CONDITIONALS: WEEK 8, INTRO TO SUBJUNCTIVES

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1. Strict Conditionals and Variably Strict Conditionals

Consider the following logical principles for an arbitrary conditional operator $\dashrightarrow$: [1]

(AS) $p \dashrightarrow r, \therefore (p \,\&\, q) \dashrightarrow r$
(T) $p \dashrightarrow q, q \dashrightarrow r, \therefore p \dashrightarrow r$

(AS) and (T) are short for 'Antecedent Strengthening', and 'Transitivity'.

(1) **If $\dashrightarrow$ satisfies (T), then it satisfies (AS)**
Suppose (T) holds, and assume $p \dashrightarrow r$. Since $\dashrightarrow$ is a conditional operator, we can plausibly assume that for all q, $(p \,\&\, q) \dashrightarrow p$ is a valid schema of the logic of $\dashrightarrow$. Therefore, we have $(p \,\&\, q) \dashrightarrow p$, and $p \dashrightarrow r$, which by (T), legitimates $(p \,\&\, q) \dashrightarrow r$.

Definition $\dashrightarrow$ is a **strict** conditional iff
for some class W of possible worlds, and for every p, q, $p \dashrightarrow q$ is true iff $p \supset q$ is true at w, for every $w \in W$

(2) **If $\dashrightarrow$ is strict, then it satisfies (T) (and therefore (AS))**
Just because $\supset$ satisfies both.

Let $p > q$ abbreviate 'If it were the case that p, then it would be the case that q'.

(3) **Intuitively, neither (AS) nor (T) holds for** $>$ Contrast:

(a) If it had been sunny on Sunday, I'd have played soccer (on Sunday).
(b) If it had been sunny on Sunday and I had had a car accident on Saturday, I'd have played soccer (on Sunday).

Intuitively, the truth of (a) does not guarantee the truth of (b) because the antecedent is strengthened by a conjunct that pre-empts the consequent.
Therefore $>$ is not strict

Definition $\dashrightarrow$ is a **variably strict** conditional iff
for every p, q there is a class W of possible worlds s.t. $p \dashrightarrow q$ is true iff $p \supset q$ is true at w, for every $w \in W$.

(4) **In general, (i) not every variably strict conditional satisfies (AS), however (ii) if $\dashrightarrow$ is variably strict each instance of $p \dashrightarrow q$ is strict.**
We need a conceptual analysis of the truth-conditions of subjunctive conditionals that explains the failure of (AS). An analysis of $>$ as a variably strict conditional is

[1] Notation: I use '$\dashrightarrow$' as a variable ranging over conditional operators (occasionally the range of this is just restricted to the subjunctive and the indicative conditional).

particularly attractive because it preserves a connection with $\supset$ and accounts for the failure of (AS).

2. The Analysis of Subjunctives

An important question in the theory of subjunctives is how do we gather empirical evidence about them, especially when we deal with counterfactuals.

Supporters of the idea that $p > q$ is variably strict have an answer: facts about the actual world, determine which worlds are relevant in the analysis of a given conditional. In particular the relevant worlds are the most similar to the actual world and in which the condition stated by the antecedent of $p > q$un obtains. Example:

(c) If you had walked on the ice, it would have broken.

Suppose that, in the actual world, no slab of ice in 1000 Km from where (c) was uttered is thinner than 6 feet: the relevant worlds, for the evaluation of (c),are ones in which that piece of ice is just about as thick, and presumably won't break under the weight of a person.

The Analysis

(AN) $p > q$ is true at α iff q obtains at every member of some class W of p-worlds such that every member of W is *closer to* α than any p-world not in W.

The analysis must of course explain 'w_1 is closer to α than w_2': the ranking of closeness is determined by similarity. However, matters are still rather indeterminate. Inuitions about similarity differ, and in a sense which will get analyzed next week, even if they didn't differ about what most similar to a given world at a certain time, there would still be room for indeterminacy in the similarity ordering. Notice that $p > q$, thus defined, does not satisfy (T) and (AS).

3. Preliminary Comments on (AN)

The closest p-world w to α is not a world which is exactly like α except that p holds at w (Lewis). Let p='Berkeley is in Italy'. Then the closest p-world is one in which Berkeley is in Italy, and everything else is just the same. But then consider all the material conditionals of the form $\phi \supset\sim p$ for ϕ a true statement in the actual world. These are all true in the actual world, but all false in the closest p-world. Now, if we thought w differs from α only in the truth-values it assigns to p, we would have to say that all those material conditionals are true. So, if modus ponens holds at w, we can derive a contradiction. Lewis thinks that worlds in which modus ponens fail, if possible at all, are very remote.

Evaluating at non-actual worlds We are not assuming that the analysis works only when α is the actual world.[2] We need to be able to evaluate subjunctive conditionals at other worlds.

[2]However, in most cases I will speak as if the world that is relevant for the evaluation is the actual world. This is just for ease of talk.

The need arises because subjunctive conditionals can be nested: both the $(A > (B > C))$ and the $((A > B) > C)$ constructions are represented in English. Now, if we are to evaluate, say, $(A > (B > C))$ with a theory like (AN), we have to be able to evaluate $(B > C)$ at worlds that are different from ours (e.g. 'If it had rained, then if you had not carried your umbrella, then you would have gotten wet'.)

Impossible Antecedents Lewis had a more inclusive characterization than (AN): for, he held, $p > q$ is true if there are no p-worlds as well as if there is a non-empty class of closest possible p-worlds, and every member of it is a q-world. So he suggested to allow $p > q$ to be true also when there are no p-worlds. That doesn't seem quite right: consider,

(e) If I were to travel faster than light, it would take me more than six hours to reach my parents' house in Rome.
(f) If there were a largest natural number, it would not be a number.

Have I said something true here? Lewis thinks that the kind of rejection that we are inclined to give to (d) and (e), does not imply anything about their semantic status. It just implies that they are not very 'sensible' things to say.

Lewis's diagnosis here is that the difference between (e) and 'If there were a largest natural number, it would be a number' is merely that one is an irrelevant conditional, and the other is relevant. Lewis thinks that considerations of relevance do not tell us much about semantics.

Lewis also gives an argument that has to do with the interdefinability of $p > q$ and conditionals of the form 'If it were the case that p, then it might be the case that q'. Let us symbolize such conditionals by $p >_m q$. Lewis thinks these kinds of conditionals are interdefinable, by the clauses :

(*) $p >_m q \Leftrightarrow \sim (p > \sim q)$ and $p > q \Leftrightarrow \sim (p >_m \sim q)$

Lewis claims also that the only way to preserve this interdefinability is to stipulate that pairs such as $\langle p, q \rangle$ where p is impossible must either be in the extension of $>$ or in the extension of $>_m$. This, as Branden made me notice, assumes something more: namely that each $>$-conditional has a truth-value. Without this assumption we might stipulate that both $>$ and $>_m$ have no-truth value when the antecedent is impossible. Now, the this assumption plus the interdefinability pretty much characterize Lewis's own theory. So it's not clear what the force of this argument is.

4. Disjunctive Antecedents

Opponents of (AN) attacked it on the ground that it is incompatible with the principle:

(SDA) $(p \vee q) > r \therefore (p > r)$ & $(q > r)$

Suppose that:

(i) p, q are such that the closer $(p \vee q)$ are all p-worlds.
(ii) All the closest p-worlds are r-worlds.

(iii) Some of the closest q-worlds are $\sim r$ worlds.

According to (AN), in this scenario we have: $(p > r)$, $\sim (q > r)$, $(p \vee q) > r$, which contradicts (SDA). Therefore one must be dropped: either (SDA), or (AN) or the claim that (i),(ii), (iii) are consistent suppositions.

Why is (SDA) plausible? It seems some kind of IBE from the naturalness of some of its instances. Consider the following three statements:

(W) If Spain or France had won the world cup, then a European team would have won the world cup.
(W_s) If Spain had won the world cup, then a European team would have won the world cup.
(W_f) If France had won the World Cup, then a European team would have won the World Cup.

It is natural to think of (W) as legitimating inference to (W_s) and (W_f). What, if not the validity of the schema (SDA), warrants the inference? The data for this IBE is not just that some instances sound natural, but also that is hard to come up with instances of this argument form that are invalid (however, contrast: 'If Spain had fought on either the Allied side or the Nazi side, it would have fought on the Allied side').

Lewis Against (SDA) Consider the the *prima facie* plausible,

(I) $\text{Equiv}(p, q)$, $p > r \therefore q > r$

Now, conjoin (I) with (SDA) and you get (AS). (Suppose $(p > q)$. Then replace p by the equivalent $(p\&r) \vee (p\& \sim r)$, and apply (SDA) to get $(p\&r) > q$. So, one of (I) and (SDA) has to go. Bennett and Lewis strongly take the tack that (SDA) has to go.

Choosing to drop (SDA) forces us to look for an explanation of the warrant for our (W) inference above. Bennett considers two options

(1) *The inferences instantiate a valid schema, but not (SDA).*
The deep syntactical structure of (W) differs from the surface: According to this line, (W) really *means* something like (W_s) & (W_f). Bennett's counterexample:
(W^+) If it had not been the case that both Spain and France lost the world cup, then a European team would have won the world cup.
(2) *The inferences are instances of (SDA), and (SDA) is not valid, but they are intuitively plausible and natural for some other reason.*
The idea here is that asserting (W) generates the conversational implicature that both (W_s) and (W_f) hold. That is not part of its content.
Objection (Lycan) If assertion of $p \vee q > r$ conversationally implicates belief in $(p \vee r)$ & $(q \vee r)$, then it
should pass Grice's cancellability test–and it is not clear that it does.
Example (Lycan): 'If you had eaten broccoli or Brussels sprouts, you would have felt sick–but don't get me wrong, I'm not implying that if you had eaten broccoli you would have felt sick'.

The question is are (1) (Broccoli $\vee$ Sprouts)$>$ Sick and (2) $\sim (Broccoli > Sick)$ both assertible? Bennett's answer is that you have to provide a context where it makes sense to assert both of them. Bennett says that even in the case of 'uncontroversial' implicatures it may be hard to figure out contexts where they are cancellable. But it can be done (we have to look at the book for this one!).

5. The Likeness of the logics of $\rightarrow$ and $>$.

How far can we go in unifying our understanding of $\rightarrow$ and $>$. Bennett's first claim is that the two kinds of conditionals share essentially the same logic, and, which is a further point, for what is essentially the same semantic reason: they are both variably strict.

Bennett says 'share the same logic' but, a first difference you might want to note is that while the logic of $>$ is a logic of truth, the logic he considers for $\rightarrow$ is a logic of Probability. [3]

The following four principles fail for both $>$ and $\rightarrow$.

(1) (AS) and (T) We saw the failure for $>$.
(AS$_{\rightarrow}$) fails because assuming $U(r|p) < \alpha$ it doesn't follow that $U(r|p\&q) < \alpha$ i.e. $Pr(\sim r|p) < \alpha \not\Rightarrow Pr(\sim r|p\&q) < \alpha$ (Consider replacing q with $\sim r$). So (T$_{\rightarrow}$) fails as well.
(2) Contraposition (Take (a) as a counter-example for $>$).
Fails for probability too: $Pr(\sim q|p) < \alpha \not\Rightarrow Pr(p| \sim q) < \alpha$, which is the same as saying $U(q|p) < \alpha \not\Rightarrow U(\sim p| \sim q) < \alpha$.
(3) (SDA) We saw the failure for $>$.
As for (SDA$_{\rightarrow}$): $Pr(\sim r|p \vee q) < \alpha \not\Rightarrow Pr(\sim r|p) < \alpha$, which is the same as $U(r|p \vee q) < \alpha \not\Rightarrow U(r|p) < \alpha$.

Let me quote Bennett's 'common explanation' of the failure of (AS):

> What makes $A \Rightarrow C$ *all right* is C's being derivable from A together with *other things*. What makes $(A \ \& \ B) \Rightarrow C$ *all right* is C's being derivable from $A\&B$ together with *other things*. The reason why $A \Rightarrow C$ may be *all right* while $(A \ \& \ B) \Rightarrow C$ is not is that the 'other things' that let you get C from A alone may not all be among the *other things* that you would need to get C from $A\&B$.

I emphasized 'all right' and 'other things': Bennett treats those as place-holders dependent on what the arrow means: if it is $\rightarrow$, they are replaced respectively by 'highly probable for a speaker', and 'beliefs. If it is $>$ they are replaced by 'true' and 'worlds'. Now, abstracting from these differences, Bennett says, roughly the same explanation can be given for their similarity. I'm not sure how much of an explanation this is.

[3] This logic's concept of validity, P-validity, is of course different. Let p be a proposition, $U(p)$, the uncertainty of p is defined as $1 - Pr(p)$. We say that $p_1, ..., p_n \therefore q$ iff $\sum_{i<n} U(p_i) < \beta \Rightarrow U(q) < \beta$, where β is some threshold.

Or-to-If Or-to-If fail for both $\rightarrow$ and $>$. The reason is that each is strictly stronger than $\supset$, in the sense that there are cases where $p \supset q$ is true and, say, $p > q$ is false.

A Logical Difference between $>$ and $\rightarrow$: Unrestricted Modus Ponens When he speaks of Unrestricted Modus Ponens Bennett refers to the principle:

(UMP$_{\dashrightarrow}$) $p \dashrightarrow q$, $r \models p$ and r, $\therefore q$.

This is a little odd to think about, so we'll replace it with the more limited principle:

(&MP$_{\dashrightarrow}$) $p \dashrightarrow q$, $p \& r$, $\therefore q$.

which is good enough to make the same point.

The reason for the failure of (&MP$_{\rightarrow}$) is connected to the failure of (AS). Here is a failing instance of (AS):

(g) If Anna comes to the party, it will be fun.
(h) If Anna and Otto come to the party, it will be not be fun.

Suppose, $[Pr(\sim\text{Fun}|\text{Anna}) + Pr(\sim (\text{Anna \& Otto}))] < \beta$. It is clearly still possible to have probability models where $U(\text{Fun}) \geqslant \beta$, i.e. $Pr(\sim\text{Fun}) \geqslant \beta$.

Note, this counterexample does not affect the weaker rule:

(RMP) $p \dashrightarrow q$, $p \therefore q$.

At first sight it would look as if exactly the same failure should affect (UMP$_{>}$). Not so, Bennett claims. His argument is a little bit garbled, but it seems to me to be right, at least as long as Lewis's theory (AN) is our only analysis of $>$:

(j) If Anna had come to the party, it would have been fun.
(k) If Anna and Otto had come to the party, it would have been terrible.

Suppose both Anna and Otto come. Then, the closest world in which Anna comes is the actual world. So (j) is false. In order to generate a conflict in the application of (UMP$_{>}$), both (j) and (k) would have to be true. But, if both Anna and Otto come, then (j) $\Leftrightarrow \sim$ (k)

6. Stalnaker's Theory

Stalnaker proposed (in fact before Lewis!) a different possible worlds approach: instead of evaluating $p > q$ by looking at $p \supset q$ through a (variable) class of closest possible worlds, he suggested to look at *the* closest possible p-world, as determined by p, α, and the context. That is:

(ANS) $p > q$ iff $p \supset q$ is true at the closest possible p-world

The difference in Stalnaker's version of the possible worlds theory is not merely cosmetic, but it entails substantial differences with Lewis's, which surface strikingly in the logic.

Now, the two obvious challenges against (ANS) are that in some cases there might be no closest world, and that in others there might be ties for 'closest'. Lewis attacked Stalnaker on both counts.

7. No Closest World

Lewis noticed that vague and indeterminate properties. create a problem to the idea that there is a single closest world. Lewis's argument:

Against the limit assumption (Lewis) Suppose a certain line is shorter than one inch. What is the closest world in which the line is longer than one inch? Suppose that w_1 is, *ceteris paribus*, more similar to α than w_2 iff the length of the line at w_1 is closer to the actual length of the line, than the length of the line at w_2. Therefore, for every world w_1, there is a world w_2 that is closer to α than w_1

The conclusion of this argument suggests that in some cases there cannot be a closest possible p-world.

Against the density assumption That is also an uncomfortable position to live with. As Bennett suggests, for every n, the counterfactual,

> If the line were longer than it is, it would be less than $1{+}n$ inches longer

would come out true. The natural way out, at this point, is to reject the notion of similarity that is used in the argument.

Stalnaker's first step in this direction, is that in most cases, whatever the ordinal structure of the similarity relation, there is a point after which differences don't count.

- Let us say that a world w is **eligible** for $p > q$ iff for every world w_2 that is closer to α than w, the differences between w and w_2 are irrelevant to the evaluation of the given conditional (that is they are too fine-grained to matter).
- Note that Stalnaker does not need to say that, for every similarity structure, there is a threshold past which worlds are *eligible*, but just that for every similarity structure we can identify a bunch of *eligible* worlds.
- So according to Stalnaker's theory we evauate a subjunctive conditional $p > q$ by (i) identifying the similarity structure, dependent on p, α and the context of utterance (ii) determining a rough range of eligible p-worlds (iii) selecting one such world w (iv) checking whether q holds at w.
- If p, q and the context are such that every difference matters, then the phrase 'the closest possible world' in (ANS) lacks a reference, and $p > q$ is neither true nor false.

8. The Minimalness Assumption

Bennett spends a whole section arguing that the need for pragmatic factors is probably broader than even Stalnaker envisaged. He attacks the assumptions:

(MA) If Fness is a matter of degree, and x is not F, then it is true that If x were F, it would be minimally F.

Counterexample: let F(y) be a property that y has if y is a century in which the U.S. and the Soviet Union dropped some nuclear bombs on each other. The degree of Fness is measured by the total number of nuclear bombs. Let x be the twentieth century. In the actual world, luckily, $\sim F(x)$. According to (MA), in the closest possible world in which F(x) holds just one nuclear bomb was dropped between those two countries. That sounds false: if the U.S. or the Soviet Union had dropped one, there would probably had been a nuclear war.

What then, are the worlds in which vague and indeterminate properties have to be assessed? Bennett suggests a general conversational rule, that takes care of minuscule as well as macroscopic differences:

(CR) As far as you reasonably can, interpret what a speaker says in such a way that it is neither obviously false, nor obviously true.

Bennett gives the example of the conditional: 'If my backpack had been heavier, I wouldn't have been able to lift it.' The antecedent, the consequent, the actual world and the context of utterance generate a rough range of eligible worlds in which the speaker's backpack was actually heavier. Worlds in which the backpack is 2 oz heavier are not eligible, and neither are ones in which it is 600 pounds heavier.

9. Ties for Closest

Consider,

(TIE) For some p, there are at least two distinct p-worlds w_1, w_2 that are equally close to α.

Bennett makes it sound as if the dispute over whether (TIE) holds can be seen as a dispute over the validity of a certain logical principle.

(CEM) $(p > q) \vee (p > \sim q)$

Bennett claims: (**TIE**) $\Leftrightarrow$ (**CEM**) **is invalid**, and gives this proof,
Suppose (TIE), then for p there are w_1, w_2, in which p holds that are equally close to α. Since w_1 and w_2 are distinct, there is a proposition q over which they differ, say because $q \in w_1$ and $\sim q \in w_2$. Then according to Lewis's theory they are both false. So (CEM) fails.
Suppose $\sim (TIE)$ then there is a unique closest (if there is one!) p-world w_1, and at that world either q or $\sim q$ holds. So (CEM) holds.

So the link between (TIE) and the invalidity of (CEM) is not as airtight as it looks

Lewis's argument against (CEM)

(l) If Bizet and Verdi were compatriots, then they would both be Italian.
(m) If Bizet and Verdi were compatriots, then neither would be Italian.
(n) (Compatriots > Italian) $\vee$ (Compatriots > neither Italian)

Is (n) logically valid? According to Lewis's theory it is not, because (l) and (m) are both false: the closest set of possible worlds in which Bizet and Verdi were compatriots contains some in which they are both Italian (falsifying (m)), and some in which they are both French (falsifying (l)).

But the question, is not as much what Lewis's theory does with the logical status of (n): Lewis's theory after all implies that (CEM) is false. The question is what is our intuitive call about the logical validity of (n)? Are there any independently motivated arguments on the logical vality or invalidity of (n)?

A note, before we take this up: Bennett remarks that in Stalnaker's theory one can argue that (n) is valid *even if there are ties* on this basis. The antecedent and the actual world do not identify a homogenous class of eligible worlds: in this case, (l) and (m) are both neither true nor false.

Here Stalnaker tried a supervaluational approach to determining the logical properties of statements like (n). Since Bennett outlines it but postpones discussion of it, I'll not expand on this.

An argument for the validity of (n) The argument comes from Lewis himself. The principle of distribution:

(D) $p > (q \vee r), \therefore (p > q) \vee (p > r)$.

proves (by substitution) the schema

(WD) $p > (q \vee \sim q), \therefore (p > q) \vee (p > \sim q)$

But (WD) has a valid premise and its conclusion is (CEM). Rejecting (CEM), Lewis is forced to reject (D), but that, he fears, does conflict with our intuitive judgments about validity. It might be added that on Stalnaker's theory (D) holds. (Opinions?)

In a curious switch of rôles, here is Stalnaker's defense of Lewis's theory from this argument: In Lewis's theory, Stalnaker says, antecedents act as necessity operators on their consequents. A subjunctive conditional $p > q$, on Lewis's theory, is like the statement $\Box q$ where the accessibility relation for the box relates the actual world to the class of p-worlds that are closest to α. But distribution for the box is an invalid modal principle in most systems. The very nature of Lewis's theory forces the failure of (D).

10. Subjunctives and scope distinctions

Are subjunctives really necessity operators on their consequents? If they are, then, when interacting with quantifiers they must generate exactly the same scope ambiguities that ordinary necessity operators generate. Stalnaker thinks they don't. Let's be a little more precise: Stalnaker may be saying that Lewis is committed to the principle:

(SA) For every existentially quantified q, the statement $p > q$ must be open to two readings.

I suppose Lewis would want to restrict He also thinks that that there are contexts in which this fails.

A context in which the *de dicto* reading is not allowed (Stalnaker) Contrast the following cases:

(Have-To) N says: 'The president has to appoint a woman' S asks: 'which woman?' N answers:

'There is no woman of whom it is true that he has to appoint her, he just has to appoint a woman'.

(Would) N says: 'If there had been a vacancy, he would have appointed a woman', 'Who would he have appointed?'

'There is no woman of whom it is true that he would have appointed her, he just would have appointed a woman'

N's answer in (Have-To) is legitimate, and is allowed by the 'have to' operator taking both wide and narrow scope w.r.t. the existential quantifier. Stalnaker, however thinks that N's reply in (Would) is either not legitimate, or, if legitimate, not to be understood as disambiguating the scope the sentence.

Bennett has a long argument over this. I may be wrong here, but it looks as if Stalnaker would have a much easier case on the opposite side of the spectrum. It seems to me that there are some contexts which fail to have the *De Re* reading. Here is an example:

(o) If there had been a race, there would be a winner.

Now, I can think of a context in which this is made with a particular person in mind: the race was cancelled because of the rain. The arrogant champion is interviewed by TV channels and utters (o), suggesting that *he* would have won the race. But it looks to me that, if anything is a conversational implicature, this one is (it is even cancellable!).

11. Might

Lewis believed that the semantic analysis of $p >_m q$ is:

(ANm) $p >_m q$ is true iff $\sim (p > \sim q)$.

Bennett mentions a somewhat misleading 'argument' against (CEM) based on (ANm). If you accept (CEM), (and forget conditionals with impossible antecedents!)

(#) $\sim (p > \sim q)$ iff $(p > q)$

(the left-to-right, just *is* (CEM), the right-to-left is trivial, if p is not impossible) Then, $p >_m q$ iff $p > q$, which is implausible.

I say the argument is misleading, because it was obvious all along that Stalnaker could not possibly have accepted (ANm) since for him $\sim (p > \sim q)$ just means the same thing as $(p > q)$. The upshot is just: Stalnaker has to give a different account of 'might'. There are two approaches that can be taken:

(1) Might-subjunctives mean something like $M(p > q)$, where M is some epistemic modal expressing possibility.
(2) Might-subjunctives mean something like $p > M(q)$, where M is some kind of modality, not necessarily epistemic.

12. $p >_m q$ IFF $M(p > q)$

The weak epistemic modal. Bennett begins by considering an epistemic possibility operator that means something like 'for all I know, it is possible that ...'. This is a very weak kind of epistemic modal, and I learn in John's epistemic modals paper, that it is usually considered too weak to capture the meaning of the English word 'might'.

Anyway, on the present account, $p >_m q$ means 'For all I know, it is possible that if it were the case that p, it would be the case that q'. On this understanding, $p >_m q$ is strictly weaker than $\sim (p >\sim q)$, and indeed strictly weaker than $(p > q)$ (if you think these two are different).

Bennett complains that not all our uses of 'if...might...' can be analyzed as involving epistemic modals of this kind. Example: 'If I had looked in the haystack, I might have found the needle there'. True on Stalnaker's theory, but in fact heard by the hearer as false, because the needle was somewhere else in the house (and the hearer knows that).

The idealized epistemic modal. Stalnaker's reply: cases like these can be covered by another kind of epistemic modal, one that means 'for all I could (ideally) come to know at time t, p is possible'. Let us symbolize this by M_2, and let M_1 be the original 'weak' epistemic possibility.

John's assessment sensitive epistemic modal.I think John's theory of epistemic modals as assessment sensitive would offer Stalnaker a good way out. In John's theory an utterance by S at t_0 of 'It might be the case that p' is $\text{True}_{A_{t_1}}$, iff at t_1 A does not know that not-p. Let M_3 be such an epistemic modal, and consider
$p >_m q$ iff $M_3(p > q)$,
This takes care of the haystack example, and it also blocks Lewis's argument for $p >_m q \Leftrightarrow p > q$. That's just because $M_3(p > q) \not\Leftrightarrow \sim (p >\sim q)$, since the left side may vary with the context of assessment and the second cannot. Of course, Stalnaker might prefer to not join the relative-truth feast, for some other reason.

Bennett: $M_1(p > q)$ and $M_2(p > q)$ are still not enough to account for $p >_m q$
Suppose you have a fair coin and a random tossing device, and I say:

(S) If the coin were tossed now, it might come down heads.

The question is not what is the truth-value of (S), because it is beyond dispute that it is true. Rather, what is the correct reading?

(1) It cannot be $M_1(Toss > Heads)$ because then (S) would be true even if, unknown to me, the coin tossing device was biased 100% towards tails.
(2) It cannot be $M_2(Toss > Heads)$ because that means that all the relevant facts at t are compatible with the truth of $(Toss > Heads)$. However, it is false that if the coin had been tossed it *would* have come down heads. This is intuitive, but again, if you are a supporter of the Stalnaker approach it is not in any way mandatory.

$$13.\ p >_m q \text{ IFF } p > M(q)$$

Bennett considers this proposal: $p >_m q$ iff $p > M_2(q)$ where M_2 is again the idealized epistemic modal. Bennett claims this won't help the Stalnaker line because on any intelligible understanding of M_2, $p > M_2(q)$ is true iff $\sim (p >\sim q)$.

That might be true, but (i) we should also take into account different proposals, such as $p >_m q$ iff $p > M_3(q)$ (ii) $p >_m q$ iff $p > M_2(q)$ seems to share the trouble of the 'idealized' epistemic modal, namely that we never seem to use it.

The bottom line, I believe, is that our account of 'If... might...' subjunctive conditional essentially depends on what theory of epistemic modals we adopt.