Informal Logic

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Aller au sommaire du numéro

Découvrir la revue

Citer cet article

Résumé de l'article

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Something Called the 'False Dilemma Fallacy' (FDF): A Return to Formalization Just This Time

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Abstract: This work is a revision of the False Dilemma Fallacy (FDF). The formalized model (FM) of this fallacy has as its centerpiece a valid disjunctive syllogism, but the disjunctive premise is presumed to be false, thus making the argument unsound. Our revised model (FM2.0) focuses on the formal structure by comparing the given vs. the real argument, which is unsound because of its invalidity. This approach we believe is more pedagogically useful and a better explanation of the fallacious nature of the FDF. It extends the identity of "formal fallacy" to the FDF.

Résumé: Ce travail est une révision du sophisme du faux dilemme (SFD). La représentation formalisée de ce sophisme a pour pièce maîtresse un syllogisme disjonctif valide, mais la prémisse disjonctive est présumée fausse, ce qui rend l'argument non fondé. Notre représentation révisée se concentre sur la structure formelle en comparant l'argument donné à l'argument réel, qui n'est pas solide en raison de son non-validité. Cette approche nous semble plus pédagogiquement utile et une meilleure explication de la nature fallacieuse du SFD. Il étend l'identité du « sophisme formel » au SFD.

Keywords: false dilemma fallacy, fallacies, disjunctive syllogism

I. Introduction

The impetus for this work comes from the same "frustration and dissatisfaction" with textbook accounts of fallacies that Maurice Finocchiaro alluded to in his work (2005, p. 110). The categorization and explanation of fallacies is a messy landscape. This becomes clear to those who sample the enormous number of textbook entries that range from the cursory to the substantive and then move on to the numerous scholarly treatments. Disagreements about definitions, explanations, and "artificially constructed" examples (ibid., p. 111, Finocchiaro 1981, pp. 13–14) litter the pages devoted to fallacies.[1] The knotty discourse on fallacies is crystalized in Hans Hansen's entry in the *Stanford Encyclopedia of Philosophy* (2020). We agree with Hansen insofar as "there are reasons to think that all fallacies do not easily fit into one category," but we go one step further by finding some fallacies can have more than one identity. In addition, we concur with those who question the wholesale application of standard formal logic in studying informal fallacies (Woods 1992; Woods and Walton 1989). We have no interest in developing a unified theory of fallacies within the field of informal logic and argumentation theory or weighing in on the debate about the sorts of mistakes that occur in the various fallacies—e.g., inferential, logical, epistemic, or dialectical mistakes (Hansen 2020). For the purposes of this paper, fallacies are conceived of as being logical; however, the informality of contextual factors is also discussed. Our model follows Hamblin's (1970) "standard definition of fallacies," which contains three conditions: a fallacy is an argument, it is invalid, and it appears to be valid. We are led to a fragment of the discussion involving disjunctive fallacies (Tomić 2021).

This work is a reaction to a *particular formulation (model) and formalization* of what some authors of critical reasoning textbooks *take to be* the false dilemma fallacy (FDF).[2] We refer to it as the

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[1] Examples of fallacies dealing with current events are difficult to come by.
[2] It is sometimes referred to as false dichotomy and as the either-or fallacy in textbooks, which compounds the confusion.

formalized model (FM)[3] (Baronett 2019; Cederblom and Paulsen 2012). Others who have explored disjunctive fallacies in great detail have differentiated the FDF from other fallacies—such as the unsound disjunctive syllogism and the false dichotomy—and in the process created a typology of false dilemmas (Tomić 2013, 2021). Tomić's (2013) typology consists of four types of false dilemma, all of which possess a constructive or a destructive argument scheme rather than a disjunctive syllogism. Consequently, the FM that we have targeted in this work is closer to what Tomić (2013) calls the fallacy of unsound disjunctive syllogism; however, our understanding of the unsoundness issue differs from Tomić's (2013) rendering. The authors of this work are not hung up on identifications—whether FM is really the FDF or the fallacy of unsound disjunctive syllogism is not at issue here. We find Tomić's discussion of the unsound disjunctive syllogism to be useful in furthering our understanding of the FDF qua FM because the two fallacies have so much in common. First, they both acknowledge the "contextual restriction," that is, the restriction of possibilities for an interlocutor (incorporating a "disjunction [that] is supposed to exhaust the possibilities" [Govier 2007, pp. 2–3]—which lies at the heart of each fallacy [Paul and Elder 2006, p. 25]). And the FM attempts to move beyond fixating on the limited possibilities in order to offer a more robust explanation by utilizing the language of propositional logic vis-à-vis a disjunctive syllogism with an incomplete disjunction. Although we side with the formalists,[4] we contend that the FM as it stands misses the significance of the contextual restriction or the incompleteness of the disjunction. It underutilizes the formalization process, directing us to presume the disjunctive premise false, which also has the unintended consequence of lessening its pedagogical value by focusing solely on the presumed truth value of the disjunction. It is this underutilization that formed part of the impetus for this paper.

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[3] We use the term 'formalized' because the proponents of the model present the disjunctive syllogism in the language of propositional logic.

[4] Again, we do not endorse the formalization of all informal fallacies but rather we find some disjunctive fallacies to be ripe for a formal explanation. Some take a more expansive view, like T. Edward Damer (2009, pp. 62-91), who allocates an entire chapter to fallacies that violate the structural criterion.

We will argue that a revamped formalized model (FM2.0) is not as messy as the FM, and it also possesses greater pedagogical value in that it redirects our attention to include the invalidity condition of unsoundness due to stray undisclosed disjuncts. This enhanced pedagogical value of the FM2.0 can be seen in part by how it enables the FDF to acquire an additional identity, as a formal (structural) fallacy. Integrating formal logic into the explanation, FM2.0 helps to show the utility of formal logic.

II. The false dilemma fallacy and the formalized model (FM)

The FDF goes something like this: The "*arguer claims that there are two alternatives and that one is unacceptable, so we should choose the other. But in fact, there are more alternatives than the two stated*" (Cederblom and Paulsen 2012, p. 145). In other words, the arguer treats the alternatives as jointly exhaustive, but, in reality, they are not. This is what we call a contextual restriction; there are other alternatives or possibilities—possibilities that are true, are probably true, are preferred, or are of some interest. As the contextualists would have it, this restriction disrupts the dialectical interplay between the interlocutors, whether it be a distortion or distraction. Cederblom and Paulsen identify the FDF as a distraction fallacy: "We are distracted by how undesirable, or preposterous, one of the alternatives is, and we tend not to ask whether these are the *only* two alternatives" (*ibid.*).[5] As Tomić rightly notes, "the fact that the disjunctive premise is incomplete is, inten-

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[5] Govier notes that "mistakes are made in different ways, and in different contexts. Dichotomies discourage imagination and an awareness of complexity and encourage reductionism and simplistic thinking" (2007, p. 9). Digging deeper, Judith Butler informs us that some binaries curtail oppositional thinking: "the binarism that [George W.] Bush proposes in which only two positions are possible—'Either you're with us or you're with the terrorists'—makes it untenable to hold a position in which one opposes both and queries the terms in which the opposition is framed" (2006, p. 2). We are not suggesting that simple mistakes or simplistic thinking are always at work in the fallacies that we are dealing with in this work, but rather that something much more epistemically languid might be occurring—that is, someone wants to persuade or be persuaded without going through all the epistemic heavy lifting.

tionally or unintentionally, concealed" (2021, p. 620).[6] The contextualist focuses on the restriction. But the FM formalizes this contextual restriction, albeit inadequately. As a result, it is said that "the false dilemma fallacy actually has a valid pattern [disjunctive syllogism]" (Cederblom and Paulsen 2012, p. 145). Cederblom and Paulsen's example is the following: "*Either we legalize drugs, or we keep building new prisons and filling them with drug offenders*" (*ibid.*, p. 144). They claim that the obvious implicit premise is that "we should not keep building new prisons and filling them with drug offenders" (*ibid.*). As part of our FM2.0, we symbolize the disjunctive syllogism provided by Cederblom and Paulsen as the 'given argument' (GAR). In keeping with the FDF being a distraction from other possibilities, Cederblom and Paulsen (2012) offer other options, for example to "substitute fines or community service for prison time" (*ibid.*, p. 145). So, there are more possibilities than meet the eye.
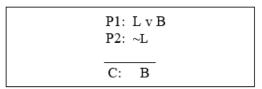
P1: L v B
P2: ~L
_____
C: B

Figure 1: Given argument (GAR)

The clincher for the formalist is that the GAR, despite being truth-functionally valid, is a fallacy since the incomplete, disjunctive premise (P1) is said to be false, thus making the argument *unsound*. We find the lack of a clear rationale for why the disjunctive premise is false to be unsettling because the incomplete disjunction lies at the heart of the fallacy. We contend that this is the weak link in the FM: the claim that the argument is unsound because of a false disjunction. Tomić, in her exposition of one type of false dilemma—the false quandary—is candid about the ra-

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[6] Which alternatives are given and which are concealed may well be related to what Frederick Schauer, in a recent book, calls 'motivated reasoning': "how people perceive the facts of the world is often substantially influenced by their normative preferences about how they would like the world to be" (2022, p. 5). We believe that our NATO argument is a case in point, one in which it is likely that other possibilities are intentionally concealed.

tionale for why an incomplete disjunction is false (unlike Cederblom and Paulsen) writing that "the possibilities stated in the disjunctive premise are falsely presented as the only available alternatives; the disjunctive claim is thus incomplete and therefore false" (2013, pp. 552–53).[7] This rationale is truly unacceptable insofar as it is unlike how we ordinarily decide whether a disjunction is true or false—that is by examining the truth value of each disjunct. To help gain an understanding of why we reject FM, we will consider a more timely example—the NATO argument.[8]

P1: Sweden and Finland could continue to be in a vulnerable position with regard to Russia, or those Nordic countries could join NATO.
P2: Sweden and Finland cannot continue to be in a vulnerable position with regard to Russia.

_____

C: Sweden and Finland could join NATO.

Figure 2: The NATO argument

P1: $(S \cdot F) \lor N$
P2: $\sim(S \cdot F)$

_____

C: N

Figure 3: Given argument' (GAR')

If we go along with the Tomić (2013) explanation, P1 is false simply because there is at least one other possible disjunct that is concealed from the reader. A possible third disjunct is as follows: "*The bilateral Swedish-Finnish Defense Action Plan of 2014 could*

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[7] Cederblom and Paulsen (2012) and Tomić (2013) are not alone in this. Patrick J. Hurley follows suit when he writes, "But in the fallacy of false dichotomy, the two alternatives not only fail to be jointly exhaustive, but they are not even likely. As a result, the disjunctive premise is false, or at least probably false" (2003, p. 153). However, Hurley is not a formalist.

[8] This example is constructed to reflect the language of propositional logic found in GAR even though the NATO argument is a more complicated instantiation (see GAR'). We could rewrite this argument using a prescriptive 'should' and venture into deontic logic, but, for the sake of simplicity, we do not.

*be rewritten to include an article similar to NATO's Article 5,
which would mean that an attack on one is an attack on the oth-
er.*"[9] (The disjunction is not exhaustive.) As we noted above, we
find the presumption of P1 as false to be suspect because it flies in
the face of how we ordinarily deal with truth values of disjuncts,
which on the face of it would require an evidentiary workup à la
Schauer on each disjunct. The application of the Tomić explana-
tion to this argument amounts to an unwarranted declaration of the
disjunction as false because there are unmentioned alternative(s).
We disagree that the existence of such alternatives is sufficient
warrant to make the disjunction false.

III. On the road to the FM2.0

We need a model that is less presumptive and more robust than the
FM, albeit one that agrees with the FM to a certain extent. It
should agree with the FM insofar as the FDF is unsound, but
according to our understanding, it is unsound because it is invalid,
not because it contains a false premise. This new model—
FM2.0—is based on a comparison of the given argument′ (GAR′)
and the real argument (RAR). The RAR symbolically acknowl-
edges a more expansive disjunction that better reflects the security
situation of Sweden and Finland, thereby making the argument a
more realistic one than GAR′.

$$P1: [(S \bullet F) \lor N] \lor B$$
$$P2: \sim(S \bullet F)$$
$$C: \quad N$$

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[9] We acknowledge that being a member of such a defense pact would not have
the same security guarantees or deterrent force as would being a member of a
30+ member NATO. Yet, it is a relevant third path for those two Nordic coun-
tries. Of course, those who are nudging Sweden and Finland into joining NATO
have "normative preferences about how they would like the world to be"
(Schauer 2022, p. 5) and would not be inclined to disclose that path for fear that
it might gain traction among the citizenry of those Nordic countries to the
detriment of NATO, especially since there has not been much popular support
for their entry into NATO.

Real argument (RAR)

The RAR contains an additional disjunct about the bilateral defense plan (symbolized by B), making the disjunction much more expansive though we believe it to be premature to refer to it as exhaustive.[10] Instead of unsoundness being determined by a false premise, unsoundness is determined by invalidity in structure. Truth value is not relevant in this model. The RAR is distinguished by its focus on valid structure.

The FDF has been categorized by some as an informal fallacy of distraction. The distraction lies within a disjunction composed of a binary: an acceptable disjunct and an unacceptable disjunct. The FM2.0 enables the FDF to acquire the identity of being a formal fallacy as well since the real but unspoken argument suffers from a structural error thus being truth-functionally invalid. The pedagogical value of this enabling does not lie in allowing the student of critical reasoning to better spot FDs in texts, but lies instead in allowing the student to apply their knowledge of formal logic to what has been traditionally considered to be only an informal fallacy. A student's mastery of truth table analysis could be put to good use here to demonstrate by means of a simple truth table that the RAR is invalid (see Appendix).

IV. Conclusion

The FM2.0 does not require the presumption that the disjunctive premise is false. In this regard, we believe the FM2.0 to be simpler, yet its formalization offers a more robust explanation. It also enables the FDF to acquire the additional identity of being a formal fallacy. It is because of these characteristics that we believe the FM2.0 is both interesting and appealing.

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[10] We concur with David Kelley when he writes: "No matter how certain we are of our conclusions and our arguments, it is always worthwhile to stop and ask: Is there anything I've overlooked?" (2014, pp. 117-18). And since neither one of us is a security studies expert, it is no wonder that we are reticent to label the disjunction as exhaustive. It is reasonable to think that we are unaware of other possible security arrangements. Our combined powers of imagination might not have been up to the task.

Appendix

Table 1: RAR truth table

S	F	N	B	[(S•F) v N] v B	~ (S • F)	N
T	T	T	T	T	F	T
T	T	T	F	T	F	T
T	T	F	T	T	F	F
T	T	F	F	T	F	F
T	F	T	T	T	T	T
T	F	T	F	T	T	T
T	F	F	T	T	T	F
T	F	F	F	F	T	F
F	T	T	T	T	T	T
F	T	T	F	T	T	T
F	T	F	T	T	T	F
F	T	F	F	F	T	F
F	F	T	T	T	T	T
F	F	T	F	T	T	T
F	F	F	T	T	T	F
F	F	F	F	F	T	F

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