

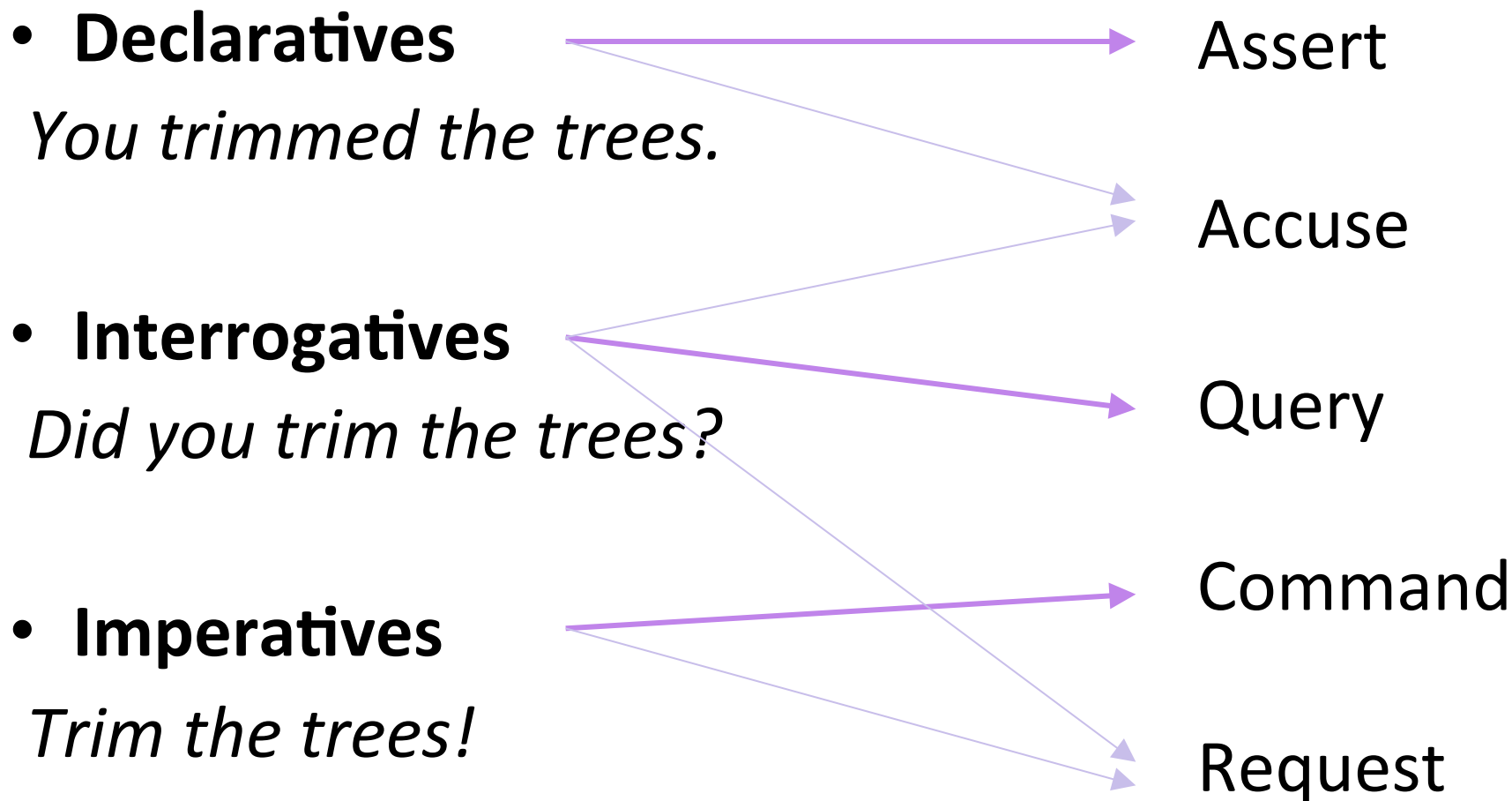
Imperatives and Intonation

Sunwoo Jeong & Cleo Condoravdi
Department of Linguistics, Stanford University

WCCFL 35

<https://github.com/sunwooj/dltimperatives>

Sentence types and illocution

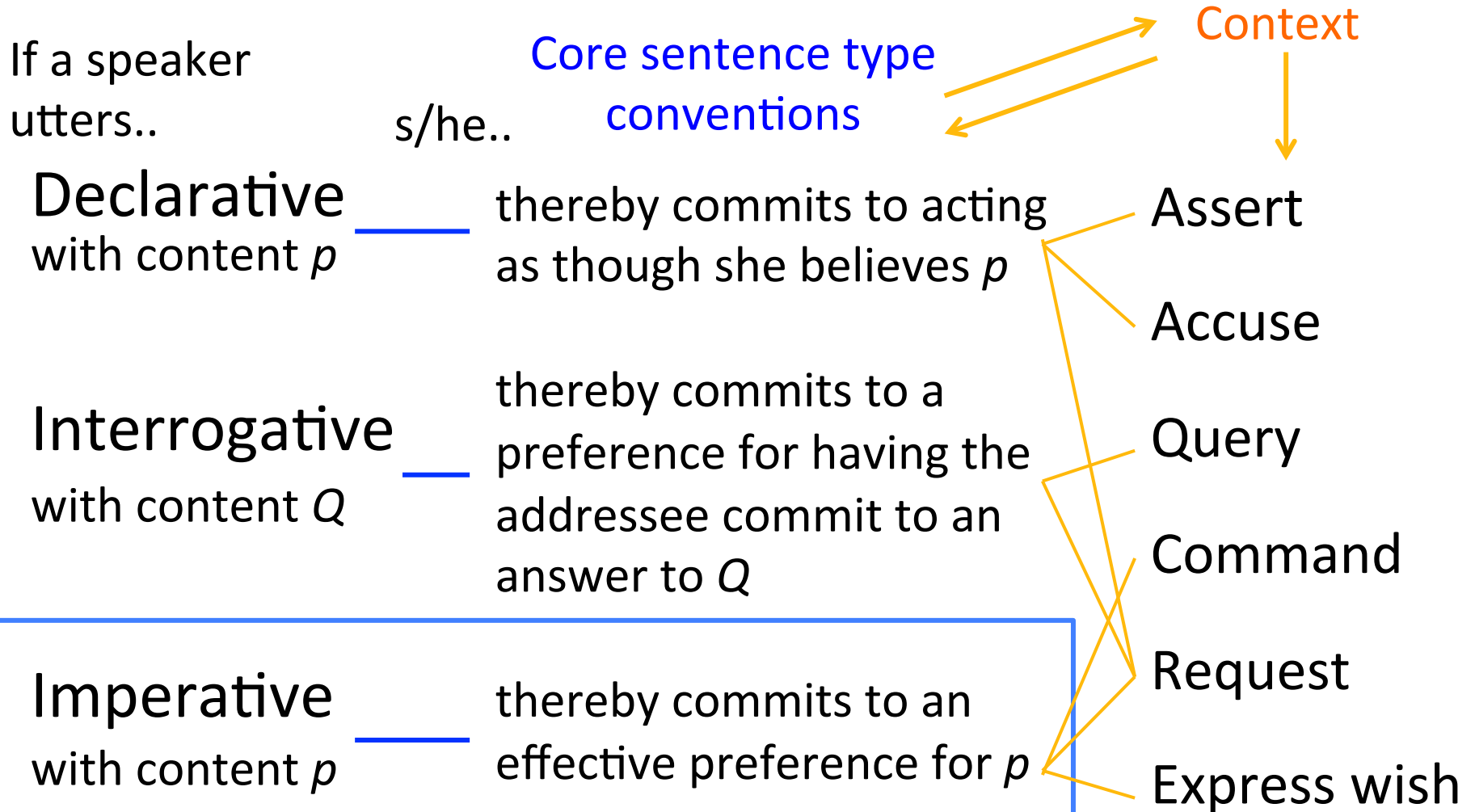


form-force mapping

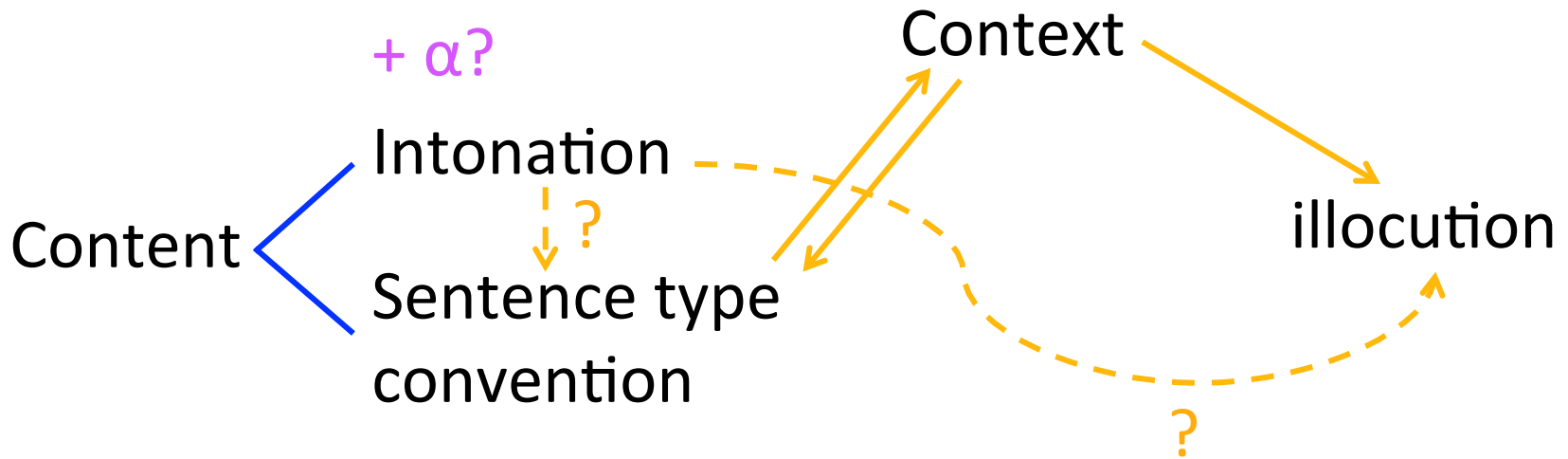
Imperatives and illocution

<i>Hand in the report by noon!</i>	command
<i>Get some rest!</i>	(concerned) advice
<i>Take the A train!</i>	(disinterested) advice
<i>Take a cookie!</i>	offer
<i>Enjoy your dinner!</i>	well-wish
<i>Drop dead!</i>	ill-wish, curse
<i>Okay, go out and play!</i>	concession

Sentence type conventions



Intonation and illocution



Strong vs. weak imperatives Portner (2015), Keough et al. (2016)

Have a banana. (H* L-L%) \longrightarrow weak (*may*)

Have a banana. (L* L-L%) \longrightarrow strong (*must*)

Overview

- What is the nature of the interaction between **content**, **sentence-type**, **intonation**, and **context**?
 - How do these factors influence people's illocutionary and perlocutionary inferences?
 - What is the role of intonation in the individuation of clause types?
- A case study with a new type of intonation:
 - Downstepped level terminal contour (**H* !H-L%**)
 - **DLT** (**H* !H-L%**) with **imperatives**

DLT (H* !H-L%) imperatives

“Have fun storming the castle! (H* !H-L%)” – *The Princess Bride* (1987)



DLT ($H^* !H-L\%$)

- Types of uses studied
 - **Calling contour** (Pike 1945)
“Anna! ($H^* !H-L\%$)”
 - Stylization or shared convention (Ladd 1978)
“Your lunch! ($H^* !H-L\%$)”, “#Fire! ($H^* !H-L\%$)”
- Decompositional analysis of the contour
(Pierrehumbert & Hirschberg 1990)
- No connection drawn with imperatives

DLT (H* !H-L%) with imperatives

- **Well-wishes**

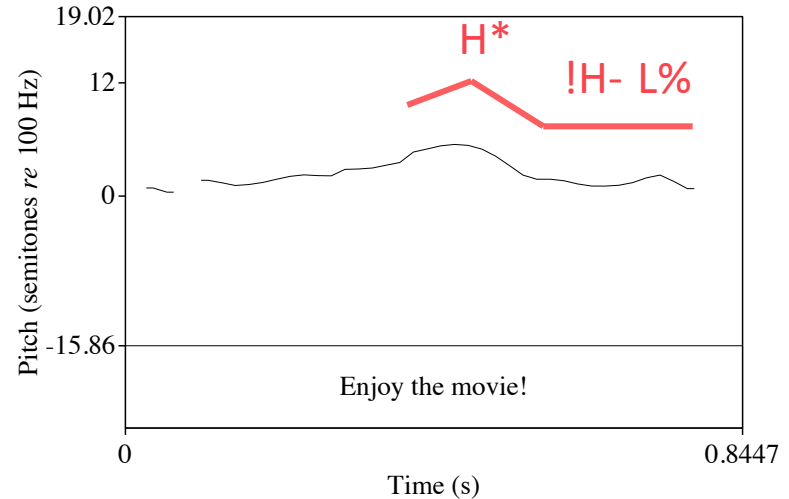
- Enjoy the movie!
- Enjoy your dinner!



- **Mnemonic requests**

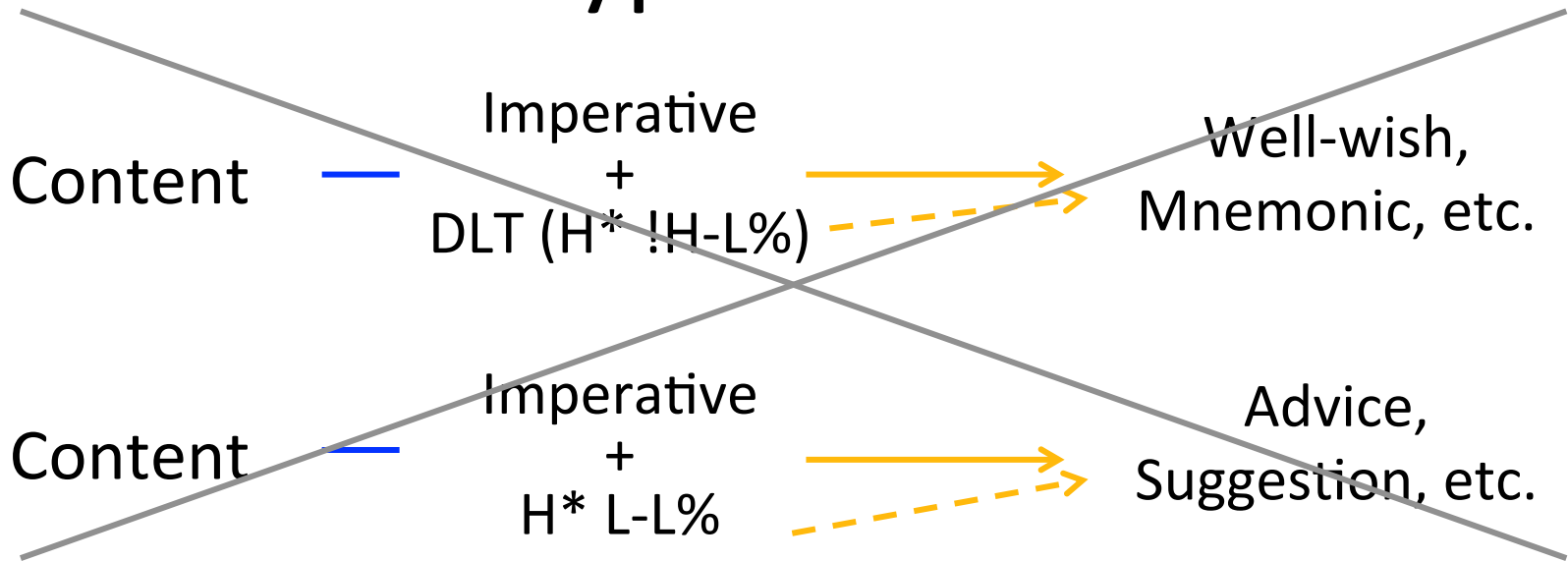
(cf. Crone 2016)

- Don't forget to feed the cats!



DLT preferred	DLT infelicitous
<i>Have fun at the party!</i>	<i>Don't touch the pie! (order)</i>
<i>Have a nice trip!</i>	<i>Take a cookie! (offer)</i>
<i>Remember to feed the cats!</i>	<i>Drop dead! (ill-wish)</i>

Hypothesis?



DLT preferred	DLT infelicitous
<p>(Ad has a minor cold) <i>Get well soon!</i></p> <p>(Sp leaving) <i>Goodbye! Don't forget to feed the cats!</i></p>	<p>(Ad has pneumonia) <i>Get well soon!</i></p> <p><i>Don't forget to feed the cats!</i> <i>I'll put a reminder note.</i></p>

Interim summary

- **Sentence-type (imperatives), context, content, and illocutionary inferences**
- All of these factors conspire to generate the patterns of felicity/infelicity of DLT imperatives
- Need to clarify the contributions of each factor

Experiment

- A brief foray into a perception experiment
(Jeong & Condoravdi 2017)
- **A perception experiment:** context manipulation (manipulating degree of speaker involvement in bringing about the content); choosing the more likely intonation between a given pair

Experimental hypothesis I

- Apparent illocution dependence of DLT
- DLT preferred:
 - imperatives with content biased towards certain well-wishes and mnemonic requests/advice
- DLT infelicitous:
 - imperatives with content biased towards orders, offers, non-mnemonic requests, etc.

Experimental hypothesis II

- The felicity of DLT is further dependent on certain contextual information
 - Extent of expected speaker control and further involvement in the realization of the content of the imperative

DLT preferred	DLT infelicitous
<i>(Sp leaving) Goodbye!</i> <i>Remember to feed the cats!</i>	<i>Remember to feed the cats!</i> <i>I'll put a reminder note.</i>

Experimental hypothesis II

- The relevant contextual information does **not** just concern the objective extent of speaker control. What is at issue:
 - the choice of the speaker to bring attention to, or to signal this lack of speaker control

DLT preferred	DLT infelicitous
<i>(Ad has a minor illness)</i> <i>Get well soon!</i>	<i>(Ad is seriously ill)</i> <i>Get well soon!</i>

Perception experiment: Materials

<p>Group 1 DLT preferred</p>	<p><i>Enjoy your dinner.</i></p> <p><i>Good luck with the test.</i></p> <p><i>Have a nice holiday.</i></p> <p><i>Enjoy the movie.</i></p>
<p>Group 2 DLT infelicitous</p>	<p><i>Hand in the assignment by noon. (command)</i></p> <p><i>Take a cookie. (offer)</i></p> <p><i>Avoid the highway. (disinterested advice)</i></p> <p><i>Take these pills for a week. (advice)</i></p>
<p>Group 3 ambiguous w.r.t. DLT (depends on the context)</p>	<p><i>Get well soon.</i></p> <p><i>Have fun at the party.</i></p> <p><i>Remember to feed the cats.</i></p> <p><i>Don't forget your lunchbox.</i></p>

Perception experiment: Materials

- **Base recording:**

- monotonous

↓ manipulation

- **DLT tokens**

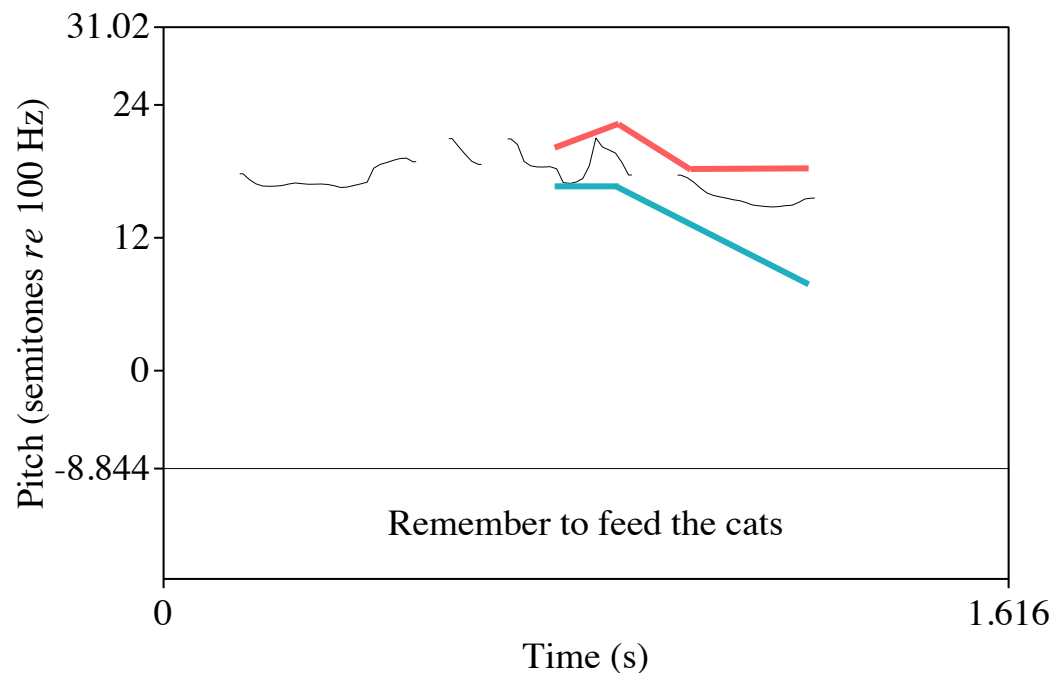
- H* !H-L%



- **non-DLT tokens**

- H* L-L%

- L* L-L%



Base recordings produced by 4 speakers (2 male, 2 female)

Manipulations done using PSOLA

Experiment: Sample trial 1

*(John is talking to his house-sitter friend Lily,
right before leaving home)*

John: Thanks so much for doing this. I gotta leave now. Bye!

Lily: Okay. Safe travels!

John: Thanks. _____

Q1: Which of the two sounds below is better suited to be inserted in the blank space _____ in the dialogue above?



Experiment: Sample trial 2

(John is giving his house-sitter friend Lily some instructions)

John: Thanks so much for doing this. Do you have any concerns?

Lily: Watering the plants, check. Getting the newspapers, check. Is there anything I am missing?

John: Yes. _____ (pointing at the cupboard). The food is in there. I will put instructions and a reminder note on the fridge.

Q1: Which of the two sounds below is better suited to be inserted in the blank space _____ in the dialogue above?



Experiment: Sample trial 3

(A waitress is talking to a customer at a restaurant)

Waitress: Good evening! What can I get for you?

Customer: Can I get a cheeseburger with a side of fries?

Waitress: Sure thing! (10 minutes later) Here you go.



Experiment: Sample trial 4

(A doctor is talking to his patient)

Doctor: Hello, how are you feeling today?

Patient: I am doing better but I still have a headache. Do you have anything that can help me get rid of it?

Doctor: (giving out a pill bottle) Yes. _____ You will probably feel better soon, but come back if you still have the symptoms.

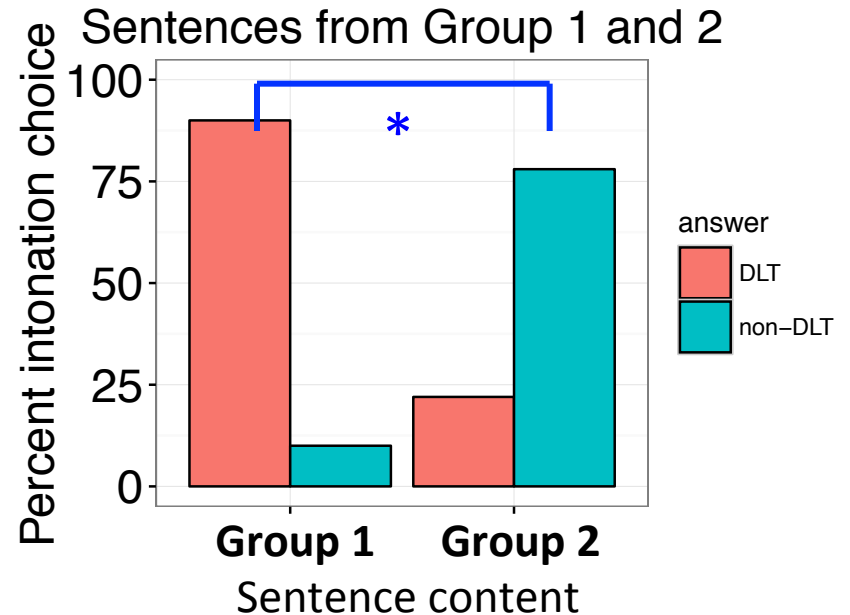


Experiment: Procedure

- 8 trials: 6 target trials counterbalanced in speaker gender; 2 filler trials
- 400 native English speakers recruited as participants
- Experiment lasted 10-20 minutes for each participant
- Mixed effects logistic regression models fitted to the data

Results: group 1 and group 2

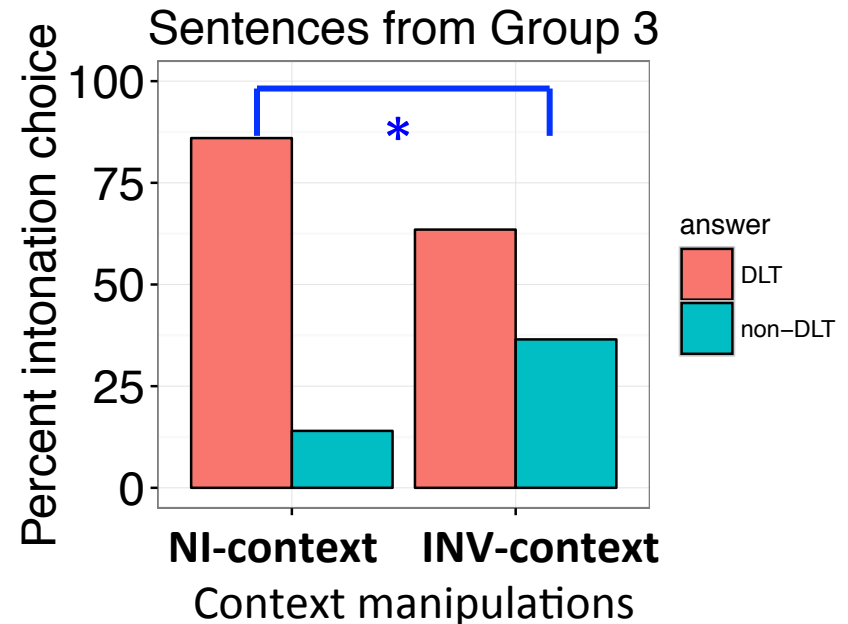
- **Group 1** imperatives almost always associated with **DLT (H* !H-L%)**
 - *Enjoy your dinner!*
 - *Have a nice trip!*
- **Group 2** sentences mostly associated with **non-DLT (H* L-L% or L* L-L%)**
 - *Hand in the report by noon!*
 - *Take a cookie!*



Content of Group 1 & Group 2 sentences:
strongly associated with specific contextual expectations

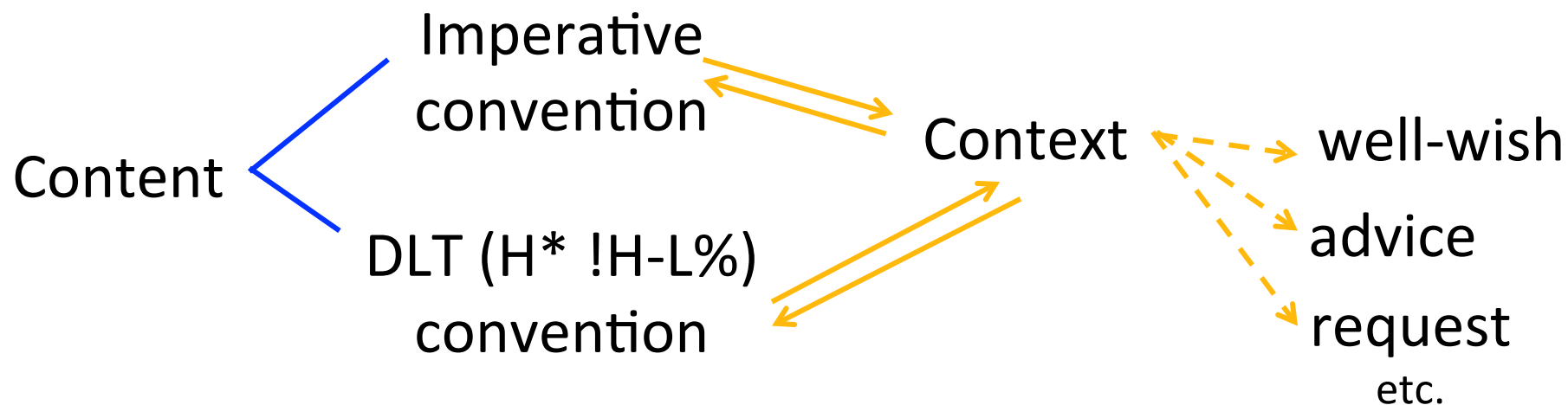
Results: group 3

- Contexts intended to mark **speaker non-involvement** (NI-context): significantly **more DLT**
- Contexts intended to mark **more speaker involvement** (INV-context): significantly **less DLT**



Context manipulation elicited less dramatic shifts in intonation than anticipated

Analysis



- DLT conventionally signals certain aspects of the discourse context
- DLT operates independently from the imperative sentence-type convention

Analysis

- **Imperative convention** (Condoravdi & Lauer 2012)

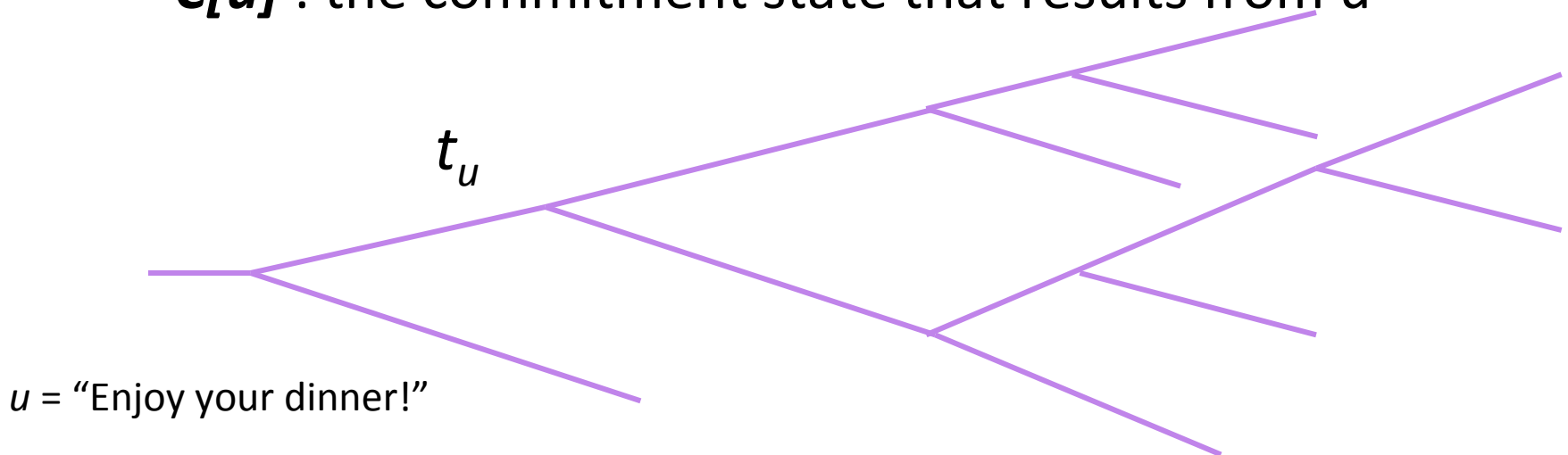
The speaker thereby commits to an effective preference for the content of the imperative.

- **DLT convention** (new)

The speaker thereby commits to a belief that her action choices do not change as a result of the utterance

DLT convention

- **DLT convention:** By virtue of a DLT utterance u , the speaker thereby doxastically commits herself to $A_{C[u]} = A_C$
 - A_C : a partition of the set of historical alternatives relative to a given world and time (Belnap 1991)
 - C : the speaker's commitment state before u
 - $C[u]$: the commitment state that results from u



DLT convention

- A_C : In general an utterance u , by changing the speaker's commitment state, also changes the speaker's action choices.

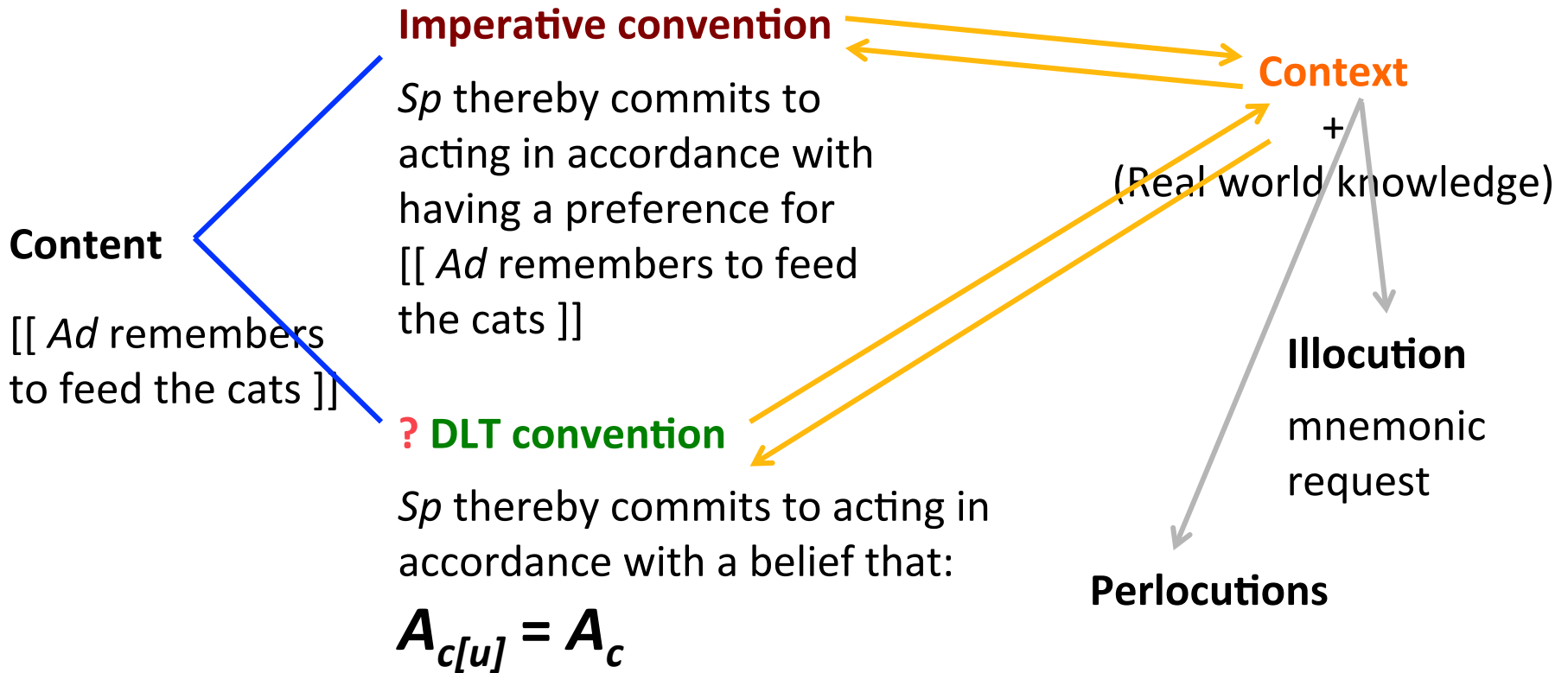
e.g. B checks assignment to see if they were turned in on Friday;

t_u

e.g. B doesn't check assignment to see if they were turned in on Friday;

u = "Hand in the assignment by Friday!" by speaker B

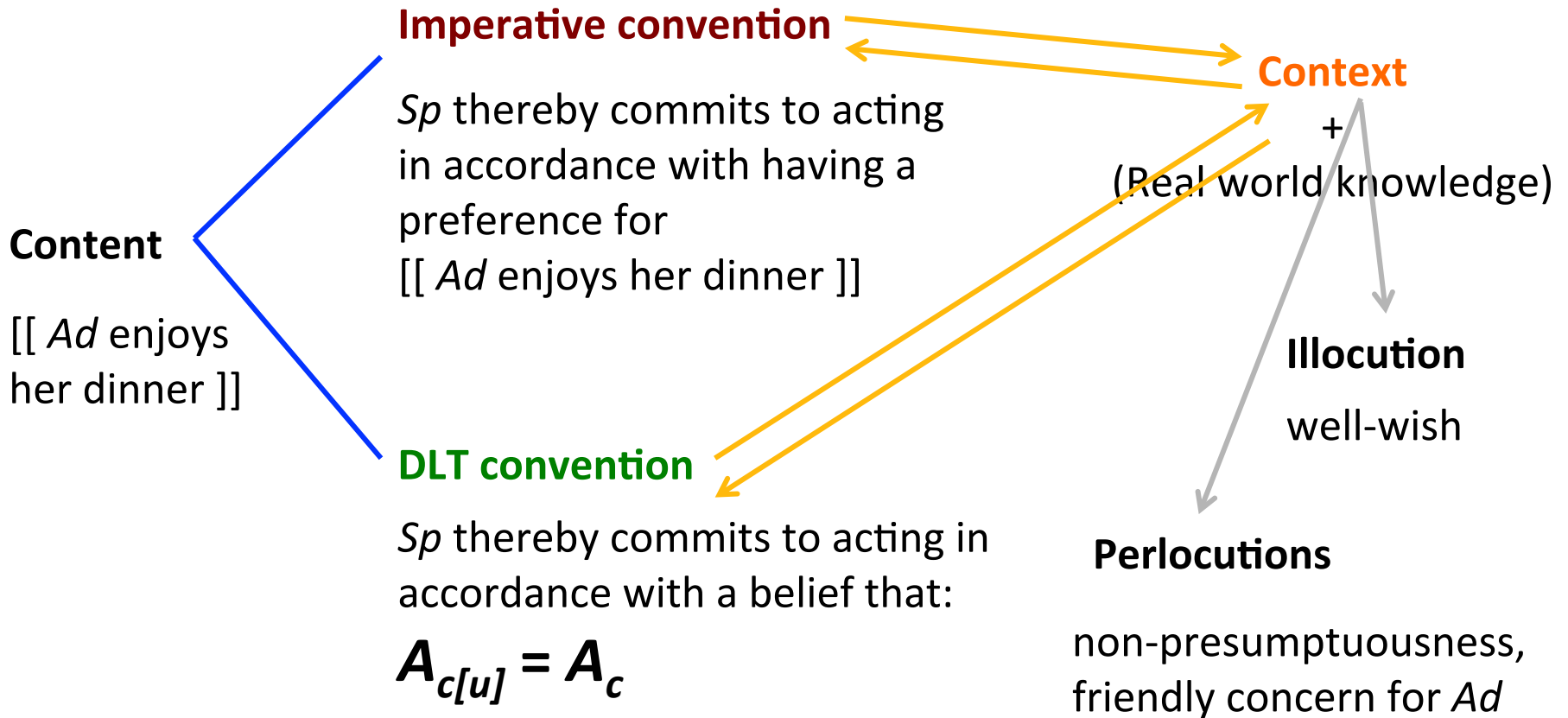
u = “Remember to feed the cats!”



In general, Sp presumed to have no control over Ad 's memory.

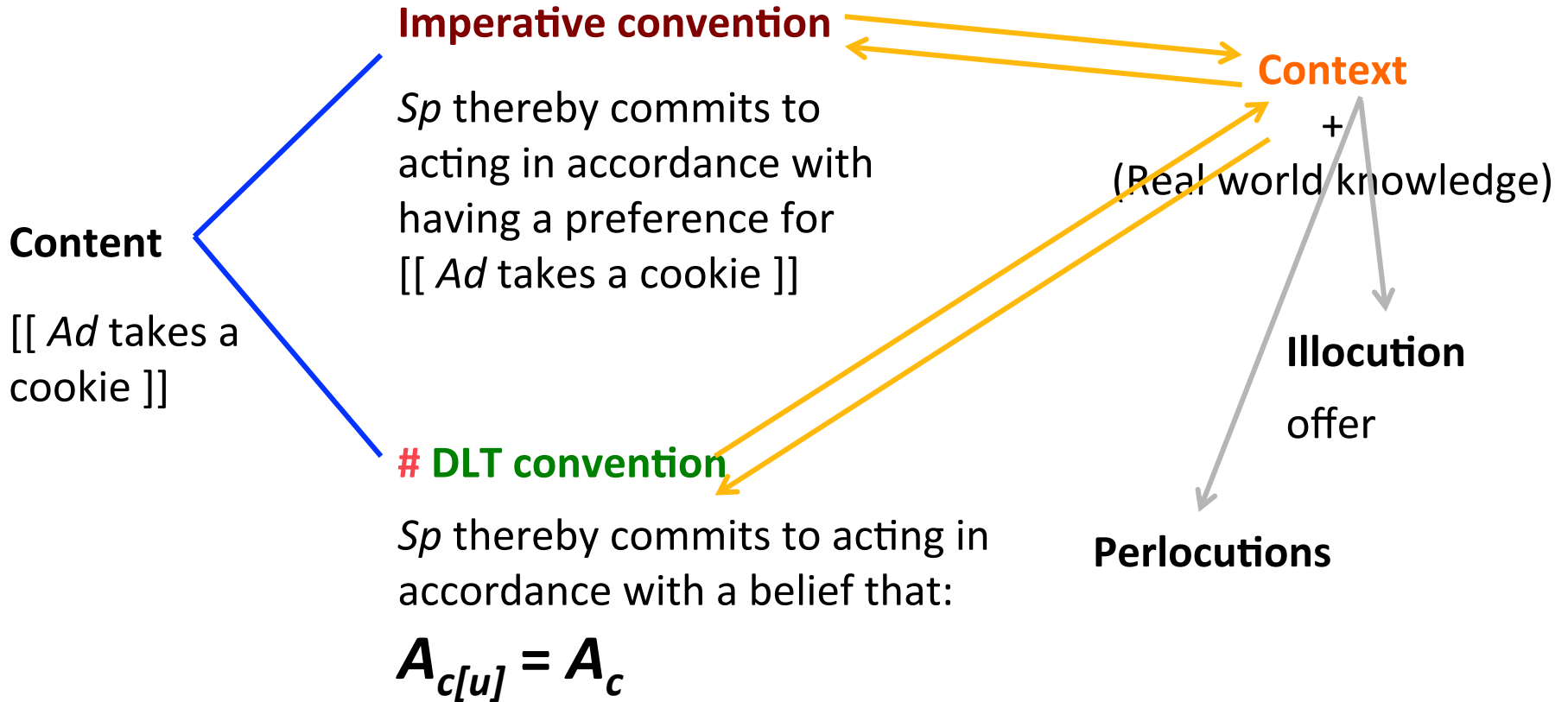
Sp may put a reminder note to help with Ad 's memory.

$u = \text{“Enjoy your dinner! (H* !H-L\%)”}$



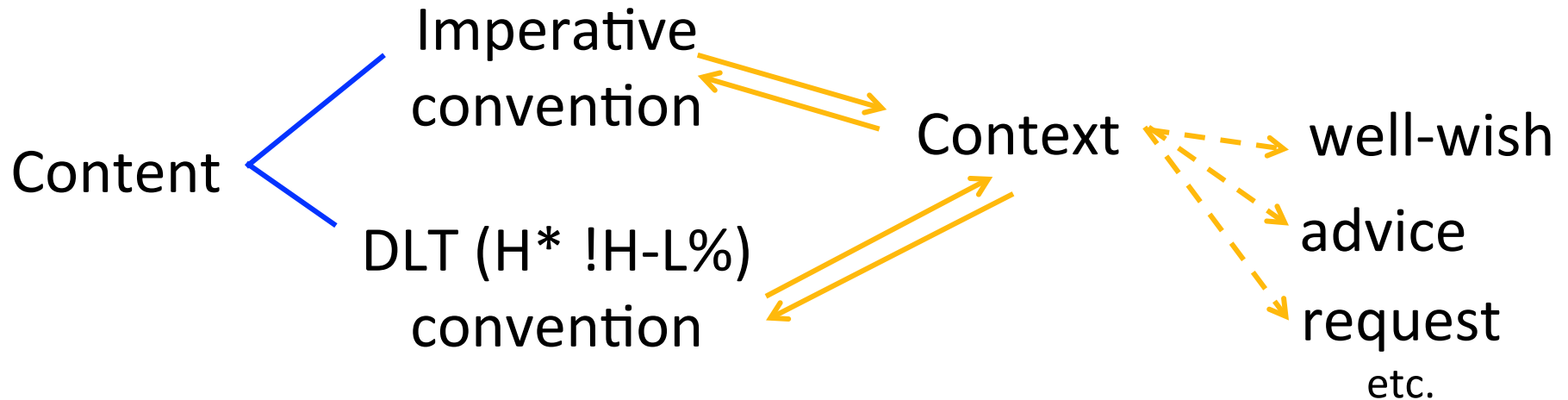
i.e. *Sp*'s future action choices are not affected by the stated preference.

$u = \text{“Take a cookie! (#H* !H-L%)”}$



Sp is expected to offer the plate of cookies, etc.
cf) likewise for orders, advice, etc.

Theoretical implications



- Conventional effects of terminal contours
- Repercussions on theories of *form-force* mapping: cumulative effects of two conventions

Conclusion

- **DLT convention:**

The speaker thereby commits to a belief that her action choices do not change as a result of the utterance, i.e. $A_{c[u]} = A_c$

- Data and experiment:

<https://github.com/sunwooj/dltimperatives>

Thank you!

References

- CONDORAVDI, CLEO and SVEN LAUER. 2012. Imperatives: Meaning and illocutionary force. *Empirical Issues in Syntax and Semantics*, ed. by Christopher Pinon, volume 9, 37–58.
- CRONE, PHIL. 2016. Raising awareness with imperatives. *WCCFL 34: Proceedings of the 34th West Coast Conference on Formal Linguistics*.
- JEONG, SUNWOO and CLEO CONDORAVDI. 2017. Imperatives with the calling contour. *BLS 43: Proceedings of the 43rd Berkeley Linguistic Society*. To appear.
- KEOUGH, MEGAN; ELISE MCCLAY; MOLLY BABEL; and LISA MATTHEWSON. 2016. Intonational qualities of strong and weak imperatives. Poster presented at LabPhon15.
- LADD, ROBERT. 1978. Stylized intonation. *Language* 54: 517–540.
- PIERREHUMBERT, JANET and JULIA HIRSCHBERG. 1990. The meaning of intonational contours in the interpretation of discourse. *Intentions in communication*, ed. by P Cohen; J Morgan; and M Pollack, 271–311. Cambridge, MA: MIT Press.
- PIKE, KENNETH. 1945. *The intonation of American English*. Ann Arbor, MI: University of Michigan Press.
- PORTNER, PAUL. 2015. Commitment to priorities. *New Work on Speech Acts*, ed. by Daniel Fogel; Daniel Harris; and Matt Moss. Oxford University Press. To appear.