

An analysis of sex-typing and code switching in Canadian French-English bilinguals

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INTRODUCTION

- The BEM sex role inventory was published in 1974 and was based on social desirability of the traits. Feminine traits were socially desirable to females, and male traits for males [1]. Masculine categories in the BEM depict "assertive-dominance" and "instrumentality," while feminine categories depict "nurturance-interpersonal warmth".
- Code switching is a behavior displayed by bilinguals of switching between spoken languages, and is correlated with superior executive function [3].
- There is thought to be a relationship between executive function and sex typing, with masculinity correlating with higher executive function [2].
- The relationship between code switching behavior and sex typing has not been studied.
- The present study was a correlative analysis between two studies, one studying sex typing and executive functioning and the other studying code switching behaviour.

METHODS

Participants

- Participants were highly proficient French-English bilingual younger adults and older adults.
- All participants were administered the BEM sex role questionnaire.
- All participants completed a protocol designed to elicit code switching, as well as an assessment of executive functioning (Wisconsin Card Sorting Test, Boston Naming Task, and the Stroop).

	Younger adults	Older adults
N	16	15
Age	21.67 ± 2.52	69.50 ± 3.72
Education	15.20 ± 1.82	16.57 ± 2.41
Average Androgyny Score (BEM)	-0.91 ± 2.06	-0.54 ± 2.16
Average Total Codeswitching	48.91 ± 18.67	78.69 ± 35.24

Tasks and materials

- Sex-Role Inventory:** Participants were given lists of personality characteristic extremes and asked to rate themselves on a Likert scale. The personality characteristics are characteristic of male sex typing, female sex typing or are neutral. The **androgyny score** is the t ratio of the difference between the participants masculine and feminine self-endorsement. High negative t-scores indicate masculinity and high positive scores indicate femininity.

SAMPLE STIMULI from the BEM Sex-Role inventory

Affectionate (example of feminine personality characteristic)

Never true of me 1 2 3 4 5 6 7 Always true of me

- Code Switching Task:** A code switching protocol was developed that entails the use of multiple techniques to elicit natural code switching behavior within the participant. The transcript of the conversational tasks are then analyzed and five code switching scores are generated: intersentential switches (switching languages between sentences), intrasentential switches (switching languages within sentences), lexical borrowing (using a word from another language), reported speech (quoting someone in a different language), and total code switching. Scores represent the total number of times each type of code switching behavior was observed over the course of the interview, divided by the total output (number of words) produced by the participant.

RESULTS

Figure 1: Correlation between total code switching scores and BEM Androgyny score

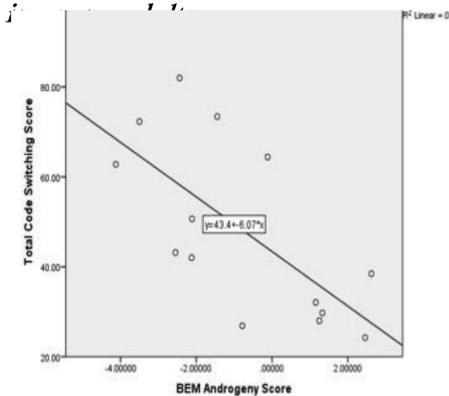
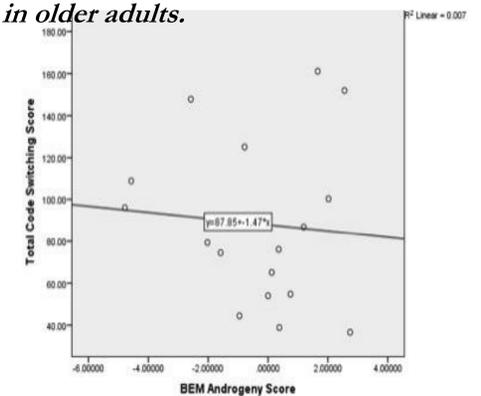


Figure 2: Correlation between total code switching scores and BEM Androgyny score in older adults.



- Pearson correlations were calculated between the sex type scores and code-switching scores.
- Young sex-typed male participants code switched significantly more than sex-typed female participants, $r = -.681$, $N = 16$, $p < .01$
 - This phenomenon was not observed in older adults, $r = -.226$, $N = 15$, ns
- Average androgyny score did not change significantly between older and younger adults.
- Executive functioning assessments used in this study were not significantly correlated with sex role nor with code switching.

CONCLUSIONS

- Young bilinguals who are sex typed male code switch more than young bilinguals who are sex typed female, while this difference is not observed in older adults.
- Code switching measurements have been correlated with self-confidence in previous studies: the code-switching individual must be confident in him/herself in interactions in both languages [4].
- Young adults may have seen assertive-dominance traits (assessed in the BEM) as socially desirable for people with high self-confidence, rather than for males.
- Questions are raised concerning the validity of the BEM when used to assess young adults' sex type. The social context for the young adults may be different than the social context for older adults, so the observed difference between younger and older adults may reflect a difference in the context for social desirability.
- Further investigations should be conducted to see if the sex typing analysis tools correlate with self-confidence in young adults. Further research into the correlates between self confidence and code switching in older adults should also be investigated.

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