

Unsurprising Conditions for Conditional Surprise

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Introduction

Blumberg and Holguín present two puzzles regarding the semantics of attitude reports involving conditionals (ie. Attitude-Conditionals) which seem to involve commitments to assertions which entail contradictions, and take this data to call for a revision of our semantics for Attitude-Conditionals.¹ This essay attempts to defend our standard (material conditional or Stalnakerian) semantics of Attitude-Conditionals by:

1. Restating Blumberg's and Holguín's presentation of the problems regarding
 - a. Attitude-Conditionals, and;
 - b. Fitch-Conditionals.
2. Identifying the issue behind Blumberg's and Holguín's reading of Fitch-Conditionals,
3. Presenting my error theoretic systematic reinterpretation account which provides a true elliptical reading of false but felicitous Attitude-Conditionals,
4. Addressing Drucker's 'Deathbed-Conditional' counterexample to a similar reinterpretation account,² and;
5. Addressing other more complex counterexamples which explicitly reference the speaker's information states, which appear to be inhospitable to reinterpretation.

¹ Blumberg and Holguín, 'Embedded Attitudes' 377-9.

² Drucker, 'Policy Externalism' 274.

§1 Two Puzzles

§1.1 Attitude-Conditionals

Consider:

Bill's Holiday: Chris, Andrew, and I are discussing the details of Bill's holiday this summer. We all know that Bill usually says goodbye before embarking on a trip. Chris says 'I think that Bill is going to Costa Rica next week'; then Andrew says 'Actually, I heard that Bill left for Cuba today'. I think for a moment, then utter:

Conditional-Surprise: If Bill is on a plane to Cuba, then I am surprised that he left without saying goodbye.

Now consider the following propositions:

- A: Bill is on a plane to Cuba.
- B: I am surprised that Bill left without saying goodbye.

Suppose that *Bill's Holiday* is a situation in which A is true.

Blumberg and Holguín believe that *Conditional-Surprise* is a felicitous utterance which may very well be true in the context of *Bill's Holiday*. However, supposing that both A and *Conditional-Surprise* are true, straightforwardly leads to a problem.

If A is true, then naively accepting surface grammar should allow us to infer B from *Conditional-Surprise* and A by modus ponens. However, Blumberg and Holguín take the

plausibility of the claim that ‘Surprise entails Knowledge’ to conflict with the inference to the claim that B is true. It certainly seems that we can only be surprised about things we become aware of, and not things which we are not aware of. If so, then since the speaker has no practical way of knowing whether ‘Bill has indeed left without saying goodbye’ (without altering the set-up), Blumberg and Holguín find it implausible for B to be true.³

If this reflects a failure of modus ponens, then this seems to be a problem for our semantics of Attitude-Conditionals.

§1.2 Fitch-Conditionals

Blumberg and Holguín think that this problem is further complicated by the assertability of what they call Fitch-Conditionals; Attitude-Conditionals whose consequents entail a Fitch Paradox,⁴ of the form: $K(p \wedge \neg Kp)$.⁵ Consider:

Fitch’s Surprise: If Bill is on a plane to Cuba, then I am surprised that he departed without my knowing.

Blumberg and Holguín find *Fitch’s Surprise* to also be a felicitous utterance that may very well be true, and so the same problem of the implausibility of inferring the truth of the consequent of *Fitch’s Surprise* from the truth of A, applies here as well. However, this time, Blumberg and Holguín think that *an additional problem* arises from the fact that a contradiction follows straightforwardly from the consequent of *Fitch’s Surprise*.

³ Blumberg and Holguín, ‘Embedded Attitudes’ 378.

⁴ Fitch, ‘A Logical Analysis of Some Value Concepts.’.

⁵ Blumberg and Holguín, ‘Embedded Attitudes’ 378-9.

I will now outline what I take to be their line of reasoning for this claim.

Let “K” denote a Factive Epistemic Modal: “Know”, and let “p” denote an arbitrary proposition, such that if one “Knows that p”, it is epistemically necessary that p, and if it is epistemically necessary that p, then p is true. Let us then translate “p without my knowing” in logical form as $(p \wedge \neg Kp)$. Since knowledge of a conjunction entails knowledge of both conjuncts, assuming that ‘Surprise entails Knowledge’ leads us to a contradiction as follows:

1. I am surprised that ‘Bill departed without my knowing’.
 2. I am surprised that ‘Bill departed without my knowing’ *only if* I know that ‘Bill departed without my knowing’. (1, Surprise entails Knowledge)
 3. I know that ‘Bill departed without my knowing’. (1, 2 Modus Ponens)
 4. I know that ‘Bill departed’ AND I know that ‘I do not know that ‘Bill departed’’. (3, K distribution)
 5. I know that ‘Bill departed’. (4, Conjunction Elimination)
 6. I know that ‘I do not know that Bill departed’. (4, Conjunction Elimination)
 7. I do not know that ‘Bill departed’. (5. Reflexivity. K factivity)
- (X 5, 7 Contradiction)

Thus, the self-contradictory nature of the consequent of Fitch-Conditionals seem to present an additional puzzle (apart from the failure of *modus ponens*), when we consider how *Fitch’s Surprise* seems to be a felicitous utterance.

§2 Why the Fitch-Conditional is Unproblematic

Before I propose my reinterpretation account for felicitous Attitude-Conditionals in general, I will first attempt to resolve the issue of the assertability of *Fitch's Surprise*, by showing that its consequent does not in fact, entail a contradiction.

In my reading of Blumberg and Holguín, it seems that they read the consequent of *Fitch's Surprise*, as entailing “I know that ‘Bill departed without my knowing’.” from ‘Surprise entails Knowledge’. Whilst I agree that the attitude expressed by the phrase ‘am surprised that’ in the consequent of *Fitch's Surprise* seems to be correctly characterized in present tense, I find that the state of affairs the speaker is surprised about—namely Bill’s departure and the speaker’s ignorance of Bill’s departure—is *past relative to the utterance*.

Thus, *Fitch's Surprise* expresses a present attitude towards a past state of affairs.

Recall the move from 3. to 4. which used K distribution as follows:

3. “I know that ‘Bill departed without my knowing’”,
4. “I know that ‘Bill departed’” AND “I know that ‘I do not know that ‘Bill departed’.’.”

If the speaker’s attitude of surprise is truly one which is directed towards a certain state of affairs which is past relative to the utterance, this makes this move to distribute knowledge over both conjuncts in 3 incorrect in my reading. Instead, it seems that K distribution over both conjuncts of 3 should give us:

- 4*. “I know that ‘Bill departed’” AND “I know that ‘I did not know that ‘Bill departed’.’.”

In which case, conjunction elimination on 4*. gives us:

5. I know that 'Bill departed'. 6*. I know that 'I *did not know* that 'Bill departed'.'.

Applying reflexivity to 6*., yields:

7*. I *did not know* that 'Bill departed'.

But notice that 7* no longer contradicts 5, resolving the puzzle. If this analysis is correct, this shows us that the consequent of *Fitch's Surprise* does not entail a contradiction, providing us at least a partial explanation for why we take *Fitch's Surprise* to be felicitous.

More generally, it seems that the consequent of these Fitch-Conditionals must reference one's present or future ignorance in order to generate a contradiction. However, I think that such conditionals are either unproblematic for my reinterpretation strategy or infelicitous. I will explain my reasoning in §5 after I have presented my general reinterpretation account in §3 and §4, but if my hypothesis is correct, then Fitch-Conditionals should be no more problematic than Attitude-Conditionals in general.

§3 Systematic Reinterpretation Proposal: Antecedent Supposition

Suppose we grant that *Fitch's Surprise* is no more problematic than other Attitude-Conditionals. Attitude-Conditionals still present us with the puzzling issue of the failure of modus ponens—it still seems that we cannot infer the consequents of *Conditional-Surprise* and *Fitch's Surprise* from the fact that A.

My response to this puzzle is that while utterances such as *Conditional-Surprise* and *Fitch's Surprise* are felicitous, they are strictly speaking, false.

How can the statement “If Bill is on a plane to Cuba, then I am surprised that he left without saying goodbye” be true, if Bill is indeed on the plane to Cuba, but it is not the case that I am surprised that Bill left without saying goodbye? (I am almost inclined to suspect that anyone who thinks that *Conditional-Surprise* is true in conjunction with A and $\neg B$, does not understand the meaning of “if” and “then”.)

We have various compelling theories of conditionals which affirm this interpretation. On the material conditional analysis, a conditional “ $P \supset Q$ ” is true just in case either P is false, or Q is true.⁶ However, *Conditional-Surprise* is a case whereby the antecedent is true, but the consequent is false. This means that *Conditional-Surprise* is false on the material conditional analysis. In Stalnaker's analysis of the conditional, a conditional “ $P > Q$ ” is true just in case Q is true in the nearest possible world whereby P is true.⁷ However, since the nearest possible world in which Bill is on the plane to Cuba is the actual world of the set up (a world in which, the speaker is not actively surprised that Bill left without saying goodbye), the world of the set up is precisely the nearest possible world in which A is true, which is a world in which B is false. This means that *Conditional-Surprise* is also false on Stalnaker's analysis of the conditional.

The question then, is, why do the Attitude-Conditionals above, which express false utterances, *sound right*? Grice suggests a reinterpretation strategy for conditionals in general, treating “If

⁶ Bennett, ‘The Material Conditional: Grice’ 20.

⁷ Stalnaker, ‘A Theory of Conditionals’ 45-6.

A then B” as “Supposing A, then B”, and I am persuaded that it applies to Attitude-Conditionals as well.⁸

I hypothesize that when we hear felicitous but false Attitude-Conditionals, we as competent speakers of English, naturally and systematically reinterpret these utterances by finding a similar but true *elliptical reading* which interprets the attitude embedded in the consequent to have been adopted on the basis of supposing that the antecedent is true. I suspect that this reinterpretation account might be broadly motivated by an appeal to conversational maxims such as quality and relation, given pragmatic linguistic norms which generally assume that interlocutors make assertions which are sensitive to one’s total information states.⁹ However, I limit my analysis to ‘*how*’ a reinterpretation account may be used to resolve puzzles of Attitude-Conditionals rather than ‘*why*’ it manifests in the way it does due to constraints on space.

Specifically, I think that Attitude-Conditionals of the form: “If P, then S Φ s that Q” are tacitly read as: “If S were to, at time t, suppose that P, then S would (on the basis of supposing that P) Φ that Q upon the information update, at t.”, whereby P is the state of affairs forming the antecedent, t denotes the time of hypothetical antecedent supposition, Φ is an attitude expressed by the agent S, and Q is some state of affairs in the consequent that Φ is directed towards.

This can be more conveniently expressed as follows:

“If S were to suppose that P at t, then S would Φ that Q at t”

⁸ Grice, ‘Indicative Conditionals’ 66-83.

⁹ Grice, ‘Logic and Conversation’ 26-8.

I will now attempt to motivate this reinterpretation proposal.

Blumberg and Holguín briefly consider the possibility that *Conditional-Surprise*, in reality, expresses a subjunctive conditional:

Conditional-Surprise-S: “If Bill *were* on a plane to Cuba, then I *would* be surprised that he left without saying goodbye.”.

However, they note that one can still, from the truth of A, infer the corresponding indicative mood reading of the consequent of *Conditional-Surprise-S*, which is B.¹⁰ Thus, they take the simple subjunctive reading to present us with the same problem that the indicative mood reading faces anyway. Since using the subjunctive mood as such, is insufficient to serve as a solution, Blumberg and Holguín reject such a reading.

However, I worry that this rejection is premature because I suspect that subjunctive readings are a step in the right direction. Subjunctive moods are intended to be used when expressing states of unreality, wishes or hypotheticals.¹¹ At this point, the speaker is considering the (hypothetical) prospect that A, and it seems natural for the speaker to utilize a subjunctive conditional in expressing his conditional surprise he (hypothetically) would have, on the basis of A’s being true.

¹⁰ Blumberg and Holguín, ‘Embedded Attitudes’ 378.

¹¹ Bennett, ‘Introduction’ 11-2.

Drucker's reinterpretation yields:

Deathbed-Surprise-D: If I find out that this is the last thought I have before dying, then
I will be surprised that it's such a philosophical one.

While Drucker's reinterpretation strategy works on *Conditional-Surprise* and *Fitch's Surprise*, it seems that *Deathbed-Surprise* now poses a new problem. Since Drucker's treatment of 'find out' seems to be equivalent to 'come to know', this means that every situation in which one 'finds out' the antecedent of *Deathbed-Surprise*, is a situation in which one is truly having one's last thought. However, if one dies after *Deathbed-Surprise*, that permits no future attitudes, and thus the speaker will not adopt the attitude embedded in the consequent, making this reinterpretation strategy fail.

However, it seems to me that one can be surprised at what one supposes to be true, without that very proposition being true. Consider:

NASA-Conspiracy: If the moon landing was a hoax, then I'm surprised that
America won the Cold War.

While coming to know that 'the moon landing was a hoax' is indeed sufficient for adopting the attitude embedded in the consequent of *NASA-Conspiracy*, it seems to me that we need not appeal to such a strong sufficient condition in order for *NASA-Conspiracy* to be a felicitous utterance. Instead, I have the intuition that the mere *consideration of the hypothetical situation* in which the moon landing was a hoax, already suffices for conditional

surprise. Suppose (truthfully) that the moon landing was not faked in the actual world. It seems to me that *NASA-Conspiracy* nonetheless successfully expresses conditional surprise on the basis of the supposition that the moon landing was indeed a hoax. If one shares this intuition, then it seems that Drucker's reinterpretation strategy employs a more stringent requirement of the speaker *coming to know* that the antecedent is true.

While this does not, *ipso facto*, make my reinterpretation strategy preferable to Drucker's, my strategy also avoids the problems Drucker's strategy faces in *Deathbed-Surprise*. Applying my proposed reinterpretation to *Deathbed-Surprise* yields:

*Deathbed-Surprise**: If I were to suppose that this is the last thought I have before dying, then I would (upon supposing it) be surprised that it's such a philosophical one.

As such, the speaker's conditional surprise embedded in the consequent of *Deathbed-Surprise** can become active, even if *Deathbed-Surprise** is not actually one's last thought. *Deathbed-Surprise* thus has a true reading in cases whereby one does not instantly and suddenly die right after uttering it, granting that one *would* be surprised if one supposes that the antecedent were true.

Here, Drucker may challenge us to find a true reading *even when Deathbed-Surprise* is *actually the last thought one has before dying*, but I think that this challenge does not pose a threat, because stipulating that a given thought is a 'Deathbed-Thought', does not negate

one's dispositions to hypothetical futures.¹⁵ I take it that a sincere performance of *Deathbed-Surprise* itself already expresses one's disposition to be conditionally surprised on the basis of one's supposition of the antecedent, making the embedded attitude obtain. Adopting this reading thus renders utterances such as *Deathbed-Surprise* unproblematic.

§5 Information Paradoxes Redux

§5.1 Conditional Attitudes Referencing One's Ignorance

While I have (I hope) successfully addressed the problems that come with the simple *Deathbed-Conditionals*, more complex conditionals which embed attitudes towards propositions which make explicit reference to the speaker's information states can be constructed in attempts to make *Attitude-Conditionals* hostile to simple reinterpretation strategies. Consider:

Secret-Vacation: If Bill is on a plane to Cuba but has made sure that I never find out about it, then I am surprised that he is so secretive.¹⁶

Secret-Infidelity: If Antonius broke some of his vows, but has taken pains to hide that, I'm surprised that I never found out (that he did break his vows) given that we live together.¹⁷

Applying Drucker's reinterpretation yields:

¹⁵ I thank my classmate, Cheng Jue Fei for his input on this point.

¹⁶ Blumberg and Holguín, 'Embedded Attitudes' 383.

¹⁷ Drucker, 'Policy Externalism' 275.

Secret-Vacation-D: # If I find out that ‘Bill is on a plane to Cuba but has made sure that I never find out about it’, then I will be surprised that he is so secretive.

Secret-Infidelity-D: # If I find out that ‘Antonius broke some of his vows, but has taken pains to hide that’, I will be surprised that I never found out (that he did break his vows) given that we live together.

Both reinterpreted utterances are infelicitous, and egregiously so. By referencing one’s hypothetical ignorance in the conditional, we are able to construct felicitous Attitude-Conditionals which make Drucker’s reinterpretation strategy break down by expressing overt contradictions.

Secret-Vacation references the speaker’s ignorance in the antecedent, making Drucker’s reinterpretation inadvertently render the antecedent contradictory in *Secret-Vacation-D*, since it now requires that the speaker *finds out that he does not find out that A*. This is problematic given that it makes finding out the antecedent impossible. If the embedded attitude in the consequent is adopted, it is for some other reason and this conflicts with our intuition that *Secret-Vacation* expresses surprise conditioned *on the basis* of the antecedent.

Secret-Infidelity on the other hand, references the speaker’s ignorance in the consequent, which makes Drucker’s reinterpretation inadvertently render the conditional itself contradictory. Even if we deny that the attitude verbs ‘finds out’ and ‘surprise’ both entail knowledge, a contradiction can still be straightforwardly derived from such a conditional on

the basis that they both entail ‘believing that P’, since the conditional is of the form “If S finds out that P, then S will be surprised that S never found out that P”.

However, this is no threat to my proposal as applying my reinterpretation yields:

*Secret-Vacation**: If I were to suppose that ‘Bill is on a plane to Cuba but has made sure that I never find out about it’, then I would (upon supposing it) be surprised that he is so secretive.

*Secret-Infidelity**: If I were to suppose that ‘Antonius broke some of his vows, but has taken pains to hide that’, I would (upon supposing it) be surprised that I never found out (that he did break his vows) given that we live together.

Unlike the reinterpretation strategy Drucker considers, it seems that my reinterpretation produces utterances with true readings, which also sound natural (to my ear).

Sincerely performing the utterance of *Secret-Vacation* consists in the speaker considering a state of affairs in which ‘Bill is on a plane to Cuba but has made sure that the speaker never finds out about it’, and it seems that there is no contradiction in the speaker expressing his conditional surprise towards such a state of affairs. Similarly, sincerely performing the utterance of *Secret-Infidelity* consists in the speaker considering a state of affairs in which ‘Antonius broke some of his vows, but has taken pains to hide that’, and again it seems that there is no contradiction in the speaker expressing her conditional surprise towards her ignorance regarding such a state of affairs, were it to obtain. Thus my proposed reinterpretation strategy avoids the problems Drucker’s faces because it only requires that one

suppose a certain state of affairs, which does not contradict one's failure to 'find out' that very same state of affairs. This is because merely supposing that P is entirely compatible with one's not being committed to P.

§5 'Bespoke' Counterexamples

At this point, it seems that a potential objection to my reinterpretation strategy is to construct an analogous counterexample 'tailor-made' to my antecedent supposition clause, in the same way that *Secret-Vacation* and *Secret-Infidelity*, were constructed to be counterexamples to Drucker's reinterpretation strategy.

§5.1 Failure to Suppose in Antecedent

The first way one may attempt to construct such a counterexample involves making reference one's failure to suppose a certain state of affairs *in the antecedent*, such that the reinterpreted antecedent takes the form "S supposes that P and S does not suppose that P", as follows:

Moriarty's Scheme: If you came up with some dastardly plan that I'd never consider,
then I'm surprised that you've finally outsmarted me.

Applying my reinterpretation strategy yields:

Moriarty's Scheme:* If I were to suppose that 'you came up with some dastardly plan
that I'd never consider', then I would (upon supposing it) be
surprised that you've finally outsmarted me.

I treat 'suppose' here as entailing 'consider', such that every case in which 'S supposes that P', is a case in which 'S considers that P'. I have chosen this formulation because 'I don't suppose that P' has the conventional meaning of politely requesting something, or hazarding a guess about something, which is outside of what I intend to explore for this reinterpretation strategy. I only intend to use 'suppose' as something roughly like, 'provisionally regarding as true for the sake of argument'.

In any case, we see that the antecedent supposition applies to the entire antecedent, not just the first conjunction! Thus, instead of getting "*S supposes that P and S does not suppose that P*", we get "S supposes that '*P and S does not suppose that P*'", with the supposition taking wide scope over the conjunction. Note however, that while this formulation may take a form similar to Moore's Paradox, more steps need to be taken to show that it is contradictory, if it is really contradictory at all. My intuition is that it is disanalogous to Moore's paradox.

Moore's paradox concerns the puzzle of the absurdity of asserting propositions of the form "P but I don't believe that P".¹⁸ Even if such propositions are true, it seems absurd to believe any such propositions because a contradiction can be straightforwardly derived in any doxastic logic with extendability and transitivity constraints from beliefs of propositions of this form.

However, I find that despite their similarities at first glance, there is a disanalogy between the two situations. This is because, while it is not possible to believe that "P but I don't believe that P" without contradiction, *it is* possible to suppose that "P but I don't suppose that P", without contradiction.

¹⁸ Moore, 'A Reply to My Critics'.

To demonstrate, let us suppose a scenario whereby I am staying indoors, and thus the question of whether it is raining outside does not occur to me (and I thus fail to suppose that it is raining). Let us also further suppose that this scenario is one in which it is indeed raining outside. It seems that by supposing the conjunction of these two situations stipulated above, I have successfully supposed a situation in which “It’s raining but I don’t suppose that it’s raining”. I take this exercise to show that supposing that “P but I don’t suppose that P” is a coherent thought capable of being thought of by a rational agent.

We can apply the same process to the supposition of the antecedent of *Moriarty’s Scheme*, and I believe that we will find that supposing that “Moriarty came up with some dastardly plan that one would never consider” is a coherent thought. One merely considers a representation of a potentially counterfactual state of affairs whereby ‘Moriarty came up with some dastardly plan’ which is such that ‘the speaker would never consider it’, and supposes, for the sake of argument, that the conjunction of these two propositions is true. The speaker in the actual world supposes that ‘Moriarty came up with some dastardly plan’, but the speaker represented in the counterfactual scenario does not, and we see that no contradiction arises from such a thought process. Thus my reinterpretation strategy is immune to attempted counterexamples designed to generate a contradiction through referencing one’s failure to suppose a certain state of affairs in the antecedent, such as *Moriarty’s Scheme*.

§5.2 Failure to Suppose in the Consequent

The second way one may attempt to construct a counterexample to my reinterpretation strategy involves making reference one’s failure to suppose a certain state of affairs *in the*

consequent, such that the entire reinterpreted conditional is roughly of the form “if S supposes that P, then S is surprised that S does not suppose that P”, making the Attitude-Conditional self contradictory. A first pass attempt to construct such a counterexample may go:

Watson’s Surprise-1: # If the butler was really the killer, then I’m surprised (that he was), since I would never suppose that he was the killer.

My intuition is that applying my reinterpretation strategy to *Watson’s Surprise-1* will indeed yield a contradiction, but I think that this feature is unproblematic since *Watson’s Surprise-1* is an infelicitous utterance, because it employs the wrong tenses. Instead, it seems to me that a more natural and felicitous utterance would reference one’s failure to suppose that the antecedent is true, in *past tense* as follows:

Watson’s Surprise-2: If the butler was really the killer, then I’m surprised (that he was), since I would never *have supposed* that he was the killer.

With both versions side by side, we now see what sounds wrong with *Watson’s Surprise-1*. The very performance of *Watson’s Surprise-1* consists in supposing that the butler was the killer, and expressing a conditional attitude towards one’s never supposing that the butler was the killer, resulting in a direct contradiction in the same breath.

This brings me back to my earlier point in §2 about Fitch-Conditionals. In order for information referencing Attitude-Conditionals to generate a contradiction upon supposition, these Attitude-Conditionals need their consequents to involve a failure to consider the

to the reinterpretation account Drucker considers, and take this data to motivate their revision of our semantics for Attitude-Conditionals.

I have, however, proposed my own reinterpretation account, which meets Blumberg's and Holguín's challenges, and avoids the objections levied by Drucker against reinterpretation accounts. Additionally, I have anticipated several potential counterexamples and have found these objections to be unproblematic for my reinterpretation strategy.

If my analysis is correct, it would allow us to retain our standard analyses of the conditional without postulating a special semantics that only applies to first-person present-tense attitude verbs, as Blumberg and Holguín suggest. It is thus in my opinion that my analysis provides the simpler, more elegant solution to this puzzle.

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