Effect of marking direct and indirect evidence on (perceived) speaker confidence

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Introduction

What is the relationship between **evidence** and **confidence**?
How do we reason about one to draw inferences about the other?

Using **evidential expressions** (perception verbs, adverbials, modals) conveys **reduced confidence** (Degen et al. 2019)

The dress looks new

The dress is new

What underlies this effect?

I) Evidential reasoning

Reason re: type of evidence, esp. its **direct**ness (von Fintel & Gillies 2010)

Confidence conveyed by *looks q*	∝	**Direct**ness of visual evidence for *q*

II) Gricean reasoning

Reason re: alternative utterances e.g. bare proposition (Degen et al. 2015)

Confidence conveyed by *looks q*	<	**Confidence** conveyed by bare *q*

Case study

What happens when we mark **maximally direct** evidence?

The dress looks blue

Evidential reasoning: **confidence** is maximally high

bare = direct > indirect

Gricean reasoning: **confidence** is lower than less costly alternative

bare > direct = indirect

3rd option (Grice 1961):

bare > indirect > direct

Experiment 1

Participants given utterances & rate speaker's **confidence**

10 experimental stimuli:

NAME'S CLOTHING-ITEM *is*/*looks* ADJ

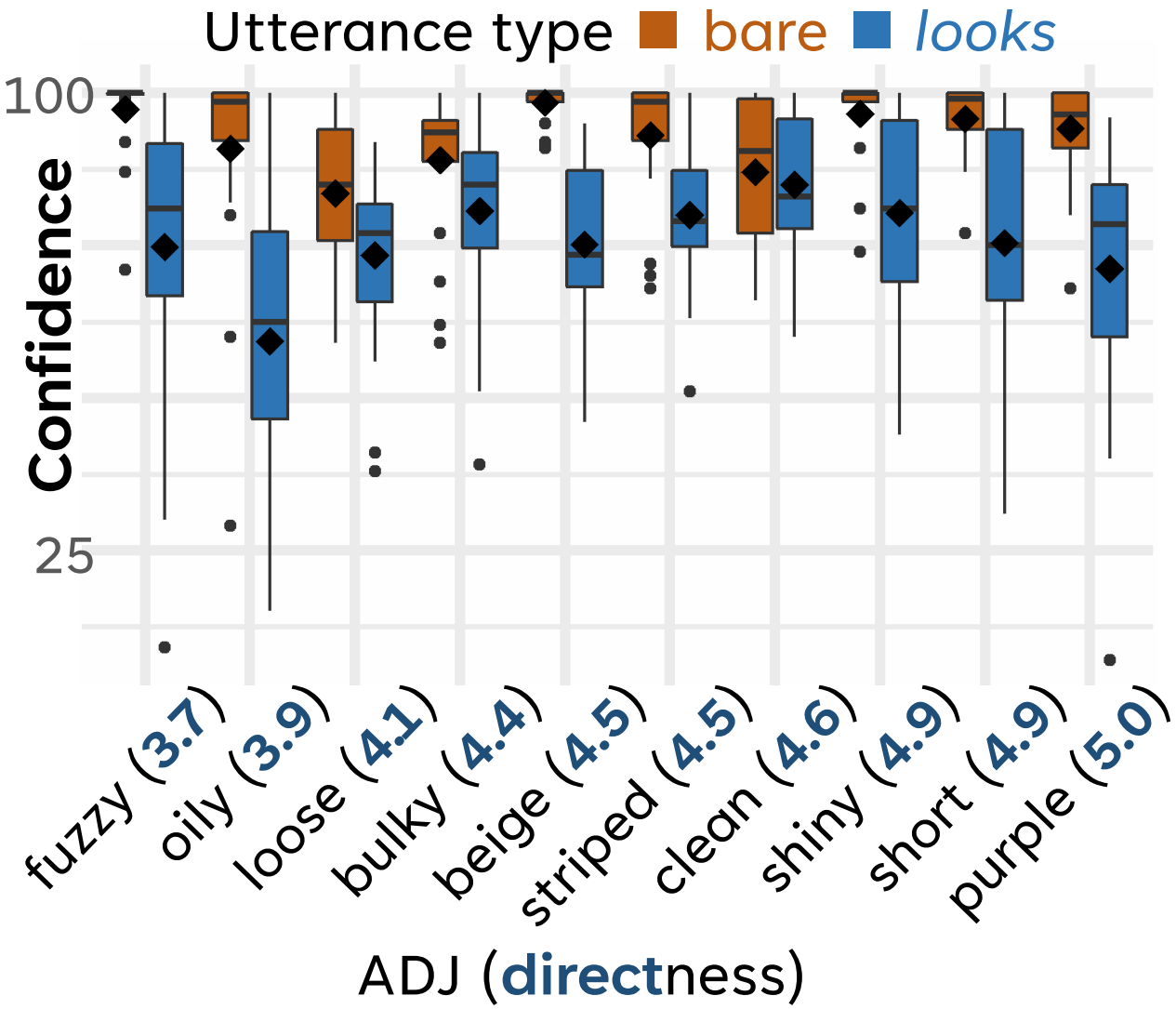
e.g. *Kate's dress is*/*looks shiny*

10 ADJ's with a range of visual strength (= **direct**ness) ratings (Lynott & Connell 2009)

10 fillers e.g. *might be* ADJ

40 English speakers (Prolific.co)

Experiment 1 results



Regression model:

Confidence ~ utterance type * (**direct**ness + **direct**ness^2)

Main effect: **Confidence** lower after *looks* (β=-12.42, p<.001)

Interaction: **Confidence** after *looks* lower for extreme values of **direct**ness (β=-4.66, p=.004)

Account + prediction:
Explicit marking of **maximally direct** evidence ⇝ Speaker's evidence is unreliable

Experiment 2

Participants given scenario:
Standing outside a room, trying to figure out if it is ADJ inside

6 ADJ's with visual, auditory & haptic strength (= **direct**ness) ratings (Lynott & Connell 2009) e.g.

	vis.	aud.	hap.
bright	**5.0**	**0.1**	**0.2**
crowded	**4.6**	**3.7**	**2.3**
hot	**3.3**	**1.0**	**4.9**

12 experimental stimuli:

The room has a...

clear/murky window to look through
thin/thick door to listen at
gap to push arm/fingertips through

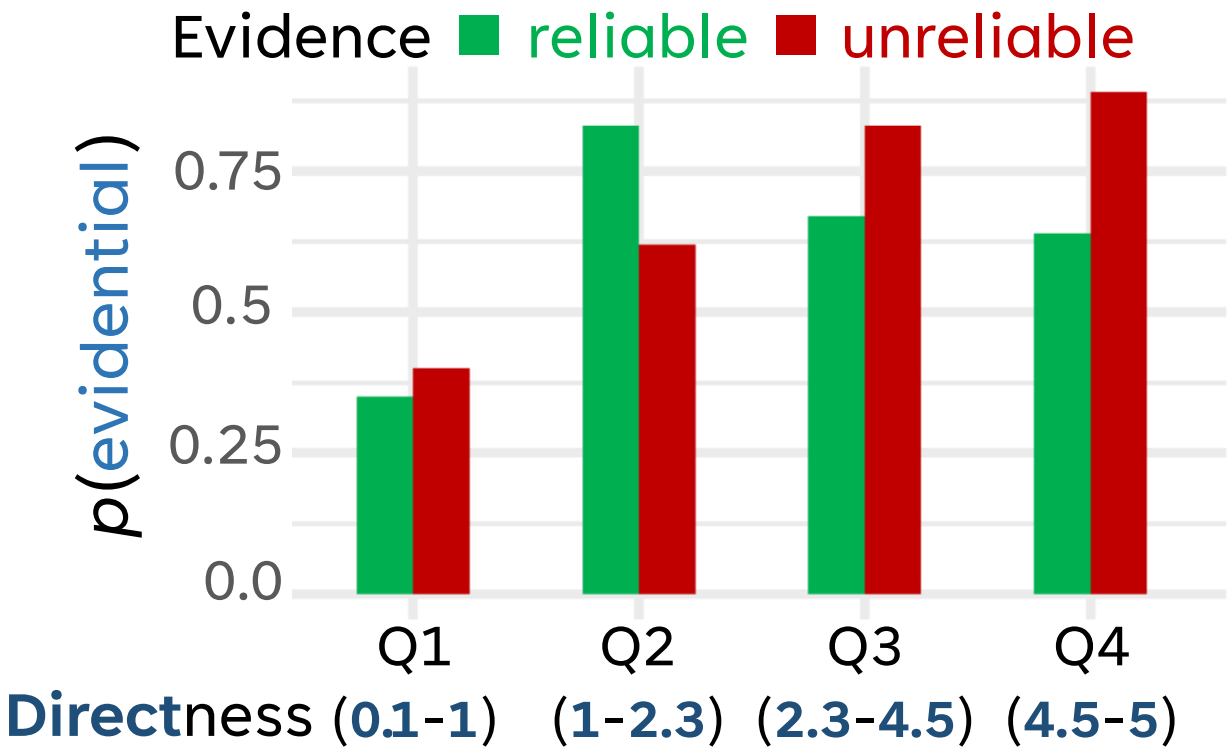
12 fillers e.g. a sign on the door

Participants choose an evidential or bare utterance to tell a friend

e.g. *It is/feels hot in there*

33 English speakers (Prolific.co)

Experiment 2 results



Regression model:

p(evidential) ~ sense + evidence * (**direct**ness + **direct**ness^2)

Main effect: p(evidential) lower for extreme values of **direct**ness (β=-1.01, p=.002)

Interaction: with unreliable evidence, p(evidential) higher for high **direct**ness (β=0.88, p=.014)

Conclusions:

Confidence ∝ **direct**ness, up until competition with the bare prop. ⇝ unreliable evidence

We combine evidential & Gricean reasoning to draw inferences

References

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