Megarian principles that would enable us, in this construction, to obtain a conclusion in a logically valid way. Like in the RA example, the conclusion here cannot be obtained in a logically valid procedure (and without some additional, here tacitly presupposed, assumptions).

In our opinion and in respect to these three similar forms of the argument (RA, LA, MA) – either in Philo's or Diodorus' way of reading implication – to prove futility was not the intention imbedded in the arguments. The more acceptable assumption would be to expect that the originally offered Megarian conclusions had something in common and are projected with approximately the same mission and with the same metaphysical background that corresponds to logical fatalism.

### 7.1 Laziness

The argument formed towards the laziness hypothesis would have to include a different line of reasoning, primarily one that must accept additional assumptions besides those given in the above formal skeleton suggested by known LA sources. As the first, it has to cover the transition from the free will decision 'whatever happens' option (W) to 'ineffectiveness' (I), and then, from 'ineffectiveness' to decision of 'laziness' (L). Both options are those we could find among some of *the part-time fatalism* options, but not in the logical fatalism which takes the form of *the full-time fatalism*. In part-time fatalism (not in all its forms), fated outcomes (F) would be realized regardless of our decisions. The line of reasoning that has to be incorporated in such an argument would probably be like this

$$\vdash \{[F \rightarrow (W \rightarrow I)] \,\&\, [(W \rightarrow I) \rightarrow L]\} \rightarrow (F \rightarrow L),$$

where the first square-bracketed pair covers the transition from fate to ineffectiveness, while the second ensures the transition from ineffectiveness to laziness. Even in such a case, when we additionally include

the assumption of the disjunctive exclusive pair ('to be recovered' (p) and 'to be not recovered' (~p), predicated by 'to be fated'), the systematic error seems further to be present.

$$\vdash \{[Fp \rightarrow (W \rightarrow I)] \,\&\, [F{\sim}p \rightarrow (W \rightarrow I)] \,\&\, [(W \rightarrow I) \rightarrow L)]\} \rightarrow [(Fp \vee F{\sim}p) \rightarrow L]$$

The argument constructed in this way, although logically valid, is not based on a pure form of LEM or an exclusive disjunction but on an inclusive disjunction (since it does not claim $Fp \vee {\sim}Fp$). The same validity would be obtained by the substitution of the modal notion of necessity instead of F:

$$\vdash \{[\Box P \rightarrow (W \rightarrow I)] \,\&\, [\Box{\sim}P \rightarrow (W \rightarrow I)] \,\&\, [(W \rightarrow I) \rightarrow L)]\} \rightarrow [(\Box P \vee \Box{\sim}P) \rightarrow L].$$

Even though this reasoning gives the formula a logically valid form from the modern point of view, the last antecedent is not in the form of LEM, i.e. $\Box P \vee {\sim}\Box P$, but is given an expression equivalent to the principle of plenitude, i.e. $\Box P \vee \Box{\sim}P \leftrightarrow \Diamond P \rightarrow \Box P$. This certainly is not what today's consistent logical fatalists will accept wholeheartedly since the free will form of laziness is based on two free decision moves – a free decision for ineffectiveness and also a free will decision embodied by 'whatever happens' (or 'whatever we freely do').

In LA, in the form given by the existing ancient sources, these assumptions are either tacitly presupposed (and the argument is an *enthymeme*) or the argument remains a logically inconclusive sophistical construction, as some of the ancient commentators of the argument believe.

Our opinion is that the argument, during its history, runs through some key transformations: from a genuine full-time fatalism form, established as *criticism of free will decision* against some rivals (probably soothsayers or Platonic and Socratic opponents defending conditional fate options or any other form of part-time fatalism), to its transformation into an argument defending free decision making in favor of laziness. In its genuine form, its mission was to show, by a *reductio* form, that our actions are necessitated. In its preserved form, the argument is blocked in some kind of interregnum: it is neither an effective argument for laziness nor for logical fatalism. The genuine effectiveness of the argument and its logical validity are, during the time, lost. The generality of its genuine applicability is reduced exclusively to some

of the part-time fatalists and, what is worst of all, according to existing testimonies, it looks like an argument in favor of them.

At the end, we will summarize some of our observations. There are many interpretations of ancient fatalism. They can be presented as arguments forming valid inference schemas, i.e. as theorems. Chrysippus' reaction to the argument, according to the preserved testimonies, is not as persuasive as it can seem at first sight to his commentators. The argument, as it is preserved in historical testimonies, is not logically conclusive. In this form, it seems to be proposed in favor of *part-time fatalism* (plus *past time fatalism*). The argument assumes that free will is unacceptable from the standpoint of the logical fatalist but plausible for some of the non-universal or part-time fatalists. There are indications that the layout of the argument is not genuine but taken over from a Megarian source and later transformed. The genuine form of the argument seems to be given in different way far closer to logical fatalism and without the purpose of defending laziness. If the historical argument has to lead to a logically satisfactory solution, some additional assumptions and additional tuning are needed. A survived forms are not enough satisfactory for this purpose.

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