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Article

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ABOUT THE BASIS FOR THE DEBATE OF COUNTERPOSSIBLES

Summary: According to the most popular (so-called "orthodox") theories, counterfactuals with impossible antecedents are vacuously true. Critiques of this view argue that contrary to this, we tend to consider only some of them true and others to be false. In his recent paper (*Counterpossibles*) Timothy Williamson has ingeniously explained the motivations for the orthodox view and argued that although there are some heuristic reasons that may suggest the plausibility of the unorthodox view, they are fallible. The most important of Williamson's arguments is that the unorthodox interpretation is inconsistent with the heuristic assumption that supposedly motivates this very view. The aim of this paper is to consider Williamson's critique and to support the unorthodox approach towards counterpossibles. In order to do so, we argue in favor of the modified version of the heuristic assumption.

Keywords: counterfactuals, counterpossibles, possible worlds semantics, methodology, Timothy Williamson.

The subject of this paper is the debate over truth-values of counterpossibles, i.e., subjunctive conditionals, the antecedents of which express

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impossibility.[1] On one side of this debate are advocates of so-called orthodoxy, which tracks back to the works of Robert Stalanker (1968) and David Lewis (1973), and which nowadays is defended by Timothy Williamson (2007; 2016b; 2018). Orthodoxy has it that every counterpossible is true. On the opposite side, there are advocates of unorthodoxy, who argue in favor of the thesis that some counterpossibles are false (Yagisawa, 1988; Nolan, 1997; Priest, 2009; Brogaard & Salerno, 2013).

The main aim of this paper is to reply to two of orthodoxy's arguments against motivations for the unorthodox approach (Williamson, 2016b; 2018). The first one has it that intuitions that underpin unorthodoxy are in tension with commonly accepted rules of counterfactuals. The second one aims to highlight a misunderstanding of the orthodox approach. Being an advocate of orthodoxy, Williamson argues that this misunderstanding results in an implausible characterization of this approach. Both arguments are meant to provide reasons for which unorthodoxy may be considered an implausible view.

I aim to look closely at those charges and to refute them. Firstly, I am going to argue in favor of the consistency of the unorthodoxy and the main rules of counterfactuals. Further, the question that Williamson considers to be based on a misunderstanding of orthodoxy will be revised. I believe that this will allow the justification of unorthodoxy.

Two aspects of the debate should be stressed right away. The subject of the debate is the truth-value of counterpossibles. Some critics of orthodoxy suggest that the vacuous truth of counterpossibles entails a lack of their s e m a n t i c i n f o r m a t i v e n e s s or that their m e a n i n g is independent of the consequent (Brogaard & Salerno, 2013). It is debatable whether orthodoxy entails this. This will not be a subject of this paper, for I am going to focus merely on the explicit thesis of orthodoxy, according to which every counterpossibles is vacuously true.

Secondly, my aim is not to argue in favor of either the inconsistency of orthodoxy or its implausibility due to the thesis of the vacuous truth of every counterpossible. It should be noted that some advocates of this approach try to provide an alternative explanation of the common intuition that some counterpossible are false. This is often done by moving the burden of the problem from semantics into pragmatics. Accordingly, it is claimed that while every counterpossible is vacuously true, there are good

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pragmatic reasons for which we do assert some of them and do not assert others (Emery & Hill, 2017). While this is an exciting proposal and focusing on the pragmatic aspects of counterfactuals has a long tradition,[2] analysis of this goes beyond the aim of this paper. This is because more than the efficiency of the orthodox approach, I am interested in arguing in favor of the thesis that unorthodoxy is a consistent, well-motivated, alternative to orthodoxy, worth further development. After all, the lack of consistency is what unorthodoxy has been charged with by Timothy Williamson.

In order to do so, I shall begin with a rough characteristic of what counterfactuals are and what are the motivations that underpin both the orthodoxy and the unorthodoxy. After this, I shall focus on the argument that is meant to prove the inconsistency of unorthodoxy. Further, the question of a misunderstanding of orthodoxy will be reconsidered. The last part is devoted to the methodological aspect of the debate.

Counterfactuals

Counterfactuals are complex propositions that are often expressed as "If it had been the case that A, then it would be the case that C" ($A > C$), where A (antecedent), and C (consequent) are propositions, e.g.:

(1) "If the match had been scratched, it would have lighted."

(2) "If there had been no email controversy, Hillary Clinton would have won the election."

(3) "If Christopher Columbus had reached the place he was planning to reach in 1492, he would have arrived in Japan."

By the use of this kind of proposition, we indicate an essential connection between what is expressed by the antecedent and the consequent. We refer to them both in everyday life as well as in scientific discourses. They are considered to be an inherent aspect of gaining and transferring knowledge, expressing our beliefs, opinions, and attitudes, and stimulate our behavior (Edgington, 1995; Bennett, 2003; Williamson, 2016a).

It seems that one of the reasons for which we consider counterfactuals to have such importance for our intellectual life is that we ascribe them different truth-values. While we tend to consider (1) true, (2) is false.

[2] See the works of Grice (1975) and Jackson (1988).

Even though the claim that counterfactuals have different truth-values is close to banality, providing the proper truth criteria for such complex expressions is hardly a trivial endeavor. It should be noted that this is not the question of whether Columbus was planning to arrive in Japan, or of whether the email controversy was the only reason for which Clinton lost to Trump. While these may have some importance for the analysis of counterfactuals in general, the main issue is to provide a semantic criterion of truth-value for complex propositions such as (1–3).

Possible Worlds Semantics

The most popular analysis of counterfactuals is the one provided in terms of possible worlds semantics. This has it that sentences that contain modal operators of possibility—"it is possible that p" (or "it could be the case that p")—should be understood as ones that state that there is a possible world where p is the case. It is claimed that each sentence of the form "it is possible that p" is true if and only if there is a world (actual or merely possible) where p is the case. Thus, "Christopher Columbus could have reached Japan in 1492" should be interpreted as one which states that there is a possible world, where Christopher Columbus did reach Japan in 1492. Likewise, sentences that contain a modal operator of necessity, e.g., "It is necessary that p" (or "It has to be the case that p") are true if and only if in every possible world it is the case that p. Thus, "It is necessary that 2+2=4" is true because in every possible world, it is the case that 2+2=4. If it had been otherwise, i.e., if there had been a possible world where 2+2 does not equal 4, then we would have to admit the truth of "It is possible that 2+2 does not equal 4."

Possible worlds semantics, by providing an analysis of modality, became an attractive model for the analysis of counterfactuals. Based on this, the two very similar approaches of Robert Stalnaker (1968) and David Lewis (1973) have been proposed. According to these, $A > C$ is true in the actual world if and only if either:

(i) there is no possible world, where A is the case

or

(ii) there is a possible world w_1, where A and C are the case, and this world is more similar to the actual world than any possible world w_2, where A is the case, but C is not.

In virtue of the above, "If the match had been scratched, it would have lighted" is true because there is a world where the match is scratched and where it lights, and this world is more similar to the actual world than one where even though the match has been scratched, it does not light.

While possible worlds semantic is the most popular analysis of counterfactuals, it is not problem-free. One of these problems is somehow similar to that of paradoxes of material implication. As condition (i) has it, every counterfactual, which contain an impossible antecedent, is true. Thus, each of the below is true:

(4) "If there had been a round square, geometry would be different to what it actually is."

(5) "If there had been a round square, geometry would be the same as it actually is."

(6) "If it had been raining and not raining at the same time, some contradictions would be true."

(7) "(Even) if it had been raining and not raining at the same time, no contradictions would be true."

(8) "If whales were fish, they would have gills."

(9) "If whales were fish, they would not have gills."

Due to the impossibility of the antecedents (mathematical, logical, and metaphysical respectively) of (4–9), each of these is true.[3] After all, each of them satisfies the condition (i). Since the truth of (4–9) does not depend upon consequences, they are considered to be vacuously true. This means that these are true regardless of the consequents.

[3] This shows that impossibility is not restricted to merely logical impossibility, which is usually of the form of the conjunction of two opposite propositions, p and $\neg p$ (e.g., antecedents of (6) and (7)). It is claimed that an impossible state of affairs is a state that is realized in no possible worlds. Thus, if one admits that beyond logical truths the truths of mathematics and metaphysics are necessary, the antecedents of (4), (5), (7), and (9) also express impossibilities.

The above consequence seems to go against common intuitions. While we tend to consider (4), (6), and (8) true, they are not vacuously so. This partly depends upon the fact that we consider (5), (7), and (9) false. After all, the fact that no square is round is grounded in the laws of geometry, the truth of propositions of the form p and $\neg p$ is a contradiction, and one of the essential features of fish is that they have gills. Because of this, we are justified in expecting that an adequate analysis of counterfactuals will take these data into consideration and provide analysis, which would explain the falseness of expressions such as (5).

Philosophers who find this convincing argue in favor of a modification of possible worlds semantic analysis which is based on extending the domain of worlds to include impossible worlds, i.e., worlds where what is impossible in the actual world, is true. In virtue of this, some worlds contain round squares, true contradictions or whales that are fish. This results in a modified truth criterion of counterfactuals, which has it that $A{>}C$ is true if and only if there is a possible or impossible world w_1, where A and C are the case, and this world is more similar to the actual world than any possible world w_2, where A is the case, but C is not the case.

While this modification does justice to common intuitions about the falseness of some counterpossibles, it raises questions about the logical and metaphysical nature of worlds.[4] Even though this is a highly interesting issue, the plausibility of considering this is based on the assumption that the mentioned modification is justified in the first place. This assumption, however, is often questioned (Lewis, 1986, p. 7; Stalnaker, 1996). Among a number of arguments against belief in an impossible world, one aims to show that unorthodoxy on counterpossibles results in inconsistency (Williamson, 2018). Before going into details of this charge, I shall explicate the orthodox view.

Orthodoxy

The starting point of orthodoxy—as Williamson argues—is the fact that in virtue of intensional semantics every counterfactual with an impossible antecedent has the same intension, and hence the same truth-value.[5]

[4] See, e.g., (Berto, 2013).

[5] This is because the orthodoxy's domain of worlds does not include impossible worlds, which could represent various impossibilities.

This does not yet prejudge the question of whether each and every counterpossible is true or false. The additional assumption is that every counterfactual the consequent of which is a mere repetition of the antecedent (e.g., $A>A$) is true. This should not be controversial, for if there is a proposition of which we can be sure of its truth, $A>A$ seems to be the right candidate. Since this is true regardless of whether "A" expresses possibility or impossibility, the mentioned assumption applied to counterfactuals of possible antecedent ("If Christopher Columbus had reached the place he was planning to reach in 1492, he would have reached the place he was planning to reach in 1492") as well as to counterpossible ("If there had been a round square, there would have been a round square"). Thus, if one agrees that each counterpossible has the same intension, and that each "$A>A$" is true, every counterpossible is true (Williamson, 2018, p. 1).

An advocate of unorthodoxy could argue that one of the reasons for which we assume $A>A$ to be always true is that the negation of this, i.e., $A>\neg A$ is always false. After all, even if one has no knowledge with respect to A, one may assume that $\neg A$ is inconsistent with it and that it is impossible for both A and $\neg A$ to be true. Thus, the reason for a belief in the necessary truth of $A>A$ ("If Christopher Columbus had reached the place he was planning to reach in 1492, he would have reached the place he was planning to reach in 1492", "If there had been a round square, there would have been a round square") is indirectly a reason for a belief in the falseness of $A>\neg A$ ("If Christopher Columbus had reached the place he was planning to reach in 1492, he would not have reached the place he was planning to reach in 1492", "If there had been a round square, there would have been no round square"). This may suggest that the justification for the truth of $A>A$ is also a justification for the falseness of $A>\neg A$.

Contrary to the above, advocates of orthodoxy argue in favor of the thesis which has it that if A expresses impossibility, both "$A>A$" and "$A>\neg A$" are true. As Williamson argues, this is partly grounded in the commonly accepted principle that counterfactuals distribute over conjunction in the consequent: $((A>C)\ \wedge\ (A>B))\equiv(A>(C\ \wedge\ B))$. In virtue of this principle, the truth of $A>A$ and $A>\neg A$ result in the truth of $A>(A\ \wedge\ \neg A)$. While acceptance of this may raise some doubts, this merely shows that if the consequent of a given A is a contradiction, and if no contradiction is possible, the mentioned antecedent is not possible either (Williamson, 2018, p. 3). Thus, the acceptance of the truth of $A>A$ and $A>\neg A$ is grounded in the impossibility of A. In other cases, i.e., those

where A is possible, the truth $A>A$ entails the falseness of $A>\neg A$ (Stalnaker, 1968, p. 106).

The reasoning mentioned above is a justification for a belief in the vacuous truth of counterpossibles rather than criticism of unorthodoxy. Since this heavily relies on the assumption of the nonexistence of impossible worlds, the extension of the worlds' domain by introducing impossible worlds, would result in the situation where we could choose between two alternatives—orthodoxy and unorthodoxy. This would be a real choice only if both alternatives were consistent approaches. In this respect, Williamson charged unorthodoxy with being inconsistent. The mentioned inconsistency is meant to be grounded in the motivation for the belief in non-vacuous counterpossibles. This is the subject of the following section.

Misleading Heuristics

Considering the popularity of the orthodoxy, one may raise a question about the explanation of the common intuition which has it that some counterpossibles are false. Williamson sees the source of this intuition in what he calls heuristics, which is reflected in one of two expressions:

> (HCC) Given that C is inconsistent with D, treat $A>C$ as inconsistent with $A>D$.

or

> (HCC*) If you accept one of $A>C$ and a $A>\neg C$, reject the other. (Williamson, 2018, p. 8)

As Williamson argues, the belief in the plausibility of the above is what is meant to justify the unorthodoxy on counterpossibles. Thus, in virtue of either (HCC) or (HCC*), the truth of $A>A$ should result in the falseness of $A>\neg A$. This—advocates of unorthodoxy seem to claim—gives an accurate picture of the way in which we use counterfactuals with possible as well as those with impossible antecedents.

Contrary to this, it is argued that while in many cases, the use of the above-mentioned heuristics is justified, they do not apply unrestrictedly. A counterexample to this is a counterfactual with an impossible antecedent. As has been shown previously, an advocate of orthodoxy argues that in such cases, both $A>C$ and $A>\neg C$ are true. Thus (HCC) and (HCC*) apply to only those cases where the antecedent expresses possibility (Wil-

liamson, 2018, p. 9). In other cases, to rely on the heuristics results in a consequence that is inconsistent with the orthodoxy, i.e., the claim that some counterpossibles are false.

The above observation focuses on the relation between the orthodoxy and heuristics and shows why—in virtue of the former—the unrestricted acceptance of the latter is implausible. This, however, allows for an alternative interpretation. Namely, one according to which the thesis of orthodoxy contradicts the common phenomena expressed by (HCC) or (HCC*), so one should lean towards unorthodoxy. This would be justified if advocates of unorthodoxy could apply heuristics in an unrestricted way. As Williamson argues, this is not the case, which is meant to be shown by two counterpossibles:

a) $(A \wedge \neg A) > A$
b) $(A \wedge \neg A) > \neg A$

In virtue of (HCC) one should admit that the truth of (a) results in the falseness of (b). This, however, is problematic for at least three reasons. First of all, this would require rejecting one of the commonly accepted assumptions about counterfactuals, which has it that if an antecedent is a conjunction, then each conjunct of this is a consequent of this counterfactual, i.e. $(A \wedge B) > A$ and $(A \wedge B) > B$. Secondly, acceptance of only one of (a) and (b) contradicts the principle of counterfactual distribution over conjunction in the consequent. After all, since both (a) and (b) have the same antecedent, one should conclude (c): $(A \wedge \neg A) > (A \wedge \neg A)$. Finally, since (c) is an example of a counterfactual of the form $A > A$, the falseness of (c) goes against the initial assumption about the truth of every counterfactual of the form $A > A$. Thus, the consequences of the heuristics which meant to justify the unorthodoxy are incompatible with the general assumptions about counterfactuals (Williamson, 2018, p. 8).

In virtue of the above, an advocate of the unorthodoxy finds herself in a highly problematic situation. In order to defend this approach, one would have either to give up all of the three mentioned assumptions about counterfactuals or to modify the heuristics. I am going to argue in favor of the second option. Before doing so, however, it is worth mentioning what Williamson considers to be the misunderstanding of orthodoxy, i.e., the claim that an advocate of orthodoxy believes that the consequents of a counterpossible play no role when it comes to determining the

truth-value of a given counterpossible. This charge has been formulated by Beritt Brogaard and Joe Salerno:

> Counterpossibles are trivial on the standard account. By "trivial", we mean vacuously true and semantically uninformative. Counterpossibles are vacuously true in that they are always true; an impossibility counterfactually implies anything you like. And relatedly, they are uninformative in the sense that the consequent of a counterpossible makes no contribution to the truth-value, meaning or our understanding of the whole. (Brogaard & Salerno, 2013, p. 642)

The problem that Brogaard and Salerno pointed out is often considered an indirect motivation for rejecting the orthodoxy in favor of the unorthodoxy. According to Williamson, the charge is based on a misinterpretation of the first of these (Williamson, 2018, p. 4–5).

A Consequent of a Counterpossible

Williamson's argument is of the form of a reduction ad absurdum, and the crucial part of it is an analogy with other types of vacuously true counterfactuals, i.e., counterfactuals with necessarily true consequents. In virtue of this, it is claimed that if advocates of the orthodoxy claimed that the consequent of a counterpossible played no role in its truth-value, then the vacuous truth of a counterfactual with a necessarily true consequent would be independent of its antecedent. This would allow for a particular type of counterfactual, namely one which has an impossible antecedent and a necessarily true consequent:

(10) "If 6 were prime, 35 would be composite" (Williamson, 2018, p. 5).

Following the criticism of the orthodoxy—Williamson claims—one would have to admit that both the antecedent and the consequent of (10) have no contribution to the truth-value of this counterfactual. This, however, is implausible for without an antecedent and a consequent what is left is a bare form of the counterfactual sentence, which cannot give a truth-value on its own. If this is the consequence of the argument, then it is misleading for none of the advocates of orthodoxy would like to hold such a ridicules thesis (Williamson, 2018, p. 5).

If Williamson is right, the critique of orthodoxy should either argue that the mentioned "ridiculous thesis" indeed is a consequence of the or-

thodoxy or point out that this thesis is not a consequence of Brogaard and Salerno's charge. Choosing the latter option, I am going to argue that there is no need to believe that the mentioned charge results in ascribing to the orthodoxy the view that (10) is true in virtue of being a counterfactual.

What is key for Williamson's analysis is the question of what is the bare form of the counterfactual sentence. If we assume that the bare form of disjunction is the expression of the form $p \vee q$, then the bare form of the counterfactual sentence is $A > C$. The mere form does not allow for the determination of the truth-value of a counterfactual, which is reflected in the fact that philosophers of conditionals provide additional truth-conditions.[6] Likewise, the bare form of disjunction does not determine the truth value of $p \vee q$. While it is difficult to agree that the mere structure of (10) determines the truth value of it, one may question whether this is a consequence of the charge of Brogaard and Salerno. It seems that there are two reasons to believe that the claim that the consequent of counterpossibles does not contribute to the truth-value of the whole does not entail the thesis that (10) is true only in virtue of being a counterfactual.

The first reason is that if the claim mentioned above had been a consequent of Brogaard and Salerno's charge, the charge would have it that, in virtue of the orthodoxy, counterpossibles such as (8*) "If whales were fish, C" are vacuously true. This, however, would change the original subject of the charge, for this would be a problem of the vacuous truth of not well-formed formulas. This is due to the assumption that the counterfactual is a logical connective of two sentential arguments (A and C). Thus, in order to estimate the truth-value of it, both arguments should be satisfied by sentences. (8*) does not satisfy this for it contains one sentence and one sentential variable.[7]

While the belief in the truth of (8*) is controversial, this is not the aim of the original criticism of the orthodoxy. The aim is the thesis that regardless of what C is substituted by (8*) will be vacuously true. In this

[6] Williamson did not write explicitly what he means by "the bare form" of (10). Thus, one may raise doubts about whether the proposed "$A > C$" is actually the bare form of a counterfactual, for while this may represent the structure of (10), this does not reflect the modal status of its antecedent and the consequent.

[7] Based on the analogy to the bare form of disjunction, for every disjunction, where one of the disjuncts is "2+2=4" is true, this does not mean that "2+2=4 or p" (or "2+2=4 $\vee$ p") is true. After all, these are not well-formed formulas.

sense, a consequent of a counterpossible makes no contribution to the truth-value of the whole. Thus, one may question whether the consequence of Brogaard and Salerno's charge is the thesis that orthodoxy has it that what makes (10) true is the fact that is has the structure of $A > C$.

Secondly, if one asks an advocate of orthodoxy for motivations to believe in the vacuous truth of (4–9), she would say that this is so due to the impossibility of their antecedents. If we asked what makes the sentences "Even if Christopher Columbus had reached the place he was planning to reach in 1492, 36 would be composite" true, she would say that this is due to the necessary truth of the consequent. Both of these conditions—in virtue of orthodoxy—are sufficient to believe in the vacuous truth of the mentioned counterfactuals. Likewise, the truth of (10) is not grounded in the fact that the antecedent is impossible, and the fact that the consequent is necessarily true. What—in virtue of orthodoxy—makes (10) true is rather the fact that this satisfies a disjunction of conditions: a counterfactual is true whenever its antecedent is impossible, or the consequent is necessarily true. In the first case, the consequent plays no role in evaluation, in the second, the antecedent does not contribute to the truth-value.

This shows that contrary to what Williamson suggests, the criticism of orthodoxy does not have to entail the above-mentioned ridiculous thesis that (10) is true because of its structure. Nevertheless, the acceptance of orthodoxy results in the consequence that the impossibility of the antecedent determines the truth-value of the counterfactual. Thus, the consequent of a counterpossible (its meaning, modal status, or truth-value) makes no contribution to the truth-value of the whole expression.

Heuristics modified

The above allows us to move back to the question of heuristics. Timothy Williamson argues that the unrestricted acceptance of these is equally problematic for an advocate of orthodoxy as it is for the critiques of this approach. Thus, one should not consider them as a plausible motivation for rejecting orthodoxy in favor of orthodoxy. This is so due to the incompatibility of heuristics and the above-mentioned three principles that were meant to regulate the use of counterfactuals in general. In virtue of this, it is worth considering whether it is possible to provide such an alternative formulation of heuristics that on the one hand would justify the intuitions of different truth-values of counterfactuals (of possible or im-

possible antecedents), and on the other hand would not be in tension with the truth of (a) and (b).

It seems that the source of the incompatibility of (HCC*) and the truth of (a) and (b) is that while the consequents of (a) and (b) are incompatible with each other, each of them is compatible with the antecedent $A \wedge \neg A$. After all, if the antecedent is of the form of conjunction, the consequent can be any of the conjuncts. Likewise, in the case of orthodoxy, where the inconsistency of A and $\neg A$ does not preclude making them both consistent consequences of the impossible antecedent. This shows how crucial for the evaluation of counterfactuals is the antecedent and might be a good starting point for a reformulation of heuristics. If one would like to express orthodoxy in terms of heuristics one could say that "Assuming the possibility of A, if you accept one of $A > C$ and $A > \neg C$, reject the other." This seems to reflect the way in which advocates of orthodoxy think about counterfactuals. At the same time, this shows that the tension between $A > C$ and $A > \neg C$ arises only if A is possible. Thus, one can formulate orthodoxy's heuristics, which has it that:

> (HCC**) "If A does not allow for the simultaneous acceptance of them both, if you accept one of $A > C$ and $A > \neg C$, reject the other."

Somehow similar heuristics apply to the unorthodoxy as well. The difference here lies in the fact that the impossibility of A is not a sufficient condition for the acceptance of both $A > C$ and $A > \neg C$. This, however, does not have to be a deal-breaker, for (HCC**) says nothing about what exact conditions A has to satisfy. Thus, (HCC**) can be easily accepted by unorthodoxy to expresses the motivation for this view. This can be done by claiming that while $(A \wedge \neg A) > A$ and $(A \wedge \neg A) > \neg A$ have opposite consequences, both are true due to the fact that both consequences are compatible with the antecedent. Thus, in this particular case, the antecedent does allow for the simultaneous acceptance of both counterfactuals.

It should be noted that regardless of whether one favors orthodoxy or unorthodoxy, the majority of counterfactuals satisfy (HCC*). Nevertheless, there are also examples of pairs of counterfactuals with opposite consequents, which makes it implausible to use the mentioned heuristics in an unrestricted way. This makes (HCC*) misleading and merely partly reflecting the way in which we use counterfactuals. The more accurate formulation of heuristics is (HCC**), which—contrary to (HCC) and

(HCC*)—does not have to be restricted to a particular type of counterfactuals. Moreover, this can be applied by both the orthodoxy and the unorthodoxy. Considering the lack of restriction in the application of (HCC**), there is a good reason to consider this not as a misleading heuristics, but rather as a normative rule, which expresses the relation between counterfactuals that have the same antecedents, but opposite consequents.

Nevertheless, if one accepts (HCC**), there is a question of why this is supposed to support the unorthodoxy analysis of counterpossibles. After all, this rule equally supports the orthodoxy, which suggests that this does not move us closer to the finding of an adequate approach towards counterpossibles. While this may be the case, one of the theoretical benefits of acceptance of (HCC**) is that this justifies the thesis of this paper, i.e., the consistency of the unorthodoxy motivation and other commonly accepted rules of counterfactuals.

The consistency of the unorthodoxy does not have to end the debate over an adequate analysis of counterfactuals. For—as Timothy Williamson claims—advocates of the unorthodoxy have to believe in impossible worlds, which (along with other assumptions of the unorthodoxy) results in implausible hybrid semantics. Compared to this, the unified orthodox approach seems to be more attractive (Williamson, 2016b). This leads to a consideration of methodological aspects of the debate over counterpossibles.

Methodological Aspects

Since the acceptance of (HCC**) is consistent both with the orthodoxy and the unorthodoxy, one may believe that the debate can be framed as a clash of intuitions with respect to the adequate analysis of counterfactuals. Thus, one faces two alternatives. The first one is a simple model, which—for the last decades—has been considered to be the default one, and which has it that every counterpossible is vacuously true. The alternative to this is a relatively new approach, which extend the worlds' domain by introducing impossible worlds, and which has it that some counterpossibles are false.

Considering their theoretical virtues, the two approaches highlight different methodological aspects. An advocate of orthodoxy points to the simplicity of her view, which is reflected in the simpler domain of the worlds. While simplicity is an essential theoretical virtue, this surely is

neither the only one, nor the most important.[8] This is due to the fact that the alternative's being less simple might be well motivated by its higher explanatory power. This condition is implicitly included in the principle of parsimony (so-called "Occam's Razor"), which has it that "entities should not be multiplied beyond the necessity." While the principle is one of the most popular, the vast majority of philosophers usually focus only on its first part and overlook the second part. For it is not the case that entities should not be multiplied at all, but instead they should not be multiplied beyond necessity. It is justifiable to consider the mentioned necessity to be an explanation of data that are the subject of a given theory. Thus, the principle of parsimony should be interpreted as one which has it that if two theories have the same explanatory power, one should favor the simpler one, i.e., the theory which postulates fewer entities, hypotheses, axioms, etc.

In virtue of this, while the orthodoxy is with some respects simpler, the complexity of the unorthodoxy's alternative has a good reason. This is the higher explanatory power, which is reflected in taking into consideration pre-theoretical intuitions of different truth-values of counterfactuals such as (4–9). Thus, the complexity of unorthodoxy does not have to be considered as a violation of the principle of parsimony. On the contrary, the entities that are in this case multiplied, are necessary for the explanation of the data.

This line of defense of unorthodoxy may be faced with the problem of officiousness. This problem arises when a theory is too sensitive when it comes to identifying data (Hitchcock & Sober, 2004). As philosophers who characterized this problem argue, we are often wrong when it comes to the recognition of what is the real data and what is merely "noise" in the data (Hitchcock & Sober, 2004, p. 10). In such cases, we are faced with the problem of wrong identification of what is meant to be explained by a given theory. Accordingly, our expectation of a theory to explain a given phenomenon is unjustified.

The inaccurate identification of data may lead to further complications. After all, if we consider what is merely noise to be real data, there is a risk of introducing unjustified changes in the original theory or simply rejecting the original theory in favor of the new one. This often happens because of a wrongly construed counterexample to the original theory

[8] It seems that some consider the parsimony to be merely a question of the aesthetic aspect of a given theory (Barcan Marcus, 1995, p. 199).

(Williamson, 2018). As Williamson claims, counterfactuals such as (4–9) can be considered such wrongly construed counterexamples. What makes them inadequate is that the intuition they are supposed to reflect is based on the (HCC), which is meant to be implausible.

If the main reason for which the unorthodoxy is implausible is meant to be due to (HCC) or (HCC*), an advocate of this approach might point to (HCC**). As I have argued, this seems to go along with the way in which we ascribe truth-values of counterfactuals. At the same time, this is general enough to be consistent with both orthodoxy and unorthodoxy. Importantly, this allows for an indication of the consistency of the latter.

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