Handout 6: Indicatives Status Report; Gibbardian Standoffs

Philosophy 691: Conditionals
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Geoff Pynn

> The further in you go, the bigger it gets.
>
> John Crowley, *Little, Big*

INDICATIVE CONDITIONALS: STATUS REPORT

1. An English indicative expresses a binary operation on a pair of statements $\langle A, C \rangle$, where C does not require "would" as an auxiliary verb. Abbreviation: $A \to C$. Edgington: we "regiment" an indicative using the sentence frame:

   If it is the case that␣A, then it is the case that␣C. (Handout 1)

2. What does $A \to C$ mean? First attempt at an answer:

   HORSESHOE. $A \to C$ is true iff $A \supset C$; i.e., if either $\neg A$ is true or C is true. (Handout 2)

   HORSESHOE gives *truth-conditional* and *truth-functional* answer. Arguments for HORSESHOE (each assumes that $A \to C$ entails $A \supset C$):

   (a) *Or-to-if.* (Handouts 2, 3).
   (b) *Conditional proof*. (Handout 3).
   (c) *Gibbard's argument.* (Handout 5).

3. But HORSESHOE has serious problems matching our usage (Handout 2):

   (a) Many indicatives that seem false or absurd come out true on HORSESHOE.
   (b) HORSESHOE: $A \to C$ is false only when A is true and C is false.
   (c) Assertibility / acceptability of $A \to C$ seems governed by the Ramsey Test; i.e., by $P(C|A)$, not by $P(A \supset C)$.

4. Standard HORSESHOE defense: supplement truth-conditions with distinct assertibility / acceptability conditions:

   (a) Grice: conversational implicature: non-truth-functional grounds for $A \supset C$. (Handout 2).
   (b) Jackson & Bennett's "Grice": "Assert the stronger". (Handout 2).
   (c) Jackson: conventional implicature: C is robust with respect to A; i.e., $P(C|A)$ is high. (Handout 3).

5. Three problems for these defenses:

   (a) Grice and "Grice" don't seem to yield assertibility conditions that match Ramsey Test; don't explain why '$\neg A$ or C' has distinct assertibility conditions from $A \to C$ (Handout 2)
   (b) Bennett's criticisms of Jackson (Handout 3)

(c) Edgington: why is it sometimes rational to accept $\neg A$ while rejecting $A \rightarrow C$? HORSESHOE implies it shouldn't be, and assertibility conditions can't explain why it is (Handout 2)

6. Second attempt at an answer: start with the Ramsey Test. Key idea:

   THE EQUATION. $P(A \rightarrow C) = P(C|A)$ (provided $P(A) > 0$) (Handout 4)

   THE EQUATION does a better job than HORSESHOE at predicting which conditionals we'll find acceptable / assertible.

7. But THE EQUATION has its own problems with usage (Handout 4):
   (a) Whenever $P(C) = 1$, $P(C|A) = 1$. (Bennett doesn't address this.)
   (b) Whenever $P(A) = 0$, THE EQUATION is silent on acceptability / assertibility. (Bennett says this is good because indicatives are zero-intolerant, but that's questionable.)

8. If we assume IMPORT-EXPORT, disaster results for THE EQUATION (Handout 5):

   IMPORT-EXPORT. $(A \,\&\, B) \rightarrow C$ is logically equivalent to $A \rightarrow (B \rightarrow C)$.

   IMPORT-EXPORT and THE EQUATION entail:

   IF-AND. $P((B \rightarrow C)|A) = P(C|(A \,\&\, B))$ (provided $P(A \,\&\, B) > 0$)

   IF-AND and THE EQUATION entail:

   LEWIS. Whenever $(A \,\&\, C), (A \,\&\, \neg C) > 0$,
   1. $P(A \rightarrow C) = P(C)$, and
   2. $P(C|A) = P(C)$.

   MILNE.
   1. Whenever $P(A \,\&\, C) > 0$, $P(A \rightarrow C) = P(A \supset C)$, and
   2. Whenever $0 < P(A) < 1$, $P(C|A)$ is either 1 or 0.

9. Possible responses:
   (a) Embedding restrictions.
   (b) Treat $A \rightarrow C$ as expressing a ternary relation (or maybe as context-sensitive).
   (c) Deny IF-AND (which would require denying IMPORT-EXPORT).

   Hájek's (1989) proof (the "Wallflower" argument) seems immune to these responses

10. Next up: another puzzling data point: there are cases ("Gibbardian standoffs") where $A \rightarrow C$ and $A \rightarrow \neg C$ are both acceptable / assertible.

11. Hájek: "It's enough to make a philosopher turn to something easier, like solving the mind-body problem or the problem of free will." ('The Fall of Adams' Thesis', *ms.*).

GIBBARDIAN STANDOFFS

1. Sly Pete. There are many variations on the Sly Pete story. Here is Gibbard's original version:

   > *Sly Pete.* Sly Pete and Mr. Stone are playing poker on a Mississippi riverboat. It is now up to Pete to call or fold. My henchman Zack sees Stone's hand, which is quite good, and signals its content to Pete. My henchman Jack sees both hands, and sees that Pete's hand is rather low, so that Stone's is the winning hand. At this point, the room is cleared. [...] Zack knows that Pete knew Stone's hand. He can thus appropriately assert "If Pete called, he won." Jack knows that Pete held the losing hand, and thus can appropriately assert "If Pete called, he lost." (Gibbard (1981), p. 231).

2. Gibbard's (extremely plausible) claim: Z is assertible / acceptable for Zack and J is assertible / acceptable for Jack:

   C : Pete called

   W : Pete won

   Z : $C \to W$

   J : $C \to \neg W$

3. Some people have thought that one of the assertible / acceptable conditionals was really a subjunctive conditional masquerading as an indicative. I don't find this plausible, but if you do Bennett's Top Gate example on page 85 completely does away with this feature; there, it's clear as day that both conditionals are indicatives. It's a good example, and I'll use its existence to justify ignoring this reply to the Sly Pete case.

4. Some options for dealing with Sly Pete:

   (a) Z and J are true. One apparent consequence: conditional non-contradiction (CNC) is false for indicatives:

   CNC. $\neg((A \to C) \,\&\, (A \to \neg C))$

   Bennett: CNC is "almost indisputably true" (p. 84). However, HORSESHOE implies that CNC is false. If (a) indicatives have truth values, and (b) the assertibility / acceptability of a statement with a truth value is strong evidence that it is true, then this another reason to like HORSESHOE.

   (b) Z and J are false.

   Gibbard: "one sincerely asserts something false only when one is mistaken about something germane. In this case, neither Zack nor Jack has any relevant false [non-conditional] beliefs" (p. 231).

   Most agree that the Gibbard standoff phenomenon is widespread (see Bennett p. 87, and Edgington (1995), §8.2 for a more detailed discussion). So for many acceptable indicatives, there are realistically imaginable circumstances in which (a) the objective facts are the same, and (b) the contradictory conditional is acceptable to a subject whose relevant non-conditional beliefs are all true. If the existence of a pair of such circumstances is enough to render both the conditional and its contradictory false, then many ordinary indicatives are false.

   (c) One of Z or J is false.

   This response faces Gibbard's objection above, and another hard question: which is false? The hopelessness of this response is more apparent when you consider asking that question about Bennett's Top Gate case.

   (d) Neither Z nor J is true or false.

   This is Gibbard's answer, and Bennett's too.

5. A context-sensitive theory

   (a) When faced with a pair of acceptable statements that are apparently incompatible (as Z and J seem to be, if we accept CNC), one response is to say that the statements exhibit some form of context-sensitivity.

   (b) Alex is in Albany, and Beth is in Berkeley. It's raining in Albany, but it's not raining in Berkeley. Alex asserts "It's raining," and Beth asserts "It's not raining." Each asserts appropriately and, we want to say, truly. But don't their statements contradict each other? And if so, how can both be true?

   Answer: the truth-conditions of "It's (not) raining" are partly determined by the context in which the statement is asserted, and so the truth-conditions of Alex's assertion are not incompatible with the truth-conditions of Beth's. This simple theory tells us, correctly, that Alex and Beth both speak truly:

   "It's (not) raining" as asserted by S is true iff it is (not) raining in S's location.

   So the truth-conditions of "It's (not) raining" are more complicated than their surface structure suggests.

   (c) Let's adopt a skeletal possible worlds theory of indicatives: $A \to C$ is true iff in the A-worlds in some set of possible worlds Φ, C is true. As I said on Handout 4, the challenge is to specify which worlds are in Φ. Whatever the answer, it's plausible to suppose that it depends on the epistemic state of the speaker. Let's employ $A \to_S C$ to mean '$A \to C$ as asserted by S'. Taking up the supposition:

   $A \to_S C$ is true iff C is true at the A-worlds in Φ_S, where Φ_S is determined by S's epistemic state.

(d) Now return to Sly Pete. Jack and Zack are in different epistemic states, so it could easily be the case that $\Phi_Z \neq \Phi_J$. Thus $C \rightarrow_Z W$ may be true while $C \rightarrow_J W$ is not, and $C \rightarrow_J \neg W$ may be true while $C \rightarrow_Z \neg W$ is not.

(e) The truth of Z and J is compatible with a contextualized version of CNC:

CNC-S. $\neg((A \rightarrow_S C) \,\&\, (A \rightarrow_S \neg C))$

Since $(A \rightarrow_Z C) \not\equiv (A \rightarrow_J C)$ and $(A \rightarrow_J \neg C) \not\equiv (A \rightarrow_Z \neg C)$, the truth of both Z and J doesn't violate CNC-S.

(f) The proposal is similar to Stalnaker's (1968) theory. Disclaimer: I'm *not* saying that this theory is correct; in any event, it is far from complete! What about S's epistemic state determines Φ_S? We haven't said anything about that. Moreover, if I wanted to defend a version of this theory, I wouldn't link Φ (directly) to S's epistemic state, but to something like the presuppositions of S's conversation (this is also close to Stalnaker's original suggestion). All I'm saying now is that a theory with this general shape has the resources to treat Gibbardian standoff pairs as both true while conforming to a respectable version of CNC.

BENNETT ON "SUBJECTIVE TRUTH VALUES"

1. Bennett discusses the possibility of giving "subjective truth values" to indicatives, which is a confusing way of talking about the claim that the truth conditions of an indicative are context-sensitive in the way I've described. Bennett's description of the suggestion (p. 89; replacements made to conform with our examples):

> [S]uppose that when someone asserts $A \rightarrow C$, the proposition he asserts has a truth value in the normal way, but that *what* proposition it is depends not only upon A and C and the normal meaning of $\rightarrow$ but also on some unstated fact about himself. [...] [W]e have to consider the idea that what someone means by a sentence of the form $A \rightarrow C$ depends in part upon his overall epistemic state, that is, upon how probabilities are distributed across the propositions on which he ha opinions. This opens the door to the possibility that when [Zack] asserts [Z] while [Jack] asserts [J], each [man] says something true, just as they might if one said 'May Smith painted this' and the other, holding up a McCahon, said 'May Smith didn't paint this'.

2. Bennett's entire discussion turns on the claim that this suggestion "amounts to the proposal that $\rightarrow$ is not a binary but a ternary operator, involving A, C, and the overall belief state of the speaker" (p. 89). But this is far from obvious. Consider Bennett's own example:

> "May Smith painted this"

That sentence is context-sensitive: its truth-conditions are determined in part by the speaker's referential intentions; i.e., on what she intends to pick out using 'this'. But it expresses a binary relation between May Smith and the painting, not a three-place relation between May Smith, the painting, and the speaker's intentions. In general, the following inference is fallacious:

> The truth-conditions of an assertion of $R_n\langle x_1 \ldots x_n\rangle$ are fixed in part by feature F of the context of utterance.
>
> So, an assertion of $R_n\langle x_1 \ldots x_n\rangle$ expresses an $(n+1)$-place relation among $x_1 \ldots x_n$ and F.

As far as I can see, Bennett gives no arguments for the claim that the context-sensitive theory requires us to say that indicatives express a ternary relation among A, C, and the speaker's epistemic state, and I can't see any reason why the context-sensitive theorist would have to say this.

3. Bennett makes two other points worth discussing. First, he says that the following idea is implausible (p. 90):

> When you assert an indicative conditional [...] you talk about yourself; when you say $A \rightarrow C$ you are reporting that your value of $P(C|A)$ is high.

Bennett's argument: when you assert $A \rightarrow C$ and I ask you "Are you sure?" and you say "Yes", you're not saying that you are sure that your $P(C|A)$ is high, but rather "assuring me of that high value" (p. 90). He goes on to say that the relevant question is not "How sure am I about the conditional probability?" but rather "How high is the conditional probability?" I have to admit: I used to find this argument compelling, but I'm not sure I understand it anymore.

Here's a different argument that Bennett doesn't give. When you and I disagree over whether $A \rightarrow C$, we are not disagreeing about what our values of $P(C|A)$ are. You and I can agree about what our respective $P(C|A)$'s are and still disagree about whether $A \rightarrow C$. This indicates that whatever I'm saying when I assert (or dissent from) $A \rightarrow C$, it's not (just) that my value for $P(C|A)$ is (or is not) high. (Note that this argument only shows that an assertion of $A \rightarrow C$ isn't *just* a report about the speaker's epistemic state, not that such a report can't be part of what it means.)

4. Second, Bennett objects to the idea that, when I ask Zack and Jack, "If Pete called, did he win?" and Zack says "Yes" while Jack says "No," then "both are right" (p. 91). But is the context-sensitive theory committed to saying that "both are right"?

   No! Suppose that Alex can truly say "It's raining," while Beth can truly say "It's not raining". I ask them both, "Is it raining?" and Alex says "Yes" and Beth says "No". If the location relevant to my question is Alex's, then he's right; if the location relevant to my question is Beth's, then she's right. But we can't say whose answer (if either) is "right" until we know which location is relevant to my question. And since (obviously) for any particular location L it's not both raining and not raining at the same time at L, there won't be any occasions on which "Yes" and "No" are both "right" answers to my question.

   On the present theory, $C \rightarrow W$ as asserted by Bennett is true only if the A-worlds in Φ_B are C-worlds. So when Bennett asks, $C \rightarrow W$?, an answer given by S is "right" only if $\Phi_B = \Phi_S$. Since, on the present theory, Zack and Jack both speak truly only if $\Phi_Z \neq \Phi_J$, at most one of them can give a "right" answer to Bennett's question.

5. With this correction, you can see that Bennett's subsequent complaints are confused:

   > Now four results emerge, in a crescendo of strangeness. They are not answering a single question. There is no single conditional question that I could have put to both. There is not even a coherent conditional question that I could put to either; for there is no privileged belief system for someone who has no probability for $A \rightarrow C$ and is merely asking about it. And even if there were, I could have no way of putting to either of them the very question that she would answer.

6. There is a single coherent conditional question being asked of both, which we could get at by asking: 'Is W true at all the C-worlds in Φ_B?' Now it is true that if $A \rightarrow C$ is context sensitive, there may be occasions where your interlocutor doesn't correctly grasp your question. If S asks H, $A \rightarrow C$?, but unbeknownst to S and H, $\Phi_S \neq \Phi_H$, then H may answer "Yes" but fail to answer S's question, and neither will be the wiser. Context-sensitivity increases the chances for inadvertent miscommunication. This is a cost to postulating context-sensitivity. But how high is the cost? If you think (as I do) that there is a lot of "hidden" context-sensitivity in natural language, then you'll also think that we have various reliable (though imperfect) ways of guarding against this sort of miscommunication, and you won't be too bothered.