# Iffy Endorsements

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## Outline

- Imperatives as a troublesome clause type
  - (Major) clause types
  - Challenges to formal semantics
  - Modality
  - Speaker endorsement

# (Major) clause types

#### Sentential form types associated with prototypical functions:

- (1)declarative assertion It's hot inside.
- (2) interrogative question Who can help?
- (3) imperative command Open the window.
- exclamation (4) exclamative How nice!

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All can be used for other functions as well

Form, content and context jointly determine actual utterance function.

# (Major) clause types

## Imperatives in non-prototypical functions:

(5)	Get out.	command
(6)	Stay away from the machine.	warning
(7)	Help me with this.	request
(8)	Get well.	wish
(9)	Take the bus.	advice
(10)	Have a seat.	invitation

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#### Challenge:

capture this versatility in terms of the interplay between a (stable) semantic denotation and (varying) contextual factors.

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  Open the window
  :
- context change potential? c[Open the window]c' iff ...
- Abstraction principle?
   \*/??[...[open the window]...]

## Modality

#### Similarity with (other) prioritizing modals

- You { should / must / have to } close the window. (11)
  - descriptive use (assertion): ✓ 'That's not true.'
  - performative use (command/request/...): X 'That's not true.'

## Modality

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- (11)You { should / must / have to } close the window.
  - descriptive use (assertion):
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  - performative use (command/request/...): X 'That's not true.'
- Close the window. (12)
  - X 'That's not true.'
  - never used descriptively a.
  - b. always used performatively

Aside: Some imperative uses are paraphrased more naturally with possibility modals (Schwager, 2005; Grosz, 2009; Oikonomou, 2017; Francis, t.a.).

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# Imperatives imply speaker's endorsement:

- (13) According to the guidelines you have to close that door now,✓ but I absolutely don't want you to do this.
- (14) Close that door now,X but I absolutely don't want you to do this.

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#### ... even when used for disinterested advice:

- (15) A: How do I get into that building?
  - B: You have to go in by the front door.
    But on no account would I want you to do this, it's forbidden.
  - B': Go in by the front door.

    #But on no account would I want you to do this, it's forbidden.

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- B': Go in by the front door.
  - #But on no account would I want you to do this, it's forbidden.

#### ... even when used for concessions:

(16) Ok, then go into that building!#But on no account would I want you to do this.

Link to prototypical use — functional versatility

- Link to prototypical use functional versatility
- Non-descriptivity

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- Affinity to prioritizing modality

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**▶** Different combinations of:

compositional meaning

post-compositional effects on suitable representations of utterance contexts

general pragmatic reasoning

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Combinations of sorts:

quantifiers over worlds

(Han, 1999) (Eckardt, 2012)

future contingencies

(Charlow, 2014)

properties of plan sets

(Roberts, 2015)

modal properties

## Outline

- Imperatives as a troublesome clause type
- 2 Conditionalized imperatives
  - Imperative consequents
  - Speaker preferences and performativity
- Imperatives and discourse structure

# Conditionalized speech acts

## 'if antecedent, (then) consequent'

- (17)If it's hot outside, ...
  - ...it's hot inside.
  - b. ... who can help?
  - c. ... open the window.
  - ...how awful!

All major clause types can be consequents. (Few can be antecedents.)

## Conditionalized speech acts

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All major clause types can be consequents. (Few can be antecedents.)

If imperatives are like modals, conditionalized imperatives should behave like conditionals with prioritizing modals in the consequent.

- (18)If you are cold, close the window.
- (19)If you are cold, you {should / ...} close the window.

#### Some similarities with prioritizing modals carry over...

(Schwager, 2006a; Kaufmann and Schwager, 2011)

#### Similarities I:

Modus Ponens(-like) inferences

- (20)A: If it's hot inside, you should open the window.
  - B: It's hot inside.
  - A: So you should open the window.
- (21)A: If it's hot inside, open the window.
  - B: It's hot inside.
  - A: So open the window.

#### Similarities II:

Modus Ponens(-like) inferences about means to an end:

- (22)If you want to do semantics, you have to study logic.
  - B: I want to do semantics.
  - A: So you have to study logic.
- (23)If you want to do semantics, study logic.
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- contingent necessity turns into necessity if antecedent is true
- works in both (22) and (23)

- (18)If you are cold, close the window.
- If you are cold, you  $\{\text{should }/\ldots\}$  close the window. (19)

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...but not all.

(Condoravdi and Lauer, 2017)

#### Differences I:

Inferences from necessary means against pursuing a goal

- (24)B: I'm considering doing semantics.
  - A: If you want to do semantics, you have to study logic.
  - A: So don't even think about it.
- (25)B: I'm considering doing semantics.
  - A: If you want to do semantics, study logic.
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# Imperative consequents

#### Differences II:

Inferences from necessary means in favor of pursuing a goal

- (26)B: I'm considering doing semantics.
  - A: If you want to do semantics, you have to study logic.
  - A: So yes, do semantics.
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### Conditionals reveal differences not observed in matrix contexts

- >> Testing ground for competing theories of imperatives
- >> Evidence to adjudicate between
  - conventional encoding of speaker preferences
  - conventional encoding of discourse management

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### Two approaches (of interest here):

Speaker preferences (of a certain kind) are hard-wired into the semantics of imperatives (Bierwisch, 1980; Truckenbrodt, 2005;

Condoravdi and Lauer. 2012. 2017: Oikonomou. 2016: Starr. t.a.)

Propositions about discourse commitments to preferences self-verify (Condoravdi and Lauer, 2017)

Endorsement and performativity from meaning-context interaction

(Schwager, 2006b; Kaufmann, 2012; this talk)

### Public effective preferences

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- Imperatives encode public effective preferences > self-verifying
  - Uttering  $p \Rightarrow$  Speaker becomes publicly committed to p
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- Fundamentally different from (descriptively used) modal declaratives.
- C&L argue that this explains the patterns with imperative consequents

disinterested advice

# Cooperation by default

#### Too much endorsement?

Challenge for speaker preference-based theories:

- (28)A: How do I get to Logan Airport? B: Take the bus.
- (29)Have a seat! invitation
  - no anti-endorsement: #but on no account would I want you to do it
  - no lexical expression of preference: #I want you to do this

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(Condoravdi and Lauer, 2017)

disinterested advice

- An agent is cooperative-by-default if she adds any topical goal of another agent she learns about to her effective preference structure, in such a way that it does not strictly outrank any of her self-motivated preferences.
- want is lexically restricted to self-motivated preferences.

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- ▶ Imperatives cannot be used for ADVICE-NOT-TO.
  - BUT this does not explain all the data!

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- (27) is also odd, even though it is ADVICE-TO.
- This can't be about conflicting preferences.

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- **▶** Imperatives can't be used for ADVICE-WHETHER-TO!

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BUT similar patterns hold for non-ACs:

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  - So turn up the heat. [The window will get stuck if it's never moved.]
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The pattern is not limited to anankastics.

### Preview

### A different culprit:

- If you want to do semantics, you have to study logic. (33)
- (34)If you want to do semantics, study logic.

#### if A. IMPERATIVE

- imperatives generally address a decision problem. roughly: "what to do"
- conditional on A: "what to do if A" cannot count as advice on whether A

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Preferences are not what's special about imperatives. Presupposed discourse structure is.

### Outline

- Imperatives as a troublesome clause type
- Imperatives and discourse structure
  - Modal operator theory of imperatives
  - Conditionals and practicality

#### Modal semantics

(Schwager, 2006b; Kaufmann, 2012, 2019)

• Modals can be non-descriptive in certain contexts.

(Kamp, 1973, 1978; Lewis, 1979)

• Imperatives are always non-descriptive.

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- at-issue meaning: Kratzerian necessity modal IMP
  - (35) '[ IMP[ you leave ]]'  $\leadsto \Box^R(Addressee leaves)$

Accessibility relation R determined by modal base and ordering source (Kratzer, 1991)

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Hypothesis: constraints on discourse status of modality and prejacent explain non-descriptive behavior of conditionals.

#### Constraints on felicitous use

(Schwager, 2006b; Kaufmann, 2012, 2019)

 $\llbracket \operatorname{IMP} \rrbracket^c(R)(p)$  presupposes:

ullet Speaker $_c$  has perfect knowledge regarding  $\Box^R$  and

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or the context is practical, i.e.:

- Question Under Discussion (QUD<sub>c</sub>) (Roberts, 1996) is a decision problem for the addressee ('What will A do?') and (Davis, 2009)
- Prejacent p answers QUDc (eliminates at least one cell) and
- Modal flavor R counts as decisive in c.

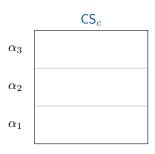
### Decision problem as QUD

• context set  $CS_c$ : mutual joint beliefs of speaker<sub>c</sub> and addressee<sub>c</sub>

$CS_c$

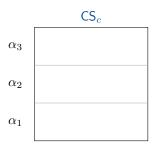
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• p answers QUD<sub>c</sub> if it rules out at least one cell.

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Modal flavor R counts as decisive in context c if there is a decision problem  $\Delta_a$  for an agent a (here: the addressee) and R is taken to encode the relevant criteria for solving it. This entails that:

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Modal flavor R counts as decisive in context c if there is a decision problem  $\Delta_a$  for an agent a (here: the addressee) and R is taken to encode the relevant criteria for solving it. This entails that:

- ullet a will try to find out whether  $\Box^R p$  for all  $p \in \Delta_a$  [Curious George]
- if a comes to believe  $\Box^R p$  for some  $p \in \Delta_a$ , then a will aim to bring about p [Busy Beaver]
- if any participant b (speaker or addressee) to the conversation in c holds it possible that  $\Box^R q$  for any proposition q, then it is not the case that b effectively prefers that  $\neg q$ . [Endorsement]

### Link to prototypical use — functional versatility

- Command meets practical requirements without specific assumptions
- ullet Utterance specific function depends on specific flavor of R, lexical material, presumed preferences,... (Kaufmann, 2019)

### Non-descriptivity

 Contexts that have the presupposed properties give rise to non-descriptive uses of modal statements

### Affinity to prioritizing modality

Shared at-issue content

### Speaker endorsement

ullet From presupposed status of modal flavor R as decisive modality

### Modal operator theory of imperatives

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To show Presupposition on QUD explains the behavior of Cls.

### Conditionalized imperatives are embedded in the consequent

- if-clause restricts a covert epistemic (weak) necessity modal
- similar to (other) prioritizing modals

(Frank, 1996; Kaufmann and Schwager, 2011; Condoravdi and Lauer, 2016)

- (36) If it is hot, open the window. → NEC[if hot] [IMP you open window]
  - >> true iff 'IMP you open the window' is true at all the (most stereotypical) hot-worlds in the modal base

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- similar to (other) prioritizing modals

(Frank, 1996; Kaufmann and Schwager, 2011; Condoravdi and Lauer, 2016)

- If it is hot, open the window. → NEC[if hot] [IMP you open window] (36)
  - true iff 'IMP you open the window' is true at all the (most stereotypical) hot-worlds in the modal base

#### Presuppositions can be interpreted globally or locally

(Karttunen and Peters, 1979; Lewis, 1979; Heim, 1983; van der Sandt, 1992)

- (37)If we get home late, we'll have to clean the litter box. [gobal] a. h.
  - If we buy a cat, we'll have to clean the litter box. [local]

#### Conditionalized imperatives are embedded in the consequent

- if-clause restricts a covert epistemic (weak) necessity modal
- similar to (other) prioritizing modals

(Frank, 1996; Kaufmann and Schwager, 2011; Condoravdi and Lauer, 2016)

- If it is hot, open the window. → NEC[if hot] [IMP you open window] (36)
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#### Presuppositions can be interpreted globally or locally

(Karttunen and Peters, 1979; Lewis, 1979; Heim, 1983; van der Sandt, 1992)

- (37)If we get home late, we'll have to clean the litter box. [gobal]
  - If we buy a cat, we'll have to clean the litter box. h. [local]

- Both options exist for decision problem presupposed by imperative
- Both options amount to Advice-How-To (not Advice-WHETHER)

#### A global decision problem

(38) A: What's a good way to spend this chunk of money?

B: If you want to host the dinner, buy a bigger dining table.

### A global decision problem

- (38)A: What's a good way to spend this chunk of money? If you want to host the dinner, buy a bigger dining table.
  - A's decision problem in the global context:  $\{\alpha_1, \alpha_2, \alpha_3\}$

$lpha_3$	
$lpha_2$	
$lpha_1$	

### A global decision problem

- (38) A: What's a good way to spend this chunk of money?B: If you want to host the dinner, buy a bigger dining table.
  - A's decision problem in the global context:  $\{\alpha_1, \alpha_2, \alpha_3\}$
  - B gives a contingent answer based on a question A can resolve

	dinner	$\overline{dinner}$
$\alpha_3$	×	
$\alpha_2$	×	
$\alpha_1$		

#### A global decision problem

- A: What's a good way to spend this chunk of money? (38)If you want to host the dinner, buy a bigger dining table.
  - A's decision problem in the global context:  $\{\alpha_1, \alpha_2, \alpha_3\}$
  - B gives a contingent answer based on a question A can resolve

	dinner	$\overline{dinner}$
$\alpha_3$		
$\alpha_2$		
$\alpha_1$		

**▶** B uses a sub-strategy to (partially) resolve the issue

### A local decision problem

(39) A: What do I have to do if I want to host the dinner?

B: (If you want to host the dinner,) buy a bigger dining table.

#### A local decision problem

- (39)A: What do I have to do if I want to host the dinner? (If you want to host the dinner,) buy a bigger dining table.
  - A's conditional decision problem:  $\{\alpha_1, \alpha_2, \alpha_2\} | dinner$

	dinner	$\overline{dinner}$
$\alpha_3$		
$\alpha_2$		
$\alpha_1$		

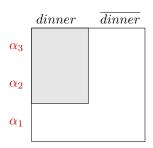
#### A local decision problem

- A: What do I have to do if I want to host the dinner? (39)(If you want to host the dinner,) buy a bigger dining table.
  - A's conditional decision problem:  $\{\alpha_1, \alpha_2, \alpha_2\} | dinner$
  - B's answer resolves the conditional decision problem

	dinner	$\overline{dinner}$
$\alpha_3$	×	
$\alpha_2$	×	
$\alpha_1$		

#### A local decision problem

- (39) A: What do I have to do if I want to host the dinner?B: (If you want to host the dinner,) buy a bigger dining table.
  - A's conditional decision problem:  $\{\alpha_1, \alpha_2, \alpha_2\} | dinner$
  - B's answer resolves the conditional decision problem



→ A raises a sub-issue; B (fully) resolves it

#### No Advice-whether-to

A: Should I host the dinner party? (40)

If you want to host the dinner, buy a bigger dining table.

B: ??So don't do it. / ??So yeah, do it.

#### No Advice-whether-to

- (40) A: Should I host the dinner party?
  - B: If you want to host the dinner, buy a bigger dining table.
  - B:??So don't do it. / ??So yeah, do it.
  - A's global decision problem:  $\{dinner, \overline{dinner}\}$

dinner	$\overline{dinner}$

#### No Advice-whether-to

- (40)A: Should I host the dinner party?
  - If you want to host the dinner, buy a bigger dining table.
  - B: ??So don't do it. / ??So yeah, do it.
  - A's global decision problem: {dinner, dinner}
  - B's answer does not rule out either cell either globally or among the antecedent-worlds

	dinner	$\overline{dinner}$
$\alpha_3$	×	
$\alpha_2$	×	
$\alpha_1$		

#### No Advice-whether-to

(40)A: Should I host the dinner party?

If you want to host the dinner, buy a bigger dining table.

B: ??So don't do it. / ??So yeah, do it.

- A's global decision problem: {dinner, dinner}
- B's answer does not rule out either cell either globally or among the antecedent-worlds

dinner	dinner

**▶** Equally bad for Advice-to and Advice-Not-to.

### Modals are ok

- (41) A: Should I host the dinner party?
  - B: If you want to host the dinner, you have to buy a bigger dining table.
  - B: So don't do it. / So yeah, do it.

#### Modals are ok

- (41) A: Should I host the dinner party?
  - B: If you want to host the dinner, you have to buy a bigger dining table.
  - B: So don't do it. / So yeah, do it.

- descriptive use
- not action-directing; can serve as grounds for conclusion

- Imperatives can be ok (after all)

  (42) A: I want to host the party.
  - B: If you want to host the party, buy a bigger dining table.
  - a. #So I don't think you should host it.
  - b. But I don't think you should host it.
  - But it would cost you a fortune, so I don't think you should host it.

#### Imperatives can be ok (after all)

- (42) A: I want to host the party.
  - B: If you want to host the party, buy a bigger dining table.
  - a. #So I don't think you should host it.
  - But I don't think you should host it.
  - But it would cost you a fortune, so I don't think you should host it.

- (42a): B has conflicting assumptions about the conversational goals (rather than conflicting preferences)
- so-moves show what the speaker takes to be the QUD.
- but marks contrast, can shift the QUD

### Conclusions

- Assimilating imperatives to modals allows us to capture imperatives in the consequents of conditionals
  - N.B. Propositional and/or dynamic theories of imperatives generally do well on conditionals
- Restrictions on conversational strategy do not come from clashes between conditional and unconditional preferential commitments
- Capturing the non-descriptive nature of imperatives (performatively) used modals) provides clues for capturing their discourse behavior
- Progress for understudied topic: discourse strategies involving imperatives and performative modality (more to do: syntax-prosody-semantics of information structure, markers of rhetorical relations, discourse strategy trees,...)



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Condoravdi and Lauer consider three definitions:

(C&L) Agent a is committed to preferring q conditionally on p iff a is automatically committed to preferring q if/once . . .

a. ...p is true.

STRONG

b. ... a believes/knows that p is true.

INTERMEDIATE

c.  $\dots a$  is committed to believing that p is true.

WEAK

Condoravdi and Lauer consider three definitions:

(C&L) Agent a is committed to preferring q conditionally on p iff a is automatically committed to preferring q if/once . . .

a. ... p is true.

STRONG

b. ... a believes/knows that p is true.

INTERMEDIATE

c. ... a is committed to believing that p is true.

Weak

Only Weak delivers a plausible notion of public effective preferences

Condoravdi and Lauer consider three definitions:

(C&L) Agent a is committed to preferring q conditionally on p iff a is automatically committed to preferring q if/once . . .

a. ... p is true.

STRONG

b. ... a believes/knows that p is true.

INTERMEDIATE

c. ... a is committed to believing that p is true.

**WEAK** 

- Only Weak delivers a plausible notion of public effective preferences
- All three are hard to reconcile with linguistic data...

- (C&L) Agent a is committed to preferring q conditionally on p iff a is automatically committed to preferring q if/once . . .
  - a. ... p is true. Strong
  - b. ... a believes/knows that p is true.
  - c. ... a is committed to believing that p is true. WEAK

All three: (44a) is contradictory, (44b) is probably pointless

- (44) a. I am worried I might go crazy. If I tell you to kill me, don't do it.
  - If I die before I get tenure, give my books to the grad students.

#### Problems with Strong and Intermediate:

- (C&L) Agent a is committed to preferring q conditionally on p iff a is automatically committed to preferring q if/once . . .
  - a. ...p is true.

STRONG

b. ... a believes/knows that p is true.

Intermediate

c. ... a is committed to believing that p is true.

WEAK

INTERMEDIATE, WEAK: (45a) is contradictory; (45b) is void

- (45) a. If my secretary is a spy, make sure I never know.
  - b. I will never find out if my secretary is a spy. But if she is, send her this envelope.

(C&L) Agent a is committed to preferring q conditionally on p iff a is automatically committed to preferring q if/once ...

> $\dots p$  is true.  $\dots a$  believes/knows that p is true. INTERMEDIATE

 $\dots a$  is committed to believing that p is true. WEAK

**STRONG** 

- (C&L) Agent a is committed to preferring q conditionally on p iff a is automatically committed to preferring q if/once ...
  - a. ... p is true.

STRONG

b. ... a believes/knows that p is true.

Intermediate

c. ... a is committed to believing that p is true.

**WEAK** 

- ▶ It is hard to come up with a satisfactory notion of conditional preference commitments
- Preferable: conditionalized imperatives as actual commitments to contingent preferences