Indicative, Subjunctive, Accident, Oversight

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Abstract

Philosophers often refer to a certain class of sentences known as 'counterfactuals' or 'subjunctives'. These sentences are invoked for philosophical labour, and she who starts counting is quickly surprised by the frequency of their invocation. Especially so since counterfactuals are called upon for their powers occult: counterfactuals are treated as uniquely suited to their tasks because they are somehow *different* from other sentences (including other conditionals), because they manage (modal) forces unwielded by other sentences.

The goal of this paper is to convince its readers to stop talking that way. Counterfactuals, should we even manage to delineate them as a class of sentence, do not form a class of much special use to either linguist or philosopher. My first project is semantic: semanticists should stop offering theories of indicatives on the one hand, and counterfactuals on the other, since these are not semantically interesting classes of sentences. Indeed, their introduction to the semantic project is a matter of historical accident and theoretical oversight. My second project is to defame counterfactuals as a useful tool in philosophy of science and metaphysics. I show that any metaphysical task purportedly suited to counterfactuals is equally well suited to a broader class of sentences that is tidily delineated and of clear semantic import. Talk of counterfactuals, at least as a theoretically useful or important class of sentences, should end.

The student of conditional semantics is introduced early on to the distinction between indicatives on the one hand and subjunctives or counterfactuals on the other. The distinction is not carefully drawn, but it muscularly shapes the material she studies. Philosophers standardly offer a theory of one class of sentences (cf., for example, David Lewis' Counterfactuals (1973b), Stalnaker's 'A Theory of Conditionals' (1968), Bennett's Philosophical Guide to Conditionals (2003), or Grice's 'Indicative Conditionals' (1989)), and then either provide required modifications so as to generalize the account to the other class (as in the case of Stalnaker) or argue

that the other variety demands a substantially divergent analysis (as is the case with Lewis, Bennett, and (implicitly) Grice). Fortunately, the distinction is an intuitive one, one that seems to capture some real classes of sentences: sentences that differ from one another in principled ways, even if the principle is oddly elusive.

What is this distinction? First note that it is subjunctives and counterfactuals that have been carved out from the set of conditionals as a special class. As a result, we will only look for principles that distinguish subjunctives and counterfactuals from the rest; 'indicative' names the remaining undistinguished mass.[1]

Counterfactuals are sometimes treated as the class of conditionals whose if-clauses are false. C.I. Lewis is an influential employer of this distinction (1929), (1946). But that distinction is not of much use to semanticists for two reasons. First, it is not the standard version that philosophers work with today, as it will count many paradigm indicative conditionals amongst the counterfactuals and paradigm counterfactuals amongst the indicatives, such as

(1) If I'm still working on my dissertation in 40 years, I'll be an old graduate student

(2) If she had been to a Hindu wedding recently, she would have just those markings on her hands. So maybe she has been to a Hindu wedding (Anderson 1951), (Bayfield 1890)

Semanticists at least since David Lewis' Counterfactuals (1973b) widely use 'counterfactual' to name a class of conditional whose if-clauses are not universally false or taken to be false.

Second, while this principle does distinguish a class of sentences, that class is not useful to the semanticist qua semanticist. For while the truth value of a sentence may vary with the truth value of a contained part, its meaning and truth conditions should not. You cannot tell

[1] Of course, many authors have distinguished many kinds of conditionals, but still indicatives are by and large those conditionals that are not counterfactual/subjunctive.

whether a conditional is counterfactual in this sense until after you know what it means.

Subjunctives, on the other hand, might be taken to be those conditionals with subjunctive mood. This is a difficult claim to evaluate, given the ephemeral character of the subjunctive in English. While some languages do have a clearly marked subjunctive, English does not. Superficially diverse phenomena are called 'subjunctive' in English, from the appearance of an infinitive minus 'to' as in 'We require that every student *study* Quine' to the appearance of past morphology absent past temporal interpretation in 'If you went to Burma you would have to get some shots'. The fact that these sentences are all clearly marked as subjunctive when translated into Latin casts a pallor on the distinction in English, since the early codification of English grammar was conducted by Latinists. In any case, it seems that it should take a good theory to decide that these diverse syntactic structures share a uniting feature, and such a theory we currently lack.

Second, this criterion again does not capture the class of conditionals that semanticists have traditionally called 'subjunctive'. David Lewis writes, "The title 'Subjunctive Conditionals' would not have delineated my subject properly. For one thing, there are shortened counterfactual conditionals that have no subjunctives except in their–still all-too-hypothetical–deep structure..." (Lewis 1973b), p. 3–4 such as 'No Hitler, no A-bomb'. He continues, "There are subjunctive conditionals pertaining to the future, like *'If our ground troops entered Laos next year, there would be trouble'* that appear to have the truth conditions of indicative conditionals" (Lewis 1973b), p. 4. Thus he excludes such conditionals from his analysis of counterfactuals, and most theories of counterfactuals seem to have followed him on this.[2] Lycan writes, "...a terminological decision must be made...'Indicative'/'subjunctive' is absolutely standard and well un-

[2]One might wonder why this sentence should "appear to have the truth conditions" of an indicative conditional, by which Lewis means the material conditional. Is it merely because the sentence seems to be an indicative conditional? What is it that makes this sentence an indicative?

derstood, but also incorrect. (On account of its familiarity and its causing no semantic harm, I would be inclined to to stick with it still; but the respecting of grammatical distinctions is a central theme of this book)" (Lycan 2001) p. 140. Bennett writes,

> The conditionals that are called 'indicative' under this proposal are indeed all in the indicative mood, but that does not make the label a good one because most and perhaps all of the others are in the indicative mood also. The subjunctive mood has some slight use in English, as in 'God help you', and 'Would that you were here!', but English has never worked it hard, as do Latin and French...I have found no grammatical authority supporting the claim that conditionals of the 'would' type (as I am provisionally calling them) employ the subjunctive mood...

After rehearsing standard arguments against to term 'counterfactual', he continues,

> Holding my nose, I adopt the labels 'subjunctive' and 'indicative'. Fortunately, their defenders never claim that 'subjunctive' helps us to understand conditionals of the type to which they apply it–what its analysis is, the role of such conditionals in inference and in our lives. The word seems only to remind them of the primacy of 'would' in (most of) the conditionals to which the label is applied...(Bennett 2003), p. 11–12.

So neither term, 'counterfactual' nor 'subjunctive', is quite satisfactory. Since Counterfactuals (Lewis 1973b), the terms have largely been used interchangeably. I henceforth adopt the term 'counterfactual', but we still need to say what class of sentences the term should denote.

It is easiest to proceed with some paradigm examples of counterfactuals to let the reader's intuitions to do the philosophical work of distinguish counterfactuals from indicatives (a risky

method, though common). Nowadays, counterfactuals are mostly those conditionals that have 'had' and 'would' in the right places: "If you had bet red 16 like I told you, you wouldn't be broke right now" "If the Rams hadn't drafted that bum Wethersfield, we wouldn't be facing these struggles at wide receiver" "If dogs had evolved as three legged creatures, their environment would have been different from the one it actually was". 'Were-would' conditionals are typically treated as counterfactuals as well: 'If I weren't so hungry, I would be able to concentrate' or 'If Maria were here, we wouldn't have to deal with this'. While this roughly syntactic characterization will not capture every possible example (Lewis' 'No Hitler, no A-bomb' springs to mind, and we might wonder where other 'would'-conditionals fit, like 'If you went to Burma, you would have to get some shots'), it gives us plenty to work with. The counterfactuals are a pretty clear class, and the rest are the indicatives. But it is a Frankenclass, stitched together from syntactically diverse structures. Amalgams in one's taxonomy should arouse suspicion until they have been justified: they are guilty until proven innocent.

The distinction is old, and where comes from is hard to tell, and besides that not of much interest to my project.[3] Wherever it came from, it was quickly put to work in various philosophical theories, especially metaphysical ones. What is of interest is how the distinction came to its current position in our semantic theorizing about conditionals. For semanticists have only been paying close attention to counterfactuals for the last 60 years or so, and they typically *presuppose* the distinction and build their theories so as to construct a difference between counterfactuals and indicatives.

Such an approach is reasonable when the presupposed distinction has the right foundations. When a distinction accomplishes valuable theoretical work in one domain, one may

[3]Historical interest is another story: Hume employs counterfactuals in the second formulation of the first definition of causation; Berkeley exacts heavy labour from them in the Principles of Human Knowledge, and it is entirely likely that they were doing other work for other philosophers long before.

reasonably presuppose that distinction in a novel domain. I suspect that this is why philosophers presuppose the distinction when theorizing about conditionals. But we will see that not only does the distinction do a shoddy job of the work it was originally used for, but that even when the distinction was reasonably taken to be doing real philosophical work, there was an alternative distinction that would have done even better.

As mentioned, the distinction did not take an important role in our semantic enquiries before the 1950's. Chisholm (1946) and especially Goodman (1947) popularized the semantic problem of counterfactuals amongst philosophers of language. Though it had been noted in passing by Quine (1940), Chisholm and Goodman sparked a flurry of semantic interest; it is this furor that resulted in the current entrenchment of the distinction in our discipline. Goodman strikes a resounding note in the opening sentences of "The Problem of Counterfactual Conditionals":

> The analysis of counterfactual conditionals is no fussy little grammatical exercise. Indeed, if we lack the means for interpreting counterfactual conditionals, we can hardly claim to have any adequate philosophy of science. A satisfactory definition of scientific law, a satisfactory theory of confirmation or of disposition terms...would solve a large part of the problem of counterfactuals. Conversely, a solution to the problem of counterfactuals would give us the answer to critical questions about law, confirmation, and the meaning of potentiality. (1947), p. 3

Goodman does not contend that either analysis is logically prior to the other; "It makes little difference where we start if we can go ahead" (p. 3). The article is dedicated to the latter approach, to an attempt to put some foundations under our theories of law, dispositions, and so on with a semantic analysis of counterfactuals. But what lead him and Chisholm to pose the

problem the way they did–as the problem of *counterfactual* conditionals, rather than as some broader problem of conditionals more generally?

Counterfactuals in the beginning of the 20th century were enjoying an increasingly high profile: stars of analysis, they were set to some of metaphysics' oldest and most cherished problems. They supplied analyses of dispositions (Broad 1933); they defended idealism and phenomenalism from serious objections (Berkeley 1995), (Lewis 1929), (Ayer 1952), (Firth 1943). Counterfactual analyses of causation were hinted at in (Hume 1995) and were waiting in the wings with (Lewis 1973a). Perhaps most importantly (and lastingly), they promised to distinguish laws from mere accidental generalizations (Chisholm 1946), (Chisholm 1955), (Goodman 1947).

Furthermore, there was a popular candidate analysis for the remaining conditionals–the indicatives. While Goodman himself did not hold the material analysis in high esteem, many of those who took up the problem as he posed it–as the problem of counterfactuals–did. (For randomly chosen examples, see (Weinberg 1951), (Pears 1950), and (Watling 1957); (Chisholm 1946) also seems to have respected the material analysis.) So one class of conditionals (the counterfactuals) looked uniquely capable of several important philosophical tasks, while the other (the indicatives) seemed to have a standard logical interpretation–an interpretation, furthermore, that obviously could not generalize to the counterfactuals. The availability of a popular candidate analysis for the class of sentences that was not counterfactuals was a catalyst for the popularization of the indicative/counterfactual distinction; this is the accident mentioned in the title of this paper.

But we can no longer put solid foundations under our metaphysical theories with a good analysis of counterfactuals, since counterfactual analyses are no longer popular in most of these

domains. And the material analysis shows even less promise as an analysis of all those conditionals that are not counterfactuals. But philosophers of language still address the problem as Goodman posed it, as the problem of counterfactual conditionals. Thus the indicative/counterfactual distinction appears as a vestige of an older metaphysical tradition that is now rightfully shed. We can respect the distinction for the hope it offered in the past, but since it no longer offers much hope we ought not to continue to work under its guidance–at least, not if there are superior alternatives. To one such alternative we now turn.

A better founded partial taxonomy was introduced by Dudman in his striking articles (1983) and (1984). He delineates a class of if-sentences characterized by (1) a modalized main clause; (2) an if-clause whose syntactic tense and temporal interpretation display a peculiar relation that Dudman calls "forward time shift". Dudman reserves the honorific "conditional" for just the sentences identified by these features; for added clarity I will call them D-conditionals. Note that while I will treat this class of conditionals as a semantic kind, I do not therefore conclude that all the rest of the conditionals form a semantic kind. The kinds of conditional besides D-conditionals may be legion; that question is beyond the scope of this paper. Now on to Dudman's criteria.

Forward time shift is the most unique and remarkable characteristic of these conditionals. The syntactic tense of the if-clause of a D-conditional may be any of the three available in English: present, past, or past perfect.[4] The temporal interpretation of the if-clause of a D-conditional is always at least one phase later than the syntactic tense. That is, if the if-clause is present tensed, the temporal interpretation can only be future; when the if-clause is past tensed

[4]Dudman argues that English has no future tense; while the position is still debated, it has enough support that we may simply adopt it as a theoretical commitment, a piece of background theoretical machinery. Note, however, that the claim is not that English does not talk about the future; that is clearly false. Rather, the claim is that the lexical items that yield a futurate interpretation for a sentence and our tense items belong to distinct semantic categories. They display markedly different syntax even at the surface level.

the temporal interpretation may be present or future. For example:

(3) If you aim your squirt gun at the president you will have a run in with the law

Here the if-clause is syntactically present tense but is about a possible future event.

(4) If you aimed your squirt gun at the president, you would have a run in with the law

This simple past if-clause reads most naturally as about a possible future event; indeed, it might be used to prevent (or encourage) just such an event.[5] Note that (4) would most likely be called an indicative on the old taxonomy. Every version of the old taxonomy must call (3) an indicative.

When the if-clause is past perfect, the temporal interpretation may be past, present, or future. For example:

(5) If you had aimed your squirt gun at the president, you would have had a run in with the law

The past perfect if-clause, on its most natural interpretation, talks about a past event. But note that the temporal interpretation can be future as well. Suppose I destroy your squirt gun and offer (5) as justification a few minutes before the president's arrival; the if-clause is now about what we once took to be a possible future state of affairs.[6]

(3), (4), and (5) bear a deep semantic relationship. Suppose that, prior to the president's scheduled arrival, I learn of your designs and offer the prophesy (3). You are convinced to put your gun away. If I say (5) the next day, I offer no new information; the sentences pass the same

[5]For completeness, a past D-conditional with present interpretation: "If Tyson was here right now, you'd be laid out on your back".

[6]Again, for completeness, a past perfect D-conditional with present temporal interpretation: "If Grannie had been here to see this, she'd have been disgusted".

judgement about the world, albeit from different temporal perspectives. Given their syntactic and semantic similarities, it would be a shame to put them in different semantic categories. (4) is roughly interchangable with (3), though such past tensed D-conditionals tend to be more polite or tentative.

Note that superficially identical sentences may have both D-conditional and non-D-conditional interpretations:

(6) If Winston poked the old hag, she would get up and hex him

The sentence has two interpretations: one is as a D-conditional, a warning about the consequences of Winston's poke. The second is not; where the if-clause is not read as forward time shifted, the sentence could be used to reminisce about the old hag's habits in certain past situations. The first reading is felicitous even if casting hexes is not regular behaviour for the old hag in any circumstances, though it would in fact follow in this particular case. The second reading is only felicitous when the old hag did in fact show a regularity in behaviour over some set of cases. An embellishing recollector is rightfully criticized: "Not so; that only happened once".

Dudman's distinction seems in need of some refinement. He claimed that the temporal interpretation of a D-condtional whose if-clause is present tensed must be futurate; if the if-clause is past, the temporal interpretation may be present or futurate. But interesting problems then arise when we consider conditionals with progressive if-clauses. For (7) will not count as a D-conditional on this analysis, yet (8) will:

(7) If Grannie isn't eating her dinner she'll miss her stories

(8) If Grannie wasn't eating her dinner she would miss her stories

I find Dudman's claim that these sentences belong in different categories unwelcome; the rela-

tionship between them seems to parallel the relationship between (4) and (3) that I will struggle to preserve.

But if progressive predicates are stative predicates we can find a new pattern emerging.[7] Dudman is indeed correct that when a past tense if-clause shifts forward, it is either to the present of future. But he fails to note a regularity in this feature: when the if-clause is stative, the interpretation shifts to the present and when the if-clause is eventive the interpretation shifts to the future (Arregui 2007):

(9) If Grannie was here, she would box your ears

(10) If Grannie went to the store, she would buy a paddle

How we should revise the distinction in light of this data I will not judge at this point.

We have now (provisionally) identified a class of sentences that distinguishes the had-would counterfactuals from the were-would counterfactuals, that puts a subset of the indicative conditionals in the same hopper as the had-would counterfactuals, and does so according to a clear and semantically relevant principle. The conditionals that are unified by this distinction seem intuitively to belong together in a way that the counterfactuals do not. There remains one task for this paper: I want to show that this taxonomy does as much work as–perhaps even better work than–the old one ever could have.

Counterfactuals were never special in the manner they were taken to be. Counterfactuals were supposed to have the *unique* ability to offer analyses of natural law, of dispositions, of causation, and so forth. But a closer look will show that many kinds of conditionals have that power, and most importantly that counterfactuals have no more power that their simple past

[7]Progressives share many features of stative verbs: they are non-agentive, temporally homogenous, and oriented towards the present. Cf. (Katz 2003).

and present tensed D-conditional cousins. Counterfactuals therefore have not been shown to have any special powers amongst the conditionals, and so again should not be taken to be a special class of conditionals. This is the oversight mentioned in the title of this paper.

Consider the counterfactual analysis of dispositions. Broad may be right that a house of cards is fragile just in case it would have been knocked down if it had been struck gently (under the right supporting conditions). But he overlooks the fact that the same house of cards is fragile just in case it will be knocked down if it is struck gently–or, for that matter, if it fell down if it was struck gently. No special work is accomplished by the counterfactual analysis that is not accomplished by a broader conditional analysis.

The same oversight can be attributed to the sense data theorists. For example, Firth appealed to counterfactuals so that he could maintain that there are things that exist that are not perceived. There are mountains on the dark side of the moon because if someone were to go there, they would see mountains. But these aspects of his phenomenalism are just as well served by D-conditionals about the future. Another sense data theorist might maintain that the mountains on the dark side of the moon exist because if someone goes there, they will see mountains.

Causal claims about the past couldn't be analyzed with D-conditionals about the future, but causal claims about the future could: the ice on the sidewalk will cause the postman to slip just in case, if the ice isn't there, the postman will not slip, or if the ice wasn't there, the postman would not slip (or try: if the ice melts, the postman will not slip).

But phenomenalism is no longer an active research programme, and counterfactual analyses of dispositions and causation are increasingly unpopular. Perhaps the strongest standing bastion for counterfactual analysis is the distinction between laws and accidental generaliza-

tions. Goodman and Chisholm both thought real laws could be distinguished from mere accidentally true generalizations by counterfactuals that are supported by the former but not the latter. The project may be most clearly expressed in (Chisholm 1955), which distinguishes

(11) Everyone who drank from this bottle of arsenic was poisoned

from

(12) Everyone who drank from this bottle of arsenic wore a neck tie

by noting that the former supports this counterfactual:

(13) If you had drunk from this bottle of arsenic you would've been poisoned

while the latter does not support its relative:

(14) If you had drunk from this bottle of arsenic you would've worn a necktie

But again, that work is as well accomplished by D-conditionals as it is by counterfactuals. For our law statement supports this D-conditional:

(15) If you drink from this bottle of arsenic you will die

while the accidentally true generalization does not support its cousin:

(16) If you drink from this bottle of arsenic you will wear a necktie

Through the course of this paper, we've seen that the indicative-counterfactual distinction is a vestige of an outdated metaphysical paradigm, one bolstered by a faulty semantic analysis of indicative conditionals. It does little metaphysical work very well, and what work it does can be equally well if not better accomplished by other distinctions, distinctions that are drawn by semantically relevant criteria and that unite sentences that seem, superficially, to belong

together. The indicative-counterfactual distinction drives wedges between members of these classes. And remember, the indicative-counterfactual distinction is not even clearly drawn. From all this I conclude at the very least that semanticists should no longer presuppose the indicative-counterfactual distinction; we should no longer aim to build our theories of conditionals in ways that unify counterfactuals as a class and distinguish them from the rest. The same goes for the indicatives.

To conclude, I want to discuss two arguments in favour of the distinction. The first was pithily offered by Earnest Adams in (1970). He offers two sentences, one (the former) which we may be justified in accepting and the other which we may not:

(17) If Oswald hadn't shot Kennedy in Dallas, then no one else would have

(18) If Oswald didn't shoot Kennedy in Dallas, then no one else did[8]

Adams argues that the compound sentences have the same input sentences but different truth values, so they have different operators; one is the indicative operator and the other is the subjunctive operator, so there is a real difference between indicative and subjunctive conditionals. As Adams puts it, "subjunctive and indicative conditionals are indeed logically distinct species, and there remains a special problem of analyzing subjunctives even after the indicatives are analyzed" (p. 89).

I hope the reader is already prepared to be unconvinced by Adams' examples. (17) is indeed semantically distinct from (18), as his examples show. That is because (17) is a D-conditional and (18) is not. The problem is Adams' assumption that (18) can stand in for any indicative

[8]The examples were popularized by (Lewis 1973b), who modified them for logical simplicity to:

(19) If Oswald didn't shoot Kennedy, someone else did

(20) If Oswald hadn't shot Kennedy, someone else would have

conditional, that it is built using *the* indicative operator, that it is in some interesting sense the unique "corresponding" indicative to (17). But note that we cannot construct Adams-pairs within a family of D-conditionals: the truth value of (17) is co-ordinate with the truth value of (21), said before the assassination:

(21) If Oswald doesn't shoot Kennedy in Dallas, no one else will

This co-ordination of truth values never breaks down,[9] reinforcing Dudman's claims about the semantic relationship they share. But even if one rejects Dudman's taxonomy, Adams' argument does not force acceptance of its conclusion. It shows at best that (17) and (18) belong to distinct categories, not that indicative and subjunctive as traditionally understood are the relevant categories.

There remains one important distinguishing feature of counterfactuals that sets them apart from indicatives: *they seem different*. When we think counterfactually, it feels like we are doing something special. We are thinking about the world, not as it is, but as it would have been under certain circumstances. This gives counterfactuals a peculiar modal flavour, a taste that sets them apart from the rest. But I think this taste is misleading, a product of old habits; in particular, the habit of not treating 'will' as modal. When we recognize that 'will' is a modal on par with 'would', we see the unification of D-conditionals more vividly. When we note that thinking hypothetically about the future (which we do when we evaluate past and present tensed D-conditionals) relies on the same abilities as thinking counterfactually about the past, the sense that thinking counterfactually is special dissipates even further. There is this difference: when we think counterfactually about the past, we often know that the hypothesis we are considering is false; hence the vivid modal flavour. When we think hypothetically

[9] *Pace* Bennett (2003), who argues otherwise; discussion of those arguments here would take us too far afield.

about the future, we often consider hypotheses whose truth values are uncertain. Since those hypotheses might be actual, their modal notes are obscured. But modal feelings accompany consideration of present tensed D-conditionals whose if-clauses we know are false. 'If Arnold Schwarzenegger is elected President, it will be a violation of the law' is no less modally queer than its counterfactual cousins. If there is any difference, it is because we quite reasonably see the future as open to possibilities in ways that the past is not. But this is no basis for a semantic distinction.

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