

## Introduction

- How do we interpret anaphoric expressions?
- **A fixture in anaphor resolution:** reduced anaphors refer to the topic.<sup>[1]</sup>
- **Recent cross-linguistic studies:** stimulus is selected as antecedent in psych-verbs, regardless of pronoun form (full or  $\emptyset$ ):<sup>[2,3,4,5]</sup>
  - stimulus-experiencer verbs: Sally frightened Mary because (she) . . . .
  - experiencer-stimulus verbs: Sally feared Mary because (she) . . . .
- **But, a limitation:**
  - \* not a within-language, within-verb, and/or within-task comparison; or
  - \* the findings based on production.
- **Pro-drop languages:**  $\emptyset$  refers to the subject, full pronoun acts as a topic shifter.
- **A previous hypothesis:**<sup>[6]</sup> subject bias for reduced anaphors disappears in psych verbs. There is an experiencer bias, instead (c.f., cross-linguistic findings).
  - **But a limitation:**
    - \* Not experimentally tested, based on intuition.
    - \* Experiencer was animate & stimulus was inanimate in the examples.

## Study

- Aim**
- To systematically test which referent (i.e., stimulus or experiencer) is selected as the antecedent of an ambiguous pronoun in Turkish psych verbs.
  - To test the effect of anaphoric form (full vs.  $\emptyset$ ).
- Procedure**
- Two rating studies modeled on Hartshorne & Snedeker (2013).
  - Participants read 24 sentences with ambiguous anaphor in two conditions: stimulus-experiencer and experiencer-stimulus verbs.
  - Sentences were conjoined with 'because'.
  - The main clause (with SOV order) had two referents with (+) human and (+) female features.
  - The conjoined clause had an ambiguous anaphor (Study-1: full-pronoun; Study-2:  $\emptyset$ -pronoun).
  - The sentences ended with a non-word adjectival predicate (dakmuk).
  - Participants were asked to choose the referent of the non-word adjective.

## Test items

### Stimulus-experiencer:

- (1) Bahar Ceren'i çok büyü-lü-yor çünkü (o) son derece dakmuk.  
Bahar Ceren-Acc a lot dazzle-Prog because (she) extremely dakmuk  
'Bahar dazzles Ceren a lot because she is extremely dax.'

Who is dakmuk?

Bahar Ceren

### Experiencer-stimulus:

- (2) Bahar Ceren'i çok arzulu-yor çünkü (o) son derece dakmuk.  
Bahar Ceren-Acc a lot desire-Prog because (she) extremely dakmuk  
'Bahar desires Ceren a lot because she is extremely dax.'

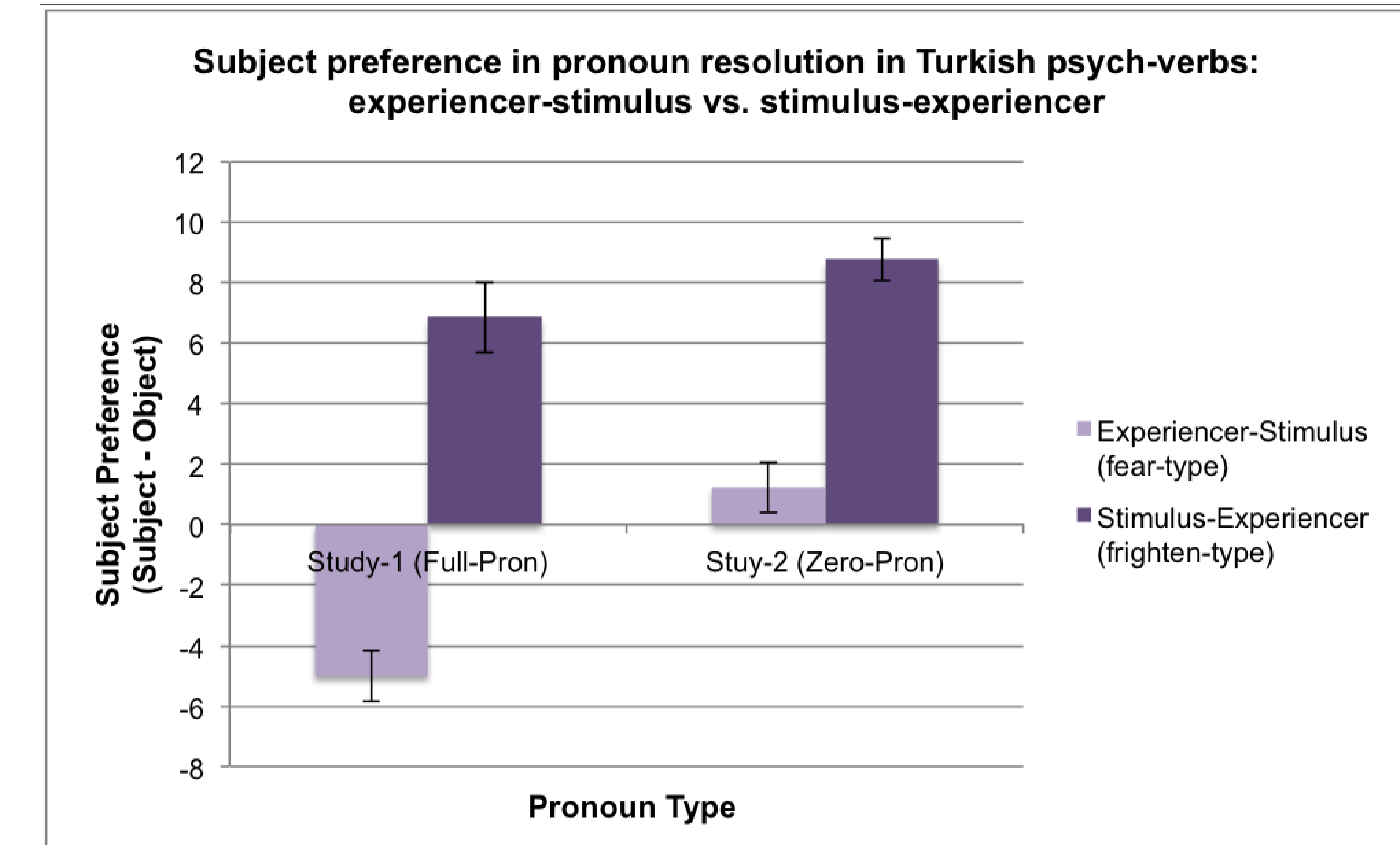
Who is dakmuk?

Bahar Ceren

## Predictions

- **If stimulus bias (a la cross-linguistic studies):**
  - object should be selected in the experiencer-stimulus verbs,
  - subject should be selected in the stimulus-experiencer verbs.
- **If experiencer bias (a la Turan, 1998):**
  - subject should be selected in experiencer-stimulus verbs,
  - object should be selected in stimulus-experiencer verbs.
- **If the full pronoun acts as a topic shifter also in psych-verbs:**
  - object should be selected in full pronoun sentences,
  - subject should be selected in zero-pronoun sentences,
  - regardless of the verb type.

## Results



- Significant subject preference in stimulus-experiencer verbs in both studies.
- Pronoun drop significantly increased the subject preference only in experiencer-stimulus verbs.

## Discussion

- **The anaphor was not resolved towards the experiencer**
  - when the referents were controlled for animacy,
  - perhaps because the sentences appeared in a causal structure.
- **Stimulus-experiencer verbs were strongly biased towards the stimulus**
  - regardless of form,
  - corroborating with a cross-linguistic tendency.
- **However,**
  - anaphoric form had a significant effect on experiencer-stimulus verbs,<sup>[7,8]</sup>
  - experiencer-stimulus verbs were more malleable,
  - this pattern challenges all current theories of anaphora.