

ON CICERO'S FABIVS ARGUMENT

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MARKO, V.: On Cicero's Fabius Argument
FILOZOFIA, 75, 2020, No 8, pp. 677 – 692

This article aims to show that it is impossible to put Cicero's testimonies regarding *The Fabius Argument* in a consistent inferential order. Either we must suppose that additional premises are tacitly assumed in the text or we must compare it with other sources, which leads to inconsistencies in the proof's reconstruction. Cicero's reconstruction of the progression of the argument has formal shortcomings, and the paper draws attention to some of these deficiencies. He interpreted sources in a revised and intentionally simplified way, with the aim of undermining the views of his opponents, casting them as inconsistent and similar to views held by Diodorus. Rather than being a consistently interpreted argument faithfully transcribed from the Stoic sources, Cicero's Fabius Argument is ultimately anti-Stoic.

Keywords: Cicero – The Fabius argument – Stoic logic – Modality – Conditional – Connectedness – Incompatibility – Paraconditional

Since the age of the commentaries of Turnebus and Ramus and their confrontation regarding Cicero's *De fato*, it has been suggested that Cicero, although a superior orator, was not a wholly successful dialectician and transmitter of Stoic teachings (Lewis, 1998, Ch. 5). It is clear that Cicero did not strictly follow what Chrysippus said or wrote. In his exposition on the subject, Cicero's intention seems to have been not merely to inform his audience by transmitting the words of the Stoics to the Latin youth, but to present Chrysippus as an inconsistent philosopher.

In his *De fato*, Cicero introduces the *Fabius Argument* (FA) as an illustration of Stoic opinions on a broad array of topics. He comes across as a well-informed speaker and gives the impression that he is faithfully representing his sources. By applying the principle of charity in interpreting the text, modern commentators have attempted to depict and understand it as part of a meaningful and consistent whole. They have traditionally assumed that the two passages in which FA appears (*Fat.* vi, 12 – vii, 14) are

based on Stoic sources and that the mode of its composition was reliable.¹ Although FA is usually presented by scholars as a genuine Stoic argument, the confusion arises from Cicero's comparison of Diodorus', Philo's and Chrysippus' standpoints on the modalities and truth of predictive propositions and from his own critical comments and convictions on these matters. Certain recent authors, such as Brennan (2005, 244), have pointed out that FA is instead *an anti-Stoic argument* – one that can be used in a broader argument not only against the Stoic conception of fate and divination but also against basic Stoic logical principles. Cicero's anti-Stoic attitude is revealed in his reconstruction's formal shortcomings (not only from a modern standpoint) and how it is presented.² The following will attempt to draw attention, as far as space allows, to some of these deficiencies.

The argument

In his *De fato*, Cicero introduces two versions of the *Fabius Argument* (at *Fat.* vi, 12 and vii, 14).³ Its exposition is interrupted by intermediate critical and explanatory digressions. At the center of the discussion are certain astrological or divinatory principles (Gr. θεωρήματα; Lat. *percepta*) obtained from skilled observation of the repeated appearance of celestial phenomena that correlated to later occurrences of certain kinds of events. Here, we are faced with an *artificial* form of divination (*div.* i. xii, 34 and 72; [Plut.], *Vit.Hom.* 212), in contrast to *natural* divination (grounded not in observation but in the natural capacities of seers). Such divinatory theorems correspond to the Stoic idea of something's being a signal (σημεῖον), where the appearance of something that is covered by the antecedent part of a conditional proposition anticipates the consequent, according to a certain divinatory theorem. According to Sextus, the Stoics introduced “the concept of a signal by saying that a signal is a ‘pre-antecedent’ (προκαθηγούμενον) statement in a sound conditional, revelatory of the consequent” (S.E. *P.* ii, 104; *M.* viii, 272 – 273; cf. Philod. *Sign.* i, 1 – 17). We will divide the exposition of FA into its respective parts.

¹ Gould (1967), Hunter (1994), Gaskin (1995), Bobzien (1998), Allen (2001), LaBarge (2002), Brennan (2005), Kreter (2006), Schallenberg (2008), Hájek (2009), Wiedemann (2019).

² Bobzien (1998, 150), for example, writes that “this argument is tortuous, and in part rather obscure”.

³ A similar case can be observed in Cicero's exposition of *The Lazy Argument* (*ignava ratio*) in *Fat.* xii, 28 – xiii, 29 – there, in one mode of the argument, the prefix is related to *the power of fate*, while in the another, the prefix is related to *the power of necessity* (cf. Marko, 2011). According to Cicero's interpretation, however, both use almost the same inferential strategy. Here, there is a partly different case, since the second part (*Fat.* vii, 14) is related to *natural causes*. We can only conjecture whether there is room for analogy here and which part could be concerned with the power of fate or with the power of necessity.

The first part – steps 1 and 2

This is an introductory part of the proof from *Fat.* vi, 12:

- | | |
|-------|--|
| 1 | For if the conditional |
| 1A(T) | ‘ ^(a) If anyone has been born with the Dogstar rising, ^(b) that one will not die at sea’ is true, |
| | then |
| 1B(T) | so too is [true] ‘ ^(a) If Fabius has been born with the Dogstar rising, ^(b) Fabius will not die at sea.’ |
| | Therefore, |
| 2 | these things are incompatible (<i>pugnant inter se</i>), |
| 2A | namely that ‘Fabius has been born with the Dogstar rising’ |
| 2B | and that ‘Fabius will die at sea.’ |

The first premise is a complex hypothetical proposition formed from two propositions that are additionally qualified as true. The antecedent of 1 is 1A, and its consequent is 1B. Both premises, 1A (‘If anyone has been born with the Dogstar rising, that one will not die at sea’) and 1B (‘If Fabius was born at the rising of the Dogstar, Fabius will not die at sea’), are *additionally* qualified as true, and they form 1A(T) and 1B(T). Schallenberg (2008, 118 – 119) and Wiedemann (2019, 184 – 185) interpret the transition from 1A to 1B as a case of universal instantiation, where the example of Fabius in 1B is an instantiation of the universal proposition in 1A. By incorporating an additional principle (“from [past] truth to necessity”) and substituting “is true” with “is necessary”, they interpret the first two premises in the following way (here R stands for the predicate “to be born with the Dogstar rising”, while the predicate D stands for the predicate “die at sea”).

- | | | |
|----|-----------------------------------|------|
| a) | $(x)\Box(Rx \rightarrow \neg Dx)$ | A |
| b) | $\Box(Rf \rightarrow \neg Df)$ | 1 UE |

As Bobzien observes (1999, 112),⁴ however, the modern predicate logic interpretation is not necessarily (or fully) applicable to the logic of the Stoics. Besides, if we consistently follow the source, then Hájek’s (2009, 216) objection sounds convincing. In Cicero’s text, premise 1 seems to be a complex conditional proposition composed of two sub-conditionals, 1A(T) and 1B(T) – that is,

if 1A(T) then 1B(T).

⁴ Bobzien (1999, 112): “The modern way of wording and formalizing such statements, which brings out the fact that their grammatical subject expressions do not have a reference (‘For anything, if it is F, it is G’, $(x)(Fx \rightarrow Gx)$), did not occur to the Stoics. We do not know how far they ‘understood’ such quantification as lying behind their standard formulation.”

In Cicero’s text, step 2 is presented as an outcome of the complex hypothetical conditional assumption 1 – step 1A(T), as the antecedent, is a proposition that consists of the inserted conditional 1A, which is *additionally* qualified as *true*. The consequent 1B is prefixed in the same manner – conditional 1B is also *additionally* qualified as *true*. To obtain something that logically leads from 1 to 2, we need additional confirmation that 1A(T) is true, for here the truth is claimed only hypothetically since 1 is the complex conditional. To obtain 1B(T) from the complex hypothetical 1, we need to confirm the conditional in the antecedent of 1 as true. However, it will not be necessary to confirm 1A(T) in 1 if we are dealing with a *paraconditional* (*pseudo-conditional*, *subconditional*, παρασυνημιμένον, D.L. vii, 69 – 74; S.E. *M.* viii, 443), where the truth conditions for propositions in this kind of conditional would be the following: 1) the consequent follows from the antecedent, and 2) the antecedent is confirmed as true (D.L. vii, 74). Since 1A(T) is claiming that 1A is true, the outcome 1B is also true. In this sense, the inferential transition from 1 would be unproblematic (at least according to the later Stoics), if we interpret the premises or a complex conditional at 1 as being given in a paraconditional form – formed by the connective “*since*” (ἐπεὶ) or “*indeed*” (εἴπερ) – claiming the actuality or truth of 1A:⁵

$$\begin{array}{l} \text{Since } 1A \\ \hline \therefore \text{ so } 1B, \text{ too} \end{array}$$

Even though Cicero does not introduce it in this way, in this conjectured and re-shaped form, premise 1, as a whole or as a complex hypothetical proposition, enables the transition from 1A to 1B. It partly resembles μονολήμματα (a single premise argument; S.E. *M.* viii, 443; *ibid.* ii, 167; Alex. *in APr.* xxi, 25; xxvii,2; Alex. *in Top.* viii, 16; Apul. *in Int.* 184.16 – 23), where 1B plays the role of an inference based on 1A. The idea is that enthymematic arguments can rest on previously cumulated and confirmed knowledge, even if it is not necessarily explicitly expressed. Only now the transition from 1 would be, in some sense, open for the further step 2. It should nevertheless be noted, here, that this kind of inference would not have been acceptable to Chrysippus. Both paraconditional and single-premise inferences are usually ascribed to the later Stoics, Crinis and Antipater.

The formulation of FA given by Cicero is not fully comparable with a familiar kind of argument known from other sources. 1A is a non-simple (οὐχ ἀπλᾶ)⁶ proposition. It is composed of two *simple* (ἀπλᾶ) propositions (1A^a and 1A^b). They together form (by the nature of the connective) a kind of *conditional*, interpreted as *connectedness* (συνημιμένον). In the antecedent of 1A, we have the proposition

⁵ D.L. vii, 71: ἐπεὶ; S.E. *M.* viii, 109 – 110: εἴπερ.

⁶ D.L. vii, 68 – 69, S.E. *M.* viii, 93, 95, 108.

1A^a – ‘*someone* has been born with the Dogstar rising,’

where the proposition is formed by the indefinite particle “someone” and a prediction – “someone α ”. In the consequent

1A^b – ‘*that one* will not die at sea,’

“that one” (i.e. ‘*that one*, predicated with β ’) is here used *anaphorically* and rests on a simple indefinite proposition ‘*Someone* α ’ given previously in the antecedent. In the consequent part of the conditional, it has no deictic function that plays the role of a direct reference to an object that can be identified by this expression.⁷

1A^a is a *simple indefinite* (ἀόριστα) proposition. Sextus informs us about the procedure of *subordination* (ὑποτάττειν) related to this kind of proposition (S.E. *M.* viii, 97) – ‘*Someone* is walking’ is indefinite since it defines none of the individuals who are walking. So, for the proposition to be true, the proposition with a definite (ὀρισμένα) expression, ‘*This one* is walking’, must point out a particular person who is walking (S.E. *M.* viii, 98). For 1A^a to become true it needs an additional claim – that is, the proposition with a definite expression, where some object is being (deictically) indicated: ‘*This one* has been born with the Dogstar rising.’ The last proposition needs to be subordinated to 1A^a for the whole conditional proposition to be true. Sextus gives an example of subordination in the divinatory predictions (S.E. *M.* viii, 308, 313; *M.* ii, 141):

- (i) If a god has said to you that this man will be rich, this man will be rich;
- (ii) but *this god* (suppose that I point to Zeus) has said to you that this one will be rich;
- (c) therefore, this one will be rich.

Here, the conclusion (c) is obtained from an indefinite proposition (i), based on “belief and memory” (i.e. some divinatory theorem), across (ii), which is definite and points to the god Zeus (or his statue). The case is described by Sextus as an argument based on previous knowledge or the authority of the gods – *not* on the force of the sole formal inference *but* on believing the assertion of the god. In Cicero’s text, there is no such proposition equipped with the definite expression that confirms the indefinite proposition 1A^a. By analogy with Sextus’ example of divinatory prediction, we would expect a proposition with a *deictic* use of the pronoun with demonstrative force (cf. S.E. *M.* viii, 96 – 98; Galen, *PHP* ii, 2.9 – 11 or with ἐκεῖνος; S.E. *M.* xi, 8, 10, 11; D.L. vii, 75):

⁷ *Sch. in. Dion. Thr.* 518,39 – 519,5: “Every pronoun is fully defined either through *deixis* or through *anaphora*, for a pronoun either signifies a *deixis*, like ‘I’, ‘you’, ‘this one’, or an *anaphora*, as in the case of ‘he’...”

2A* – ‘This one [*pointing to Fabius*] has been born with the Dogstar rising.’

Instead support of 1A, by serving a subordinated proposition like 2A*, Cicero introduces the conditional 1B – the hypothetical proposition in which the subject of both the antecedent and the consequent is *the intermediate* (μέσσα), a proposition, equipped with a *proper noun*, which leads *neither to an indefinite nor to a definite proposition*⁸ and in addition lacks confirmation if it does not point to a particular person. For example, supposing Fabius is dead, 1B (‘If Fabius has been born with the Dogstar rising, Fabius will not die at sea’) can be true even if the subordinated proposition 2A* (‘This one [*pointing to Fabius*] has been born with the Dogstar rising’) is no longer possible because, according to the Stoics, it is classified as ‘destroyed’ (since it is no longer able to designate a particular person; cf. Alex. in APr. 177.25-178.4). In addition, if there are two people with the name “Fabius”, when I say ‘Fabius will not die at sea,’ an interlocutor could think that I am speaking about Fabius¹, even though I have in mind Fabius². According to Priscian, personal names were established in order to distinguish each individual from others. However, a proper noun can lack determinacy due to possible confusion and *fall into indefiniteness* (Prisc. Inst. GL iii, 145.22-146.4). For this reason, proper nouns are generally *indeterminate* when used without an appropriate act that includes *deixis*.

With the additional step of providing deictic pointing – as in 2A* – the further step would be clear even when expressed by a modified anaphoric expression:

2B* – ‘*he* will not die at sea.’

Step 2 could, according to the Stoics, be obtainable from 1B alone. In this form, the transition from conditional to conjunction is obtained by the Chrysippean rule related to *conflict* (μάχη, incompatibility) and *connectedness* (συνάρτησις). According to Sextus’ testimony (S.E. P. ii, 111; cf. D.L. vii, 73):

those who introduce *connectedness* (συνάρτησις) say that a conditional is sound (ὀγιᾶς συνημμένον) when the opposite of its consequent *conflicts* (μάχεται) with its antecedent.

In the proof, the conflict arises from propositions 2A and 2B. From the conditional proposition 1B (‘If Fabius has been born with the Dogstar rising, Fabius will not die at sea’), which connects two propositions about events (1B^a and 1B^b), a conflict or

⁸ S.E. M. viii, 97: “‘Socrates is sitting’ is *intermediate*, since it is neither indefinite (for it has marked off the specific case) nor definite (for it is not expressed with a demonstrative reference), but seems to be intermediate between the two of them, the indefinite and the definite.” For an explanation of why a personal name is not strong enough to appropriately cover the object indicated, see S.E. M. viii, 100 – 102.

incompatibility is obtainable by supposing a proposition that is the opposite of the consequent 1B^b. By applying the above principle, we can present the transition from connectedness (step 1B) to conflict (2). The sign “ \rightarrow_c ” is used here for the proposition with *connectedness*:

‘1B^a \rightarrow_c 1B^b’ is sound when ‘*not both*: 1B^a and *not* 1B^b.’

In the sense of material implication, it can be compared to the equivalence $p \rightarrow q \dashv\vdash \neg(p \wedge \neg q)$. Is connectedness here (\rightarrow_c) to be interpreted along the Philonian lines of (material) implication or along Chrysippean, non-Philonian lines? According to the Philonian, temporally determined (unrestricted) formulation, a conditional is (*always*) true when it (*never*) begins with a true antecedent and concludes with a false consequent. Besides, Philo would allow for a true consequent to *follow* from a false antecedent. Chrysippus’ conditional is temporally *restricted* and can change its truth value in respect to circumstances and in accordance with the *presence* of the corresponding object.

Gould (1967, 160) classifies the Chrysippean conditional as a natural law. Hájek (2009, 220) treats it as something stronger than a natural law. Prior (1967, 118) – commenting on the Fabius example in Cicero and predictions from past truths – states that we cannot treat astrological predictions like 1A (and its “instantiation” here in 1B) as a law, since after the occurrence of the predicted consequent, the prediction is no longer true even though, in some sense, its antecedent could still be true. After the predicted event has occurred, the problem of past predictions remains, since such predictions may change their truth values (he identifies both Ockham and McTaggart as sharing this general objection to the nature of ‘past predictions’). Prior suggests that the *temporal sequence* where the truth of the prediction could be applied is *during* the limited period indexed by points of antecedent occurrence and consequent occurrence, but not after the latter. As a solution for such cases, Prior recommends using metric tense logic, which would give us more adequate expression since it can cover *a duration* that is pointed to by a proposition that is indexed in this way.

Sextus (*M.* viii, 108 – 110) ascribes to the Stoics the Philonian account of conditionals (which allows a true consequent to *follow* from a false antecedent). However, it seems that in cases of divinatory theorems – with inferences from signals where connectedness is applied – Chrysippus holds that the antecedent must in some sense be *relevant* to the consequent. It leads to the interpretation of a conditional as true only in cases where connectedness is valid and where both antecedent and consequent are true together (during some restricted period related to the deictic criterion and depending on the truth of antecedent). According to this interpretation, such a conditional, tied by

connectedness, would be stronger than Philonian material implication.⁹ Let us recall Sextus' question (*M.* viii, 248 – 250) concerning true and revelatory conditionals:

whether the sign is to be sought in all [sc. *Philonian*] sound conditionals, or in some, or in one?

He immediately gives the response regarding not all conditionals generally but rather those restricted to the signal:

If, then, the signal (σημείον) has to be true and capable of displaying what is true, it will not belong in the one that begins with false and finishes with false, nor in the one that begins with false and finishes with true. So it remains for it to be only in the one that begins with true and finishes with true, seeing that it is itself real and the thing signified ought to be real alongside it. So when it is said that the signal is an antecedent proposition in a sound conditional (ὕγιες συνημμένον), we need to understand it as an antecedent in only the conditional that begins with true and ends with true.

Here, there is another peculiarity of such a conditional, which claims connectedness and contains the signal. It is not just a true antecedent connected to a true consequent. It must be related to a *present* (real, existent) signal, one that is revelatory and that uncovers something that is unknown, non-evident and in some sense *present* (*ibid.* 254), as in the examples he provides (*ibid.* 253):

if she has milk in her breasts, she has conceived;

if this person has thrown up bronchial matter, he has a wound in his lungs.

The antecedent is a signal of the consequent, and the first atomic proposition in the conditional uncovers the second. It does not hold as a signal of the past event as in the case 'If this person has a scar, he has had a wound,' since the person could have recovered in the meantime and in that case would no longer have a wound. In the case

⁹ Some authors used to classify $p \rightarrow_c q$ as a strict implication: $(p \rightarrow_c q) \equiv \Box(p \rightarrow q) \equiv \neg\Diamond(p \wedge \neg q)$; cf. Bocheński, 1951, 90; Mates 1961, 4, 47 – 49. Long & Sedley (1987, vol. ii, 210) argue that if we interpret connectedness as a *modally* negated conjunction, "this ... notoriously carries the paradox that if p is impossible the conditional comes out sound for any value of q whatsoever." According to them (following an opinion based on Philod. *Sign.* xi.32 – xii.31), the Stoics adopted *the elimination method* in their interpretation that q follows from p if and only if, when q is 'eliminated', p is thereby 'co-eliminated'. In our example, the problem with strict implication arises with counterfactual cases: would Fabius (either 'possibly' or 'necessarily') die at sea if he had not been born with the Dogstar rising? Others discussed this as a stronger relation, where premises have "something in common with one another" (S.E. *M.* viii, 430). It resembles a relevant (or connexive) implication in the sense described by McCall (1966), Anderson and Belnap (1975); cf. Barnes (1980, 169 – 171). For discussion, see Stopper (1983, 285 – 286), De Vincentis (2008, 17 and 2006, 230ff).

of a signal of future things, however, such as ‘If this person has been wounded in the heart, he will die,’ he claims (*ibid.* 255) that a future thing is in some sense *present*:

the proposition that he will die, being said about a thing that is to come, is present, in so far as it is true even now.

According to another testimony by Sextus (*P.* ii, 100), for the Stoics some signals are *commemorative* (ὕπομνηστικά), while others are *indicative* (ἐνδεικτικά). The commemorative signal is the result of making associations and stating constant correlations among observed events – the thing that is associated with an observed signal is temporary not evident, and while at the moment it is not clearly perceived, at some other moment it can be manifested (as in the case of smoke and fire; S.E. *M.* viii, 152). The indicative signal is not clearly associated with the thing that is signified, since the signified thing will never be manifested but only imagined (just as bodily motions are signals of the soul and visible perspiration is a signal of invisible pores in the skin; S.E. *M.* viii, 152, 306). The Fabius example could be classified among the commemorative signals because the thing that is signified is in some sense ‘present’ and what is signified will appear. Insisting on ‘presence’ enables us to exclude possible ambiguities that could arise from counterfactual formulations (such as the example ‘If Fabius had not been born with the Dogstar rising, he would die at sea’).

From step 3 to step 4

Cicero now proceeds with exposition of the argument in the following way:

- 3 Since (*quoniam*) it is supposed as certain (*certum*) in the case of Fabius that
3A he *has been born* with the Dogstar rising,
4 (therefore), these things are also incompatible (*haec quoque pugnant*):
4A ‘Fabius *exists*’
 and
4B ‘(he) *will die at sea*’;

Step 3 is not a repeated or modified proposition but an additional premise. It sounds quite strange in the context of the argument as a whole. It also begins with the Stoic logical connective ‘since’, which is associated with the paraconditional form noted above. Festus (*de verb. sign.* 261, Müller) informs us that the term *quoniam* is the Latin translation of the Greek term ἐπεὶ – which corresponds to the connective ‘since’. Festus additionally adds that it introduces not only “what is” but also “what has been” and that it also refers to the reason for (or cause of) what is signified. If this is so, then it seems that in this step we have redundant expressions – *quoniam* alongside *certum* – for the ‘since’ of the paraconditional already introduces the confirmation of the antecedent. Cicero has either tried to find the appropriate Latin phrase for

the Stoic connective or simply wished to additionally emphasize that the proposition inserted in 3 is true, similar to the above cases of 1A and 1B.

Taken together, propositions 3 and 4 sound like a single conditional sentence as well – with 3 (together with 3A) as an antecedent and the conjunction of 4A and 4B as a consequence. 3A is a variation on the previous 2A (but now equipped with an anaphoric expression related to a proper noun from the opening part of 3). Further, the connective ‘since’ could suggest the *μονολήμματα* argument (a single-premise argument defended by Antipater) with the approved antecedent and where a consequent plays the role of a conclusion.

It is obvious that 4 (4A and 4B) cannot be implied by 3 alone. Step 3 seems to be a separate and newly introduced premise, while 4 (4A and 4B), expressing a conflict, is based not on 3 alone but on some other or previously noted premise(s). However, 4A – ‘Fabius exists’ – is not implied by any of the previous premises. Besides, since 3A is already claimed to be *true* (or *certain* – either actually or in the past), we need some additional premise (or some tacitly used rule) that would lead to 4A: ‘Fabius exists.’ Even the proposition ‘... Fabius *has been born* ...’ in 1B is part of the conditional that is taken to be granted; there is no reason for the Stoics to infer, from this antecedent, that ‘Fabius (actually) *exists*’ or that *he* is *present* (now). What we would expect here, instead of 4A, is a repeated form either of 2 or 3 placed in a conflicted conjunction with 4B, that is, something like 4*:

4* – these things are incompatible (in conflict): (2A/3A) ‘Fabius *has been born* ...’
and (4B) ‘(he) *will die* at sea.’

This would be a valid inference based on step 1B, but it provides nothing new, except for a repetition of the steps that appeared earlier as 2 (2A and 2B).

Some authors (Wiedemann, 2019, 185; Schallenberg 2008, 120) interpret the *certum* of 3 as introducing *necessity*: “It is *necessary* that Fabius *has been born* with the Dogstar rising”. This could be in accordance with *the principle of conservation of the past (truths)* explicitly introduced and ascribed to Chrysippus in the second version of the argument in *Fat.* vii, 14 (but not mentioned here in *Fat.* vi, 12): “What is past and true is necessary” (*omnia enim vera in praeteritis necessaria sunt*; Epict. ii, 19. 4: *πᾶν παρεληλυθὸς ἀληθὲς ἀναγκασίῳ ἐστίν*). Chrysippus defends it against his teacher Cleanthes, who, together with Antipater, denies it. The principle appears among Diodorus’ set of assumptions (accompanied with *The Master Argument*), which Chrysippus is ready to accept (cf. Epict., *ibid*).

From step 5 to step 7

In step 5, Cicero mostly repeats a line of reasoning given previously in step 4. As in the previous case, 5 is supposed to rest (at least seemingly) on 1B:

- 5 Therefore, this conjunction also is *incompatible* (*ergo haec quoque coniunctio est ex repugnantibus*):
- 5A ‘Fabius exists’
and
- 5B ‘Fabius will die at sea’,
- 5C since, as has been stated, it is not possible for it to happen (*quod ... ne fieri quidem potest*).

The first difference between 4B and 5B is that in 5B Cicero now again (as above in 2B) introduces the proper noun ‘Fabius’ rather than the anaphoric mode that appears in 4B. Even though this modification is negligible, it is hard to say why it appears in this form. 5A (which repeats 4A) is not logically implied by any of the previous premises (to be justified, as we pointed out earlier, it would be necessary to introduce (an) additional assumption(s) or to invoke some rule that enables the transition from past truths to actual existence). Instead of 4A and 5A, we would expect “Fabius *has been born* with the Dogstar rising” or, more appropriately for the Stoics, 2A* mentioned above, which contains the anaphoric expression: “*this one* has been born with the Dogstar rising.”

Another obvious difference is that (as a result of previous steps emphasized by the phrase *ergo*) the incompatibility of 5A and 5B now leads to the modalized expression 5C: “it is *not possible* that 5B”. This means that the simple incompatibility in 4, i.e. $\neg(p \wedge q)$, is now, in step 5, understood as impossibility, $\neg\Diamond(p \wedge q)$. The transformation pushes what is allegedly Chrysippus’ argument closer to Diodorus’ line of reasoning. The same approach can be found in Boethius (*de Int.*² 235.5 – 236.4):

For he [Diodorus] thought that if someone were to die at sea, then he could not have met his death on land – something that neither Philo nor the Stoics say. But even though they do not say such things, if they evaluate one part of a contradiction by the outcome, they are compelled to maintain the same as Diodorus. For if anyone has died at sea, it was necessary that he be killed at sea, it was impossible that he meet his death on land.¹⁰

Even if we assume that FA has its origin in Diodorus, both Boethius and Cicero are in agreement that the Stoic view on connectedness is different from that of Diodorus (cf. Cic. *Luc.* xlvi, 143; *Fat.* vii, 13: “But all this is the view of Diodorus, which is opposed to you [Chrysippus]”). Now, however, by obtaining step 5C, Cicero’s mission to identify Chrysippus’ position with Diodorus’ and with the principle of

¹⁰ Cf. ib. 239.26 – 240.1: “that all things happen by necessity, as the Stoic claims”.

platitude – “whatever will be is necessary; and that whatever will not be is impossible” (*Fat.* vii, 13) – seems to have been achieved.

The further steps (6 and 7) are just an attempt to formulate or to generalize the result obtained by the previous step 5C, the step which is viewed as the logical outcome of the principle of incompatibility (i.e. conflict). From the impossibility of the conjunction $5A \wedge 5B$, with 5A taken as granted, he concludes *the impossibility of 5B* (which is formulated as 5C, i.e. $\neg\Diamond 5B$). Formally, according to the modal logic theorem $\Box(p \rightarrow \neg q) \leftrightarrow \neg\Diamond(p \wedge q)$ applied to step 2 – i.e. $\Box(2A \rightarrow \neg 2B) \leftrightarrow \neg\Diamond(2A \wedge 2B)$ – and its further modal transformation $\neg\Diamond(p \wedge q) \rightarrow \neg(\Box p \wedge \Diamond q)$, from this formulation of the principle of incompatibility $\neg(\Box p \wedge \Diamond q)$ together with $\Box 5A$ (taken here as “the granted outcome” of either 2A or 3A and taken as allegedly identical to 5A), step 6 presents $\neg\Diamond 5B$, which is obtained by a composed sequent $\{\neg(\Box 5A \wedge \Diamond 5B) \wedge \Box 5A\} \rightarrow \neg\Diamond 5B$.

Step 7 (presented as a kind of generalization hinted at by step 6) is now raised to a sort of inherent principle of the whole argument. Both steps are presented as parts of the inference procedure. However, since the Fabius case is a contingent event, it does not provide step 7. Instead, step 7 seems to be a principle that is already tacitly presupposed in step 6, now explicitly expressed:

So (therefore):

- 6 ‘Fabius will die at sea’ belongs to the class of what cannot happen (*quod fieri non potest*).

Therefore:

- 7 *everything* which is said to be false in the future cannot happen (*id fieri non potest*).

The second part – the proof from *Fat.* vii, 14

The inference procedure from *Fat.* vi, 12, is also presented in Cicero’s second attempt, in *Fat.* vii, 14, with the same intention of presenting Chrysippus as an advocate of the past determination and the (past) necessity of future truths.

- 1’ For if this is a true conditional
 1’A(T) ‘if ^(a) you were born at the rising of the Dogstar, ^(b) you will not die at sea’
 and the first clause in the conditional,
 1’A^a ‘You were born at the rising of the Dogstar’
 is necessary (for all true statements about past things are necessary);
 2’ what follows (from 1’A^a and 1’A follows 1’A^b: ‘you will not die at sea’) becomes necessary as well;
 3’ if ^(a) there is a natural cause for Fabius not dying at sea, ^(b) Fabius cannot die at sea.

At first sight, the proof in *Fat.* vii, 14, may seem to be an independent whole. Here, by assuming the *truth* of conditional 1'A and the *necessity* of its antecedent 1'A^a, Cicero tries to obtain 2' – the *necessity* of the consequent from 1'A (i.e. $\Box 1'A^b$). However, the inference as described is invalid: $T(p \rightarrow \neg q) \wedge \Box p$ does not simply lead to $\Box \neg q$ (or even to $\neg q$). To get to the desired step 2' (i.e. $\Box \neg q$), as in the previous proof, we should rely on 1'A, interpreted as the modal form of *connectedness* [i.e. $\Box(p \rightarrow \neg q)$]. In the same place, Cicero introduces (as Chrysippus' formulation) the claim that

if the first clause in the conditional is necessary, what follows becomes necessary as well,

even though he admits that “Chrysippus does not think this applies in every case”. If we compare the present formulation to that given above by Sextus (*M.* viii, 248 – 254), in the *connectedness* related to a signal, both the antecedent and the consequent must be not only *true* but also *present*. According to Cicero's formulation, if an antecedent is *past* it is *necessary*, and if necessary, then, according to him, it implies a necessary consequent. On the other hand, this formulation does not accord with that given by Cicero in *Fat.* vii, 13, where he attributes to Chrysippus the statement

that it was not necessary for Cypselus to rule in Corinth although this had been declared by the oracle of Apollo a thousand years before.

Furthermore, the second part of the argument tacitly depends on 1A(T), given above in *Fat.* vi, 12: ‘If anyone has been born with the Dogstar rising, that one will not die at sea’. If it is based on 1A(T), the Stoic rule of transition from an indefinite to a definite expression is respected. Here, a previous questionable assumption concerning the actual *existence* of Fabius is omitted. It is now unnecessary since the complex proposition 1' uses the second-person pronoun, which presupposes the presence of a deictically addressed person.

However, the final step 3' sounds slightly unusual here. It associates the proof in *Fat.* vii, 14, not only with Fabius' example in *Fat.* vi, 12, but with the previous sections of *Fat.* v, 9 – 11, concerning a discussion on natural causes: where Cicero ascribes to the Stoics the view that some properties (^a), given to a being by nature, are *not immutable* and *could be changed* (by that person's willing and acting to effect change with regard to the properties given by nature). Cicero introduces several examples here: the destiny of the Megarian philosopher Stilpo, who overcame his naturally given sins by learning. Another anecdote concerns Socrates and the characterization of him provided by the physiognomist Zopyrus.¹¹ Socrates was described by him –

¹¹ Cicero may have been familiar with the Stoic (or at least Posidonius') interpretation of physiognomics, since these are confirmed by Galen (*PHP.* vi, 5.22).

due to some bodily and facial marks – as belonging to the class of dull people (*bar-dus*).¹² The disadvantages given to a person by natural causes (or at least some of them) can be overcome by “will, studying and discipline” (*voluntate, studio, disciplina*). These activities have an effective power, and their source is “from us” (ἐφ’ ἡμῖν). Through the help of an internal power, people can overcome the influence of natural causes. Thus natural causes, usually connected with features given by birth, can proceed if obstacles do not hinder their further influence. If Chrysippus really argued that people can overcome their fate in an effective way, then conclusion 3’ above would become 3’*:

3’* – ‘if ^(a) presently there is *only* a natural cause for Fabius not dying at sea, ^(b) this one cannot die at sea.’

In other words, if there is an additional and effective way for Fabius to mitigate the influence of natural causes or even completely overcome them – as Chrysippus believed (at least in the cases of Socrates, Stilpo, Cypselus and Scipio mentioned by Cicero) and as Cicero confirms, together with Boethius (in the above-quoted passage from Boeth. *de Int.*² 235.6–236.4) and Plutarch (*stoic. rep.* 1055F)¹³ – he nevertheless *can* die at sea despite a divinatory signal associated with the circumstances of his birth (somehow also related to his natural causes). It would be impossible for him to die at sea if he were unable to change any actual (natural) circumstances or if some external things were to present permanent and irremovable obstacles to finding space for personal, effective efforts to mitigate the influence of natural causes, those once reflected in the stars. The switch that regulates the influence of natural causes on personal fate is mentioned by Cicero in *Fat.* vi, 13, but it is omitted from both of the versions of FA described above.

Divination is an art. The prediction of Fabius’ fate and the practice of interpreting divinatory signals are based on empirical observations and skill (of the Chaldeans, *Fat.* vii, 15; *Div.* i, i, 2; ii, xliii, 90 – lxxv, 94). Predictions are not analytical truths but rather principles formed via the long-term observation of regularities and correlations between certain kinds of events. For this reason, not all predictions *must* be true in advance, since they are not based on knowledge of *causes*. Signals (commemorative or indicative) are not causes (natural or otherwise) that must be expressed as causal connections but are rather emanations of causes, which appear to interpreters in a mediated way. This may be why Cicero ascribes to Chrysippus the inclination to interpret

¹² The anecdote, in a similar context, is mentioned by Alex. *Fat.* 171.11ff and in Cic. *Tusc.* iv, 80.

¹³ “For how can he whose death at sea has been determined by destiny be susceptible of dying on land, and why is it possible for the man at Megara to go to Athens when he is prevented by destiny from doing so?”

divinatory signals not by help of connectedness but merely as Humean conjunctive associations based on observed regularities.

* * *

Rather than diminishing Cicero's significance as a relevant source of Stoic philosophy, this article has intended to show that it is impossible to put Cicero's testimonies in a consistent inferential order. Either *a*) we must make a considerable compromise and recall certain additional premises in the reconstruction of FA, or *b*) we must compare it to other historical sources and borrow additional premises from other authors, which simply leads to further inconsistencies in the reconstructed argument. As a source for FA, Cicero does not provide us with much help. He made a mess by bringing together different and inaccurately quoted teachings of the Stoic side by side with the opinions of Diodorus and Philo. He transcribed these sources in a partially revised and simplified form, with the aim of depicting the views of the Stoics as inconsistent and as not altogether distinct from those of Diodorus. On the one hand, Cicero is usually interpreted as a transmitter of Stoic knowledge. On the other hand, he was a critic of the influential philosophies of his age, and this seems to have been his primary intention in engaging with FA. In light of the above remarks on FA, when it comes to this argument at least, it would seem that Cicero was neither a fully reliable source nor a persuasive and successful critic of the Stoic position.

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This work was supported by the Slovak Research and Development Agency under the contract No. APVV-17-0057 and by the VEGA grant No. 1/0197/20.

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