Syntactic Processing of Subjects in Different Word Orders in Arabic: Do Arabic Heritage speakers differ from Native speakers when processing SVO/VSO order?

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The aim of this study is to investigate the preference and processing of Arabic word order, namely, Verb-Subect-Object (VSO) or Subject-Verb-Object (SVO) by two different groups: native speakers of Arabic (NSs) and heritage speakers of Arabic (HSs) living in Canada. In Arabic, two different word orders can be used:

(1) kataba ʔal-walad-u ʔal-wadʒib-a
wrote the-boy-$_{NOM}$ the-homework-$_{ACC}$
'The boy did the homework.' VSO

(2) ʔal-walad-u kataba ʔal-wadʒib-a
the-boy-$_{NOM}$ wrote the-homework-$_{ACC}$
'The boy did the homework.' SVO

Some linguists argue that VSO is more dominant than SVO (Abdul-Raof, 1998; Althwaini, 2008, among others). We can take this preference as evidence to argue that VSO linear order is easier to process than SVO order since the former requires only one movement (V-to-T) (Fassi-Fehri, 1993; Ouhallah, 1994); the subject remains in situ however; see (3).

(3) [TP [T' kataba [VP ʔal-walad-u [V' .... ʔal-wadʒib-a]]]].
[TP [T' wrote [VP the-boy-$_{NOM}$ [V' .... the-homework-$_{ACC}$]]]].

For SVO, one additional movement is required; the subject may need to move from [Spec: VP] to [Spec: TP]; see(4).

(4) [TP ʔal-walad-u [T' kataba [VP .... [V' .... ʔal-wadʒib-a]]]]].

Within the realm of experimental syntax and building on Chomsky's (1995) idea that E-language is an extensional form of I-language (mental form), we administered two tasks (a sentence reordering writing task and an online self-paced reading task). 10 HSs, whose dominant language is English, and 20 NSs of Arabic participated in the study. The writing task is to check for the preferred word order by each group. The reading task is to check for syntactic subjects processing time; a participant reads a sentence that appears word by word on a computer screen. The reaction time (RT) from the onset appearance until the participant presses the SPACE-BAR is calculated. Target items are *definite subjects in SVO, definite subjects in VSO and indefinite subjects in VSO*. The writing task results showed that there is a preference towards using VSO order to SVO by both groups (HSs: mean difference = 5.87; $p < .05$; NSs: mean difference = 9.40; $p < .01$). In the reading task, NSs showed a significant difference ($p < .05$) in RT between preverbal and postverbal subjects. Precisely, subjects in VSO took a shorter RT than subjects in SVO. No significant difference was found between the definite and indefinite subjects in VSO. For HSs , there is no significant difference between the subject RT in VSO and SVO. When comparing the two groups, a significant difference ($p < .05$) in RT was found; NSs were faster in processing than HSs. In conclusion, the writing task results offered evidence of VSO preference over SVO. The difference in RT between processing times shown by NSs suggests that VSO is easier to process which supports the claim that there is only one syntactic movement (V-to-T) to derive VSO. The longer RTs required to process subjects in SVO might resemble more syntactic moments. Another important finding is that slower RT shown by HSs might be attributed to processing two different grammatical systems (Arabic and English).

References

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