

# A reanalysis of the de re blocking effect

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04/14/2021

(1) Gennaro believes that his pants are on fire.

*His* is a pronoun interpreted de se. It is interpreted from the first-personal perspective of the attitude holder (Gennaro).

But this sentence can be true even if Gennaro is not self-aware that his own pants are on fire. *His* would then be interpreted de re.

(2) Gennaro believes that his pants are on fire.

**Turns out:** such sentences are in fact marginal, and not natural, based on experimental evidence.

# Dream-selves and real-selves

(3) I dreamed that I was Trump and I ate a Big Mac.

In a dream like this, there are two possibilities: (1) Trump, the dream-self, ate a Big Mac (de se in a dream) OR (2) you, the real-life-self, ate a Big Mac (de re in a dream in which you are someone else).

# Oneiric reference constraint

According to Percus & Sauerland (2003), something curious happens if you have a sentence like below, where you have two pronouns which can refer to either the dream-self or real-self:

- (4) I dreamed that I was Biden and I kissed me.  
Possible reading: In the dream, Biden kissed me.  
(dream-self, de se, kissed real-life-self, de re)  
Less plausible reading: In the dream, I kissed Biden.  
(real-life-self, de re, kissed dream-self, de se)

# Oneiric reference constraint

Percus & Sauerland (2003) dub this contrast the Oneiric Reference Constraint (ORC): the real-life self (de re) cannot c-command the dream-self (de se). They derive this contrast via movement and agreement.

## De re blocking effect

Anand (2006) argues that this is not general enough. He defines the following constraint as follows:

(5) De re blocking effect

No obligatory de se anaphor can be c-commanded by a de re counterpart.

To derive this contrast, Anand appeals to a modification of Fox (2000)'s Rule H, so that de se vs. de re interpretations are not included, allowing it to rule out the non-local configuration:

(6) *Rule H (mod de se, simplified)*

A variable, *x*, cannot be bound by antecedent, *A*, in cases where a more local antecedent, *B*, could bind *x* and yield the same semantic interpretation.

# Experimental testing

I did two separate surveys on Qualtrics to verify the de re blocking effect with *dream* (100 participants each)—because the judgments are really difficult.

For both experiments, I provided context-sentence pairs and asked participants to judge their acceptability from 1 to 6 (1 being very unnatural, 6 being very natural). I used the Wilcoxon rank sum test to calculate p-values, as the responses are on a scale and do not follow a normal distribution. I confirmed a significant effect if the p-value was under 0.0001.

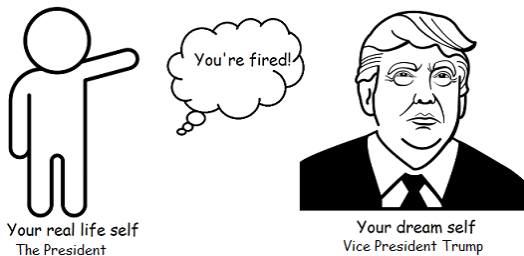


# What did I compare?

I dreamed that I was Trump and I fired me.



(a) De se vs. de re context



# Results

- (7) I dreamed that I was Trump and I fired me.
  - a. Dream-self fires real-life self: 3.56/6
  - b. Real-life self fires dream-self: 2.34/6

Difference significant at  $p < 0.0001$ . Similar results with *kiss* instead of *fire*. So, I have found experimental justification for what has been reported in the literature.

# Results

- (8) I dreamed that I was Trump and I fired my daughter.
- a. Dream-self fires real-life self's daughter (Trump fired my daughter): 4.46/6
  - b. Real-life self fires dream-self's daughter (I fired Ivanka): 3.49/6

Difference significant at  $p < 0.0001$ . Everything in line with the literature so far.

# Results

- (9) I dreamed that I was Trump and I was fired by me.
- a. Dream-self fires real-life self: 3.59/6
  - b. Real-life self fires dream-self: 2.97/6

Difference significant at  $p < 0.0001$ .

# Results

- (10) I dreamed that I was Trump and I said that I was fired.
- a. Dream-self fires real-life self: 3.62/6
  - b. Real-life self fires dream-self 2.87/6

Difference significant at  $p < 0.0001$ .

# Results

- (11) I dreamed that I was Trump and I said that I ate a Big Mac.
- a. Dream-self says that real-life self ate a Big Mac: 3.41/6
  - b. Real-life self says that dream-self ate a Big Mac: 3.54/6

Difference **not** significant at  $p < 0.0001$  (as my account would predict, but not the c-command accounts).

# The first de re blocking effect

(12) I dreamed that I was Trump and I was fired by me.

(13) I dreamed that I was Trump and I said that I was fired.

The evidence indicates that de re blocking effects arise here, as well—which is unexpected under Percus and Sauerland’s account and Anand’s, especially because there seems to be no blocking here:

(14) I dreamed that I was Trump and I said that I ate a Big Mac.

Blocking seems to arise due to the lexical semantics of *fire*—you fire someone by saying that they are fired. *Fire* is a performative utterance.

# De re blocking effect redefined

Here is my definition of the de re blocking effect:

(15) *The first de re blocking effect*

When an (obligatorily) de se and a de re counterpart have a thematic relation to the same event, the de re counterpart must be a Theme.

How does this work? ex. *Mary fired John.*

(16)  $\exists e$ . [fire(e) & Agent(e, Mary) & Theme(e, John)]

Mostly gets the same results as c-command.



# Why?

My descriptive generalization bears resemblance to Jackendoff (1972):

(17) *Thematic Hierarchy Condition* (THC)

A reflexive cannot precede its antecedent on the following hierarchy:

Agent, Experiencer < Location, Source, Goal < Theme

- (18) a. The artist painted herself in a realistic style. (Theme reflexive)
- b. \* The artist was painted by herself in a realistic style. (Agent reflexive)

Maybe this thematic hierarchy also applies to dream-selves and real-selves. (Note: I don't assume that this is a theoretical primitive; I leave it to others to derive it, like Varaschin (2020))

# Big Problem

We seem to be getting a de re blocking effect here?!

- (19) I dreamed that I was Trump and my daughter fired me.
  - a. Dream-self's daughter fires real-self (Ivanka fired me): 3.29/6
  - b. Real-self's daughter fires dream-self (My daughter fired Trump): 4.12/6

Difference significant at  $p < 0.0001$ . Totally unexpected and not reported in the literature. Cannot be derived at all by c-command accounts (they predict there to be no significant difference). I predict the opposite pattern...

I would have to assume a different thematic hierarchy for possessors (Theme > Possessor). Usually, Possessor > Theme is assumed.

# Experiment for PRO

I tried context-sentence pairs like this (140 participants):

- (20)      **Case 3:** Jack is a criminal who lost his memories years ago; he once stole a pound of shrimp from a grocery store and was recorded by a surveillance camera while being chased by the police, and in the end he was caught after trying to flee. Years later, he sees a video of himself running from the police on Youtube, not recognizing that it is him in the video. Jack's friend asks him what he is watching, he says that it is a recording of a guy trying to run from the police.
- a.    ? Jack said that he ran from the police. (Basic de re = 2.80/6)
  - b.    # Jack said that he tried to run from the police. (De re blocking effect PRO = 2.04/6)

The second is significantly ( $p < 0.0001$ ) worse than the first.

## The second de re blocking effect

This is very distinct from the cases involving *dream*, because it involves a de re counterpart which itself is bound by an obligatorily de se anaphor like PRO—existing accounts of the de re blocking effect cannot explain why this arises.

- (21)        *The second de re blocking effect*  
De re counterparts cannot self-ascribe a property.

# De re blocking effect with PRO

If this is right, this has a number of consequences in the literature:

- (22) PRO exists (contra Chierchia (1984))
- (23) Control complements are propositional (contra Landau (2015))

# Conclusion

To conclude, I've found a number of contexts in which the de re blocking effect arises that current accounts do not explain. I've proposed that there are two de re blocking effects:

- (24) When an (obligatorily) de se counterpart and de re counterpart have thematic relations to the same event, then the de re counterpart must be a Theme—it cannot be an Agent (de re blocking effect in dream-contexts).
- (25) De re counterparts cannot self-ascribe a property (de re blocking effect with PRO)

My ultimate goal has been to show that there is much more to de re blocking effects than we realize. Thank you!

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