#### DIALECT RECOGNITION VIA LEXICAL PROCESSING: IS IT A VIABLE LITMUS TEST?

### **ABSTRACT**

For decades, linguists have made efforts to discover an objective means of differentiating dialects from languages. However, dialect recognition has largely remained a subjective enterprise. Only recently, a processing-based psycholinguistic approach towards dialect recognition was proposed by Melinger (2018, 2021). Melinger argues that dialect words are stored as a within-language representation, not as the between-language representation of words of bilinguals. To replicate this proposal in an underrepresented dialect ecology, we investigated Oromo-Amharic bilingual speakers, bidialectal speakers of Oromo and mono-dialectal speakers of Amharic, using picture-word interference paradigm. We found facilitation effect of both translation and dialect equivalents. The results show that there is no significant difference between bilingual and bidialectal speakers in terms of lexical processing and representation. We argue that bidialectal speakers can have different lexical processing profile based on their language experiences. We also propose a dynamic lexical representation and processing model that considers the diverse dialect ecology.

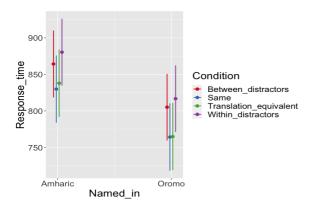
**Key words**: Bidialectal speakers, Dialect recognition, Lexical processing, Lexical selection

#### A. Main results

We investigated 24 Oromo-Amharic bilingual speakers, 25 bidialectal speakers of Oromo dialects and 25 mono-dialectal speakers of the Standard Amharic. All participants are undergraduate university students. We conducted three successive picture-word interference experiments. Below, we present the main findings of each experiment.

## A.1. Experiment I: Oromo-Amharic bilingual speakers

The main objective of the experiment was testing whether bilingual speakers have between-language or within-language lexical representation. Our finding shows that bilingual speakers have between-language lexical representation as previously proposed by Costa et al. (1999) and Costa and Caramazza (1999). Facilitation effect of the translation equivalents was taken as evidence for the existence of between-language representation. Figure 1 shows the average response time in four conditions (same, translation equivalent, within-language distractors, and between-language distractors) that we manipulated. Figure 2 shows the number of errors made on each condition while naming the pictures.



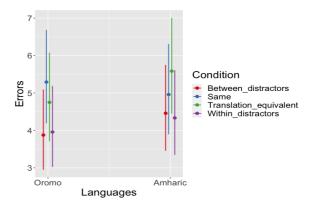


Figure 1: Response time of bilingual speakers

Figure 2: Errors in picture naming

# A.2. Experiment II: Eastern-Western Oromo bidialectal speakers

The main objective of the experiment was determining whether bidialectal speakers have co-dependent or independent representation of dialect words. Our finding shows that bidialectal speakers have independent lexical representation like the bilingual speakers. The result could not replicate the co-dependent representation previously proposed by Melinger (2018, 2021). The facilitation effect of the dialect equivalents was taken as evidence for the existence of independent representation of words of the bidialectal speakers. Figure 3 shows the average response time in the four conditions (same, dialect equivalent, within-dialect distractors, and between-dialect distractors) we have manipulated. Figure 4 shows the number of errors made on each condition while naming the pictures.

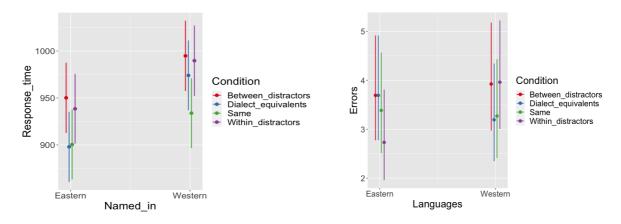


Figure 1: Lexical selection by bidialectal speakers

Figure 2: Errors during picture naming

### A.3. Experiment III: Amharic mono-dialectal speakers

The main objective of the experiment was testing whether mono-dialectal speakers have a dependent or co-dependent lexical representation. The result shows that they have co-dependent lexical representation, contrary to the previous proposal by Melinger (2021) and Delyman and Barry (2018). The absence of a significant facilitation effect of synonymy words was taken as evidence for the existence co-dependent representation. Figure 5 shows the average response time in the four conditions (same, synonyms, within-synonym distractors, and between-synonym distractors) that we have manipulated. Figure 6 shows the number of errors made on each condition while naming the pictures.

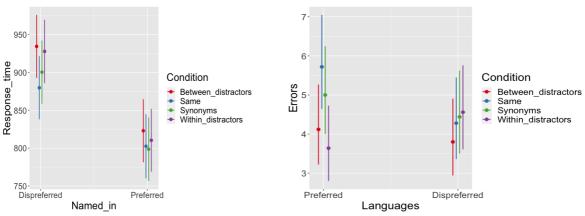


Figure 5: Mono-dialectal lexical selection

Figure 6: Errors during picture naming

# B. Main References

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