

Outline

Force and Conversational States

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- ① Background
- ② Previous Accounts
- ③ Force in Communication
- ④ Social Norms for Conversational States

Background

Mood and Force

Universal Clause Types (König & Siemund 2007)

- (1) Maya is singing. (Declarative)
- (2) Is Maya singing? (Interrogative)
- (3) Maya, sing! (Imperative)

Sentential Force/Mood (Semantic)

Characteristic function of a clause type.

- Determined by competence fluent speakers share

Utterance Force (Pragmatic) [After Austin 1962]

Actual function of a particular use of a signal.

- Determined by particulars of exchange between agents

Background

Norms and Conventions in Contrast (Bicchieri 2005)

Social Convention

Behaving in accord w/an arbitrary solution to a coordination problem.

- E.g. driving on one side of the road

Social Norm

Behaving in accord w/expectations that transform games of conflict into coordination games

- E.g. kicking ball out in soccer when opponent is seriously injured

Coordination Problems

And Conventions

- Two or more agents must choose one of several actions
- Outcomes depend on actions chosen by other agents

	Sarah goes to Macro Mama's	Sarah goes to Diner
I go to Macro Mama's	3, 1	0, 0
I go to Diner	0, 0	1, 3

- Social convention: going to Diner.
- In this context, consider: *Let's have lunch!*

Social Norms

In Detail

Social Norms (Bicchieri 2005: 11)

A practice is sustained because each agent A prefers to conform to the practice given that two conditions obtain, and they do, in fact, obtain:

- 1 A expects others to conform and
- 2 A either believes that others expect A to conform or that others prefer A to conform and will informally sanction non-conformity (shame, disgust, etc.).

Games of Conflict

Social Norms

- Two or more agents must choose one of several actions
- Outcomes depend on actions chosen by other agents

	Sarah goes to Macro Mama's	Sarah goes to Diner
I go to Macro Mama's	2, 2	3, 0
I go to Diner	0, 3	1, 1

- Consider: *Let's have lunch!*

	Sarah goes to Macro Mama's	Sarah goes to Diner
I go to Macro Mama's	2, 2	4, 0
I go to Diner	0, 3	1, 1

Hippy Eating Norm

Both prefer to 'eat healthy and together' if they believe others eat healthy together and others expect them to eat healthy together or will sanction unhealthful/solo eating.

	Sarah goes to Macro Mama's	Sarah goes to Diner
I go to Macro Mama's	2, 2	0, -3
I go to Diner	-3, 0	1, 1

The View

Three Parts

Sentential Force

The semantics of sentential mood determines a particular way of updating mutual assumptions.

Utterance Force

Utterance force is the coordinating function of utterance

- How it would change private commitments if it achieved coordination

Social Norms

Mechanism for mediating between mutual assumptions and private commitments

Utterance Force

The Traditional Views

Traditional Explanatory Aims

Systematize intuitive categorizations of utterances into, e.g. warnings, assertions, promises, etc.

Issue

Grounding the theory in systematic cross-linguistic native speaker judgements is difficult, if not impossible.

Classical Speech Act Theory

Austin (1962)

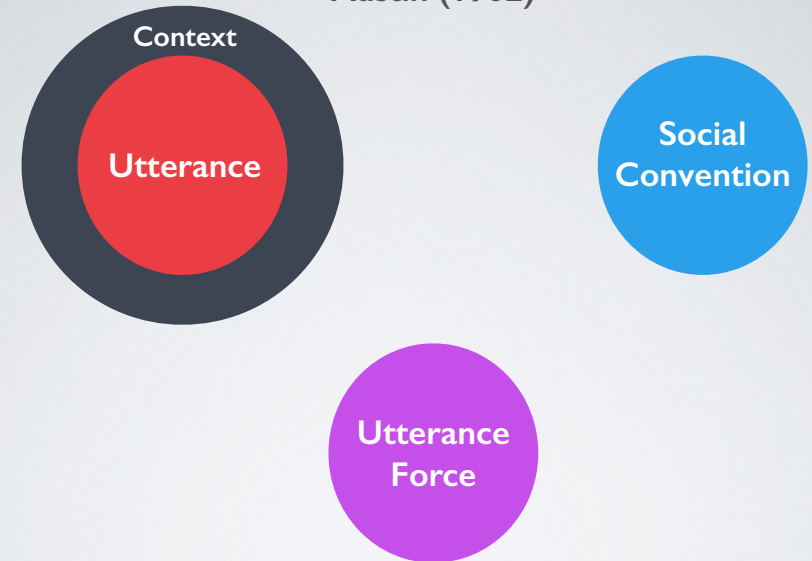
Speech Act				
Locutionary Act (Semantic)			Illocutionary Act (Social Convention)	Perlocutionary Act (Pragmatic/Causal)
Phonetic Act	Phatic Act	Rhetic Act		
Sound	Sentence	Content	Force	Consequences

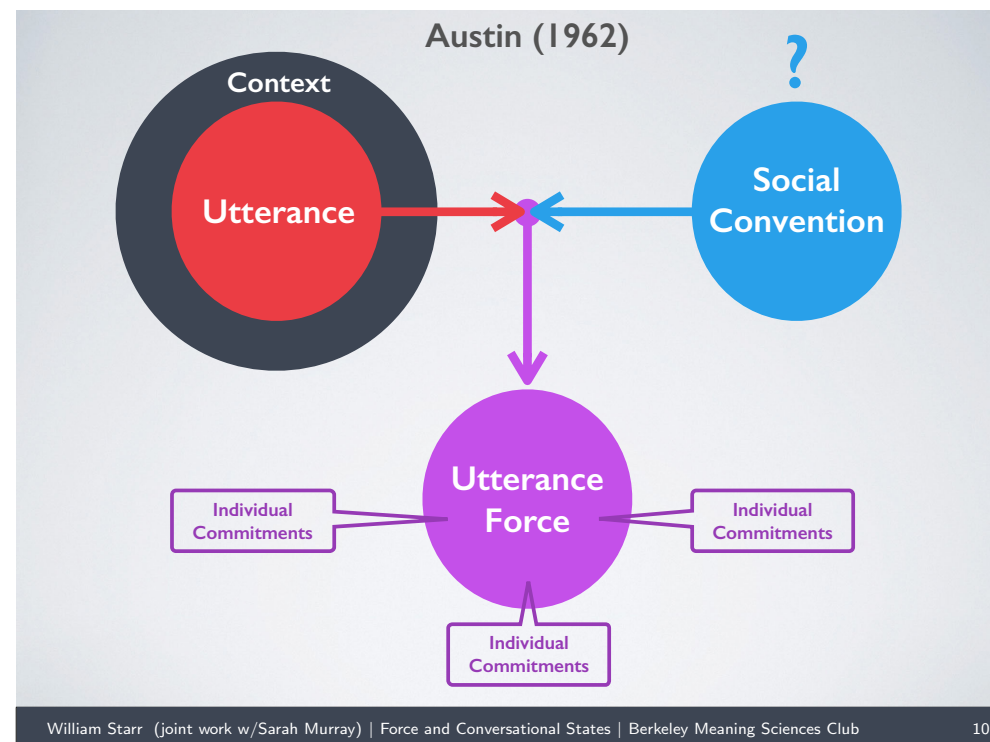
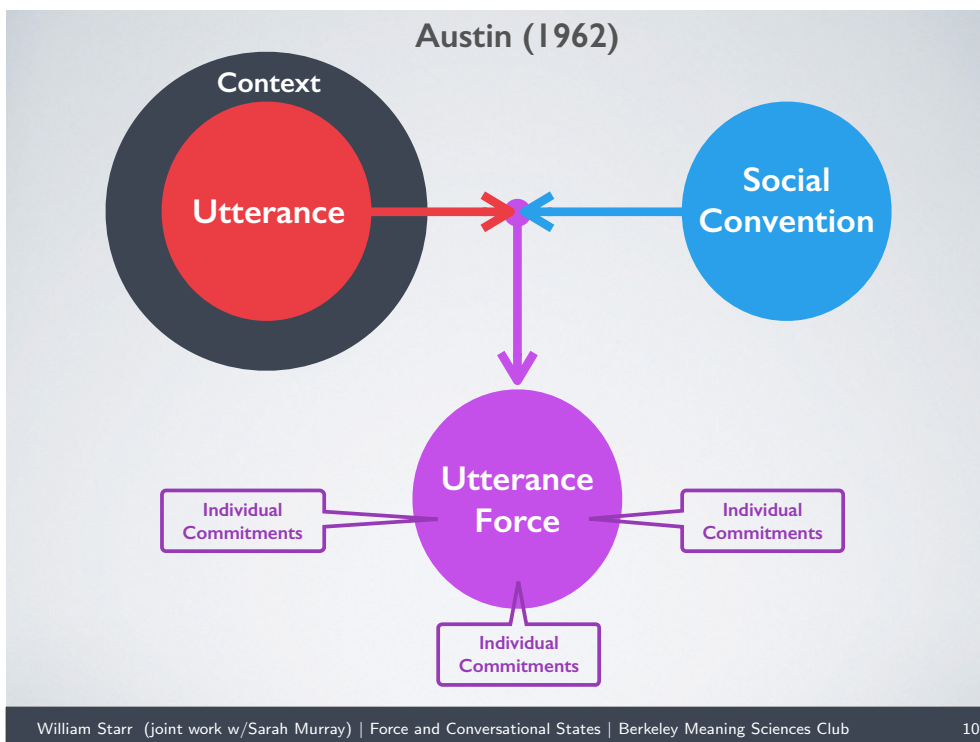
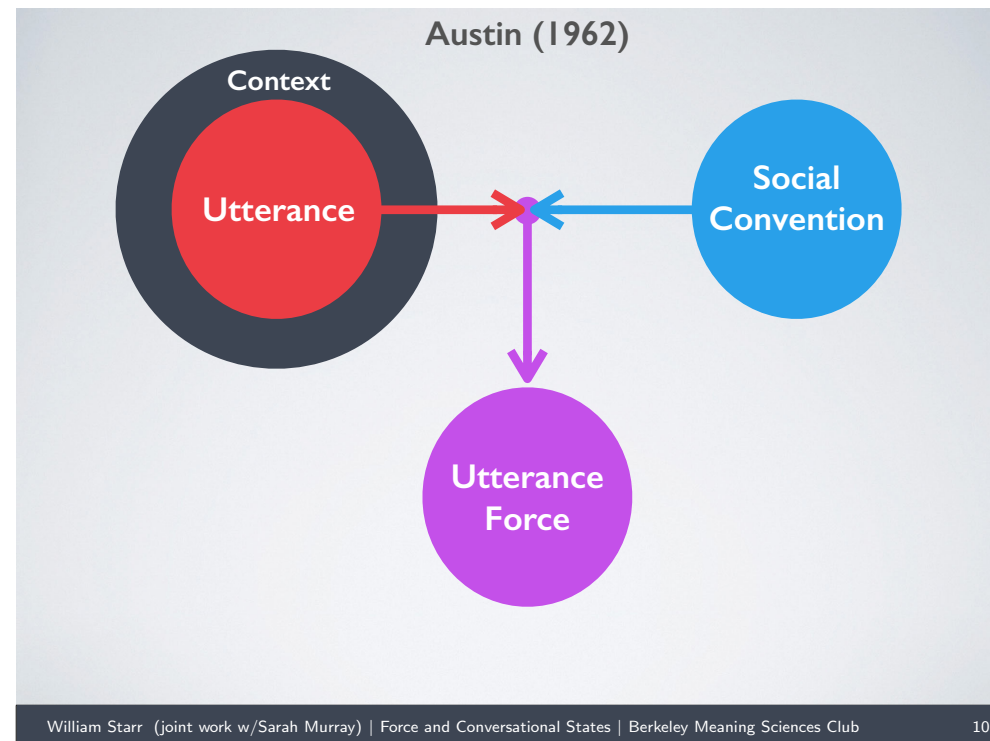
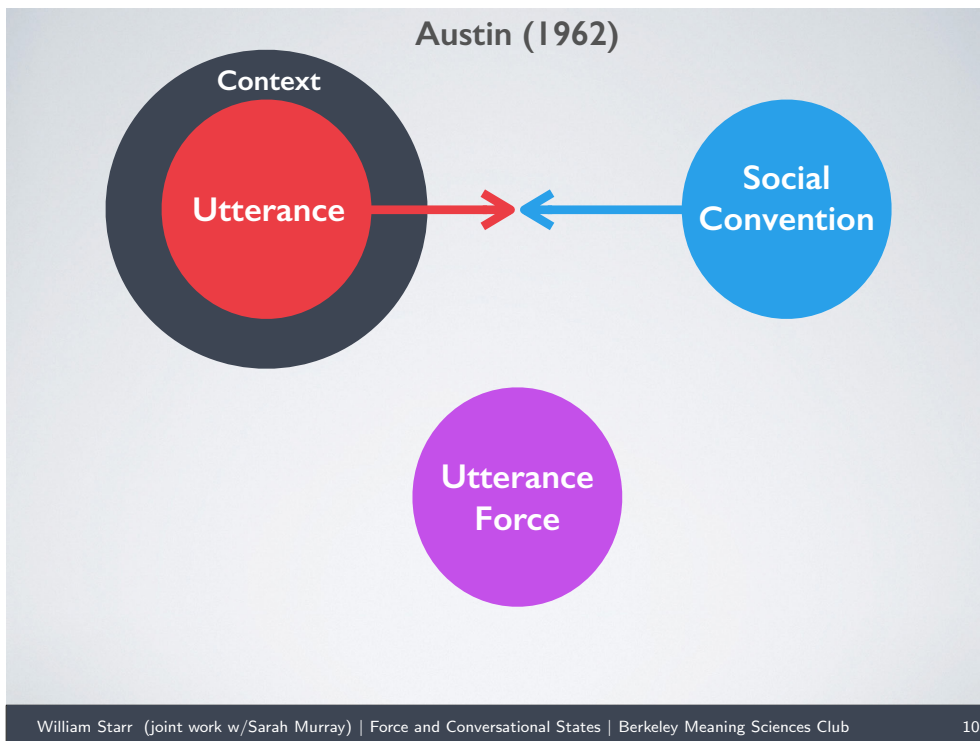
Figure: Austin (1962) Analysis of Speech Acts

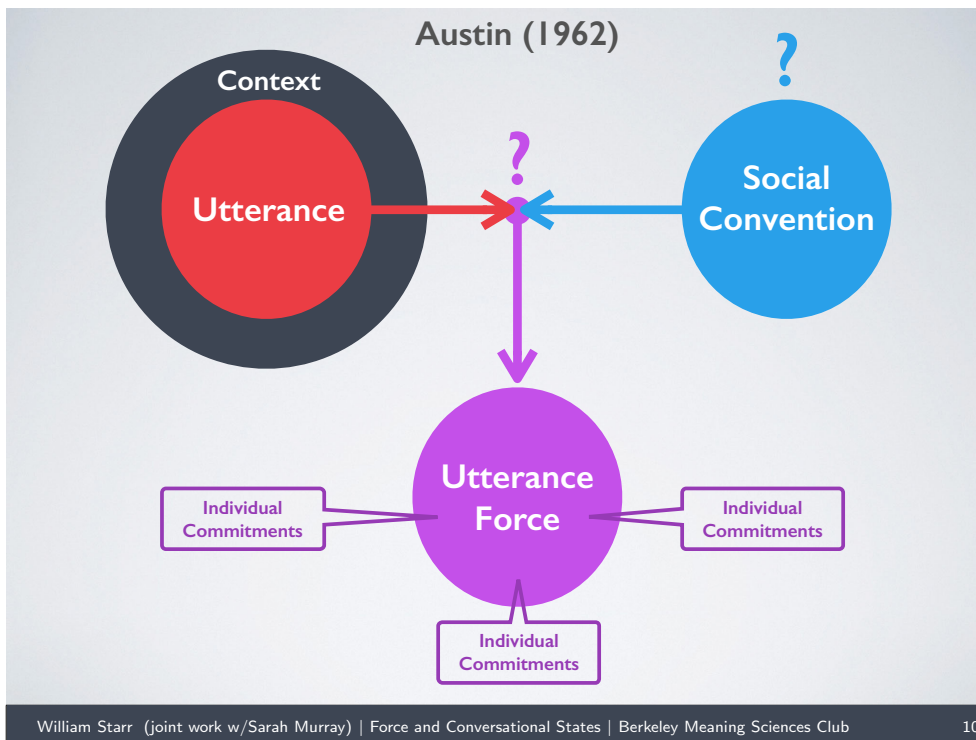
Austin (1962) Theory of Force

- 1 **Mechanism**: social conventions
- 2 **Utterance Force**: individual commitments brought about by utterances and social conventions

Austin (1962)







Background Previous Accounts Force in Communication Social Norms for Conversational States References

Speech Act Theory

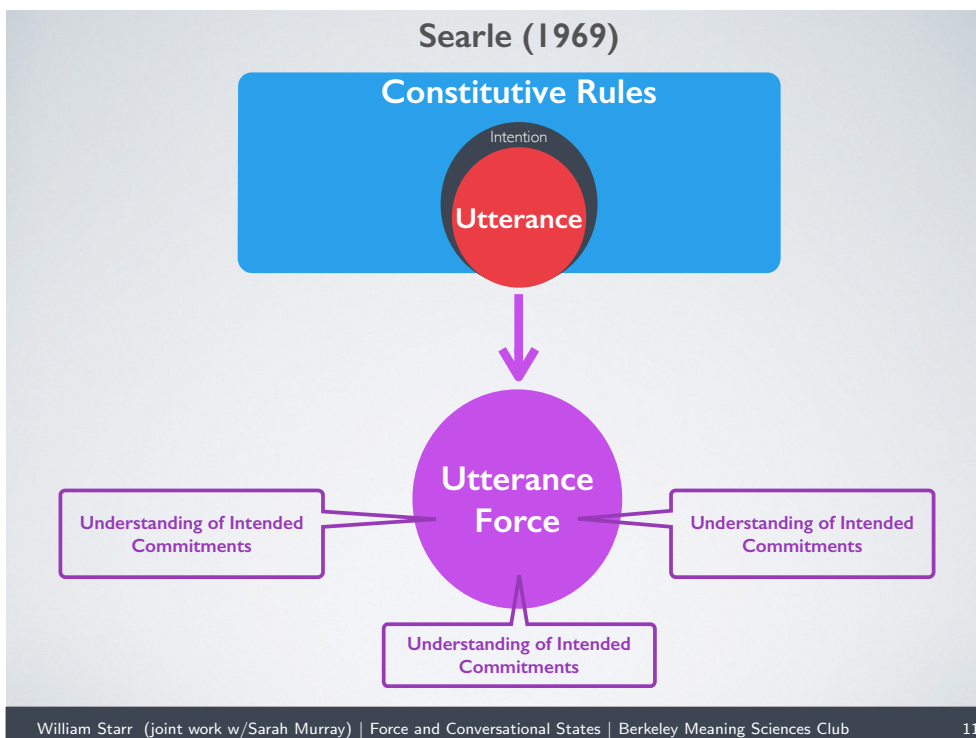
Searle (1969)

Speech Act					
Illocution (Semantic, Constitutive Rules)				Illocutionary Intent (Pragmatic)	Perlocutionary Act (Pragmatic/Causal)
Phonetic Act	Phatic Act	Propositional Act	Illocutionary Point		
Sound	Sentence	Content	Force	Speaker Meaning	Consequences

Figure: Searle (1969) Analysis of Speech Acts

Searle (1969) Theory of Force

- 1 **Mechanism**: constitutive rules
- 2 **Utterance Force**: understand intended commitments brought about by utterance and constitutive rule



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Speech Act Theory

Force Linguistically Encoded

- Force conveyed by rules associating certain morphology with certain kinds of acts
- Problems:
 - 1 Variation in force w/o variation in form
 - *Run!* can command, suggest, rally, etc.
 - 2 Linguistic clash in speech act / sentence types
 - 3 Details...

Neo-Gricean Analysis

Bach & Harnish (1979), Cohen & Perrault (1979)

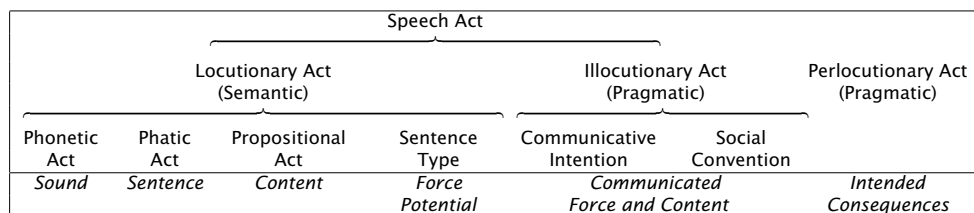


Figure: Neo-Gricean Analysis

Neo-Gricean Theory of Force

- ① **Mechanisms**: communicative intentions, inference; social conventions
- ② **Utterance Force**: understanding of intended commitments brought about by utterance and intention recognition

Neo-Gricean Assertion

Simplified from Bach & Harnish (1979: 42)

- Speaker *S*'s utterance of *Janis was a singer* to *H* counts as an assertion roughly when:
 - (1) *S* intends *H* to recognize that:
 - a. *S* believes that Janis was a singer and
 - b. *S* intends *H* to form this same belief
- Communication involves making (1) mutual through pragmatic inference
- Inference relies on stipulated relation between *the* sentence mood and attitude expressed belief
 - Declarative mood and belief are 'Locutionarily-compatible'

Neo-Gricean Account

Issues

Stipulation Issue

Stipulation of 'L-compatibility' is natural if *semantic*

- But it's not here

Single-Mood Issue

Inference detailed by Bach & Harnish (1979) requires each sentence to have a single mood

- They don't justify this but what do you think? It's naive, isn't it?

Intended Effects Only

- Knowing what you *intended* me to believe doesn't coordinate our actions. And: unintended effects?

Discourse Dynamics

Mark 1

Context Set (*c*)

As communication and inquiry unfold, a body of information accumulates. Think of this information as what the agents are mutually **taking for granted for the purposes of the conversation**. I call the set of worlds embodying this information *c*, short for the *context set*. (Stalnaker 1978; Lewis 1979)

Declaratives

Eliminate Worlds

Declarative Effect ($\triangleright A$)

- 1 Eliminate non-A-worlds

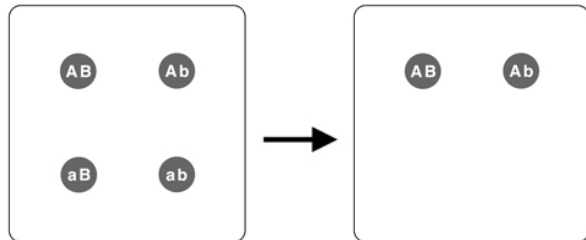


Figure: R updated with $\triangleright A$

Interrogatives

Introduce Alternatives

Interrogative Effect ($?A$)

- 1 Distinguish positive/negative alternatives

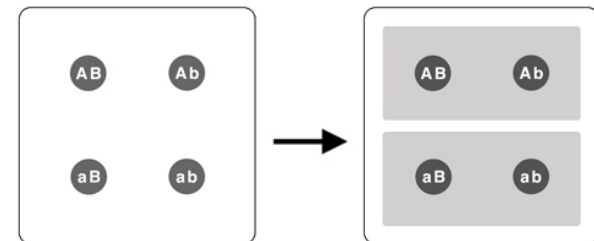


Figure: R updated with $?A$

Imperatives

Order Alternatives

Imperative Semantics ($!A$)

- 1 Add preference for all A-worlds over non-A-worlds

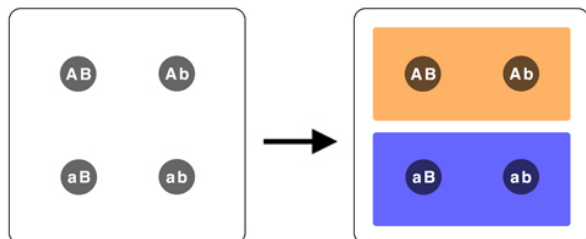


Figure: R updated with $!A$

Are these Effects Semantic?

Argument from Murray & Starr (2012)

- (4) Donate donuts because cops need to eat too! Donate lots of donuts unless you are unable to afford it. Do it regardless of whether you fear the police. Offer kindness to all fellow humans but you should be careful not to be taken advantage of. That drifter may be handsome but is he really only taking your car for a short drive? Someone or other should do something kind every day. You do something kind today or I'll do something kind today, I don't care. But, there will be kindness!

The View

For Sentence Mood

Update Effects are Semantic

Clause-types are recursively combined, and discourse effects need to match. Dynamic meanings capture this without requiring recursive pragmatic update rules.

Utterance Force?

Stalnaker, Portner and others are clear that there are more to speech acts than these effects, but what more?

- Just add on Neo-Gricean analysis?

Animal Communication

The Male Túngara Frog Calls



- Call: whine and low-pitched 'chucks'
- Females: prefer more, lower chucks
- Females use general echo-location abilities to find male

(Gillam 2011; Maynard Smith & Harper 2003; Ryan 1985)

The Plight of the Frog

This Bat Really Knows How to Ruin Frog Dates



Think of the Poor Frog

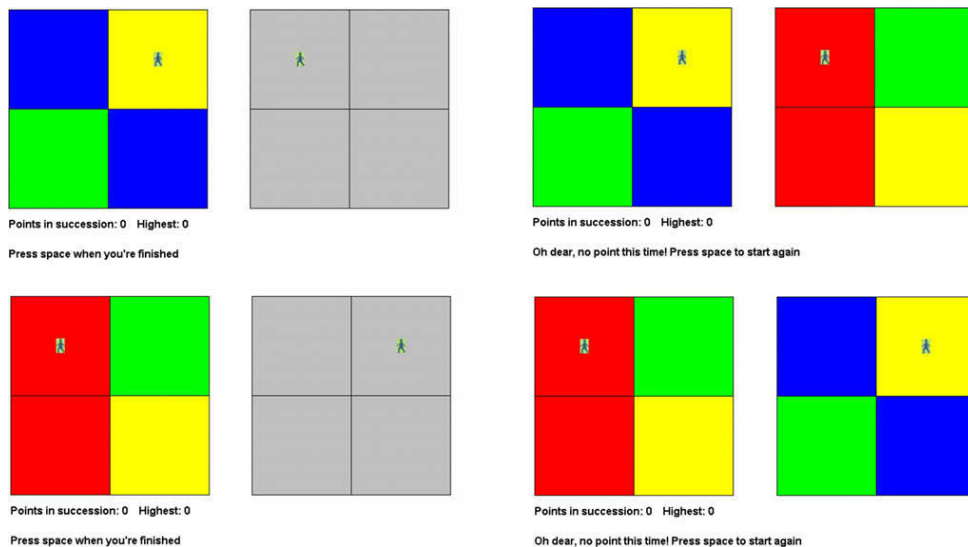
Communication $\neq$ Information Transmission

- Male frog **is** communicating w/female; **not** w/bat
 - Observation about different explanations of these processes, not intuition about *communication*
 - Frog signal didn't persist in species because of effects on bats, but because of effects on female frogs (Maynard Smith & Harper 2003)
- Info. trans. by 'code' $\neq$ animal communication

The Lesson (Millikan 1984, Maynard Smith & Harper 2003)

Communication requires effects on internal states that explain sustained proliferation of signaling system.

- What coordination is achieved? How is it achieved in a 'hostile world'?



- *Setup*: player only knows colors of own squares, but sees squares other player visits; played repeatedly, colors distributed randomly; can move in each direction, finish.

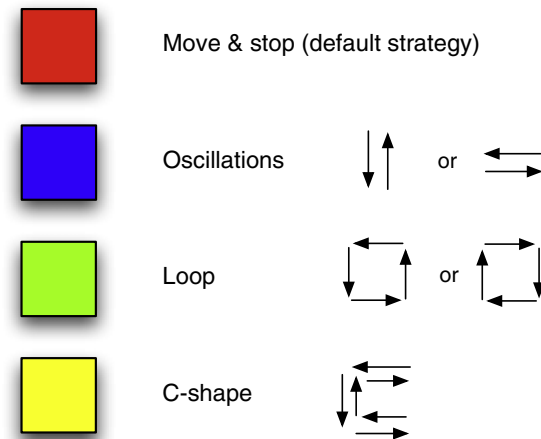


Fig. 2. A typical emergent system. In this communication system red is the default colour. If participants have a red square, they move to it and wait. If they do not have red they will signal one of the other colours by using the movements indicated. If one participant signals a colour that the other participant also has, that participant will move to the relevant square and hit space to end their turn. Otherwise, the participants will signal alternative colours until an agreement is reached. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)

Basic Points

Individual Commitments and Social Norms



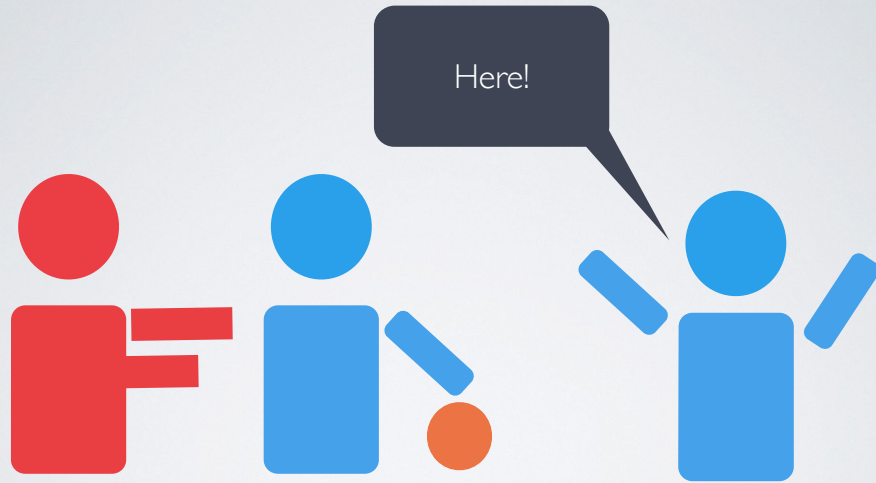
Individual Commitments

To achieve coordination, and have a communicative function, utterances must influence individual commitments

Social Norms

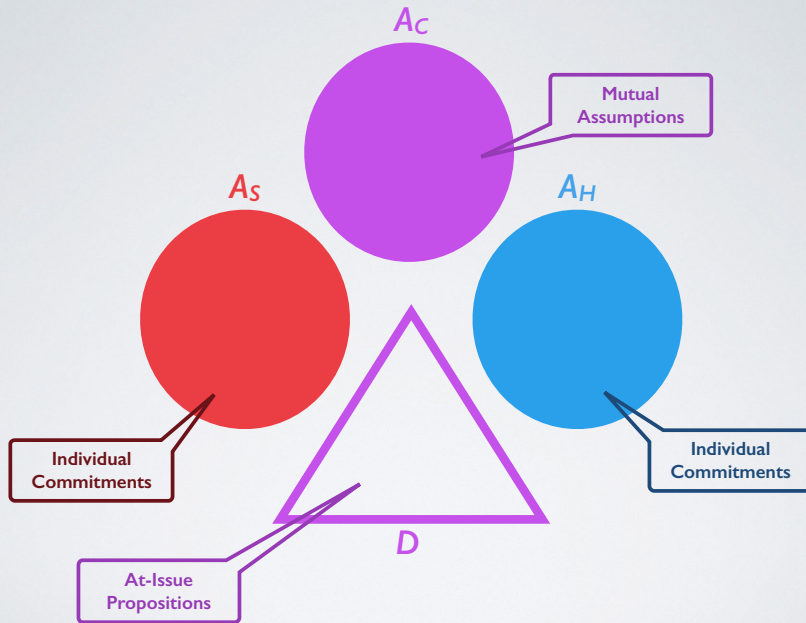
But we can have conflicting interests, how is this tension resolved?

- Natural Hypothesis: social norms

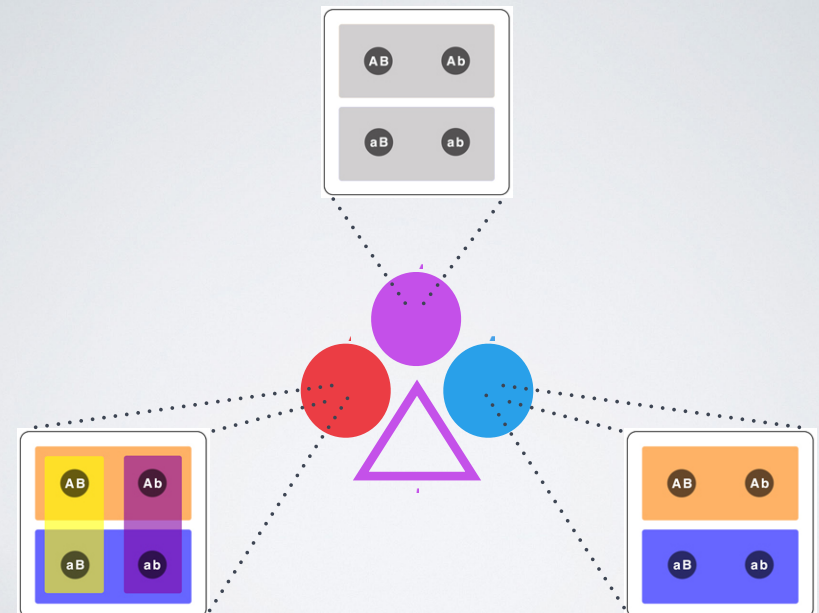


"Gotcha! — I didn't say *Simon* says cut his head off!"

Conversational States



Conversational States



Conversational States

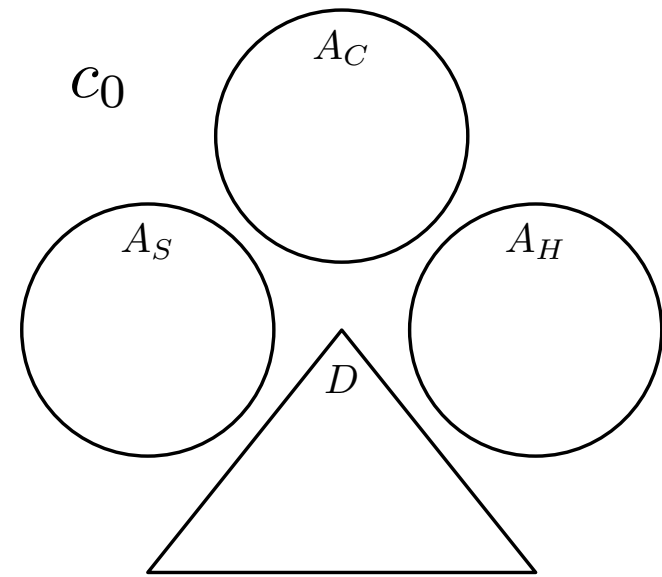
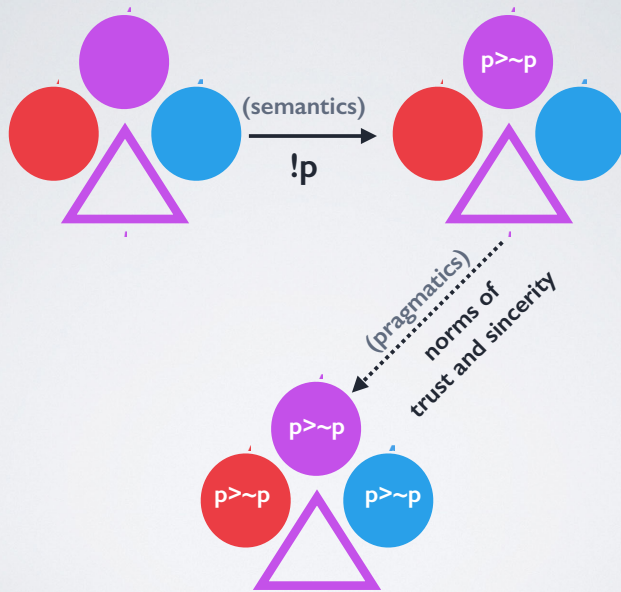


Figure: A conversational state

Semantic Update And Pragmatic Consequences

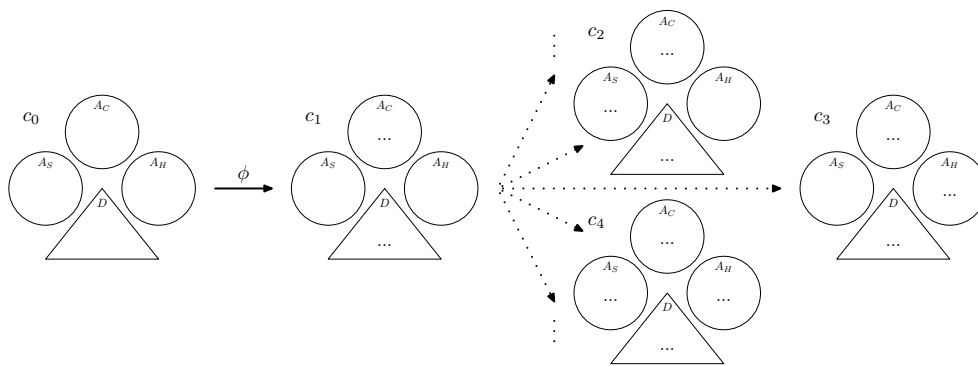


Figure: Semantic contribution and possible forces

Utterance Force in the Wild 'Advice'?

Sisters Kathy (veteran teacher), Sharon (new teacher):

- (5)
 - a. *Kathy*: All you have is twelve kids?
 - b. *Sharon*: No. Seventeen
 - c. *Kathy*: Oh, okay.
 - d. *Sharon*: ...and fourth-graders.
 - e. *Kathy*: So then, what you do is, you sprinkle the fifth-graders out evenly... And you make the fourth-graders take the responsibility for teaching them.
 - f. *Sharon*: Third-graders?
 - g. *Kathy*: And you engrain in them, that it's their responsibility to help those little kids. That's what I did.

(From the Santa Barbara Corpus, SBC004, 967.87 969.38 – 983.09 983.67.)

Utterance Force in the Wild

'Report Building' ?

Near strangers Lynne (equine expert) and Lenore (non-expert, visitor) chat about wide-ranging topics

- (6)
- a. *Lenore*: So you're always bent over.
 - b. *Lynne*: You're always bent over. And like in the front? You stick the horse's hoof between your leg, you know? Kinda like that, and you kinda, you go like this, you kinda bend down like this, and you have the horse's hoof [right here]?
 - c. *Lenore*: It's hard on your back.
 - d. *Lynne*: It's really hard on your back.

(From the Santa Barbara Corpus, SBC001, 996.56 997.50–1008.06 1010.29.)

Thanks!

A Research Project

Games, Conversational Situations and Equilibria

- Many important pilot cases to analyze
 - Quiz and Rhetorical questions
 - Sarcastic assertions
 - Resolving questions with imperatives
 - Resolving questions with questions
 - Indirect speech acts
 - Assuming that intended effect has been repeatedly derived from basic effect, Lewisian convention implies that a new convention for the sentence will come to be
- Many different ways of thinking about social structure game-theoretically (Bicchieri)

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