

Main Concept Analysis in Catalan and Spanish: performance of unimpaired bilingual speakers



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Introduction

The Main Concept Analysis (MCA; Kong, 2009) measures discourse efficiency by considering the number, completeness, and accuracy of main concepts produced. Main concepts are those statements that provide essential information and contain at least one main action (Nicholas & Brookshire, 1995). This study is part of the ongoing adaptation of the MCA into Catalan, a minoritized language whose speakers are predominantly bilingual and often assessed only in their L2 due to a lack of clinical tools in Catalan.

Aims

This study examined the production of main concepts in Catalan (L1) and Spanish (L2) by unimpaired bilingual speakers to compare performance across languages and to investigate whether an L1 advantage exists in oral discourse, with the goal of establishing baseline performance as a necessary step before the MCA can be used clinically.

Results

Despite near-ceiling performance (>87%) in both languages, Catalan scores were significantly higher than Spanish overall and in 2 of 4 sets (Figure 1; $p < .05$). In addition, L2 showed greater intersubject variability ($SD = 7.6$) than L1 ($SD = 4.7$) in the overall score. Wilcoxon rank sum tests with continuity correction revealed that the order of language administration did not significantly affect the L1 advantage ($W = 73.5$, $p = .188$). In fact, there were no significant differences between the two order groups in Catalan ($W = 61$, $p = 0.064$) or Spanish ($W = 93$, $p = 0.625$) scores. Spanish scores were more variable when administered first ($SD = 7.0$) than second ($SD = 3.5$), while Catalan variability stayed similar regardless of order ($SD = 2.7$ vs 3.1).

Conclusion

Subtle L1 advantages persist even in proficient, self-identified balanced bilinguals, with more consistent performance in Catalan. Results support assessing Catalan speakers in their L1 regardless of L2 proficiency. More broadly, these findings align with previous research (e.g., Criel et al., 2021; Kong, 2021) showing that oral discourse assessment needs to consider cultural, geographic, and linguistic factors, highlighting the need to adapt assessment tools to specific linguistic communities.

One limitation of the study is that near-ceiling performance may have reduced sensitivity to detect larger differences between the two languages. Future research should expand the sample and explore other aspects of bilingualism, such as language-mixing patterns.

Methods

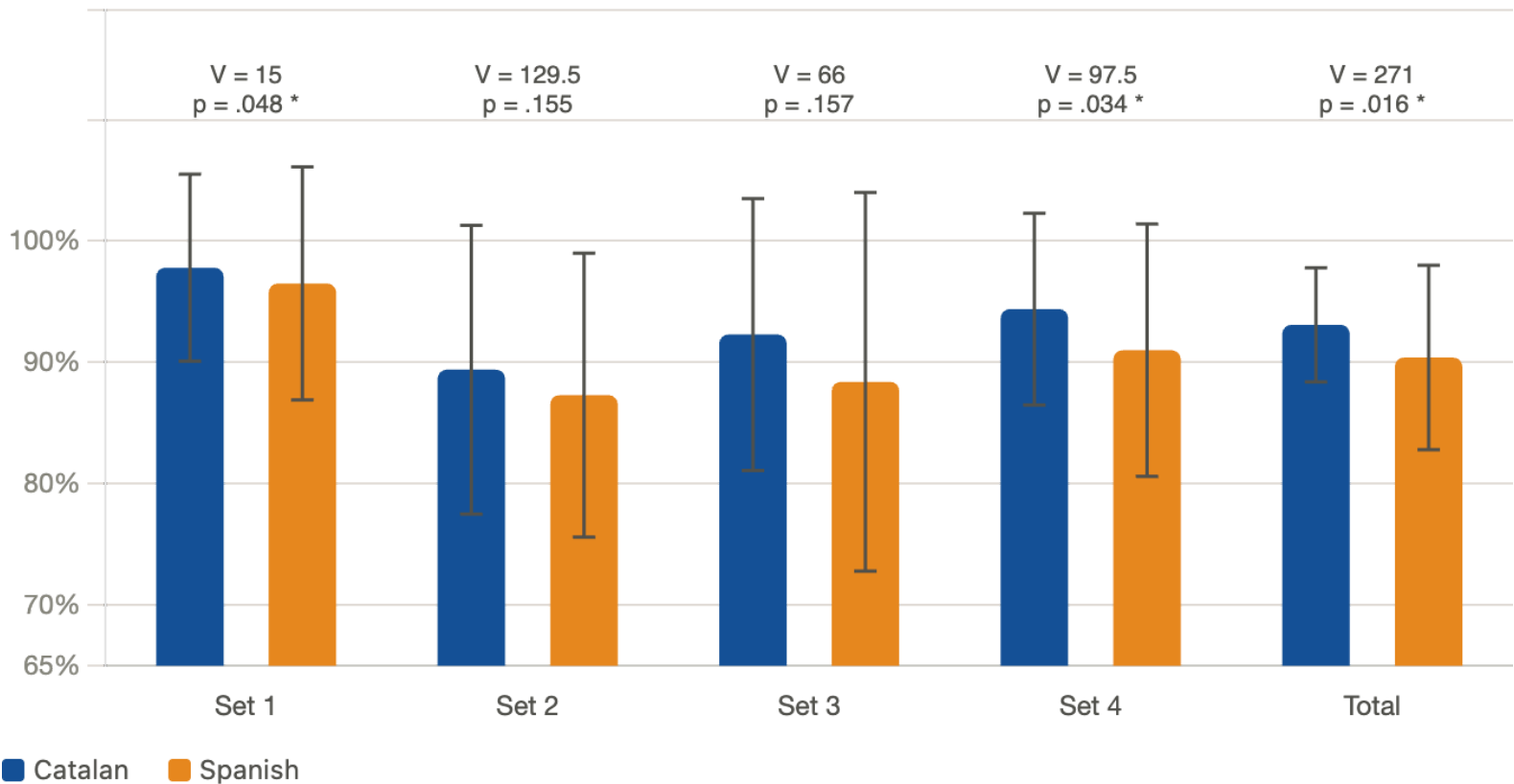
31 Catalan-Spanish bilinguals (mean age 46, range 22–74; 18 females; 2 left-handed) completed the MCA in both languages, describing 4 sequential picture sets. Twenty-one participants started with Catalan, and 10 started with Spanish.

Each main concept was evaluated and scored according to the measures of the MCA (Table 1). The main concept (MC) score for each language was calculated by summing the points across items.

Table 1. MCA scoring system (Kong, 2009)

	Points	Description	Example
AC	3	Accurate and complete	The woman is sticking a Band-Aid on her finger.
AI	2	Accurate but incomplete	The woman is sticking something on her finger.
IN	1	Inaccurate	The woman is touching her nose.
AB	0	Absent	

Figure 1. Main concept score (%) and standard deviations



References

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