

# Imperatives and Strength of Endorsement

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## 1 What is conventional about imperatives?

### Overall effect of an imperative

(1) Leave!

(2) IMP((you) leave)  
*sentence radical*

- An utterance of an imperative
  - is associated with a certain propositional content capturing the imperative's fulfillment conditions.
  - conveys that the speaker wants the content to become reality (speaker desire).
  - acts as an inducement for the addressee to realize the content (addressee inducement).
- An utterance of (1)
  - is associated with the content **The addressee leaves**
  - conveys that the speaker wants the addressee to leave
  - acts as an inducement for the addressee to leave
- Are the implications of speaker desire and addressee inducement semantic or pragmatic?
- Do they have the same status?

- Inducement as conventional (Han 1998, Portner 2005, 2007, Mastop 2005)
- Context-dependent denotation (Schwager 2006, Kaufmann 2012, 2016)
- Speaker desire as conventional (Bierwisch 1980, Wilson and Sperber 1988, Davis 2009, Condoravdi and Lauer 2012)

## Functional heterogeneity

- Imperatives get associated with a rather heterogeneous range of illocutionary forces and can thus be used to perform a variety of speech acts Schmerling (1982).
- Only some uses of imperatives constitute directive speech acts.

- (3)
- |    |   |                         |
|----|---|-------------------------|
| a. | Stand at attention!                           | (COMMAND)               |
| b. | Don't touch the hot plate!                    | (WARNING)               |
| c. | Hand me the salt, please.                     | (REQUEST)               |
| d. | Take these pills for a week.                  | (ADVICE)                |
| e. | Please, lend me the money!                    | (PLEA)                  |
| f. | Get well soon!                                | (WELL-WISH)             |
| g. | Drop dead!                                    | (ILL-WISHES)            |
| h. | Please, don't rain!                           | (ABSENT WISH)           |
| i. | [On the way to a blind date] Please, be tall! | (ABSENT WISH)           |
| j. | Okay, go out and play.                        | (PERMISSION/CONCESSION) |
| k. | Have a cookie!                                | (OFFER)                 |

- Condoravdi and Lauer (2012) distinguish between four types of uses in terms of how they line up with respect to speaker desire and addressee inducement.

Imperative use	Speaker desire	Addressee inducement
Group I: Directives	✓	✓
Group II: Wishes	✓	✗
Group III: Permissions, Concessions, Offers	✗	✓
Group IV: Info-giving Advice	✗	✗

## Information giving advice

- Imperatives can be used to give factual information about how to achieve a given goal.
- We can call these uses *disinterested advice* since the speaker has, arguably, no interest in the fulfillment of the imperative.

- (4) [Strangers at the Palo Alto train station.]  
 A: Excuse me, how do I get to San Francisco?  
 B: Take the Northbound train.
- (5) A: I want to be at the airport early.  
 B: Leave here by 10.
- (6) [A is planning a long trip on the train.]  
 A: I hate smoking.  
 B: Buy a first class ticket then.

- The imperatives above convey factual information of how to achieve the expressed or inferred goal (e.g., getting to San Francisco).
- The correctness of *B*'s advice in each case depends on certain actual facts and the expressed or inferred desire of *A*.
- The same communicative effect can be achieved by using necessity modals, which, on this use, do not confer an obligation on the addressee.

- (7) [Strangers at the Palo Alto train station.]  
 A: Excuse me, how do I get to San Francisco?  
 B: You have to / should take the Northbound train.
- (8) A: I want to be at the airport early.  
 B: You should / have to leave here by 10.

## A closer look at speaker desire

### Imperatives and bouletic attitudes

- Imperatives, in all their uses, imply that the speaker does not object to the realization of the content.
  - It is infelicitous to follow an imperative with an assertion that the realization of the content goes against the speaker's desires (Schwager 2006, Kaufmann 2012).
- (9) #Call him at home! I don't want you to but he is fine with that.
- Even more striking is this effect with disinterested advice uses.
- (10) A : How do I get into this building?
- a. B : The only way is through this door. But I don't want you to go through there.
  - b. B : You have to go through this door. But I don't want you to go through there.
  - c. B : Go through this door. # But I don't want you to go through there.

- Let us call this aspect of the meaning of imperatives that is responsible for the observed infelicity *speaker endorsement*.
- How exactly does speaker endorsement relate to the speaker's bouletic state / desires?

### Subtler evidence: Advice with modals vs. imperatives

- Striking asymmetry between modals and imperatives (Condoravdi and Lauer, in prep.)
    - Modals and imperatives can both be used non-directively to give factual information about how to achieve a given goal.
    - Modals, but not imperatives, can be used to give this kind of information and then be followed up with an attempt by the speaker to dissuade the addressee from pursuing the goal.
- (11) A: I want to have the workshop dinner at my place.  
 B: Then you have to / should / need to buy a new dining room table beforehand.
- So start checking out furniture stores.
  - So forget about it. (it = having the dinner at your place)
- (12) A: I want to have the workshop dinner at my place.  
 B: Then buy a new dining room table beforehand.
- So start checking out furniture stores.
  - # So forget about it.
- The contrast persists in anankastic conditionals with modalized vs. imperative consequents.
    - Anankastic conditionals are conditionals of the form **If want  $g$ , must  $p$**  that convey a necessary/best-means-of relation between  $g$  and  $p$ .
    - Anankastic imperatives are conditional imperatives of the form **If want  $g$ ,  $p!$**  that convey a necessary/best-means-of relation between  $g$  and  $p$ .
- (13) If you want to have the workshop dinner at your place, you have to / should / need to buy a new dining room table beforehand.
- So start checking out furniture stores.
  - So forget about it. (it = having the dinner at your place)
- (14) If you want to have the workshop dinner at your place, buy a new dining room table beforehand.
- So start checking out furniture stores.
  - # So forget about it.

- Greek has a dedicated expression for the speaker to question whether doing something is worth it.
- A continuation with this expression is felicitous after a conditionalized modal, as seen in (15).
- It is infelicitous after a conditional imperative, as seen in (16).<sup>1</sup>

- (15) Ama thes na prolavis to ergo, prepi na figis amesos.  
 If want-2SG SUBJ be on time for the movie must SUBJ leave-2sg immediately  
 Ala pou na trehis tora ...  
 But where SUBJ run-2SG now  
 'If you want to be there in time for the film, you have to leave right away. But why bother?'
- (16) Ama thes na prolavis to ergo, fige amesos! # Ala  
 If want-2SG SUBJ be on time for the movie, leave-IMP immediately! But  
 pou na trehis tora ...  
 where SUBJ run-2SG now  
 'If you want to be there in time for the film, leave now! But why bother?'

- **Advice on how-to:**  $p$  is necessary/best-means for  $g$ .
- **Advice on why-not-to:** advice against  $g$  because  $p$  is necessary/best-means for  $g$  and  $p$  is taken to be undesirable.
- Modals construed as teleological necessities, whether bare or conditional, can give advice on how-to and on why-not-to.
- Imperatives, whether bare or conditional, can only give advice on how-to.

## 2 Modal advice

### Kratzer's analysis of modals

- Kratzer (1981): modals are interpreted relative to two contextually set parameters, the modal base and the ordering source.
- A modal statement can indirectly convey information about either parameter.

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<sup>1</sup>Thanks to Christos Christopoulos for suggesting this kind of evidence from Greek.

## Teleological necessities

(17) [Strangers on a subway platform.]

X: I want to go to Harlem.

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

- The content of Y's utterance:
  - In all worlds where the relevant circumstances obtain and which optimally satisfy the relevant agent's desires/goals the prejacent of the modal is true.
  - For (17): in all worlds where the relevant circumstances obtain and which optimally satisfy X's goals X takes the A train.
- The ordering source of the modal on a teleological construal consists of the agent's goals, its prejacent specifies what to do.
  - A teleological ordering source can be taken, more generally, to be constituted by an agent's 'effective preferences', i.e., the agent's action-relevant preferences (Condoravdi and Lauer 2016).
- The aim is to derive which actions are to be taken given the hypothesis that all, or as many up to consistency, of the relevant goals are realized.
- This can also be thought of as the reasoning of the speaker of a modal assertion which specifies how to achieve a salient goal.
- Using the Harlem example, let the relevant goals of X in  $w$  be:
  - $G_1 = X\text{-goes-to-Harlem}$
  - $G_2 = X\text{-goes-to-Harlem-by-noon}$
  - $G_3 = X\text{-goes-to-Harlem-cheaply}$
- These are all consistent goals, the more specific ones bounding the more general one.
- $G_1, G_2, G_3$  can be consistently added to the modal base to derive *Train*

(18)  $f(w) = \{G_1 \leftrightarrow \text{Walk} \vee \text{Taxi} \vee \text{Train}, G_2 \leftrightarrow \text{Taxi} \vee \text{Train}, G_3 \leftrightarrow \text{Walk} \vee \text{Train}, \dots\}$

(19)  $g(w) = \{G_1, G_2, G_3, \dots\}$

## Pragmatic reasoning

- Modal advice on how to realize a topical goal  $g$ :
  - The speaker informs the addressee that  $p$  **follows from the addressee's goals** given the way the world is like.
  - The addressee can reason (if the context is right) that  $p$  must be a necessary means for his (topical) goal  $g$ .
  - Conveying factual information about means to an end relies on pragmatic reasoning with the modal statement as a starting point.

## Anankastic conditionals

### The trouble with anankastics

- *Problem of conditioning on norms*: The antecedent of (near-)anankastics plays a double role, as it both contributes the hypothesis that the agent has the stated goal and at the same time the hypothetical goal is a norm that influences the ordering underlying the semantics of the modal (Sæbø 2001, Condoravdi and Lauer 2016).
- *Problem of interacting preferences*: conflicts created by hypothesizing on a preferential norm must be treated differently from conflicts between extrinsically given preferences (von Fintel and Iatridou 2005, von Stechow et al. 2006, Huitink 2008, Condoravdi and Lauer 2016).

### The semantics of anankastics

- A double modal analysis for the conditional and a construal of *want* and the overt modal in terms of effective preferences (Condoravdi and Lauer 2016).
  - 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 in the consequent.
  - The effective preferences of an agent *a* at a given time are *a*'s *action-relevant* preferences, which have to be consistent.

(20) If you want to go to Harlem, you should / have to take the A train.

(21) NEC [you want to go to Harlem] [MUST[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.
- The strengthened interpretation of a necessary/optimal-means-of relation between *p* and *q* arises through pragmatic inference.

## Practical reasoning

- Kinds of advice for bare and conditional necessities (Lauer and Condoravdi 2014): advice on how-to and advice on why-not-to.
- The modal statement communicates '*p* is a **necessary means for** *g*'.
- This new addressee belief can feed instrumental reasoning, as in (22).
- But it can also figure in other kinds of practical reasoning, such as the one in (23).

- (22) A simple case of practical instrumental reasoning leading to adopting the means:
- a. Agent  $a$  has an effective preference for  $p$ .
  - b.  $a$  is indifferent about  $q$ .
  - c.  $a$  learns that  $q$  is a necessary means for  $p$ .
  - d.  $a$  believes that  $q$  is realizable.
- ↪
- e.  $a$  forms an effective preference for  $q$ .
- (23) A simple case of practical instrumental reasoning leading to rescinding the end:
- a. Agent  $a$  has an effective preference for  $g$ .
  - b.  $a$  has an effective preference for  $\neg p$ .
  - c.  $a$  learns that  $p$  is a necessary precondition for  $g$ .
- ↪
- d.  $a$  rescinds his preference for  $g$ .

- We can take (22) and (23) to describe the way agents in fact *do* update or revise their cognitive states when reasoning about their ends, or describing the updates that agents can (doxastically) expect each other to perform.
- The inducement aspect of advice uses is dependent on the addressee having no conflicting preference to the means.
- In the absence of such conflicting preferences the addressee can be expected to form a new effective preference for the means.

**Upshot:**

- With a bare teleological necessity or an anankastic conditional, the speaker only communicates something about the relationship between  $p$  and  $g$ .
- She does not take any position on whether  $g$  is a sensible goal, or whether the addressee should (all things considered) make  $p$  true.

**The problem with anankastic imperatives**

- Intuitively, the conditional imperative in (14) provides the same factual information as the anankastic conditional in (13), namely that buying a bigger table is a precondition for having the dinner at the addressee's place.
- Hearers that receive this information should, in principle, be able to engage in both kinds of practical reasoning seen in (22) and (23).

- Hence speakers should be free to use the anankastic imperative in order to trigger either type of reasoning.
- Why is that not possible?
- Conditional imperatives, in general, do not give rise to unconditional endorsement.

(24) If you get lost, call me! But I don't want to be disturbed otherwise.

- Conditional imperatives only endorse their prejacent *conditional on their antecedent*.

- What is the meaning of imperatives so that they can have the same communicative effect as teleological necessities?
- What is the meaning of imperatives so that they cannot be used to give advice on why-not-to?

### 3 Imperatives as preferential commitments

- In one way or another, recent accounts of imperatives by Portner (2007), Schwager (2006), Kaufmann (2012, 2016), Condoravdi and Lauer (2012) and von Stechow and Iatridou (2017) assume that the combinatorial system of grammar yields a denotatum and a separate rule, or convention of use, specifies a context change effect.
- It is an open question whether IMP is an argument to the denotation function  $\llbracket \cdot \rrbracket$  or not, and what discourse component imperatives update.
- The proposal made here relies on a conception of conventional force of different clause types in terms of commitments.<sup>2</sup>
- Condoravdi and Lauer (2012): Agents have two kinds of commitments:
  - **Doxastic commitments:** Commitments to treat certain propositions as true.
  - **Preferential commitments:** Commitments to treat certain propositions as desirable.
- Utterances *create* such commitments.

<sup>2</sup>This conception of force is becoming something of a consensus within linguistic pragmatics, as least as far as the force of declaratives is concerned, which various researchers take to induce a doxastic, or “assertoric” commitment by virtue of linguistic convention (Hamblin 1971, Gunlogson 2003, 2008, Beyssade and Marandin 2006, Farkas and Bruce 2010, Condoravdi and Lauer 2011, 2012, Lauer 2013, Krifka 2014, 2015, Malamud and Stephenson 2014, Farkas and Roelofsen 2017)

- These commitments are regulated by extra-compositional ‘conventions of use’.

- Utterances of declaratives create doxastic commitments.
- Utterances of imperatives create preferential commitments.

(25) DECLARATIVE CONVENTION:

If a speaker utters a declarative with content  $p$ , he thereby becomes doxastically committed to  $p$ .

- In Condoravdi and Lauer (2012), we considered two options about imperatives.
  1. Imperatives **directly** induce a preferential commitment.
    - Imperatives denote a proposition that corresponds to their fulfilment conditions
      - \* e.g.,  $\llbracket \text{Leave!} \rrbracket \approx \llbracket \text{Ad leaves.} \rrbracket$
    - IMPERATIVE CONVENTION: If a speaker utters an imperative with content  $p$ , he thereby becomes preferentially committed to  $p$ .
  2. Imperatives **indirectly** induce a preferential commitment, via a doxastic commitment.
    - Imperatives contain an operator  $\text{IMP}$  as part of their content.
      - \* e.g.,  $\llbracket \text{Leave!} \rrbracket \approx \llbracket \text{IMP}(\text{Ad leaves}) \rrbracket$
    - In virtue of  $\text{IMP}$ , the imperative denotes the proposition that the speaker has a preferential commitment.
    - Imperatives fall under a generalized version of the DECLARATIVE CONVENTION, *i.e.*, the speaker of an imperative becomes *doxastically* committed to this proposition.
    - This doxastic commitment brings with it a preferential commitment to the prejacent of  $\text{IMP}$ .
- Accounting for *conditional imperatives* is feasible on the second option.
  - If  $\text{IMP}$  occurs in the compositional semantics, this enables an account of conditional imperatives as conditionals that have an imperative embedded in their consequent.
  - No alternative analysis exists for a semantics without  $\text{IMP}$  in the denotation.
- This does not mean that the existence and interpretation of conditional imperatives straightforwardly settles the matter which option is better.
- As von Stechow and Iatridou (2017) argue, the existence and interpretation of ‘Imperative-and-Declarative’ pseudo-imperatives appears to provide a similarly decisive argument for the opposite conclusion.

## Formal setup

### Commitment states

- A commitment state  $C$  represents the doxastic and preferential commitments of an agent.

(26) A **commitment state** is a pair  $C = \langle C_{PB}, C_{PEP} \rangle$ , where

- a.  $C_{PB}$  is a set of possible worlds.
- b.  $C_{PEP}$  is an ordered set of propositions (*i.e.*, a preference structure as in Condoravdi and Lauer (2011, 2012), Lauer (2013), Condoravdi and Lauer (2016)).

- $C \vDash_{PB} p$  represents that the agent **is committed to believe**  $p$  / to ‘treat  $p$  as true’:

(27)  $\langle C_{PB}, C_{PEP} \rangle \vDash_{PB} p$  if and only if  $C_{PB} \subseteq p$

- $C \vDash_{PEP} p$  represents that the agent **is committed to prefer**  $p$  / to ‘treat  $p$  as desirable’:

(28)  $\langle C_{PB}, C_{PEP} \rangle \vDash_{PEP} p$  if and only if  $p \in \max(C_{PEP})$

- The models we employ not only represent the reality talked about, but also the conversation itself.
- Different possible worlds in the model (in which potentially different conversations take place) will differ with respect to what the interlocutors are committed to.
- We assume that an agent, at a given world and time, has a unique commitment state, which we denote as  $C_a(w)$ .

### Propositions about commitments

- (29) For any agent  $a$  and proposition  $p$ ,  $PB_a(p)$  is the proposition that  $a$  is doxastically committed to  $p$ :

$$PB_a(p) := \{w \mid C_a(w) \vDash_{PB} p\}$$

- (30) For any agent  $a$  and proposition  $p$ ,  $PEP_a(p)$  is the proposition that  $a$  is preferentially committed to  $p$ :

$$PEP_a(p) := \{w \mid C_a(w) \vDash_{PEP} p\}$$

### Admissibility of commitment states

- We define a notion of *admissibility* for commitment states, ensuring a correspondence between ‘meta-commitments’ and simple commitments.

- (31) If  $C$  is the commitment state of agent  $a$ , then  $C$  is **admissible** only if the following hold:
- a. If  $C \vDash_{\text{PB}} \text{PB}_a(p)$ , then  $C \vDash_{\text{PB}} p$ .
  - b. If  $C \vDash_{\text{PB}} \text{PEP}_a(p)$ , then  $C \vDash_{\text{PEP}} p$ .

- We assume that, for any world  $w$  and agent  $a$ ,  $C_a(w)$  is admissible.
- In virtue of the admissibility constraints, the following ‘introspection principles’ are guaranteed:

- (32)
  - a.  $\text{PB}_a(\text{PB}_a(p))$  entails  $\text{PB}_a(p)$
  - b.  $\text{PB}_a(\text{PEP}_a(p))$  entails  $\text{PEP}_a(p)$

### Updating commitment states

- Since we assume that both declaratives and imperatives create doxastic commitments by convention, we only introduce a notation for doxastic update.
- $C + p$  represents that  $p$  is added to the agent’s doxastic commitments, and necessary adjustments are made so that the new commitment state is admissible.
  - We don’t define the update operation here (see Lauer 2013 for one possibility).
  - But we assume the following throughout: If  $\langle C_{\text{PB}}, C_{\text{PEP}} \rangle + p = \langle C_{\text{PB}}^+, C_{\text{PEP}}^+ \rangle$  then:
    - \*  $C_{\text{PB}}^+ \subseteq C_{\text{PB}}$  (monotonicity)
    - \*  $C_{\text{PB}}^+ \subseteq p$  (success)
  - The success condition ensures that for any commitment state  $C$  and any proposition  $p$ :  $C + p \vDash_{\text{PB}} p$ .

### Imperative updates

- Imperatives denote the proposition that the speaker is committed to a preference of the fulfilment conditions of the imperative:

(33)  $\llbracket \text{Leave!} \rrbracket = \text{PEP}_{S_p}(\lambda w. Ad \text{ leaves in } w)$

- Consequently, the utterance of an imperative like **Leave!** results in the current commitment state of the speaker  $C_{S_p}$  being updated to  $C'_{S_p}$  as follows:

(34)  $C'_{S_p} = C_{S_p} + \text{PEP}_{S_p}(\lambda w. Ad \text{ leaves in } w)$

- By the admissibility constraints, it is ensured that the speaker is committed to prefer that the addressee leave:

(35)  $C'_{Sp} \models_{PEP} \lambda w. Ad \text{ leaves in } w$

- Utterances of imperatives are *self-verifying* in the way explicit performatives are according to Condoravdi and Lauer (2011): Whenever an imperative is uttered in a world  $w$ , this ensures that  $w$  is an element of the proposition denoted by the imperative.

- On this analysis, to endorse  $p$  is to take on a preferential commitment for  $p$ .

## Advice uses and endorsement

- For disinterested advice uses we need to explain how imperatives can be used to provide factual information.
- We also need to explain how endorsement can be reconciled with apparent speaker indifference with respect to the realization of the content.

(36) [Strangers on a subway platform in New York.]

X: I want to go to Harlem.

Y: Take the A train.

- Modal advice proceeds via an assertion about **what follows from the addressee's goals**.
- Imperative advice proceeds via a commitment to a **speaker preference**.
- **Idea:** The use of imperatives for disinterested advice is possible because the speaker can take on another agent's action relevant preference if it is not in conflict with any of his own.
- The bulk of an agent's effective preferences will be ones that correspond to desires, inclinations, appetites, etc. (that the agent has decided to act on).
- We call those the agent's *self-motivated* effective preferences.
- They need not be *selfish* per se (e.g., they could in turn be due to a desire to be altruistic).
- But not all effective preference must be self-motivated. In particular, we assume that agents also form effective preferences according to the following principle.

(37) COOPERATION BY DEFAULT An agent is cooperative-by-default if he adds any topical goal of another agent he learns about to his effective preference structure, in such a way that for no self-motivated preference  $p \in EP_a : p < g$ .

- Extremely weak requirement!
- The preference for  $g$  will be dominated by any conflicting preference of the agent.
- Even when not dominated, it will be bounded by the speaker's other preferences.
  - For example,  $Y$  in (36) will have various preferences that are incompatible with actively *helping* the addressee to get to Harlem (e.g., giving them a ride).
- By uttering an imperative in a disinterested advice context, the speaker signals to the addressee that she has taken on the addressee's preference for  $g$ , in the limited way required by (37), as one of her own, and that neither  $g$ , nor anything that is necessary for realizing  $g$ , is in conflict with any of her existing preferences.
- Contrast between **want** and imperatives: **want** has a reading on which it refers to effective preferences (Condoravdi and Lauer 2016), but it is further lexically restricted to self-motivated effective preferences.
- Therefore, in uses of imperatives where COOPERATION BY DEFAULT IS ASSUMED, imperatives will appear weaker than **want** assertions.
  - $C_{Sp} \models_{PEP} p$  need not imply that  $Sp$  **wants**  $p$  but can only hold if it is not the case that  $Sp$  **wants**  $\neg p$
- COOPERATION BY DEFAULT supports the pragmatic reasoning that goes on on top of the conventional contribution of the imperative.

### Bridging speaker and addressee effective preferences

- In virtue of (37), after  $X$  has informed  $Y$  of his goal (going to Harlem), he can assume that  $Y$  will share this goal (in a limited way).
- $X$  can then reason as in cases where there is a truly shared goal (see Lauer (2013, Ch. 6.3.1)):
  - $Y$  just committed to having a preference for the proposition that  $A$  **takes the A train**.
  - Assumption:  $Y$  would only do that if he actually has a preference for  $X$  **takes the A train**.
  - If the context is right,  $X$  can conclude that  $Y$  has this preference because taking the A train is a necessary means for going to Harlem (in an optimal way).
  - That is, the addressee assumes the speaker's preference is the result of instrumental reasoning of the type in (22) **by the speaker**.
- In the case of advice on why-not-to the speaker has a preference against the means and, therefore, cannot adopt  $g$  via (37).

**Upshot:** Imperative advice on how to realize goal  $g$

- The speaker commits to a preference for  $p$ .
- This informs the addressee that the speaker has a preference for  $p$ .
- By running (the speaker's!) practical reasoning 'backwards', the addressee can conclude that  $p$  is a necessary means for their shared goal  $g$ .

## 4 Conditional imperatives

### Conditional commitment

- Bare imperatives commit their speakers to prefer the prejacent.
  - Conditional imperatives should differ from bare ones in that they induce a *conditional commitment* instead.
- (38) a. Don't disturb me unless necessary, but if you get lost, call me!  
b. If John was at the meeting yesterday, ask him what was decided.
- Conditional commitment is weaker than unconditional commitment.
    - In virtue of an utterance of (38-a), the speaker does not become *automatically* committed to preferring being called, and with (38-b) the speaker does not automatically become committed to preferring that the addressee ask John.
    - While unconditional commitments have to be consistent, conditional commitments can have contradictory contents.
  - Conditional commitments can function as *guarantees* that enable the coordination of future actions under various contingencies.
- (39) **Three options for conditional preferential commitment**  
An agent  $a$  is committed to prefer  $q$  conditionally on  $p$  if and only if:  
 $a$  automatically becomes committed to prefer  $q$ , ...
- a. ... if/once  $p$  is true. (strong)
  - b. ... if/once  $a$  comes to believe/know that  $p$  is true. (intermediate)
  - c. ... if/once  $a$  comes to be committed to believe that  $p$  is true. (weak)
- The weakest form of conditional preferential commitment can function much like the intermediate one under certain plausible assumptions of cooperativity:

- A speaker is expected to accept (and hence doxastically commit to) the content of claims by the addressee about matters that the latter is knowledgeable about.
- A speaker will be expected to publicize (and hence doxastically commit to) the antecedent if she privately knows it to be true.
- Without settling which option is the correct one, we show here that with a standard semantics for conditionals our account can straightforwardly derive the third notion of conditional commitment.

## Deriving conditional preferential commitments

(40) An agent with commitment state  $C$  is committed to prefer  $q$  conditionally on  $p$  iff

$$(C + p) \vDash_{\text{PEP}} q$$

‘Adding a doxastic commitment for  $p$  to  $C$  will result in a preferential commitment for  $q$ .’

- A basic question for conditional imperatives is how the IMP-operator interacts with the antecedent
- Following Kaufmann and Schwager (2009), we assume that the imperative operator is under a higher operator and not restricted by the **if**-clause.
- Deviating from Kaufmann and Schwager (2009), IWe assume that  $\text{NEC}$  is a *strict* epistemic necessity operator.

(41) a. If you get lost, call me.  
 b.  $\text{NEC}[\underbrace{\text{you get lost}}_{\text{Lost}}][\text{IMP}(\underbrace{\text{you call me}}_{\text{Call}})]$

‘In all worlds compatible with what the speaker knows where **Lost** is true, the speaker is preferentially committed to **Call**’

- If a speaker  $Sp$  utters (41-a), she becomes doxastically committed to the proposition denoted by it, that is, the update in (42) occurs.
- With (42),  $Sp$  does *not* get doxastically committed to  $\text{PEP}_{Sp}(\text{Call})$ , and hence, assuming  $Sp$  did not have any commitments about **Call** in  $C_{Sp}$ , she will not have any such preferential commitments in  $C_{Sp}^+$ .

$$(42) \quad C_{Sp}^+ = C_{Sp} + \text{NEC}[\text{Lost}][\text{PEP}_{Sp}(\text{Call})]$$

$$(43) \quad C_{Sp}^+ \not\vDash_{\text{PEP}} \text{Call}$$

- Therefore, there is no automatic preferential commitment in virtue of the utterance of the conditional imperative.
- Instead we derive conditional commitment of the type in (40), as the new doxastic commitment sets  $S_p$ 's commitment state up for a future preferential commitment.
- For  $C = C_{S_p}^+$ , or any state descended from it by monotonic updates, we have (44-a) and hence, by the constraints on admissible commitment states, (44-b).

- (44) a.  $C + \text{Lost}_{\text{FPB}} \text{PEP}_{S_p}(\text{Call})$   
 b.  $C + \text{Lost}_{\text{FPEP}} \text{Call}$

### Conditional commitment and endorsement

- Even though the utterance of a conditional imperative only induces conditional commitment, it immediately puts some constraints on the speaker's commitment state.
- Given that doxastic update is monotonic, a commitment state supports commitment  $q$  conditional on  $p$  only if the agent is not already unconditionally committed to  $\neg q$ .
- Likewise, once the conditional imperative **if**  $p, q!$  has been uttered, the speaker cannot consistently take on a preferential commitment to  $\neg q$  afterwards.
- Therefore, conditional imperatives come with a 'weak' endorsement implication: their speaker cannot publicly disprefer the prejacent of the imperative.

### Anankastic imperatives and endorsement

- (45) a. If you want to have the party at your place, buy a bigger table.  
 b.  $\text{NEC}[\text{want}_{Ad}(\text{party at } Ad\text{'s place})][\text{PEP}_{S_p}(Ad \text{ buys bigger table})]$   
 $\approx$  'If  $Ad$  has a preference for *party at Ad's place*, then the speaker is preferentially committed to *Ad buys bigger table*.'
- (46) a.  $C_{S_p}^+ = C_{S_p} + \text{NEC}[\text{want}_{Ad}(\text{party at } Ad\text{'s place})][\text{PEP}_{S_p}(Ad \text{ buys bigger table})]$   
 b.  $C_{S_p}^+ + \text{want}_{Ad}(\text{party at } Ad\text{'s place}) \text{ FPEP } Ad \text{ buys bigger table}$
- An anankastic imperative, like any conditional imperative, induces a conditional commitment and hence 'weak' endorsement.
    - The speaker cannot have, or later adopt, a public preference for *Ad not buying a bigger dining table*.

### Advice on how-to

- In the dialogic cases, *Ad* can infer a means-end relationship from an utterance involving a speaker preference by
  - assuming that the speaker adopted *Ad*'s goal and
  - running the speaker's instrumental reasoning backwards in order to establish the correct relationship between the goal and the preference to the imperative prejacent.
- In the conditional case, the speaker only conditionally commits to a preference for the means.
- But even under the mere supposition that the addressee prefers the goal the reasoning 'bridging' addressee goals and speaker preferences can go through.
- Accordingly, (45-a) can provide information about a means to a hypothetical addressee goal.
- If the speaker is willing to adopt the hypothetical goal (in case the addressee indeed has it), she hence can use the anankastic imperative to give advice on how-to in the same way as in the dialogic cases.

### Advice on why-not-to

- Advice on why-not-to, like advice on how-to, proceeds by conveying that the prejacent is a means to the (hypothetical) goal.
- *Ad* can only infer such a relationship on the assumption that the speaker is willing to take on the hypothetical goal if *Ad* indeed has it.
- But then, the speaker cannot intend to dissuade the addressee and at the same time intend to do so by conveying a means-end relationship.

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