

"Now that you mention it"	
ўс О	"Now that you mention it" Dynamic attention to possibilities
-8 -1-	Tikhu de Jager tikitu@iogophile.org www.jogophile.org
00	Institute for Logic, Language and Computation Universiteit van Amsterdam
N	LeGO 10/10/08

These are the slides for a talk I gave at the LeGO (our internal colloquium series for the ILLC members at the philosophy department). The slides were written to be accompanied by a talk; I wrote the notes somewhat later so I could distribute the slides without worrying that people would be completely confused as to my point. (If anyone still is, at least I tried.)

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Evolution of an idea

Dec '07	<i>The relevance of awareness</i> (Franke & de Jager)	
Amsterdam Colloquium		

- May '08 Now that you mention it: Awareness dynamics in discourse and decisions (Franke & de Jager) under review
- Sep '08 'Now that you mention it...': Attending, or not, to possibilities NAP-dag talk
 - Today 'Now that you mention it...': Dynamic attention to possibilities
- Oct '09? Dissertation defence?

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"Now that you mention it"	Evolution of an idea
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The idea comes from "awareness models" from the economics and rational choice literature [FH88; HMS06]. Michael Franke and I applied a variant of this notion to formal pragmatics for the Amsterdam Colloquium 2007 and wrote a paper together, and I've taken it on from there.

Abstract

It is an obvious truism that we do not, in daily life, attend to all conceivable possibilities. The truism finds its way into our semantics, in a sense, whenever we fix a set of possible worlds: those are the possibilities we attend to, and all others are inconceivable. We might think of this as nothing more than an abstraction that makes models easy to draw (in which case 'really' there is a huge, possibily infinite, set of possible worlds supporting any natural language assertion). Or we might consider it a reasonable representation of a particular instance of conversation (or belief, or reasoning), for which all relevant possibilities are represented. In either case, though, the picture is essentially static. The focus of this talk, and of my dissertation, is the suggestion that we take this truism seriously. Because the set of possibilities being attended to is not, it turns out, a static background against which we can do our semantics and pragmatics. It is again intuitively a truism that we can shift our focus of attention to take in new possibilities, but this truism sits much less comfortably with a conventional semantics, when 'possibilities' are taken to be something like possible worlds. Even dynamic semantics is static in this particular sense (a more polemical title for this talk could be "Dynamic semantics made dynamic"). The immediate reaction to this suggestion might be, "Sure that's how we should do it, but what does all that extra work gain us?" I have three kinds of answer. The first is, it solves problems. I'll show a range of examples where this kind of analysis makes life simpler: the pragmatics of possibility statements, a proper analysis of Sobel sequences (and related phenomena), standards of precision for vague predicates, and the semantics of knowledge ascriptions (aka the sceptic's argument against the possibility of knowledge). The schema in each case is very similar: building attention to possibilities into the structures that we do semantics with lets us keep the semantics themselves simple, while delivering the (sometimes complex) dynamic (and, I argue, often pragmatic) effects we're looking for. The second kind of answer is: having to do it properly forces us to do it properly. In order to represent attentiveness correctly we have to be very explicit about who is doing the attending: there are two non-equivalent ways to exclude worlds, by ruling the out or by not attending to them, and they interact in interesting ways. This means we also have to be very explicit about just what is represented by our sets of possible worlds: some particular agent's belief state, or the common ground, or someone's beliefs about the common ground, or what? I will argue that this clarity is beneficial, among other things in forcing us to think carefully about the status of our linguistic intuitions of acceptability. The third kind of answer is, it's fun! This framework seems to work for some pretty wild and crazy looking dialogues. It also means we need to keep our eyes open for some pretty wild and crazy update possibilities (attending to a new possibility might in principle throw into doubt every assertion that has been accepted so far in a conversation). And secretly I suspect that that kind of fun also points at something else: it might just be correct.

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Abstract

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Applications

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How we introduce a logic

- Propositional language: *p*, *q*, *r*, ...
- Connectives: $\land, \lor, \neg, \rightarrow$ (standard definitions)
- Extra bits and pieces: ⊡
- Formal definitions, but for intuitions look at this picture:

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This is a caricature of a typical LeGO talk, in which a logician talks about "*the* possible world where p and q are both false" as if there was only one. The point is the deliberately limited attention.

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"Now that you mention it"	An experiment
An experiment	After the experiment: you know. During the experiment, after the question: you were uncertain. (At least, I hope someone was)

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- During the experiment, before the question: you were uncertain?

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- Before I started the experiment: you knew?

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Stalnaker on belief, presupposition

- Instead of sets of sentences (representing beliefs, common ground, whatever)...
- ... sets of possible worlds.
- Pragmatic presupposition: held by speaker
- Linguistic presupposition: required by sentence

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2008-10-29	"Now that you mention it Intuitions	." elief, presupposition	Stalnaker on belief, presupposition Instead of sets of sentences (representing be ground, whatever) Stagmatic presupposition: required by speaker Linguistic presupposition: required by senten	liefs, common

A brief introduction to Stalnaker's model (it belongs of course to many others, but it's his ideas that I'm primarily building on). I mention his unusual definition of "presupposition" because it turns up in quotes later; also because his use of the term nicely elides the difference between conscious beliefs and unconscious assumptions.

Presuppositions that might not be beliefs

Stalnaker

To presuppose a proposition in the pragmatic sense is to take its truth for granted, and to assume that others involved in the context do the same. This does not imply that the person need have any particular mental attitude toward the proposition, or that he need assume anything about the mental attitudes of others in the context. Presuppositions are probably best viewed as complex dispositions which are manifested in linguistic behavior.

(Context and Content pg. 38)

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	9 / 36	
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Presuppositions that might not be beliefs Stanker To presuppose proposition in the pregradic even is to take its that the presuppose proposition in the pregradic even is to take its that same. This does not imply that the person need have any particular enrything about the mental attitudes of others in the context. Presuppositions are probably best vewed as complex dispositions which are manifested in linguistic behavior. (Context and Content pp. 38)

Or, beliefs that need not be represented in the mind of the believer. (NB: if you ask about them, they will *become* represented.) The next slide gives examples of propositions taken for granted *only* because they are not noticed.

Presuppositions that might not be beliefs

Stalnaker

To presuppose a proposition in the pragmatic sense is to take its truth for granted, and to assume that others involved in the context do the same. This does not imply that the person need have any particular mental attitude toward the proposition, or that he need assume anything about the mental attitudes of others in the context.

Presuppositions are probably best viewed as complex dispositions which are manifested in linguistic behavior.

(Context and Content pg. 38)

"The Bijenkorf is larger than Frege's left earlobe."





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(Context and Content pg. 38)

Stalnaker

More interesting than the case of propositions believed but too obvious to be noticed are those propositions taken for granted only because they are not noticed. (*Inquiry* pg. 69)

Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	9 / 36

"	Now that you mention it"	Presuppositions that might not be beliefs
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20		Stainaker More interesting than the case of propositions believed but too obvious to be noticed are those propositions taken for granted only because they are not noticed (Inguiry constance)

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Q What is brown and sticky?

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 10	/ 36

"Now that you mention it"	Some riddles
čų́ └─ Intuitions	What is brown and sticky?
Some riddles	



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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 10 / 36

"Now that you mention it…" ວ	Some riddles Q What is brown and sticky?
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Some riddles	

- Q What is brown and sticky?
- A A stick.
- Q The 22nd and 24th presidents of the US had the same mother and father, but were not brothers. How is this possible?

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 10 / 36
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- Q What is brown and sticky?
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- Q Jim went for a walk in the rain, without hat or umbrella. His clothes were soaked through, but not a hair on his head got wet. How is this possible?

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	Some riddles What is brown and sticky? A stick. The 22nd and 24th presidents of the US had the same mother and atter, but were not condens. How is the possible? Mount of an aver to raw which the raw, michor that or unbeeld. His clothes were soaked through, but not a hair on his head got wet. How is this possible?
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Stalnaker again

Difficult problems are sometimes difficult only because the alternative solutions from among which one is trying to select the correct one does not include the correct. One has beliefs, or presuppositions, which exclude the correct answer. (*Inquiry* pg. 69)

	Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 10 / 36
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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 11 / 36

"Now that you mention it…"	Intuitions
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8 Intuitions	
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The first point is not an intuition but a technical observation about vanilla possible worlds semantics: these are the only attitudes one can hold to a proposition. The riddles seem to show that not knowing isn't always uncertainty (in the sense of not being able to distinguish the correct answer from an incorrect one).

We call unconscious beliefs "assumptions"; they're often not based on immediate evidence, and thus can easily be wrong.

Intuitions

- Possible worlds semantics: either know, know not, or uncertain about φ
- Not knowing isn't always uncertainty

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	11 / 36

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Belief revision (in the technical sense) is 'hard', but the impression we have of overturning an assumption (technically also a species of belief revision) is that it's almost effortless (that "Aha!" moment).

Intuitions

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- Not knowing isn't always uncertainty
- Not all beliefs/presuppositions are conscious (ASSUMPTIONS)
- Assumptions can easily be wrong
- Overturning assumptions isn't always belief revision
- Which possibilities do we attend to?

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	11 / 36

"Now that you mention it"	Intuitions
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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 12 / 36

"Now that you mention it"	"Elusive Knowledge" (Lewis '96)
	a Infallible knowledge vs. the sceptic
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Lewis' proposal [Lew96] is very similar to mine, except that he's doing hard-core epistemology. He wants normative standards for knowledge attribution; I want to describe how peoples beliefs change under changes in attentiveness.

He focusses on the "every" in the definition; typically natural language universals have an implicitly restricted domain. What's the right implicit restriction here?

- Infallible knowledge vs. the sceptic
- "If you claim that *S* knows *P*, and yet you grant that *S* cannot eliminate a certain possibility in which not-*P*, it certainly seems as if you have granted that *S* does not after all know that *P*."

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Tikitu de Jager (ILLC)	"Now that you mention it"			LeGO 10/08	12 / 36

"Now that you mention it"	"Elusive Knowledge" (Lewis '96)
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CF	eliminate a certain possibility in which not P, it certainly seems as
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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 12 / 36
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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 12 / 36
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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	12 / 36

"Now that you mention it"	"Elusive Knowledge" (Lewis '96)
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• Set of worlds in principle possible (not represented in head)



"Now that you mention it"	Formal model a Set of worlds in principle possible (not represented in head)
Formal model	

- Set of worlds in principle possible (not represented in head)
- Within that, set of worlds being *entertained* (represented in head)



"Now that you mention it"	Formal model a Set of worlds in principle possible (<i>not</i> represented in head) v Within that, set of worlds being <i>entertained</i> (represented in head)
EF 80 1 − Formal model 1 − Formal model	

- Set of worlds in principle possible (not represented in head)
- Within that, set of worlds being *entertained* (represented in head)
- (Distinctions made between those worlds)



"Now that you mention it" ♀ └──Details	Formal model a Set of worlds in principle possible (not represented in head) within that, set of worlds being <i>entertained</i> (represented in head) (Distinctions made between those worlds)
ି ତି Formal model	

- Set of worlds in principle possible (not represented in head)
- Within that, set of worlds being *entertained* (represented in head)
- (Distinctions made between those worlds)
- Within that, set of worlds held possible (represented in head)



"Now that you mention it…"	Formal model
	 Set of worlds in principle possible (not represented in head) Within that, set of worlds being antertained (represented in head) (Distinctions made between those worlds) Within that, set of worlds held possible (represented in head)
∞ Formal model	

- Set of worlds in principle possible (not represented in head)
- Within that, set of worlds being *entertained* (represented in head)
- (Distinctions made between those worlds)
- Within that, set of worlds held possible (represented in head)
- Operation adding worlds by attention to a possibility



"Now that you mention it"	Formal model
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To update with φ :



"Now that you mention it" ♡ Details	Updates (two-stage) To update with φ :
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To update with φ :

• First, attend to *all possibilities mentioned* in φ .



"Now that you mention it"	Updates (two-stage)
♡	To update with y:
Details	● First, attend to all possibilities mentioned in y.
ଞ୍ଚି Updates (two-stage) ପ	

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To update with φ :

- First, attend to all possibilities mentioned in φ .
- 2 Next, decide "accept/reject"!



"Now that you mention it" ○ □ □ Details	Updates (two-stage) To update with p: ○ First, attend to all possibilities mentioned in p. ○ Next, decide "accept/reject"!
⇔ Updates (two-stage) ດ	

To update with φ :

- First, attend to all possibilities mentioned in φ .
- Next, decide "accept/reject"!
- If accept, update with φ within entertained worlds.



"Now that you mention it" Details	Updates (two-stage) To update with y: • First, attend to all possibilities mentioned in y. • Next, decide acceptroject? • If accept, update with y within entertained worlds.
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To update with φ :

- First, attend to all possibilities mentioned in φ .
- Next, decide "accept/reject"!
- If accept, update with φ within entertained worlds.





To update with φ :

- First, attend to all possibilities mentioned in φ .
- Next, decide "accept/reject"!
- If accept, update with φ within entertained worlds.

Just mentioning produces attention

Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 15 / 36
"Now that you mention it	"	Updates (two-stage) To update witk ≠: ● First, attend to <i>al</i> possibilities mentioned in ↓.
0 0 0 0 0 0 0 0 0 0 0 0 0 0	tage)	Next, decide "acceptriged": If accept, update with φ within entertained worlds. Just mentioning produces attention

Intuitions	Details	Applications
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• I believe *P*; I believe that you don't believe *P*.



10-29	"Now that you mention it "	Whose information state? a Ibelieve <i>P</i> ; I believe that you don't believe <i>P</i> .
2008-	Whose information state?	

Because you can't see outside your own attention state, not all nested combinations of epistemic/attentive operators are possible. If I assume φ and I'm thinking about your mental state at all, then I assume you also assume (or believe) φ .

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• I believe *P*; I believe that you don't believe *P*.



0-29	"Now that you mention it"	Whose information state? a I believe P; I believe that you don't believe P.
2008-1	Whose information state?	

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- I believe *P*; I believe that you don't believe *P*.
- # I assume *P*; I believe that you don't believe (or assume) *P*.



0-29	"Now that you mention it…"	Whose information state? a Ibelieve P: I believe that you don't believe P. a # I assume P; I believe that you don't believe (or assume) P.
2008-1	Whose information state?	

Because you can't see outside your own attention state, not all nested combinations of epistemic/attentive operators are possible. If I assume φ and I'm thinking about your mental state at all, then I assume you also assume (or believe) φ .

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- I believe *P*; I believe that you don't believe *P*.
- # I assume *P*; I believe that you don't believe (or assume) *P*.
- $A_1 \varphi \rightarrow A_1 B_2 \varphi$



0-29	'Now that you mention it " └──Details	Whose information state? a Ibelieve P; Ibelieve that you don't believe P. a $A_{1\varphi} \rightarrow A_{1}B_{2\varphi}$
2008-1(Whose information state?	

Because you can't see outside your own attention state, not all nested combinations of epistemic/attentive operators are possible. If I assume φ and I'm thinking about your mental state at all, then I assume you also assume (or believe) φ .

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- I believe *P*; I believe that you don't believe *P*.
- # I assume *P*; I believe that you don't believe (or assume) *P*.
- $A_1 \varphi \rightarrow A_1 B_2 \varphi$
- We mutually assume P

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	16 / 36

"Now that you mention it" ♀└──Details	Whose information state? • I believe P : believe that you don't believe P . • I assume P : believe that you don't believe (or assume) P . • $A_{12} \rightarrow A_{12} P_{12}$ • We mutually assume P
Whose information state?	

Because you can't see outside your own attention state, not all nested combinations of epistemic/attentive operators are possible. If I assume φ and I'm thinking about your mental state at all, then I assume you also assume (or believe) φ .

Intuitions 0000000	Details oo●oooo	Applications 00000 000 000

- I believe *P*; I believe that you don't believe *P*.
- # I assume *P*; I believe that you don't believe (or assume) *P*.
- $A_1 \varphi \rightarrow A_1 B_2 \varphi$
- We mutually assume P
- I believe, or presuppose, that you assume P

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Tikitu de Jager (ILLC)	"Now that you mention it"	Le	∋GO 10/08	16 / 36

10-29 ,	"Now that you mention it"	Whose information state? a bolieve P : believe that you don't believe P . a $A_{12} \rightarrow A_{1}B_{27}$ a $A_{17} \rightarrow A_{1}B_{27}$ a We mutually assume P a I believe, or presuppose, that you assume P
2008-	Whose information state?	

Because you can't see outside your own attention state, not all nested combinations of epistemic/attentive operators are possible. If I assume φ and I'm thinking about your mental state at all, then I assume you also assume (or believe) φ .

Intuitions	Details	Applications
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- I believe *P*; I believe that you don't believe *P*.
- # I assume *P*; I believe that you don't believe (or assume) *P*.
- $A_1 \varphi \rightarrow A_1 B_2 \varphi$
- We mutually assume P
- I believe, or presuppose, that you assume P
- "I have to pick up my sister": I assume you agree with my assumptions

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 16 / 36

2008-10-29 	ow that you mention it" —Details —Whose information state?	Whose information state? a believe P : Ubelieve that you don't believe P . b if lassime P : Delieve that you don't believe (or assume) P . a $A_0 - A_0 B_0$: b We mutually assume P a believe, or presuppose, that you assume P b Thave to believe, up my sister': lassume you agree with my assumptions
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Because you can't see outside your own attention state, not all nested combinations of epistemic/attentive operators are possible. If I assume φ and I'm thinking about your mental state at all, then I assume you also assume (or believe) φ .

Splitting worlds (distinctions)

- A: I was going to bake a cake, but I haven't got any eggs.
- B: Did you think of making shortbread?
- A: I didn't. Do you need eggs for that?

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(AC paper)
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	Tikitu de Jager (ILLC)	"Now that you mention it"		LeGO 10/08	17 / 36
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~	"Now that you mention it		SI	plitting worlds (distinctions)	
μΩ Υ	Details		1	A: I was going to bake a cake, but I haven't got a	any eggs.
Ó.			,	A: I didn't. Do you need eggs for that?	cr)
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A lot of argument about something relatively unimportant: we need finegrainedness somewhere in there. (We don't have assumptions about every proposition we don't attend to.)

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Splitting worlds (distinctions)			
 A: I was going to bake a cake, B: Did you think of making shore A: I didn't. Do you need eggs for 	but I haven't got any eggs. rtbread? or that?		
(AC paper)			
 Shortbread recipe needs eggs 	 Shortbread recipe doesn't need eggs 		
We have no eggs	We have no eggs		
 I like cake 	• I like cake		
It's Friday	It's Friday		
•	•		
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Tikitu de Jager (ILLC) "Now tha	★ □ ▶ ★ @ ▶ ★ ≧ ▶ ★ ≧ ▶ ≧ 少 Q ペ t you mention it" LeGO 10/08 17 / 36		

"Now that you mention it"	Splitting worlds (distinction	ns)
	A: I was going to bake a cake, b B: Did you think of making short A: I didn't. Do you need eggs for	ut I haven't got any eggs. bread? r that? (AC paper)
င်္က Splitting worlds (distinctions)	 Shortbread recipe needs eggs We have no eggs I like cake It's Friday 	 Shortbread recipe doesn't need eggs We have no eggs I like cake It's Friday

A lot of argument about something relatively unimportant: we need finegrainedness somewhere in there. (We don't have assumptions about every proposition we don't attend to.)



"Now that you mention it"	Intensional (linguistic) attention
P Details P Intensional (linguistic) attention	

"Now that you mention it..."

LeGO 10/08

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More on finegrainedness (nice Stalnaker quote, but the point doesn't need belabouring).

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Intensional (linguistic) attention

- language of self-ascription of beliefs
- individuates "worlds" (better maybe "states")



0-29	"Now that you mention it"	Intensional (linguistic) attention u language of self-ascription of beliefs • individuates 'worlds' (better maybe 'states')
2008-1	Intensional (linguistic) attention	

More on finegrainedness (nice Stalnaker quote, but the point doesn't need belabouring).

Intensional (linguistic) attention

- language of self-ascription of beliefs
- individuates "worlds" (better maybe "states")
- "issues" (available/raised/settled)



" 6	Now that you mention it"	Intensional (linguistic) attention
3-10-2		individuates 'works' (better maybe 'states') a 'issues' (available/raised/settled)
2008	intensional (inguistic) attention	

More on finegrainedness (nice Stalnaker quote, but the point doesn't need belabouring).

Intensional (linguistic) attention

- language of self-ascription of beliefs
- individuates "worlds" (better maybe "states")
- "issues" (available/raised/settled)

Stalnaker

[T]here are surely an infinite number of possible worlds compatible with anyone's belief state. But a believer's representation of a space of possible worlds need not distinguish between them all. Just as a finite perceiver may see a space which consists of an infinite number of points, so a finite believer may represent a space of possible worlds which in fact consists of an infinite number of possible worlds.

(*Inquiry* pg. 69)

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Tikitu de Jager (ILLC)	"Now that you mention it"		LeGO 10/08 18 / 36
"Now that you mention it	•		Intensional (linguistic) attention
			 language of self-ascription of beliefs individuates "worlds" (better maybe "states")
0			a "issues" (available/raised/settled)
	autotia) attention		Stalnaker
	guistic) attention		with anyon's belief state. But a believer's representation of a space of possible worlds need not distinguish between them all. Just as a finite
50			perceiver may see a space which consists of an infinite number of points, so a finite believer may represent a space of possible worlds which in fact consists of an infinite number of possible worlds
			(Inquiry pg. 69)

More on finegrainedness (nice Stalnaker quote, but the point doesn't need belabouring).

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Summary

Models:

- Set of possible worlds ("metaphysical possibilities")
- Set of worlds ENTERTAINED (not excluded by assumptions)
- List of propositions attended to (individuates states)
- Set of states HELD POSSIBLE (not excluded by information)

Updates:

- Attentiveness update:
 - overturn assumption (if any)
 - individuate states more finely
- Informative update:
 - first perform attentiveness update
 - next update within entertained worlds

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	Tikitu de Jager (ILLC)	"Now that you mention it"		LeGO 10/08	19 / 36
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2008-10-29	"Now that you mention it Details	" ·		Summary Models: • Set of possible worlds ("metaphysical possible • Set of worlds ENTERTAINED (not excluded by Updates: • Attriveness update: • overtra assumption (fany) • individuals states more finely • individuals states more finely • individuals within entertained worlds • net update: • net prodem attriveness update • net quedate within entertained worlds	tites") assumptions) tates) information)

Two kinds of updates. The attentiveness update is unavoidable; the informative update can be avoided by rejecting an assertion.

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	• How do we expand	the attentiveness sph	ere?	INSTITUTE FOR LANGUAGE AND CO	Logic, MPUTATION
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2008-10	└──What I'm not tel	ing you		 How do we expand the attentiveness spher 	9?
	One formal story can b	ne found in the naner wit	h Michael	which is on	

One formal story can be found in the paper with Michael, which is on both our websites; I'm working on another one with Maria Aloni and Paul Egré.
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- Pairs of counterfactual conditionals (Sobel, Lewis)
- Recently

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 22	2 / 36

"Now that you mention it"	Sobel sequences
Applications 	 Pairs of counterfactual conditionals (Sobel, Lewis) Recently

Sobel sequences

- Pairs of counterfactual conditionals (Sobel, Lewis)
- Recently
 - New observations about same sentences (von Fintel)

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	22 / 36

"Now that you mention it"	Sobel sequences
Applications - Applications - Sobel sequences - Sobel sequences	Pairs of counterfactual conditionals (Sobel, Lewis) Recently New observations about same sentences (von Fintel)

Sobel sequences

- Pairs of counterfactual conditionals (Sobel, Lewis)
- Recently
 - New observations about same sentences (von Fintel)
 - Related observations about indicatives (Williams), "might" (Gillies, von Fintel), ...

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	22 / 36

"Now that you mention it"	Sobel sequences
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Sobel sequences

- Pairs of counterfactual conditionals (Sobel, Lewis)
- Recently
 - New observations about same sentences (von Fintel)
 - Related observations about indicatives (Williams), "might" (Gillies, von Fintel), ...
- Survey: Moss, "On the Pragmatics of Counterfactuals"

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"Now that you mention it Applications 	." Ses	Sobel sequences • Pairs of counterfactual conditionals (Sobel, Lewis) • Recornity • New observations about same sentences (von Fintel) • New observations about same sentences (von Fintel) • Statistic dosenvations about indicatives (Winnam, "Implif" (Gillies, a Survey: Moss, "On the Pragmatics of Counterfactuals"

Sobel sequences

- Pairs of counterfactual conditionals (Sobel, Lewis)
- Recently
 - New observations about same sentences (von Fintel)
 - Related observations about indicatives (Williams), "might" (Gillies, von Fintel), ...
- Survey: Moss, "On the Pragmatics of Counterfactuals"
- Today: Not a complete treatment, but some pointed questions

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p > r vs. $p \land q > \neg r$

- A: If Sophie had gone to the New York Mets parade she would have seen Pedro Martínez.
- B: If she had gone and got stuck behind someone tall, she wouldn't have seen him.
- B: If Sophie had gone to the New York Mets parade and got stuck behind someone tall, she wouldn't have seen Pedro.
- A: # If she had gone to the parade she would have seen him.

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    *Now that you mention it..."
    Applications
    Sobel sequences
    Some Sobel data

8 His had gone to the New York Mess parade and Merrico.
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- 1. Classic Sobel example (motivates non-monotonicity of counterfactual semantics), and von Fintel's observation that reversed it doesn't work.
- 2. Similar data for indicatives (von Fintel's solution is confined to counterfactuals; Williams does indicatives only).
- 3. ... But small pragmatic adjustments make it better (supporting the stronger reading, without having to be explicit).
- 4. It's not even fundamentally something to do with conditionals: "might" has similar effects.
- 5. ... And similar pragmatic adjustments are possible.
- 6. Such adjustments also have an impact on acceptability of "might".

Details 000000c



Some Sobel data

p > r vs. $p \land q > \neg r$

- A: If Oswald didn't shoot Kennedy then someone else did.
- B: If the CIA faked his death [and Oswald didn't shoot him] then nobody did.

(Williams)

- B: If the CIA faked Kennedy's death [and Oswald didn't shoot him] then nobody shot him.
- A: # If Oswald didn't shoot Kennedy then someone else did.

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(Williams)

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"Now that you mention it"	Some Sobel data	
Applications Sobel sequences Some Sobel data	 p > r A: If Oswald didn't shoot Kennedy then someone else did. B: If the CA faked his death [and Oswald didn't shoot him] then nobody did. (Williams) 	 s. p ∧ q > -r B: If the CIA faked Kennedy's death [and Oswald didn't shoot him] Iften nobody shot him. A: # If Oswald didn't shoot Kennedy then someone else did. (Williams)

- 1. Classic Sobel example (motivates non-monotonicity of counterfactual semantics), and von Fintel's observation that reversed it doesn't work.
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Details 000000c



Some Sobel data

p > r vs. $p \land q > \neg r$

- A: If Oswald didn't shoot Kennedy then someone else did.
- B: If the CIA faked his death [and Oswald didn't shoot him] then nobody did.

(Williams)

- B: If the CIA faked Kennedy's death [and Oswald didn't shoot him] then nobody shot him.
- A: I've been through all the CIA records. If Oswald didn't shoot him then someone else did.

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 2	23 / 36

"Now that you mer	ition it"	Some Sobel data	
Applications		A: If Orwald didn't ch	$p > r$ vs. $p \land q > \neg r$
	Jences	Kennedy then som else did. B: If the CIA faked his	eone death [and Oswald didn't shoot him] then nobody death shot him.
	Sobel data	[and Oswald didn't him] then nobody o (f	A: I've been through all the cIA records. If Oswald didn't shoot him then someone else did.

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p > r vs. $p \land q > \neg r$



"Now that you mention it"	Some Sobel data
မို – Applications	$p > r vs. p \land q > r$
Sobel sequences	A: If William has proposed to Mary, she bib Bour queet B: She might reject William (If the has proposed). B: She might reject thim. (after Moss) A: if the has proposed, she will be our queen.

- 1. Classic Sobel example (motivates non-monotonicity of counterfactual semantics), and von Fintel's observation that reversed it doesn't work.
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p > r vs. $p \land q > \neg r$



0	"Now that you mention it"	Some Sobel data	
10-26	Applications	$p > r$ vs. $p \land q > \neg r$ A: If William has proposed to Mary, she'll be our queen. B: She mick treach tim A: (Bisse me, Licrow Mary's	
2008-	Sobel sequences	(after Moss) (after Moss) (after Moss) (after Moss)	

- 1. Classic Sobel example (motivates non-monotonicity of counterfactual semantics), and von Fintel's observation that reversed it doesn't work.
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p > r vs. $p \land q > \neg r$



"Now that you mention it"	Some Sobel data
Ă └─ Applications	$p > r$ vs. $p \land q > \neg r$
Some Sobel data	A: If William has proposed to Mary, she II be our queen. B: Mary might reject William. B: She might reject him. (after Moss) B: # She might reject him.

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- 6. Such adjustments also have an impact on acceptability of "might".

Questions:

• What does "# φ " mean?

Answers?

Complications:

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 24 / 36

0	"Now that you mention it"	What a mess
)-2(Applications	Questions: v What does "# ϕ " mean?
3-10	Sobel sequences	Answers?
2008	What a mess	Complications:

These are general questions one should be asking about formal theories of pragmatics supported by data about intuitions. It's not enough just to ask questions, of course, but the answers I have are partial and speculative.

Epistemic efficacy of stupidity: so long as we don't consider too many strange contexts, our theories can stay simple. Is that the kind of 'knowledge' we want?

Questions:

- What does "# φ " mean?
- What is an acceptable dialogue?

Answers?

Complications:

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 24	4 / 36

0	"Now that you mention it"	What a mess
0-26	- Applications	Questions:
8-1(Sobel sequences	Answers?
200	└─ What a mess	Complications:

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Epistemic efficacy of stupidity: so long as we don't consider too many strange contexts, our theories can stay simple. Is that the kind of 'knowledge' we want?

Questions:

- What does "# φ " mean?
- What is an acceptable dialogue?
- Who is doing the accepting?

Answers?

Complications:

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	24 / 36

<u>ا"</u> م	Now that you mention it"	What a mess
10-2	-Applications	Cuestons: • What does "# \u03c6" mean? • What is an acceptable dialogue? • Who is doing the accepting?
800	What a mess	Ausweis?
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These are general questions one should be asking about formal theories of pragmatics supported by data about intuitions. It's not enough just to ask questions, of course, but the answers I have are partial and speculative.

Epistemic efficacy of stupidity: so long as we don't consider too many strange contexts, our theories can stay simple. Is that the kind of 'knowledge' we want?

Intuitions ooooooo	Details ooooooo	Applications oo●oo ooo
 What a mess Questions: What does "# φ" mean? 		
Answers?		
Complications:		200 200
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Questions:	
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Sobel sequences	
Oo U What a mess Complications:	

"Now that you mention it..."

LeGO 10/08

24 / 36

Tikitu de Jager (ILLC)

These are general questions one should be asking about formal theories of pragmatics supported by data about intuitions. It's not enough just to ask questions, of course, but the answers I have are partial and speculative.

Epistemic efficacy of stupidity: so long as we don't consider too many strange contexts, our theories can stay simple. Is that the kind of 'knowledge' we want?

Questions:

• What does "# φ " mean?

Answers?

• $\neg \exists$ context s.t. φ is felicitous

Complications:

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 24 / 36

-29	"Now that you mention it"	What a mess Questions: • What does "# y" mean?
8-10	Sobel sequences	Answers? $\mathbf{u} \ \neg \exists \ \text{context s.t.} \ \varphi \ \text{is felicitous}$
200	What a mess	Complications:

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Questions:

• What does "# φ " mean?

Answers?

• $\neg \exists$ context s.t. φ is felicitous

Complications:

• Epistemic efficacy of stupidity

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 24 / 36	

0	"Now that you mention it"	What a mess
)-20	Applications	Questions:
8-10 -10	Sobel sequences	Answers? $a \neg \exists$ context s.t. φ is felicitous
2008	What a mess	Complications: a Epistemic efficacy of stupidity

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Epistemic efficacy of stupidity: so long as we don't consider too many strange contexts, our theories can stay simple. Is that the kind of 'knowledge' we want?

Questions:

- What does "# φ " mean?
- What is an acceptable dialogue?

Answers?

• $\neg \exists$ context s.t. φ is felicitous

Complications:

• Epistemic efficacy of stupidity

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	24 / 36

•	"Now that you mention it"	What a mess
-20		Questions: ^φ What does "# φ" mean? • What is an acceptable dialogue?
8-10 -10	Sobel sequences	Answers? $u \neg \exists context s.t. \varphi$ is felicitous
2008	What a mess	Complications: a Epistemic efficacy of stupidity

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Epistemic efficacy of stupidity: so long as we don't consider too many strange contexts, our theories can stay simple. Is that the kind of 'knowledge' we want?

Questions:

- What does "# φ " mean?
- What is an acceptable dialogue?

Answers?

- $\neg \exists$ context s.t. φ is felicitous
- Disagreements ok, but no revision

Complications:

• Epistemic efficacy of stupidity

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 24 / 36

"Now that you mention it"	What a mess
on on Applications	Questions: • What does "# uf mean? • What is an accentable dislocus?
Sobel sequences	What is an acceptable dialogue? Answers? u ~3 context s.t. u is felicitous Disagreements ok, but no revision Complications: a Foldemine Efficacy of standitivy
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Epistemic efficacy of stupidity: so long as we don't consider too many strange contexts, our theories can stay simple. Is that the kind of 'knowledge' we want?

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What a mess...

Questions:

- What does "# φ " mean?
- What is an acceptable dialogue?

Answers?

- $\neg \exists$ context s.t. φ is felicitous
- Disagreements ok, but no revision

Complications:

- Epistemic efficacy of stupidity
- Problem of motivation

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	24 / 36

"Now that you mention it…"	What a mess Ouesions: • What does "# y" mean? • What is an acceptable dialogue?
Sobel sequences	Answers? w →3 context s.t. φ is felicitous • Disagreements ok, but no revision Complications: • Epistemic efficacy of stupidity • Problem of motivation

These are general questions one should be asking about formal theories of pragmatics supported by data about intuitions. It's not enough just to ask questions, of course, but the answers I have are partial and speculative.

Epistemic efficacy of stupidity: so long as we don't consider too many strange contexts, our theories can stay simple. Is that the kind of 'knowledge' we want?



er or er or

What a mess...

Questions:

- What does "# φ " mean?
- What is an acceptable dialogue?
- Who is doing the accepting?

Answers?

- $\neg \exists$ context s.t. φ is felicitous
- Disagreements ok, but no revision

Complications:

- Epistemic efficacy of stupidity
- Problem of motivation

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	24 / 36

"Now that you mention it…"	What a mess Ouestions: • What does "# v" mean? • What is an acceptable dialogue?
Sobel sequences	w Who is doing the accepting? Answers? u →3 context st. ψ is felicitous o Disagreements ok, but no revision Complications: a Epistemic efficacy of stupidity w Problem of motivation

These are general questions one should be asking about formal theories of pragmatics supported by data about intuitions. It's not enough just to ask questions, of course, but the answers I have are partial and speculative.

Epistemic efficacy of stupidity: so long as we don't consider too many strange contexts, our theories can stay simple. Is that the kind of 'knowledge' we want?



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What a mess...

Questions:

- What does "# φ " mean?
- What is an acceptable dialogue?
- Who is doing the accepting?

Answers?

- $\neg \exists$ context s.t. φ is felicitous
- Disagreements ok, but no revision
- A "blank slate" stand-in for the linguist

Complications:

- Epistemic efficacy of stupidity
- Problem of motivation

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Tikitu de Jager (ILLC)	"Now that you mention it"		LeGO 10/08	24 / 36

These are general questions one should be asking about formal theories of pragmatics supported by data about intuitions. It's not enough just to ask questions, of course, but the answers I have are partial and speculative.

Epistemic efficacy of stupidity: so long as we don't consider too many strange contexts, our theories can stay simple. Is that the kind of 'knowledge' we want?



Questions:

- What does "# φ " mean?
- What is an acceptable dialogue?
- Who is doing the accepting?

Answers?

- $\neg \exists$ context s.t. φ is felicitous
- Disagreements ok, but no revision
- A "blank slate" stand-in for the linguist

Complications:

- Epistemic efficacy of stupidity
- Problem of motivation
- Accommodation of inattention (dynamic interactive epistemology)

Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	24 / 36
"Now that you mention it	33	What a mess	
0		Questions:	

Applications
 Sobel sequences
 What is a acceptable dialogue?
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 Arswers?
 Complications
 Disagreements of, but no revision
 A 'bank state' stand-in for the linguist
 Complications:
 Epistemic officacy of stupidity
 Problem of motivation
 A commodation of inattention (dynamic interactive epistemology)

These are general questions one should be asking about formal theories of pragmatics supported by data about intuitions. It's not enough just to ask questions, of course, but the answers I have are partial and speculative.

Epistemic efficacy of stupidity: so long as we don't consider too many strange contexts, our theories can stay simple. Is that the kind of 'knowledge' we want?

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And my story is...

... I'm not going to tell you!

- When you introduce possibilities matters (doing it early adds constraints)
- Mentioning possibilities (however embedded)

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 25 / 36	
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"Now that you mention it"	
Applications Sobel sequences And my story is	I'm not going to tell you!

And my story is...

... I'm not going to tell you!

- When you introduce possibilities matters (doing it early adds constraints)
- Mentioning possibilities (however embedded)
- Interactive epistemology matters

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	25 / 36

"Now that you mention it"	ny story is
Applications Sobel sequences And my story is	I'm not going to tell you!





• Uniform account (counterfactuals, indicatives, whatever)

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 26 / 36	

"	Now that you mention it"	What does it get us?
- 56 - 56	Applications	a Uniform account (counterfactuals, indicatives, whatever)
2008-10	└──Sobel sequences └──What does it get us?	

- Uniform account (counterfactuals, indicatives, whatever)
- Simple semantics

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 26 / 36

•	"Now that you mention it"	What does it get us?
)-26	Applications	 uniform account (counterfactuals, indicatives, whatever) Simple semantics
	Sobel sequences	
2008	What does it get us?	

- Uniform account (counterfactuals, indicatives, whatever)
- Simple semantics
- Complicated pragmatic effects

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	26 / 36

-10-29	Now that you mention it"	What does it get us?
	Applications	Uniform account (counterfactuals, indicatives, whatever) Simple semantics Complicated pragmatic effects
2008	What does it get us?	

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What does it get us?

- Uniform account (counterfactuals, indicatives, whatever)
- Simple semantics
- Complicated pragmatic effects
- Discourse relations

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	26 / 36

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- Uniform account (counterfactuals, indicatives, whatever)
- Simple semantics
- Complicated pragmatic effects
- Discourse relations
 - A: If William has proposed to Mary, she'll be our queen.

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 26 / 36

"Now that you mention it"	What does it get us?
Applications - Applications - Sobel sequences - What does it get us?	 Uniform account (counterfactuals, indicatives, whatever) Simple semantics Complicated pragmatic effects Discourse relations A: If William has proposed to Mary, she'll be our queen.
What does it get us?

- Uniform account (counterfactuals, indicatives, whatever)
- Simple semantics
- Complicated pragmatic effects
- Discourse relations
 - A: If William has proposed to Mary, she'll be our queen.
 - B: Uhuh.

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 26 / 36

"Now that you mention it"	What does it get us?
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What does it get us?

- Uniform account (counterfactuals, indicatives, whatever)
- Simple semantics
- Complicated pragmatic effects
- Discourse relations
 - A: If William has proposed to Mary, she'll be our queen.
 - B: Uhuh.
 - A: ?? She could reject him.

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 26 / 36

"Now that you mention it"	What does it get us?
Applications Sobel sequences What does it get us?	Uniform account (counterfactuals, indicatives, whatever) Simple semantics Complicated pragmatic effects Discourse relations A: If William has proposed to Mary, she'll be our queen. B: Units A: 77 Bive could reject him.

What does it get us?

- Uniform account (counterfactuals, indicatives, whatever)
- Simple semantics
- Complicated pragmatic effects
- Discourse relations
 - A: If William has proposed to Mary, she'll be our queen.
 - B: Uhuh.
 - A: ?? She could reject him.
 - B: Isn't that inconsistent?

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	26 / 36

"Now that you mention it"	What does it get us?
Applications Sobel sequences What does it get us?	a Uniform account (counterfactuals, indicatives, whatever) b Simple semantics c Complicated pragmatic effects c Discourse relations A: If William has proposed to Mary, she'll be our queen. c Unuh. A: 17 She could reject him. b. Ian't hat inconsistent?

What does it get us?

- Uniform account (counterfactuals, indicatives, whatever)
- Simple semantics
- Complicated pragmatic effects
- Discourse relations
 - A: If William has proposed to Mary, she'll be our queen.
 - B: Uhuh.
 - A: Even though in principle she could reject him.
 - B: You mean she won't.

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 26 / 36

"Now that you mention it"	What does it get us?
Applications Sobel sequences What does it get us?	Uniform account (counterfactuals, indicatives, whatever) Simple semantics Complicated pragmatic effects Discourse relations A: If William has proposed to Many, she'll be our queer. B: Uhuh X: Even toogh in principle she could reject him. B: Nou mean she won't.

What does it get us?

- Uniform account (counterfactuals, indicatives, whatever)
- Simple semantics
- Complicated pragmatic effects
- Discourse relations
 - A: If William has proposed to Mary, she'll be our queen.
 - B: Uhuh.
 - A: Although I suppose she could reject him.
 - B: Oh, I wonder whether she might?

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Tikitu de Jager (ILLC)	"Now that you mention it"		LeGO 10/08	26 / 36

"Now that you mention it"	What does it get us?
Applications - Applications - Sobel sequences - What does it get us?	Uniform account (counterfactuals, indicatives, whatever) Simple semantics Complicated pragmatic effects Discourse relations A If William has proposed to Mary, she II be our queen. Unun. Valiough I suppose she could reject hm. S: Ch, I wonder whether she might?

What does it get us?

- Uniform account (counterfactuals, indicatives, whatever)
- Simple semantics
- Complicated pragmatic effects
- Discourse relations
 - A: If William has proposed to Mary, she'll be our queen.
 - B: Uhuh.
 - A: Of course she could reject him.
 - B: ... Did you mean she won't reject him, or hadn't you thought of it?

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	26 / 36

"Now that you mention it"	What does it get us?
Applications Sobel sequences What does it get us?	Uniform account (counterfactuals, indicatives, whatever) Simple semantics Complicated pragmatic effects Discourse relations . If William has proposed to Mary, she'll be our queen. . If William has proposed to Mary, she'll be our queen. . Unuh. . Of course she could reject him. BDid you mean she won't reject him, or hadn't you thought of it?

What does it get us?

- Uniform account (counterfactuals, indicatives, whatever)
- Simple semantics
- Complicated pragmatic effects
- Discourse relations
 - A: If William has proposed to Mary, she'll be our queen.
 - B: Uhuh.
 - A: Of course she could reject him.
 - B: ... Did you mean she won't reject him, or hadn't you thought of it?
- Dynamics: difference between $\varphi \land \psi$ and φ ; ψ .

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	26 / 36

"Now that you mention it"	What does it get us?
Applications 	 Uniform account (counterfactuals, indicatives, whatever) Simple semantics Complicated pragmatic effects Discourse relations At William has proposed to Mary, she'll be our queen. At Units. Course she could reject him. Course she and a le wort reject him, or hadn'you thought of it? Dynamics: difference between φ ∧ ψ and φ; ψ.

What does it get us?

- Uniform account (counterfactuals, indicatives, whatever)
- Simple semantics
- Complicated pragmatic effects
- Discourse relations
 - A: If William has proposed to Mary, she'll be our queen.
 - B: Uhuh.
 - A: Of course she could reject him.
 - B: ... Did you mean she won't reject him, or hadn't you thought of it?
- Dynamics: difference between $\varphi \land \psi$ and φ ; ψ .
- Some people are bad at this!

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	26 / 36

"Now that you mention it"	What does it get us?
Applications Sobel sequences What does it get us?	 Uniform account (counterfactuals, indicatives, whatever) Simple semantics Complicated pragmatic effects Discourse relations A: If William has proposed to Mary, she'll be our queen. Uhuh. Course she could reject him. Us you mean she mont reject him, or hadn't you thought of it? Dynamics: difference between p ∧ e and g: etc. a Some people are bad at this!

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 27 / 36

"Now that you mention it"	Vagueness (not all of it!)
Applications Vagueness and standards of precision Vagueness (not all of it!)	

Gratuitous film reference.

"Now that you mention it..."

Vagueness (not all of it!)

The Blues Brothers



 It's 106 miles to Chicago. We've got a full tank of gas, half a pack of cigarettes, it's dark, and we're wearing sunglasses.

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– Hit it.

Tikitu de Jager (ILLC)

"Now that you mention it..." Applications Vagueness and standards of precision Vagueness (not all of it!)



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Gratuitous film reference.

"Now that you mention it..."

Vagueness (not all of it!)

The Blues Brothers



It's 106 miles to Chicago. We've got a full tank of gas, half a pack of cigarettes, it's dark, and we're wearing sunglasses.

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– Hit it.

"Now that you mention it..." Applications Vagueness and standards of precision Vagueness (not all of it!) INSTITUTE FOR LOGIC, LANGUAGE AND COMPUTATION

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Gratuitous film reference.

It's actually 106 miles to Chicago. Alternative lines:

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 28 / 36

~	"Now that you mention it"	Vagueness (not all of it!)
)-26	Applications	It's actually 106 miles to Chicago. Alternative lines:
-10	Vagueness and standards of precision	
300	Vagueness (not all of it!)	
Ñ		

Standards of precision: it's not just 'the more precise the better'. Terms on different scales come with expectations of different levels of precision (Krifka has work along exactly these lines).

Let the points on the scale be possibilities being attended to. We need to assume that measurements close to the middle between two points on the scale don't occur. (This comes from the discussion – "assume" here is in the technical sense of this model!) Standards can be easily raised (considering more possibilities) but not lowered (getting rid of possibilities).

It's actually 106 miles to Chicago. Alternative lines:

• It's 100 miles to Chicago. (And 300 to Pittsburgh.)

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 28 / 36	

0	"Now that you mention it"	Vagueness (not all of it!)
0-26	Applications	It's actually 106 miles to Chicago. Alternative lines: a It's 100 miles to Chicago. (And 300 to Pittsburgh.)
÷	Vagueness and standards of precision	
2008	Vagueness (not all of it!)	

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It's actually 106 miles to Chicago. Alternative lines:

- It's 100 miles to Chicago. (And 300 to Pittsburgh.)
- It's 110 miles to Chicago. (And 320 to Pittsburgh.)

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	28 / 36

0	"Now that you mention it"	Vagueness (not all of it!)
008-10-29	Applications Vagueness and standards of precision Vagueness (not all of it!)	It's actually 106 miles to Chicago, Alternative lines: a fit's 100 miles to Chicago. (And 300 to Pittsburgh.) v It's 110 miles to Chicago. (And 320 to Pittsburgh.)
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Standards of precision: it's not just 'the more precise the better'. Terms on different scales come with expectations of different levels of precision (Krifka has work along exactly these lines).

Let the points on the scale be possibilities being attended to. We need to assume that measurements close to the middle between two points on the scale don't occur. (This comes from the discussion – "assume" here is in the technical sense of this model!) Standards can be easily raised (considering more possibilities) but not lowered (getting rid of possibilities).

It's actually 106 miles to Chicago. Alternative lines:

- It's 100 miles to Chicago. (And 300 to Pittsburgh.)
- It's 110 miles to Chicago. (And 320 to Pittsburgh.)
- # It's 108 miles to Chicago. (And 327 to Pittsburgh.)

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Tikitu de Jager (ILLC)	"Now that you mention it"		LeGO 10/08	28 / 36
"Now that you mention it	." andards of precision		Vagueness (not all of it!) It's actually 106 miles to Chicago. Alternative lin a it's 100 miles to Chicago. (And 300 to Pitat a it's 110 miles to Chicago. (And 320 to Pitat e it's 110 miles to Chicago. (And 327 to Pit	es: xurgh.) sburgh.)
Vagueness (no	ot all of it!)			

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0	"Now that you mention it"	Vagueness (not all of it	l)	
-10-2	Applications	It's actually 106 miles to Chic a It's 100 miles to Chicago t's 110 miles to Chicago a # It's 108 miles to Chicago	igo. Alternative lines: (And 300 to Pittsburgh.) (And 320 to Pittsburgh.) o. (And 327 to Pittsburgh.)	
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"Now that you mention it"	Vagueness (not all of it!)
Applications Vagueness and standards of precision Vagueness (not all of it!)	It's actually 106 miles to Chicago. (And 300 to Pittsburgh.) a It's 100 miles to Chicago. (And 300 to Pittsburgh.) a It's 108 miles to Chicago. (And 327 to Pittsburgh.) b It's 108 miles to Chicago. (And 327 to Pittsburgh.) c It's 108 miles to Chicago. (And 327 to Pittsburgh.) c It's 108 miles to Chicago. (And 327 to Pittsburgh.) c It's 108 miles to Chicago. (And 327 to Pittsburgh.) c It's 108 miles to Chicago. (And 327 to Pittsburgh.) c It's 108 miles to Chicago. (And 327 to Pittsburgh.) c It's 108 miles to Chicago. (And 327 to Pittsburgh.)

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- # It's 108 miles to Chicago. (And 327 to Pittsburgh.)

Tikitu de Jager (ILLC) "Now that	INSTITUTE FOR LANGUAGE AND CO Vou mention it"	Logic, mputation DQC 28/36

~	"Now that you mention it"	Vagueness (no	ot all of it!)		
8-10-29	Applications	It's actually 106 mil a It's 100 miles t a It's 110 miles t a #It's 108 miles	les to Chicago. Al to Chicago. (And S to Chicago. (And S s to Chicago. (And	ernative lines: 100 to Pittsburgh.) 120 to Pittsburgh.) 1327 to Pittsburgh.)	
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Standards of precision: it's not just 'the more precise the better'. Terms on different scales come with expectations of different levels of precision (Krifka has work along exactly these lines).

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This leaves one less problem for the vagueness folk to deal with. But, if Lewis is right, knowledge attributions (and presumably truth judgements as well) are vague in just this way! So that puts vagueness in at the bottom too.



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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	29 / 36

"No	ow that you mention it"	What does it get us?
2008-10-29	 Applications Vagueness and standards of precision What does it get us? 	Simple (or at least general) semantics Increasing standards of precision explained Properties of (properly) vague predicates linked to well, everything

This leaves one less problem for the vagueness folk to deal with. But, if Lewis is right, knowledge attributions (and presumably truth judgements as well) are vague in just this way! So that puts vagueness in at the bottom too.

- A: How should I go work this morning? The tram is uncomfortable, but a taxi is expensive.
- B: There might be a tram strike today.

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	30 / 36

 A How should 1 go work this morning? The tran is uncomfortable, but a tax is expensive. Pragmatics of possibility statements Pragmatics of possibility statements 	

We didn't have time for this in the talk, which is a shame.

Do we want to put the pragmatics of "might" into semantics? Tricky to get right...

And then people seem to use questions, hedged statements, and similar to the same effect — surely their semantics doesn't need adjusting in this way!

- A: How should I go work this morning? The tram is uncomfortable, but a taxi is expensive.
- B: There might be a tram accident today.

(AC talk)

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	30 / 36

"Now that you mention it"	Pragmatics of possibility statements
Applications - Pragmatics of possibility statements - Pragmatics of possibility statements	A: How should I go work this morning? The tram is uncomfortable, but a tax is expensive. B: There might be a tram accident today. (AC talk)

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Pragmatics	of possibility	statements
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- A: How should I go work this morning? The tram is uncomfortable, but a taxi is expensive.
- B: There might be a tram strike today.

(AC talk)

Applications

• There always "might be a tram strike"

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	30 / 36

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- A: How should I go work this morning? The tram is uncomfortable, but a taxi is expensive.
- B: There might be a tram strike today.

(AC talk)

- There always "might be a tram strike"
- Appropriate if there is evidence/reason to believe

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 30 / 36	

"Now that you mention it…"	Pragmatics of possibility statements
Applications Pragmatics of possibility statements Pragmatics of possibility statements	A' How should I go work this morning? The tram is uncomfortable, but a taxi is expensive. B: There might be a tram strike today. (AC tak) • There always 'might be a tram strike" • Appropriate if there is evidence/reason to believe

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(AC talk)

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- Appropriate if there is evidence/reason to believe
- Analogy with questions ("Is there...?" "Might there be...?")

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	30 / 36

"Now that you mention it"	Pragmatics of possibility statements
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- Analogy with questions ("Is there...?" "Might there be...?")
- If might is a test, what is being done here?

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 30 / 36	5

"Now that you mention it"	Pragmatics of possibility statements
Applications Pragmatics of possibility statements Pragmatics of possibility statements	 A: How should I go work this morning? The tram is uncomfortable, but a taxi is expensive. B: There might be a tram strike today. (AC talk) • There always "might be a tram strike" • Appropriate if there is <i>evidenceTreason</i> to believe • Analogy with questions ("Is there?" "Might there be?) • If might is a test, what is being done here?

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• Possibility statements express possibility

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	31 / 36

"N	low that you mention it"	Pragmatics of possibility statements
2008-10-29	—Applications —Pragmatics of possibility statements —Pragmatics of possibility statements	 Possibility statements express possibility

Mentioning possibilities produces an attention update, even if the informative update is vaccuous.

- Possibility statements express possibility
- Might is a test that typically succeeds

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	3 31 / 36

" "	Now that you mention it"	Pragmatics of possibility statements
2008-10-29	Applications Pragmatics of possibility statements Pragmatics of possibility statements	 Possibility statements express possibility Might is a test that typically succeeds

Mentioning possibilities produces an attention update, even if the informative update is vaccuous.

- Possibility statements express possibility
- Might is a test that typically succeeds
- Simply *mentioning* possibilities draws attention

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	31 / 36

"Now that you mention it"	Pragmatics of possibility statements
Applications Pragmatics of possibility statements Pragmatics of possibility statements	 Possibility statements express possibility Might is a test that typically succeeds Simply mentioning possibilities draws attention

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- Possibility statements express possibility
- Might is a test that typically succeeds
- Simply mentioning possibilities draws attention
- When is that relevant/cooperative? When backed by beliefs. (Decision theory: AC paper, submitted paper)

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 31 / 36

"Now that you mention it"	Pragmatics of possibility statements
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- Might is a test that typically succeeds
- Simply mentioning possibilities draws attention
- When is that relevant/cooperative? When backed by beliefs. (Decision theory: AC paper, submitted paper)
- Why not say something stronger? Weak beliefs/hearer expertise.

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	31 / 36

"Now that you mention it"	Pragmatics of possibility statements
Applications Pragmatics of possibility statements Pragmatics of possibility statements	 Possibility statements express possibility Might is a test that typically succeeds Simply meritoring possibilities draws attention When is that relevant/cooperative? When backed by beliefs. (Decision theory: Ac pager, submitted pager) Why not say something stronger? Weak beliefs/hearer expertise.

Mentioning possibilities produces an attention update, even if the informative update is vaccuous.



This schema applies to pretty much all the applications: build attentiveness in at the bottom, and the top gets a lot simpler and more stable.



This schema applies to pretty much all the applications: build attentiveness in at the bottom, and the top gets a lot simpler and more stable.

Intuitions ooooooo	Details ooooooo	Applications
What does it get u	s?	

- Uniform account (questions, "might", pointing, ...)
- Simple semantics (flexible too!)
- Complications (and numbers) derived by pragmatics

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 32 / 36	



This schema applies to pretty much all the applications: build attentiveness in at the bottom, and the top gets a lot simpler and more stable.

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• Attentiveness is ubiquitous — take it seriously!

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 34 / 36

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0-2		Attentiveness is ubiquitous — take it seriously!
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- Attentiveness is ubiquitous take it seriously!
- It solves problems

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	34 / 36

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Tikitu de Jager (ILLC)	"Now that you mention it"		LeGO 10/08	34 / 36

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 - Standards of precision

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	34 / 36

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 - Standards of precision
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"Now that you mention it"	What I already said
What I already said	Attentiveness is ubiquitous — take it seriously! It solves problems Solot sequences Standards of precision Possibility statements and deliberately drawing attention

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- It solves problems
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 - Standards of precision
 - Possibility statements and deliberately drawing attention
- It makes us be precise

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"Now that you mention it"	What I already said
What I already said	Attentiveness is ubiquitous — take it seriously! It isolves problems Soble sequences Sandados of precision Possibly statements and deliberately drawing attention It markes us be precise

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 - Sobel sequences
 - Standards of precision
 - Possibility statements and deliberately drawing attention
- It makes us be precise
 - Dynamic interactive epistemology

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What I already said

- Attentiveness is ubiquitous take it seriously!
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 - Sobel sequences
 - Standards of precision
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- It makes us be precise
 - Dynamic interactive epistemology
 - What do our "truth/felicity judgements" really mean?

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What I already said	Attentiveness is ubiquitous — take it seriously! It solves problems Standards of precision Possibility statements and deliberately drawing attention It makes us be procise o Dynamic interactive epistemology What do our "huth/teicity judgements" really mean?

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- Attentiveness is ubiquitous take it seriously!
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 - What do our "truth/felicity judgements" really mean?
 - Motivation to speak vs. acceptability of utterance

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- Attentiveness is ubiquitous take it seriously!
- It solves problems
 - Sobel sequences
 - Standards of precision
 - Possibility statements and deliberately drawing attention
- It makes us be precise
 - Dynamic interactive epistemology
 - What do our "truth/felicity judgements" really mean?
 - Motivation to speak vs. acceptability of utterance
- It's fun!

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What I already said

- Attentiveness is ubiquitous take it seriously!
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 - Possibility statements and deliberately drawing attention
- It makes us be precise
 - Dynamic interactive epistemology
 - What do our "truth/felicity judgements" really mean?
 - Motivation to speak vs. acceptability of utterance
- It's fun!
 - Wild and crazy possibilities...

Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	34 / 36
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What I already said

- Attentiveness is ubiquitous take it seriously!
- It solves problems
 - Sobel sequences
 - Standards of precision
 - Possibility statements and deliberately drawing attention
- It makes us be precise
 - Dynamic interactive epistemology
 - What do our "truth/felicity judgements" really mean?
 - Motivation to speak vs. acceptability of utterance
- It's fun!
 - Wild and crazy possibilities...
 - ... that turn out to happen in real life!

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Tikitu de Jager (ILLC)	"Now that you mention it"		LeGO 10/08	34 / 36	

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Bibliography

Things I know but couldn't cover:

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 35 / 36

0	"Now that you mention it"	What I didn't say
008-10-26	What I didn't say	Things I know but couldn't cover:

Bibliography

Things I know but couldn't cover:

• Updates done formally (at least two options)

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08	35 / 36

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Bibliography

Things I know but couldn't cover:

- Updates done formally (at least two options)
- Suppression task (interpretation of lawlike/generic conditionals)

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Tikitu de Jager (ILLC)	"Now that you mention it"	LeGO 10/08 35 / 36

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2008-10-29	└──What I didn't say	Things I know but couldn't cover: • Updates done formally (at least two options) • Suppression task (interpretation of lawike/generic conditionals)

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Things I know but couldn't cover:

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- Bibliography
- Ronald Fagin and Joseph Y. Halpern. "Belief, Awareness and Limited Reasoning". In: Artificial Intelligence 34 [FH88] (1988), pp. 39–76. [F01] Kai von Fintel. "Counterfactuals in a Dynamic Context". In: Ken Hale: A Life in Language. Ed. by Michael Kenstowic MIT Press, 2001, pp. 123-152. [FG07] Kai von Fintel and Anthony S. Gillies. "Might' Made Right". Unpublished Manuscript. 2007. [HMS06] Aviad Heifetz, Martin Meier, and Burkhard C. Schipper. "Interactive Unawareness". In: Journal of Economic Theor 130 (2006), pp. 78-94. [Lew73] David K. Lewis. Counterfactuals. Harvard University Press, 1973. David K. Lewis. "Elusive Knowledge". In: Australasian Journal of Philosophy 74.4 (Dec. 1996), pp. 549–567. [Lew96] Sarah Moss. "On the Pragmatics of Counterfactuals". Unpublished Manuscript, MIT. 2007. [Mos07] [Wil08] J. Robert G. Williams. "Conversation and Conditionals". In: Philosophical Studies 138.2 (Mar. 2008), pp. 211–223.

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Things I don't yet know and would like to:

How to do updates formally

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⇒ A logic $(A_1 \varphi \rightarrow A_1 B_2 \varphi)$

What I didn't say

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Things I don't yet know and would like to:

- How to do updates formally
- A logic $(A_1 \varphi \rightarrow A_1 B_2 \varphi)$
- Suppression task: effect of ordering

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What I didn't say

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- More about Sobel sequences

Things I don't yet know and would like to:

- How to do updates formally
- A logic $(A_1 \varphi \rightarrow A_1 B_2 \varphi)$
- Suppression task: effect of ordering
- Whether I will finish on time...

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Bibliography

Thanks for your attentiveness!

(questions ... and then the pub)

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