

# Factual detachment and speaker endorsement

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## 1 Detachment via *modus ponens*

### 1.1 *Modus ponens*

(1) If  $\phi$ , then  $\psi$   
 $\frac{\phi}{\psi}$

(2) a. If Mary is in San Francisco today, John is at home with the kids.  
b. Mary is in San Francisco today.

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c. John is at home with the kids.

- 'Factual detachment' = detachment via *modus ponens*
- Instances of *modus ponens* often seem compelling.
- Is *modus ponens* generally valid for indicative conditionals?
- If not, under what conditions is it valid?
- The question is about natural language conditionals, not about the logical status of *modus ponens*.
  - Does the interpretation of the conditional premise and of the conclusion validate the inference?
  - Does the joint truth of **if  $\phi$ , then  $\psi$**  and of  $\phi$  ensure the truth of  $\psi$ ?

- The answer can be used—and has been used—to evaluate hypotheses about the meaning of conditionals.
- Let  $\rightarrow$  be a strict conditional operator, relative to a reflexive, transitive and symmetric accessibility relation  $R^K$ , modeling the knowledge of the speaker.
- A semantics of the conditional in (2-a) in terms of  $\rightarrow$  would validate (2).

$$(3) \quad w \in \llbracket \phi \rightarrow \psi \rrbracket \text{ iff } \forall v \in R_w^K : v \in \llbracket \phi \rrbracket \supset v \in \llbracket \psi \rrbracket$$

## 1.2 Modalized consequents: factual vs. deontic detachment

### Deontic detachment

- (4) 
$$\frac{O \phi \quad \text{If } \phi, \text{ then } O \psi}{O \psi}$$
 where  $O = \text{OUGHT, MUST, SHOULD} \dots$
- (5) a. You should pay your taxes.  
 b. If you pay your taxes, you should file your tax return by the deadline.  


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 c. You should file your tax return by the deadline.

### Chisholm's Set

- Upon being presented with the sentences in (6), a speaker would neither draw the conclusion in (7) nor consider (6) inconsistent.
- (6) a. Jones should/ought to go to his neighbors' party tonight.  
 b. If he goes, he should/ought to tell them he is going.  
 c. If he does not go, he should/ought to not tell them he is going.  
 d. He will not go.
- (7) Therefore, Jones ought to go to his neighbors' party tonight and to not tell them he is going.
- Rather, upon being presented with the sentences in (6), a speaker would conclude (8).
  - Linguistically at least, there is an argument for factual detachment in the Chisholm set.
- (8) Therefore, Jones should/ought to not tell his neighbors he is coming.
- Arregui (2010) and Willer (2014) are two recent defenders of factual detachment who also address the tension between factual and deontic detachment as it pertains to Chisholm's paradox.

“There is something intuitive about the idea that *should*-conditionals license factual detachment. Conditional obligations seem to tell us about unconditioned obligations that take effect when the antecedent is satisfied. This is particularly clear in the case of CTDs [Contrary to duty]. Chisholm singled out CTDs as very important because “most of us need a way of deciding, not only what we ought to do, but also what we ought to do after we fail to do some of the things we ought to do” (Chisholm 1963, pp. 3536). It is hard to see how CTDs could fulfill this role without factual detachment. If the truth of the antecedent does not lead to unconditioned *shoulds*, how could deontic conditionals ever tell us what we should do when things have gone wrong?”

Arregui (2010)

“Having to choose between factual and deontic detachment is, to say the least, an unfortunate situation to be in since both detachment principles have intuitive appeal and play a crucial role in everyday reasoning. *We often rely on factual detachment to arrive at practical conclusions from hypothetical imperatives; without it, it is hard to see how conditional obligations could have any force in everyday practical reasoning.* Deontic detachment is important as well since it allows us to reason about the combined force of obligations . . . So the best choice would be not to choose at all, and this is especially so if we can show that the need to choose between factual and deontic detachment is illusory.”

(Willer 2014, emphasis mine)

### 1.3 Factual detachment with anankastic conditionals

- An interesting class of conditionals for factual detachment are conditionals of the form **If  $\phi$ , must  $q$** , where **must** is a necessity modal, on a priority construal, and the antecedent is about a preferential attitude of an agent, e.g.,  $\phi =$  **you want  $p$** .
- ‘Priority’ construals: “The idea behind the term ‘priority’ is that such things as rules, desires, and goals all serve to identify some possibility as better than, or as having higher priority, than others.” (Portner 2009)
- Such conditionals take us beyond conditional obligations and CTDs.
- Focus here on *anankastic conditionals* (ACs), also known in the philosophical literature as *Hypothetical Imperatives*: conditionals of the form **If want  $p$ , must  $q$**  that convey a necessary/best-means-of relation between  $p$  and  $q$ .
- They play a crucial role in practical reasoning, which can be taken as both a motivation for and an argument against supporting detachment.

- (9) If you want to go to Harlem, you have to / should take the A train.
- (10) a. If you want to go to Harlem, you should take the A train.  
b. You want to go to Harlem.

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c. You should take the A train.

- (10) seems compelling.
- Is the schema in (11) generally valid? If not, when does the inference go through?

- (11) If you want  $p$ , you should  $q$ .  
 You want  $p$ .  


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 You should  $q$ .

- Factual detachment for ACs has had a long series of detractors in the philosophical literature, who seek analyses of the conditional that would fail to validate factual detachment.
- One reason is the worry of bootstrapping: the conditional must not support detachment, for otherwise an agent could make it so that he ought to intend  $q$  merely by deciding to have the antecedent attitude (e.g. Bratman (1987), Broome (1999, 2001)).
- The other major argument against factual detachment is the variability in the intuitive acceptability of the pattern in (11) across instantiations of  $q$  and  $p$ .
- Consider Hare's (12), which instantiates the problematic inference in (13).

Hare (1968):

- (12) [Scenario: James and his rich Uncle John are fishing in shark-infested waters. James is the sole heir to Uncle John's fortune.]

...

**Uncle John:** Well, since you want, more than anything else, to have half a million dollars, and since the one and only way of getting them is to push me out of the boat, I can only conclude that you should push me out of the boat.

**James:** I quite agree with both your premisses [*sic*] and your reasoning; therefore, since I never disregard soundly-based advice, especially from uncles ...

[*pushes Uncle John out of the boat*]

- (13) a. If you want nothing more than to have half a million dollars, you should kill me.  
b. You want nothing more than to have half a million dollars.

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c. You should kill me.

- Even if factual detachment is invalid, we want to know why it seems compelling when it does.
- Alternatively, if it is valid, we need to make sense of cases like Hare's above.

"We do not propose to reject modus ponens solely on the basis of the counterexamples. We would like to have some account of why modus ponens fails when it does, and also of why it seems to work fine in most cases."

(Kolodny and MacFarlane 2010)

### Claims of this talk

- Semantics of anankastic conditionals can validate detachment.
- When detachment appears intuitively problematic, it is because of the interpretation of the conclusion.
- An endorsement component enters the interpretation of the modal in the conclusion but not that of the conditional.
- The source of the endorsement component is pragmatic and, therefore, these cases do not provide a reason to adopt a semantics for this type of conditional that invalidates factual detachment.
- On the other hand, even if detachment is semantically invalid, it would still be a reasonable inference (=pragmatically valid) in cases where an agent who accepts the premises can be expected to endorse the conclusion?

## 2 The semantics of ACs

- To check whether *modus ponens* is valid for ACs in a formal sense we need a semantics for ACs.
- As Sæbø (2001) has shown, the restrictor analysis does not yield the right result for them.
- On certain analyses the issue of detachment does not arise in an interesting way:
  - On an analysis where hypothesizing is inert, like that of von Stechow and Iatridou (2005), the truth of the conditional premise alone guarantees the truth of the conclusion.

– On an analysis where the unconditional modal has a totally different meaning from a conditional one, such as Finlay’s (2010), detachment does not make sense: “Even if we could detach the consequent, the ‘ought’ detached from e would be merely probabilistic and no longer normative, since on the ER theory being end-relational is what makes it normative.”

- Condoravdi and Lauer (2015) and Lauer and Condoravdi (2014) have proposed an analysis of ACs. We will stick with the strict conditional analysis of Lauer and Condoravdi (2014) here.
- The logical form of the Harlem sentence is as in (14).
- Given the semantics for  $\rightarrow$ , (14) has the interpretation in (15).

(14) you want to go to Harlem  $\rightarrow$  MUST(you take the A train)

(15) For all worlds  $v$  consistent with what the speaker knows in  $w$  in which **you want to go to Harlem** is true, **you should take the A train** is true in  $v$ , as well.

- It is crucial that there is another operator over the modal in the consequent in order to get the antecedent to interact in the right way with the ordering source of the modal.
- The modal gets a Kratzer-style interpretation, relative to an accessibility relation  $R$  and a world-dependent ordering  $O$ . Kratzer (1981)

(16)  $w \in \llbracket \text{MUST}_{R,O}(\phi) \rrbracket$  iff  $\forall v \in \text{Best}(R_w, O_w) : v \in \llbracket \phi \rrbracket$

- For the priority modal of ACs:
  - $R$  relates a world to worlds that preserve a set of pertinent facts (e.g., about the location of speaker and addressee or which train goes where)
  - The ordering  $O$  reflects how well a world satisfies the relevant agent’s *action-relevant* preferences, designated as  $O^{\text{EP}}$ .

(17) **Dialogic case**

Context: Strangers on a subway platform:

A: I want to go to Harlem.

B: You have to / should take the A train.

- (18) a.  $w \in \llbracket \text{MUST}_{R,O^{\text{EP}}}(\text{you take the A train}) \rrbracket$   
 iff  $\forall v \in \text{Best}(R_w, O_w^{\text{EP}}) : v \in \llbracket \text{you take the A train} \rrbracket$
- b. In all worlds (where the relevant circumstances obtain) that optimally satisfy your action relevant preferences, you take the A train.

- The truth-conditional content of an AC depends on the facts (known to the speaker) including the relevant agent’s other action-relevant preferences in addition to the hypothesized one.

- (19) a.  $\forall v_1 \in R_w^K :$   
 $v_1 \in \llbracket ep_{Ad}(\text{go to Harlem}) \rrbracket \supset [\forall v_2 \in Best(R_{v_1}, O_{v_1}^{EP}) : v_2 \in \llbracket \text{take A train} \rrbracket]$   
 b. All worlds  $v_1$  consistent with what the speaker knows in  $w$  in which  $Ad$  prefers to go to Harlem are such that all the  $O_{v_1}^{EP}$ -best worlds  $v_2$  are such that  $Ad$  takes the A train in  $v_2$ .

- The inference in (10) is valid on this semantics of ACs in virtue of the reflexivity of the  $R^K$ -relation used in the interpretation of the conditional.
- Any semantics that makes the conditional in (2-a) validate (2) would do as well.

### 3 Information sensitivity and *ersatz modus ponens*

#### The Miners scenario

Kolodny & MacFarlane (2010):

Ten miners are trapped either in shaft A or in shaft B, but we do not know which. Flood waters threaten to flood the shafts. We have enough sandbags to block one shaft, but not both. If we block one shaft, all the water will go into the other shaft, killing any miners inside it. If we block neither shaft, both shafts will fill halfway with water, and just one miner, the lowest in the shaft, will be killed. (p. 115)

Action	if miners in A	if miners in B
Block shaft A	All saved	None saved
Block shaft B	None saved	All saved
Block neither shaft	One Lost	One Lost

#### The paradox

- (20) We ought to block neither shaft. TRUE  
 (21) If the miners are in shaft A, we ought to block shaft A. TRUE  
 (22) If the miners are in shaft B, we ought to block shaft B. TRUE  
 (23) Either the miners are in shaft A or they are in shaft B. TRUE

- Assuming disjunction introduction, disjunction elimination and *modus ponens* for indicative conditionals, (21), (22), and (23) entail (24).

- But (24) contradicts (20).

(24) Either we ought to block shaft A or we ought to block shaft B.

- One reaction to this scenario is to deny that *modus ponens* is classically valid and instead hold that only ersatz *modus ponens* is valid:

(25) **Genuine Modus Ponens**

The truth of [if  $\phi$ ][ $\psi$ ] and  $\phi$  at  $\langle S, i \rangle$  implies the truth of  $\psi$  at  $\langle S, i \rangle$ .

(26) **Ersatz Modus Ponens** (Charlow 2013)

The truth of [if  $\phi$ ][ $\psi$ ] and  $\phi$  at  $\langle S, i \rangle$  implies the truth of  $\psi$  at  $\langle S + \phi, i \rangle$

- This is essentially the move made by Kolodny and MacFarlane (2010).
  - They retain a classical formulation of *modus ponens*, and define a notion of *quasi-validity*, amounting to the same thing.
- In a nutshell, if the premises and conclusion involve *information-sensitive* operators (such as modals), then it is not enough that the premises are *true* for the conclusion to be true, but the premises must also be *known to be true* by the relevant agent.
- This is not the only possible move (see, e.g. Willer (2012)).
- But even if we give up *modus ponens* in favor of ersatz *modus ponens*, ACs pose a *prima facie* problem.

## 4 Trouble for (ersatz) *modus ponens*?

- Silk (2014), Dowell (2012), Lauer and Condoravdi (2014) defend *modus ponens* for ACs.
- They attribute the intuitively problematic cases to *equivocation*: the modal in the conclusion gets a different construal from that of the modal in the conditional.
- To judge validity, the contextual parameters of the modals must be kept constant.

(27) **MURDER** (Dowell 2012):

- If you want to murder messily, you should use a chain saw.
- You do want to murder messily.  
So:
- You should murder with a chainsaw.

- There is a strong intuition that (27-c) is false, even if you in fact have a desire to murder messily (i.e., (27-b) is true) and the best way to realize this desire involves a chainsaw (i.e., (27-a) is true).



- Silk and Dowell argue that the judgements of truth for the conditional premise and falsity for the conclusion rest on construing the modal bouletically in (27-b), but morally in (27-c).
- As Dowell observes, if we make a ‘moral’ construal explicit, the argument seems valid albeit unsound.

(28) **Moral MURDER:**

- If you want to murder messily, then, morally, you should use a chain saw.
- You do want to murder messily.  
So:
- Morally, you should murder with a chainsaw.

“We should not expect to derive conclusions about what we ought to do considering what is moral from premises about what we ought to do considering our goals—that is, unless we add the dubious assumption that we morally ought to do whatever will realize our goals.”

(Silk 2014)

(29) **The virus scenario** (Lauer and Condoravdi 2014): A deadly virus has been set free in Harlem. Anyone going there is likely to get infected and die. This is known to all relevant parties.

- If you want to go Harlem, you should take the A train.
- You want to go Harlem.  
So:
- You should take the A train.

- No, given the virus, you should *not* take the A train!

**Information sensitivity?**

- The problem here is not information-sensitivity.
- We balk at the conclusion even if we assume that all relevant parties are aware the premises are true.
- So, these are *prima facie* counterexamples to ersatz *modus ponens* just as much as to *modus ponens*.

### The source of the equivocation

- The conclusion seems to *endorse* taking the A train and going to Harlem, while the two premises taken jointly do not.
- Arguably, endorsement of the conclusion is what gives rise to equivocation in **MURDER** as well.
- Descriptively, the problem is this:
  - Accepting the premises seems harmless, they are made true (given what the addressee wants) in virtue of objective facts.
  - But accepting the naked modal claim in the conclusion appears to *endorse* the necessity.
  - A subjective factor has crept in: Suddenly, it appears as if the speaker expresses a preference that the addressee act according to the necessity.
  - How does this happen?

## 5 An endorsement component for modals?

- Maybe modals like **should**, **ought**, **must**, **have to** have a semantic requirement of speaker endorsement.
- A similar claim has been made by Schwager (2006)/Kaufmann (2012) and by Condoravdi and Lauer (2012) for imperatives:
  - A speaker who utters **Leave!** cannot disprefer, in the relevant sense, that the addressee leave.
- Complication: In attitude embeddings (30), there is no feeling of speaker endorsement. Instead, the attitude holder is said to endorse the claim.

(30) Mary thinks you should take the A train.

- One way to account for this is to assume that there is some parameter specifying who must endorse the claim (a 'judge' or 'assessor').
  - Defaults to speaker in unembedded cases.
  - But can be shifted in embedded contexts.

**Problem:** If modals come with an endorsement component, then the conditional premise in *modus ponens* arguments should convey conditional endorsement. It does not.

- What do we mean by conditional endorsement?

**Conditional endorsement:** An agent  $a$  endorses  $q$  conditional on  $p$  if he is committed to prefer  $q$  in case  $p$  turns out to be the case.

- Conditional imperatives behave just this way.
  - Conditional modal claims don't.
  - Imperatives make good consequents in anankastic conditionals
- (31) If you want to go to Harlem, take the A train.
- Test cases: uses of anankastics not to give advice on how to realize the hypothetical preference, but to give advice for why it would be good to rescind the hypothetical preference if the relevant agent indeed has it. An expression that has an endorsement component as part of its meaning would have only the former use.
- (32) [We are planning a dinner after a workshop. Sven has suggested that we have it at his small apartment.]  
Cleo: (But) if you want to have the dinner at your place, you have to / should / need to buy a bigger dining room table (to accommodate everyone).
- Cleo can utter the sentence in (32) in order to inform Sven of what he needs to do to optimally realize his preference, or to make Sven give up his preference.
- (33) [We are planning a dinner after a workshop. Sven has suggested that we have it at his small apartment.]  
Cleo: (But) if you want to have the dinner at your place, you have to / should / need to move to a bigger place before the workshop happens.
- Suppose Sven reacts by saying **Okay, I've been thinking about moving anyways.**
  - Cleo could come back saying **That is not what I meant: I wanted to convince you that you should not have the party at your place.**
  - Things are different with conditional imperatives:
- (34) [We are planning a dinner after a workshop. Sven has suggested that we have it at his small apartment.]
- a. Cleo: (But) if you want to have the dinner at your place, buy a bigger dining room table (to accommodate everyone).

- b. Cleo: (But) if you want to have the dinner at your place, move to a bigger place before the workshop happens.
- In uttering the conditional imperative, Cleo has conditionally endorsed the consequent.
- She cannot come back, saying that she only uttered the imperative in order to make Sven change his mind.

### Upshot

- If modals came with an endorsement component, conditionalized modals should come with conditional endorsement.
- But they do not seem to.
- Aside: Maybe we feel *some* conditional endorsement with **should** (instead of **have to**, etc.):
- But, even if so, the endorsement seems weaker than with the imperative.
- Importantly, endorsement ‘creeps in’ also with strong necessity modals like **have to**.

## 6 A shift in the modal backgrounds

### Technical vs. linguistic detachment

- *Technical detachment* is the usual logical notion. Whether it holds depends simply on the semantics one’s theory assigns to conditionals and modals.
- *Linguistic detachment* has to do with speakers’ willingness to assert, or assent to, an utterance corresponding to the modal conclusion, given that they have asserted, or assented to, both the conditional premise and its antecedent. Whether it holds depends not only on the semantics of conditionals and modals, but also on additional factors that play a role in language use.
- For technical detachment the question is: does the truth-conditional content of the premises ensure the truth of the conclusion?
- For linguistic detachment the question is: is one always licensed to go from asserting the premises to asserting the conclusion?
- Technical detachment can be valid while linguistic detachment may fail.

- Stalnaker (1975) introduced the notion of *pragmatic validity* for inferences that are technically (semantically) invalid but linguistically (pragmatically) valid, i.e., inferences where the conclusion follows from the *assertion* of the premises in any reasonable context.
- What we are considering here is the reverse case: we want to understand how an argument can be technically valid but systematically fail linguistically for a class of cases.
- In both the MURDER case and the virus scenario, it is intuitively odd to assert the conclusion, even after one has just asserted the two premises.
- This can still be due to an equivocation if for the ordering source of the modal in the conclusion the speaker's preference are added to the preferences of the relevant agent (e.g., the addressee) that determine the ordering source of the modal in the conditional.
- If the speaker is assumed to be moral and rational, he cannot have a preference for something immoral or irrational.
- On this view, the modal of the conclusion is interpreted relative to an 'impure' conversational background, in the sense of Knobe and Szabó (2013), and the necessity is stricter than that of the necessity in the conditional premise.

### Equivocation beyond ACs

- A strong tendency to interpret a modal in the conclusion of a *modus ponens* argument with a construal that differs from the one in the conditional premise exists also for uses of modals outside of anankastics, such as legal necessities.
- (35) **Unjust law:** By law, anyone who overhears another criticizing the government must report him to the secret police, who are known to harass/hurt/imprison dissenters.
- a. If you overhear someone criticizing the government, then, legally, you have to report him to the secret police.
  - b. You just overheard Jim criticizing the government.  
So,
  - c. You have to report Jim to the secret police.
- Again, the conclusion appears to endorse compliance with the law.
    - NB: The speaker need not endorse the law as such, but he endorses the addressee's compliance with it.
  - Crucially, this endorsement effect is absent if we force a 'legalistic' construal of the conclusion:

- (36) **Unjust law:** By law, anyone who overhears another criticizing the government must report him to the secret police, who are known to harass/hurt/imprison dissenters.]
- a. If you overhear someone criticizing the government, then, legally, you have to report him to the secret police.
  - b. You just overheard Jim criticizing the government.  
So,
  - c. Legally, you have to report Jim to the secret police.
- This suggests that what happens when endorsement ‘creeps in’ is that the construal of the modal shifts (unless that is prevented by specifying the construal in the conclusion).
  - If so, the apparent counterexamples to (ersatz) *modus ponens* involve an equivocation.
    - Cariani, Kaufmann and Kaufmann (2013) note in passing (n. 6) that a similar shift in construals may be at play in Kolodny and MacFarlane (2010)’s ‘Miner’s puzzle’.
    - They suggest that the conditional premises in (37) might be true only under an ‘objective’ construal, while (38) is true only on a ‘deliberative’ one.
    - If this is correct, the miner’s puzzle is not a reason to give up or weaken *modus ponens*, either (*contra* Kolodny and MacFarlane (2010)).
- (37) a. If the miners are in shaft A, we should block shaft A.  
b. If the miners are in shaft B, we should block shaft B.
- (38) We should block neither shaft A nor shaft B.

### Endorsement and shared preferences

- According to the analysis of Condoravdi and Lauer (2012) of the use of imperatives for *disinterested advice*, the speaker can take on another agent’s action relevant preference if it is not in conflict with any of his own.
- (39) A: How can I get to San Francisco?  
B: Take the northbound train.
- (40) A: I want to go to San Francisco.  
B: Take the northbound train.
- Endorsement is cheap if there is no conflict.
  - The class of cases that do not present any intuitive problem for detachment are ones where endorsement is cheap.

### New questions:

- *Why* do we feel compelled to shift the construal in the conclusion of a *modus ponens* argument? After all, we have very good contextual clues for retaining the construal of the conditional premise.
- Why do we feel compelled to shift the construal to one on which the speaker endorses the necessity?

### Pressure for informativity?

- The premises become common knowledge once they are asserted.
- If the modal is construed with exactly the same conversational backgrounds, the conclusion adds no additional information.
- Assuming that the naked modal in the conclusion has an ‘impure’ ordering source, consisting of the original one plus speaker preferences . . .
  - . . . strengthens the necessity.
  - . . . makes the conclusion informative, even after the premises have become common ground.
  - . . . gives rise to the implication of speaker endorsement.
- If this is so, naked *ought*’s do not necessarily carry the additional implication of speaker endorsement.
- Dialogic cases where the information supplied by the conditional is not common ground would thus be a good testing ground.

### Dialogic cases

- Confounding factor: in dialogues of the form in (41), the use of *then* or *in that case* is required to be part of *B*’s utterance, especially when the sentence is used in a ‘non-endorsing’ way.
  - I.e., especially in the crucial cases at hand, where the speaker is trying to get the addressee to give up his stated preference, rather than make him realize the prejacent of the modal.

(41) A: I want to *p*.  
B: You must *q*.

- (42) A: I want to go to the train station.  
B: You should take the first right.
- (43) Sven: I want to have to workshop dinner at my place.  
Cleo: ??(Then) You have to / should / need to buy a bigger dining room table.
- (44) Sven: I want to have to workshop dinner at my place.  
Cleo: #(Then) you have to / should / need to move to a bigger place before the workshop happens.

- If *then*-clauses are elliptical for a full conditional, then we cannot draw any conclusions:
  - What looks, on the surface, like a naked modal assertion in fact is a conditionalized modal.
  - And we know already that the conditional premise does not give rise to endorsement—the question at hand is whether a naked modal utterance always gets an endorsement reading.
- But *then* may instead have a discourse-managing function.
  - Without **then**, the naked modal reply can feel like a *non-sequitur*.

### ***Then*-clauses need not be elliptical**

- As seen in (45), with non-modal *p*, *Then p* commits the speaker to *p*, not to a conditional claim.
  - *B*'s "then" marks his claim as inferred; it does not conditionalize the claim, and does not, in any way, indicate that *B* does not trust *A*'s testimony.
- (45) A: John was not on the plane.  
B: Then he missed his connection.

### ***Then* as a discourse marker**

- Biezma (2014) argues that "*then* coordinates an anaphoric relation between consecutive discourse moves."
  - As seen in (46) and (47), while the full conditional can reasonably be construed as indicating that the speaker doubts the antecedent (in fact, *then* in the full conditional strengthens that kind of implication), this does not work with bare *then* clauses.
- (46) Child: I am done with my homework!  
Mother: If you are done with your homework, then you can go out and play.  
Child: Do you think I am lying???



(47) Child: I am done with my homework!  
Mother: Then you can go out and play.  
Child: # Do you think I am lying???

- If Biezma's analysis is on the right track, bare *then*-clauses are not elliptical for full conditionals, and naked *ought*'s in dialogues are truly naked and can be used without endorsement.

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