Conversational expectations
Language use and comprehension is governed by interlocutors expectations about how communicative interactions should proceed (Grice, 1975; Levinson, 2000).

- Be truthful
- Be informative
- Be relevant
- Be brief
- What is said is the obvious
- What is said normally is not normal

When an utterance fails to meet these expectations we can draw inferences.

I ate some of the cookies
My soup is warm
Pass me the yellow banana
John went to the restaurant

Not all of the cookies
Not hot
There’s another non-yellow banana
John doesn’t usually eat at restaurants

Informativity inferences
When knowledgeable speakers produce trivial utterances (neither blatantly underinformative nor explicitly overinformative), addressees are licensed to derive informativity-based inferences.

1. “The library walls are blue”   
   a) The situation has changed   
   b) The walls used to be different

Why utter (1)? To inform an addressee about the current state of the world? The triviality of (1) may invite the addressee to reason about why a speaker chose to produce such a trivial utterance. What were the speaker’s goals and intentions? To convey something changed?

Speaker knowledge is a key factor in deriving inferences. Greater rates of inferring from knowledgable speakers (Rees, Reksnes, & Rohde, preprint). It is an open question of how readily triviality-driven inferences are derived and whether they incur a cost.

Research questions
1. How readily are informativity-based inferences computed? Early or late in processing? 
2. Is there a cost to computing informativity-based inferences?

Predictions
If informativity-based inferences are costly to compute this may be reflected by a slowdown either early in processing (reading time at the utterance) or later on when prompted (response time).

Study 1
Self-paced reading study with sentence verification. After reading the sentence participants responded to the prompt question “Was it the same before?” “No” responses are consistent with an inference response.

Results N=200
There was no difference in reading times when analysing the log transformed reading times (Fig 1; p’s > .146). Participants were slower to provide an inference response than a non-inference response independently of speaker knowledge (Fig 2; p<.001 & p=.372)

Study 2
When an utterance fails to meet these expectations we can draw inferences.

Cross study comparison
Note that the only difference between Study 1 & 2 is how an inference response is indicated. In Study 1 an inference corresponds to No and in Study 2 an inference corresponds to Yes. A cross study analysis shows that participants are much slower to respond “yes” when this is consistent with an informative response (p’s<.001).

We take this as evidence that informativity-driven inferences are costly to compute.

Conclusions
- Inferences arise from trivial utterances; utterances that are neither blatantly underinformative nor explicitly redundant.
- Reading time data suggests that informativity-based inferences are either 1) not costly to compute or 2) are not usually computed automatically.
- Response time data suggests that informativity based inferences are costly to compute
- Study 1 suggests informativity-based inferences are costly to compute. But this could be due to inference responses being “no”
- Study 2 swaps inference responses to “yes” and shows no difference in response times for inference and no inference responses.
- Cross-study analysis confirms that there is a cost associated with computing informativity-driven inference

Selected references
Rees, A., Reksnes, V., & Rohde, H. (preprint). Why are you telling me this? Availability and timing of trivially-driven inferences from informationally redundant utterances