Socio-pragmatic analyses of functional morphemes

Christopher Potts

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UCSC Linguistics, March 12, 2022

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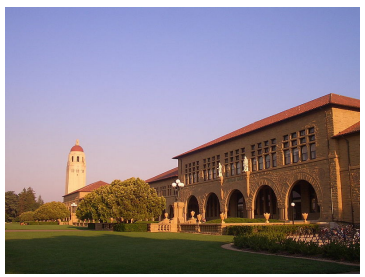

My students and teachers

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Eric Acton

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Lelia Glass

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Sunwoo Jeong

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Eric Acton

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Lewis Esposito

Analysis pattern

Semantic meaning +

Pragmatic reasoning +

Social context ⇒

Social meaning

Analysis pattern

$$\left(\text{Semantic meaning} +\right)$$

$$\text{Pragmatic reasoning} +$$

$$\text{Social context} \Rightarrow$$

$$\text{Social meaning}$$

Some socio-pragmatic analyses

1. Politeness (Lakoff 1973)
2. Emotional deixis (Lakoff 1974)
3. Scalar implicature in face-threatening situations (Bonnefon et al. 2009)
4. Social meaning as secondary entailments (Smith et al. 2010)
5. Affective uses of demonstratives (Acton and Potts 2014)
6. *Need to* and stance (Glass 2015)
7. Intensification without degrees (Beltrama and Bochnak 2015)
8. Rising declaratives, politeness, and common ground (Jeong 2018, 2021)
9. Dogwhistles (Henderson and McCready 2018)
10. Plural definites and stance (Acton 2019)
11. Meaning, register, and social meaning of honorifics (McCready 2019)
12. French grammatical gender in parlimentary debates (Burnett and Bonami 2019)
13. Imprecision and speaker identity (Beltrama and Schwarz 2020)
14. Direct object omission (Glass 2021)
15. Even more connections and citations (Beltrama 2020)

Plan for today

1. Some informative socio-pragmatic analyses
2. Themes and lessons
3. English singular *some*
4. Big open questions and avenues for inquiry

Informative analyses

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6. Social: Object omission signals, evokes, and strengthens group ties.

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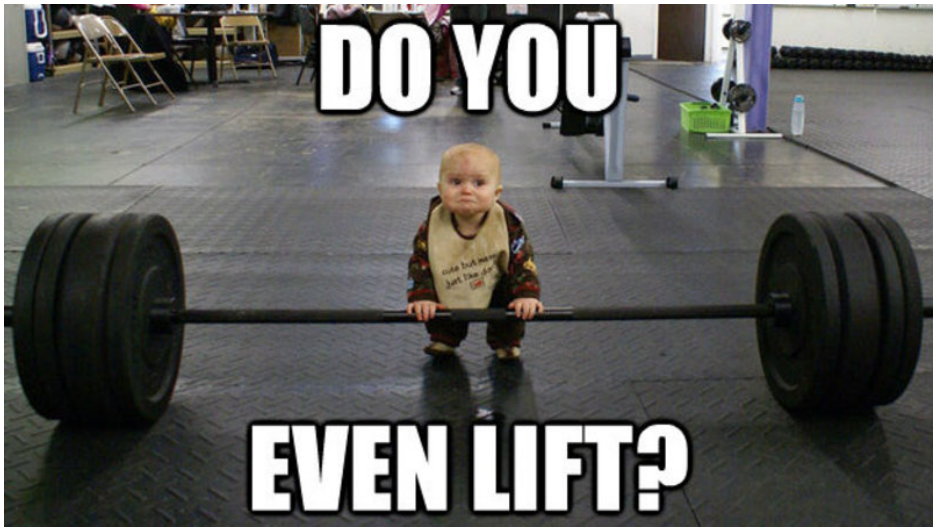

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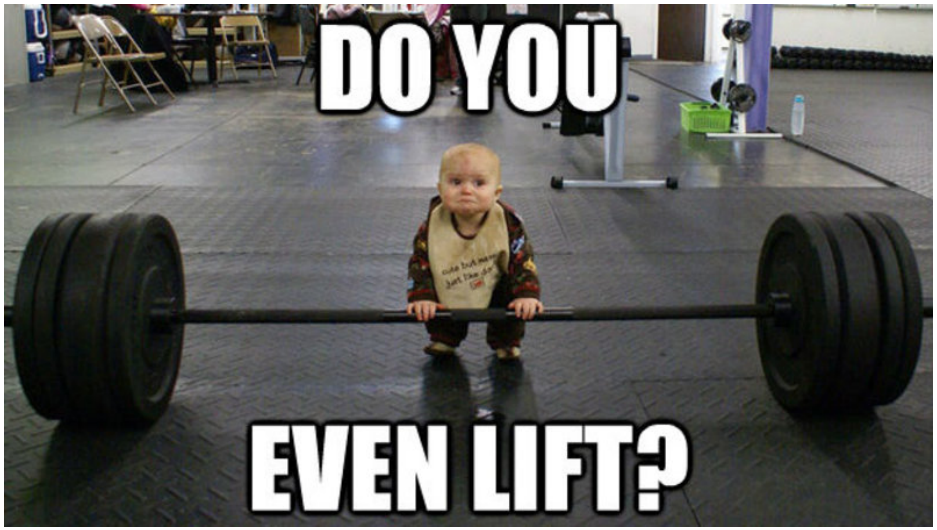

Emotional deixis

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5. get that right arm up over that head (yoga instructor)

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Reactions to Palin and her speech

Palin's speech is often regarded as emblematic of her broader social and political attitudes:

FoxNews.com comments after the 2008 debate

- "We feel like she talks like we do."
- "She talked like real people to real people."
- "This middle class girl knows you were speaking for her."

Huffington Post comments after the 2008 debate

- "pseudo-folksiness and fundamental dishonesty"
- "illusion of straight-talking"
- " 'folksy' with a wink"

Inspiring foundational work

UNIVERSITY OF CALIFORNIA

SANTA CRUZ

True to Form:
Rising and Falling Declaratives as Questions in English

A dissertation submitted in partial satisfaction
of the requirements for the degree of

DOCTOR OF PHILOSOPHY

in

LINGUISTICS

by

Christine Gunlogson

December 2001

The Dissertation of Christine Gunlogson
is approved:

_____
Professor Donka Farkas, Chair

_____
Professor Geoffrey Pullum

_____
Professor William Ladusaw

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Professor Daniel Büring

Inspiring foundational work

Journal of Semantics 27: 81–118
doi:10.1093/jos/ffp010
Advance Access publication September 15, 2009

On Reacting to Assertions and Polar Questions

DONKA F. FARKAS
University of California Santa Cruz

KIM B. BRUCE
Pomona College

Jeong (2021): Assertive rising declaratives

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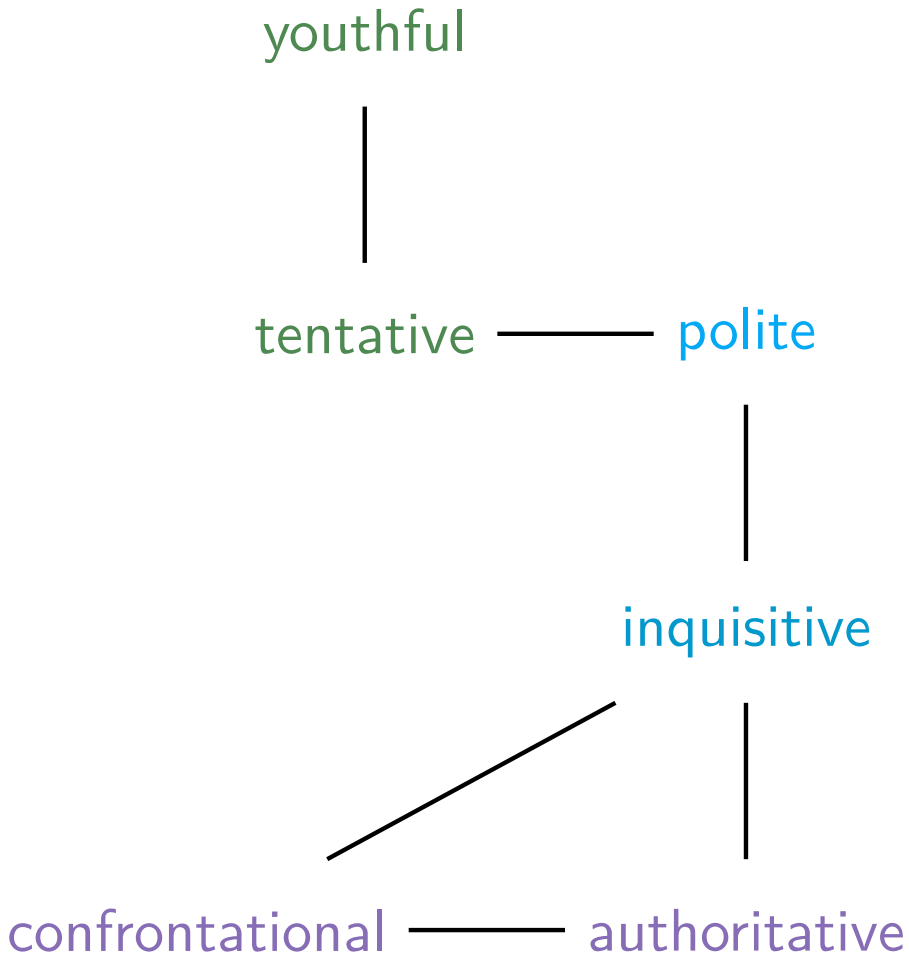

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- Social: Speakers vary in how willing and able they are to recognize the politeness strategy

Themes and lessons

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2. Phrases like "cravin' that straight talk" can be especially divisive.
3. Assertive rising declaratives are recruited to do a wide range of socio-pragmatic jobs, some of which are in variation.

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3. Meaningful ingredients can be conventional, iconic, merely associative, ...
4. Semprag assumptions needn't do all the work if we consider social factors as well.

Analysis pattern

Semantic meaning +

Pragmatic reasoning +

Social context ⇒

Social meaning

Other observations

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2. Lots of corpus evidence – complex observational data that we can study qualitatively and quantitatively.
3. Analyses recall traditional sociolinguistic variables, but often with a role for semantic meaning.
4. *Intentional* at some level, whereas traditional sociolinguistic variables might be more diverse in this sense.

English singular *some*

Proceedings of SALT 30: 22–42, 2020

A probabilistic pragmatics for English singular *some*[*]

Lewis Esposito
Stanford University

Christopher Potts
Stanford University

`https://osf.io/3wqzc/`

Basic paradigm

(1) I met a friend.

(2) 😟 I met some friend.

(3) I met some friends.

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😟 I met some friend.

Some indefinite cousins

- Bulgarian quotative indefinites (Koev 2017)
- German *irgendein* (Aloni and Port 2015)
- Italian *un qualche* (Aloni and Port 2015)
- Spanish *algún* (Alonso-Ovalle and Menéndez-Benito 2003, 2010, 2011; Martí 2015)

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Friend: Where are you?

You: I'm in a/#some square in the city.

Speaker identifiable singular *some*

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(6) I saw some statue in Italy, and the expression on the guy's face blew me away. Like, I could read and recognize an emotion because some one 400 years ago felt how I do, and he made a stone the right shape so people could look at it and know exactly how he felt.

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(7) *Context: Rachel is checked into the motel and is standing next to the motel when she says*:
Rachel: To be honest, I came here to win someone back, and it didn't happen. So, my big grand gesture ends here, as I sleep alone in some roadside motel.
(*Schitt's Creek*, S4, E7)

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(9) Lorelei: It's embarrassing to ask my friend to turn around and get some kid at the middle school.
Patricia: What do you mean, some kid? He's your brother.

(10) Some guy I used to date texted me: "'I miss spending time together".

Proper names and singular *some*

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(11) In Julian Assange's world we are the bad guys – not the Russians, not the Iranians, not the North Koreans. I hope the president-elect will get his information and trust the American patriots who work in the intelligence community who swear an oath and allegiance to the constitution and not some guy hiding from the law with a record of undercutting and undermining American democracy.

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(12) He's some creepy, rich overpaid football player, I mean come on [...] Michael Vick killed dogs, and he did [it] in a heartless and cruel way.

Singular *some* and discourse anaphora

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(13) While I was at the airport, some relative of mine pointed at some people in the distance and whispered they were Syrians. I said 'Syrians' out loud a bit louder than I should have and the relative looked around to see if someone had overheard us. Yeah, the Syrians were kind of feared in Lebanon ...

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(14) And some relative of mine has an amazing green house and a flower arranging place and she has a huge trash can there too [...] so I kinda based it off hers.

Taking stock

We can't simply say that singular *some* requires that the speaker can't identify the referent, but identification still seems relevant.

Taking stock

We can't simply say that singular *some* requires that the speaker can't identify the referent, but identification still seems relevant.

(11) In Julian Assange's world we are the bad guys – not the Russians, not the Iranians, not the North Koreans. I hope the president-elect will get his information and trust the American patriots who work in the intelligence community who swear an oath and allegiance to the constitution and not some guy hiding from the law with a record of undercutting and undermining American democracy.

Singular *some* and its alternatives

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Singular *some* is a marked form in competition with *a(n)*.

Progress on the basic paradigm

(1)	I met a friend.	unmarked
(2)	😟I met some friend.	synonymous with ‘a’; marked
(3)	I met some friends.	no alternatives

Modes of identification

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Identification questions (Boër and Lycan 1975)

(15) Who is Cassius Clay?

a. Muhammad Ali.

b. The person on the left in the photo.

c. The heavyweight boxing champion of the 1970s.

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Informational needs (Aloni and Port 2015)

(16) I'm looking for a professor.

a. She's the department chair, but I don't know her name.

b. Her last name is Smith, but I don't know what she looks like.

Conceptual covers

A conceptual cover provides a unique way of referring to every entity in every possible world.

Aloni 2000

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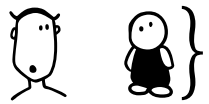
The band: {  }

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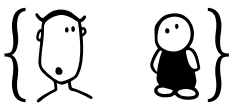
The band: 

	role cover		name cover	
	the guitarist	**the singer**	**jesse**	**sandy**
w_1				
w_2				

Aloni 2000

Questions as modes of identification

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1. a. Who$_{\textbf{role}}$ signed your album?
   b. The guitarist signed my album.

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$$\left\{\begin{array}{c}\textbf{who role},\\ \textbf{did the guitarist}\end{array}\right\}$$
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Probabilistic pragmatic analysis

appendix with full formal analysis

Probabilistic pragmatic analysis

Costs		**who name**	**who role**	**?musician**	**?Sandy**	**?the guitarist**
$$	some musician	✓	✓	✓		
$	a musician	✓	✓	✓		
$$$	Sandy	✓			✓	
$$$	the guitarist		✓			✓

appendix with full formal analysis

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Bergen et al.'s (2016) Rational Speech Acts model
with joint inference about asserted content and modes of identification

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$$$	the guitarist		✓			✓

Bergen et al.'s (2016) Rational Speech Acts model
with joint inference about asserted content and modes of identification

Costs		**who name**	**who role**	**?musician**	**?Sandy?**	**?the guitarist**
$$	some musician	0.0	0.0	1.0		
$	a musician	0.5	0.5	0.0		
$$$	Sandy	0.0			1.0	
$$$	the guitarist		0.0			1.0

appendix with full formal analysis

Stable pragmatic effect of singular *some*

(1) I met a friend.

unmarked; specific modes

(2) 😟I met some friend.

synonymous with 'a'; marked; non-specific modes

(3) I met some friends.

no alternatives

Source of negative affectivity

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2. Where these conditions aren't met, negativity is absent:

(6) I saw some statue in Italy, and the expression on the guy's face blew me away.

(17) Every x can be paired with some y.

(18) Let f be some function such that ...

Conclusions

Socio-pragmatic analysis pattern

Semantic meaning +

Pragmatic reasoning +

Social context ⇒

Social meaning

Socio-pragmatic analysis pattern

$$\Big(\text{Semantic meaning} +\Big)$$

$$\text{Pragmatic reasoning} +$$

$$\text{Social context} \Rightarrow$$

$$\text{Social meaning}$$

Singular *some*

Semantics: Synonymous singular *some* and *a*

Pragmatics: Singular *some* is marked, signals non-specific modes

Social: Signaling non-specific modes can be affective ⇒

Singular *some* is perceived as negative

Big open questions and avenues for inquiry

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1. Role for semantic conventions

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Thanks!

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Probabilistic pragmatic analysis

1. Scenario
2. Semantic grammar
3. Example denotations
4. Answerhood
5. Lexical Uncertainty RSA
6. Primary simulation
7. Simulation without *a* as an alternative

Scenario

W	⟦**the guitarist**⟧	⟦**the drummer**⟧	⟦**the singer**⟧	⟦**jesse**⟧	⟦**sandy**⟧	⟦**dani**⟧
w_1	*j* (signed)	*s*	*d*	*j*	*s*	*d*
w_2	*j*	*s* (signed)	*d*	*j*	*s*	*d*
w_3	*j*	*s*	*d* (signed)	*j*	*s*	*d*
w_4	*j*	*s*	*d*	*j*	*s*	*d*
w_5	*d* (signed)	*j*	*s*	*j*	*s*	*d*
w_6	*d*	*j* (signed)	*s*	*j*	*s*	*d*
w_7	*d*	*j*	*s* (signed)	*j*	*s*	*d*
w_8	*d*	*j*	*s*	*j*	*s*	*d*
w_9	*s* (signed)	*d*	*j*	*j*	*s*	*d*
w_{10}	*s*	*d* (signed)	*j*	*j*	*s*	*d*
w_{11}	*s*	*d*	*j* (signed)	*j*	*s*	*d*
w_{12}	*s*	*d*	*j*	*j*	*s*	*d*

Semantic grammar

1. $[\![\textbf{jesse}]\!] = \lambda w\ j \quad [\![\textbf{dani}]\!] = \lambda w\ d \quad [\![\textbf{sandy}]\!] = \lambda w\ s$
2. $[\![\textbf{the guitarist}]\!] = \lambda w \begin{cases} j & \text{if } w \in \{w_1, w_2, w_3, w_4\} \\ d & \text{if } w \in \{w_5, w_6, w_7, w_8\} \\ s & \text{if } w \in \{w_9, w_{10}, w_{11}, w_{12}\} \end{cases}$
3. $[\![\textbf{ifa}]\!] = \lambda f\ \lambda c\ \{w \in W : w \in f(c(w))\}$
4. $[\![\textbf{a}]\!] = [\![\textbf{some}]\!] = \lambda f\ \lambda g\ \{w \in W : \exists x\ (w \in f(x) \cap g(x))\}$
5. $[\![\textbf{?}]\!] = \lambda p\ \{p, W - p\}$
6. Covers: $\forall x \in D$ and $\forall w \in W, !\exists c \in C : c(w) = x$
7. $[\![\textbf{who}]\!] = \lambda C\ \lambda f \left\{ \langle w, w' \rangle \in W \times W : \begin{array}{c} \{c \in C : w \in [\![\textbf{ifa}]\!](f)(c)\} \\ = \\ \{c \in C : w' \in [\![\textbf{ifa}]\!](f)(c)\} \end{array} \right\}$

Example denotations

1. $[\![\textbf{name cover}]\!] = \{[\![\textbf{jesse}]\!], [\![\textbf{sandy}]\!], [\![\textbf{dani}]\!]\}$
2. $[\![\textbf{role cover}]\!] = \{[\![\textbf{the guitarist}]\!], [\![\textbf{the singer}]\!], [\![\textbf{the drummer}]\!]\}$
3. $$[\![\textbf{?jesse(signed)}]\!] = \left\{ \begin{matrix} \{w_1, w_6, w_{11}\} \\ \{w_2, w_3, w_4, w_5, w_7, w_8, w_9, w_{10}, w_{12}\} \end{matrix} \right\} = \left\{ \begin{matrix} [\![\textbf{signed(jesse)}]\!] \\ [\![\textbf{¬signed(jesse)}]\!] \end{matrix} \right\}$$
4. $$[\![\textbf{?a(musician)(signed)}]\!] = \left\{ \begin{matrix} \{w_1, w_2, w_3, w_5, w_6, w_7, w_9, w_{10}, w_{11}\} \\ \{w_4, w_8, w_{12}\} \end{matrix} \right\} = \left\{ \begin{matrix} [\![\textbf{a(musician)(signed)}]\!] \\ [\![\textbf{¬a(musician)(signed)}]\!] \end{matrix} \right\}$$
5. $$[\![\textbf{who(name cover)(signed)}]\!] = \left\{ \begin{matrix} \{w_1, w_6, w_{11}\} \\ \{w_2, w_7, w_9\} \\ \{w_3, w_5, w_{10}\} \\ \{w_4, w_8, w_{12}\} \end{matrix} \right\} = \left\{ \begin{matrix} [\![\textbf{ifa(signed)(jesse)}]\!] \\ [\![\textbf{ifa(signed)(sandy)}]\!] \\ [\![\textbf{ifa(signed)(dani)}]\!] \\ [\![\textbf{¬a(musician)(signed)}]\!] \end{matrix} \right\}$$
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Answerhood

A proposition $p \subseteq W$ answers a question $q \subseteq \wp(W)$ iff there is a set $x \subseteq q$ such that $\bigcup x = p$.

	⟦who name⟧	⟦who role⟧	⟦?a⟧	⟦?jesse⟧	⟦?sandy⟧	⟦?dani⟧	⟦?guitarist⟧	⟦?singer⟧	⟦?drummer⟧
some	1	1	1	0	0	0	0	0	0
a	1	1	1	0	0	0	0	0	0
jesse	1	0	0	1	0	0	0	0	0
sandy	1	0	0	0	1	0	0	0	0
dani	1	0	0	0	0	1	0	0	0
the guitarist	0	1	0	0	0	0	1	0	0
the singer	0	1	0	0	0	0	0	1	0
the drummer	0	1	0	0	0	0	0	0	1

Lexical Uncertainty RSA

Literal listener

$$l_0(q \mid m, A) = \frac{A(m, q) \cdot P(q)}{\sum_{q' \in Q} A(m, q') \cdot P(q')}$$

Pragmatic speaker

$$s_1(m \mid q, A) = \frac{\exp\left(\alpha\left(\log l_0(q \mid m, A) - Cost(m)\right)\right)}{\sum_{m' \in M} \exp\left(\alpha\left(\log l_0(q \mid m', A) - Cost(m')\right)\right)}$$

Pragmatic listener

$$L_1(q \mid m) = \frac{P(q) \sum_A s_1(m \mid q, A) P_{\mathbf{A}}(A)}{\sum_{q' \in \mathbf{Q}} P(q') \sum_A s_1(m \mid q', A) P_{\mathbf{A}}(A)}$$

Recursive agents

S_n and L_n can then be defined recursively using minor variants of the above.

Primary simulation

L_4 with *a* available as an alternative. The costs of messages are given in the rightmost column, and the (flat) prior over questions is given in the bottom row. Gray highlights the most probable questions for each message.

Cost		⟦who name⟧	⟦who role⟧	⟦?a⟧	⟦?jesse⟧	⟦?sandy⟧	⟦?dani⟧	⟦?guitarist⟧	⟦?singer⟧	⟦?drummer⟧
0.5	some	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
0	a	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	jesse	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
1	sandy	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
1	dani	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
1	the guitarist	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
1	the singer	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
1	the drummer	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
	P	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11

Simulation without *a* as an alternative

Cost		⟦who name⟧	⟦who role⟧	⟦?a⟧	⟦?jesse⟧	⟦?sandy⟧	⟦?dani⟧	⟦?guitarist⟧	⟦?singer⟧	⟦?drummer⟧
0.5	some	0.33	0.33	0.33	0.0	0.0	0.0	0.0	0.0	0.0
1	jesse	0.00	0.00	0.00	1.0	0.0	0.0	0.0	0.0	0.0
1	sandy	0.00	0.00	0.00	0.0	1.0	0.0	0.0	0.0	0.0
1	dani	0.00	0.00	0.00	0.0	0.0	1.0	0.0	0.0	0.0
1	the guitarist	0.00	0.00	0.00	0.0	0.0	0.0	1.0	0.0	0.0
1	the singer	0.00	0.00	0.00	0.0	0.0	0.0	0.0	1.0	0.0
1	the drummer	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	1.0
	P	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11