# Grammatical gender agreement in bilingual code-switching

Representational and processing considerations



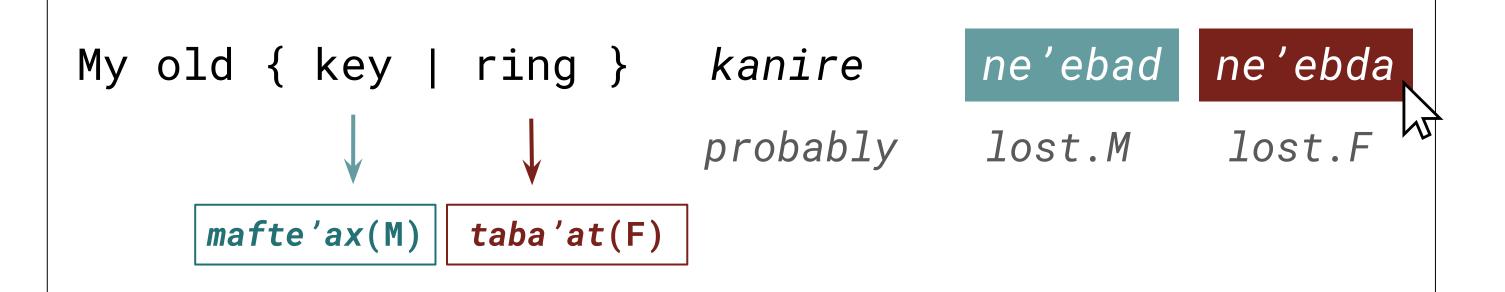


## INTRODUCTION

This study examines the resolution of **agreement dependencies** in **Hebrew-English intra-sentential code-switching** (ICS) [cf. 1-3].

All Hebrew nouns are either feminine or masculine, and trigger gender agreement, a feature lacking in English.

We examine bilinguals' preferences for **gender agreement on a Hebrew element modifying an English inanimate noun**.



### Potential outcomes:

- **Default agreement**: default masculine agreement regardless of a noun's Hebrew equivalent.
- Analogical agreement: agreement based on the noun's Hebrew equivalent.
- Random choice.

### **METHOD**

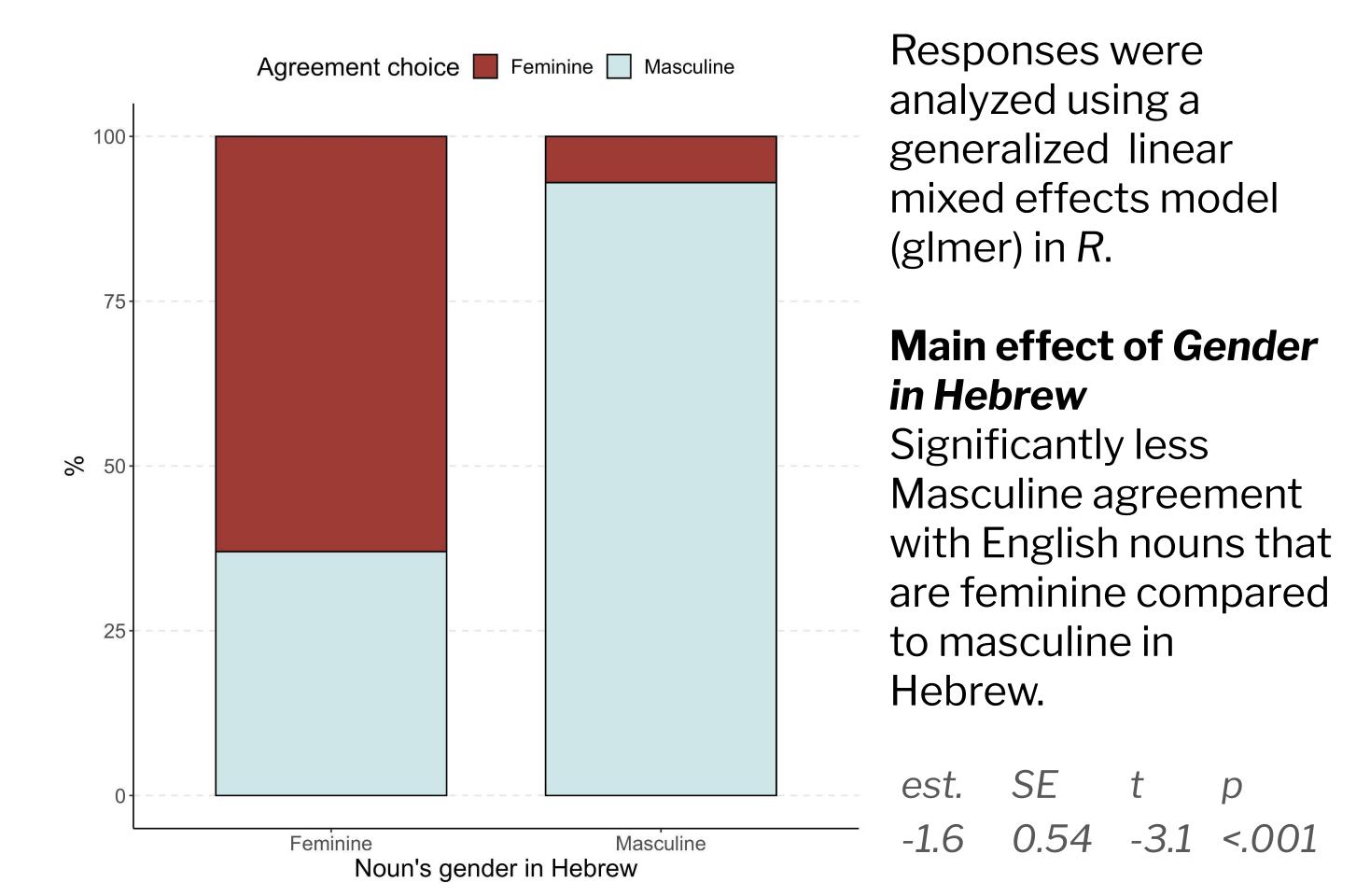
48 early Hebrew-English bilinguals.

Preambles containing an English inanimate noun ⇒ **2AFC** sentence completion in Hebrew: *Feminine* or *Masculine* form.

24 sets, 2×3: the noun's **Gender in Hebrew** {*F, M*}, and the type of **Agreement Dependency** {concord, subj-verb, coreference}.

	ender in Hebrew: {masculine feminine}		
Concord	I bought a {key ring} mamaš very	katan small.M	<i>ktana</i> small.F
	'I bought a very small key/ring'		
Subj- verb	My old {key ring} kanire probably	ne'ebad lost.M	ne'ebda lost.F
	'My old key/ring probably got lost'		
Corefere nce	I just had my {key ring} ve-ibadeti and-lost	oto it.M	ota it.F
	'I just had my key/ring but i lost it'		

# **RESULTS**



This effect provides evidence for the *analogical agreement* strategy. However, the overall frequent choice of masculine reflects reliance on the *masculine as default* in ICS.

# Maculine To ago with the present of the present of

Mandy Cartner, Aya Meltzer-Asscher and Julia Horvath

### Interaction between Gender in Hebrew and Dependency type:

Subj-verb

Dependency

Coreference

The effect of *Hebrew Gender* was greater in the *coreference* compared to the *concord* condition. No other contrasts reached significance.

est. SE t p 1.6 0.54 -3.1 <.001

### **DISCUSSION**

### **Analogical agreement**

Concord

Hebrew-English bilinguals agree with English nouns based on the grammatical gender of their Hebrew equivalent.

This finding motivates a **shared lexicon** in bilingual grammar consisting of abstract lexical items, independently motivated in the generative framework Distributed Morphology (DM) [4-5].

$$\sqrt{\alpha}[+F] \rightarrow \{ \text{ ring , taba'at } \}$$
  
 $\sqrt{\beta}[-F] \rightarrow \{ \text{ key , mafte'ax } \}$ 

### **Default masculine**

Alongside analogical agreement, masculine agreement was still frequently chosen for nouns that are feminine in Hebrew.

We propose that the **default choice** is relied on when the gender of the noun in Hebrew was **not successfully accessed**.

# Grammatical agreement vs Coreference

Previous studies report conflicting patterns of agreement in ICS [1-3, 6].

We found that the **type of** *agreement dependency* modulates the occurrence of analogical agreement vs. default masculine: more default agreement is observed in the *concord* condition compared to the *coreference* condition [cf. 7].

Gender marking in the *Concord* and *Subj-verb* cases is the result of a **grammatical agreement process**. A coreferential pronoun matching its antecedent in features, however, does not involve a formal grammatical dependency but **retrieval of a lexical item**.

We propose that while the abstract lexical representation is shared and includes gender specification, successfully accessing an English form's gender is more difficult in the **formally driven grammatical agreement** process, especially if assumed to apply after Vocabulary insertion [8]. In such cases, speakers may rely on the masculine default instead.