**PolQs and AltQs with speaker-ignorance**

(1) 
Half of the time before they meet, Billy expects Alex to wear a hat and she doesn’t; the other half, he expects her not to wear a hat and she does…

a. It always surprises Billy whether Alex wears a hat

(2) 
Half of the boys expected their mom to come pick them up, but she didn’t; the rest expected their mom not to come pick them up, but she did…

a. It surprised every boy whether his mom came to pick him up

(3) 
Half of the time before they meet, Billy expects Alex to wear a beret and she wears a cap; the other half, he expects her to wear a cap and she wears a beret…

a. It always surprises Billy whether Alex wears a beret or a CAP

**PolQs and AltQs under universal quantifiers**

(4) In an experiment, Carl is asked to judge Billy’s reaction as Billy is shown a picture of Alex. Before being shown the picture, Billy is either told that Alex is wearing a beret or told that she’s not wearing a beret. Carl can’t see the picture, nor does he know what Billy was told, but he knows that Billy has formed an expectation regarding whether Alex is wearing a beret. Billy sees the picture and expresses surprise…

a. Carl: It surprised Billy whether Alex was wearing a beret

**INGREDIENTS OF THE ANALYSIS**

**Maximize Presupposition (MP)**

Speakers have a preference to use the presuppositionally strongest usable utterance from a set of salient alternatives (Heim 1991, Sauerland 2008)

(9) A: It’s going to rain today
B: Yes, I [believe / know] that it’s going to rain

(10) MP: If LFs φ and ψ are contextually equivalent salient alternatives and the presuppositions of φ asymmetrically entail those of ψ and are met in the context of utterance, use φ!

(11) LF’s φ and ψ are contextually equivalent relative to a context Cϕ and an assignment function g iff ∃s : s ∈ [φ] ∧ s ∈ C ϕ & s ∈ C ψ

The meaning of it surprised s whether φ

To be surprised by a proposition is to previously have believed its negation

(12) [surprise]φ(s)(x)(p),φ(s) is defined only if p(s) = True ∧ Dox(x,s) ⊆ p.
When defined, [surprise]φ(s)(x)(p),φ(s) = True iff ∃i (Past(i, s) ∧ Dox(x,s) ⊆ ¬p)
(Lahiri 2002, Guerzoni 2007)

(13) [whether Alex wears a hat](s) = [pϕ; p(s) = True ∧ (p = [Alex wears a hat]])

(Karttunen 1977)

(14) [ANS]*((Qα,α)) is defined only if Q(s) ⊆ Q. When defined,
[ANS]*((Qα,α)) = {pϕ : pϕ ∈ Q(s) → p(s) = True}

(Dayal 1996)

**Whether φ sometimes evokes φ, ¬φ as alternatives (Katzir 2007)**

(15) It surprised Billy whether Alex was wearing a beret

a. [it [surprised-si Billy] [ANS-s, whether Alex was wearing a beret]]

b. [it surprised Billy that Alex was wearing a beret, it surprised Billy that Alex wasn’t wearing a beret]

(16) It surprised every boy whether his mom came to pick him up

a. [Every boy-s, [2 it surprised-s, t, s, t] [ANS-s, whether t’s mom came]][]

b. [it surprised every boy that his mom came… it surprised every boy that his mom didn’t come…]

**Presuppositions project universally under universal quantifiers (Heim 1983)**

(17) It surprised every boy that he passed the test

a. Presupposes (from factivity of surprise): Every boy passed the test

**PUTTING IT ALL TOGETHER**

The use of (15) is a violation of Maximize Presupposition when the factive presupposition of an alternative is satisfied by the context – hence the requirement that the answer not be known

The use of (16) is a violation of Maximize Presupposition when the universal factive presupposition of an alternative is satisfied by the context – hence the requirement that different answers be true for different entities in the restriction of the quantifier

**PREVIOUS ACCOUNTS**

**Pragmatic Speaker-Factivity Account (Guerzoni 2007, Sarbo 2007)**

i. and iv. trigger ignorance implicatures about alternatives with declaratives that are inconsistent with the speaker-factivity of surprise (i.e. the presupposition that the speaker knows the answer to a question embedded under surprise)

Removing speaker-factivity can explain (4) and (8), but because the account attributes unacceptability to under-informativity, it cannot explain the unacceptability of whether in (5)-(7), where whether/that are contextually equivalent

**Pragmatic Manner-Violation Account (Roelofsen et al. 2016)**

i. and iii. have the same presuppositions and truth conditions, but iii. introduces unnecessary complexity in producing that meaning

Account faces difficulty explaining why a that-clause is unacceptable in (ta), e.g.


*Surprise whether...* either violates the selectional requirements of surprise, or it derives a contradictory/trivial/unsusable meaning

Unacceptability is expected to be insensitive to context

**Acknowledgements**

Thanks to Yael Sharvit, Dylan Bumford, Jessica Rett, Tim Hunter, Michelle Yuan, and Tim Stowell for their helpful feedback and suggestions. This work is partially funded by a SSHRC doctoral fellowship (#752-2014-1490). All errors are my own.