FSU Code Switching and Memory Recall in Bilingual Individuals Kaavya Chandrasekhar and Michael Kaschak

Department of Psychology, Neuroscience Program, Florida State University Tallahassee, FL 32306

Abstract

This study examines how code-switching affects memory rec adults (ages 18-22). Using tasks that were structured with spe switching exercises, we assessed whether frequent language hinders cognitive flexibility. The findings will provide insigh benefits and potential challenges of bilingualism, with implic communication, and cognitive science.

Methods

Participants & Design:

- 60 bilingual (English-Spanish) participants recruited Systems
- **Procedure:**
- Participants first completed language proficiency (L switching (BCPS) assessments.
- Materials & Controls:
- Each narrative contained 14 critical details, and code followed natural bilingual speech patterns.

Ethics & Data Collection:

- The study was IRB-approved.
- Findings will contribute to research on bilingual mer

Code-Switched Paragraphs

Narrative 1 (English)

It was a perfect summer day at the city park, with the bright sun warming everything below. A child sprinted toward the playground near the pond, laughing as a dog barked excitedly at a cyclist passing by. Two teenagers sat on a nearby bench, sharing a snack while a group of people gathered under a large oak tree, enjoying a picnic. The soft strumming of a street musician playing the guitar added to the relaxed atmosphere. A jogger, headphones on, passed by at a steady pace, while a family of ducks glided peacefully across the pond. In the distance, the faint sound of an ice cream truck's bell rang out, catching the attention of a small child who was busy chasing a butterfly. A balloon vendor handed a yellow balloon to a young girl, her smile beaming as her mother took a picture of her and her siblings near the fountain. The water splashed coolly, reflecting the sunlight, as an elderly couple strolled leisurely around the park, savoring the peacefulness of the day.

Narrative 2 (Spanish)

En un restaurante de la ventana admirando la destacando los pescados fi accidentalmente su bebida, sonido de las olas se escuch desde la terraza.

El chef recomendó mesa, una pareja brindaba banda tocaba música en viv emocionados por el postre,

El sol comenzaba a mientras las luces del restau tomar una foto de su plato,

Code-Switched Narrative (English-Spanish)

It was a perfect summer day en el parque de la ciudad, with the bright sun war everything below. A child sprinted toward the playground near the estanque, laughing barked excitedly at a cyclist passing by. Dos adolescentes sat on a nearby bench, sharin while a group of people gathered under a large árbol de roble, enjoying a picnic. The s strumming of a músico callejero playing the guitar added to the relaxed atmosphere.

A jogger, headphones on, passed by at a steady pace, while a family of ducks cru tranquilamente el estanque. In the distance, the faint sound of a camión de helados ra catching the attention of a small child who was busy chasing a butterfly. A balloon vend handed a yellow balloon to a niña pequeña, her smile beaming as her mother took a pic her and her siblings near the fuente.

The water splashed coolly, reflecting the sunlight, as a pareja mayor strolled lei around the park, savoring the peacefulness of the day. Meanwhile, from a nearby terrace faint sound of gaviotas could be heard as the park began to quiet down.

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d via FSU's Sona	0.20 4 0.15 0.10 0.00 0.00
EAP-Q) and code- e-switched versions	0.00
e mariscos junto a la playa, una familia se sentaba en una mesa cerca vista del mar. El camarero les entregó los menús con una sonrisa, escos y los camarones en el menú. De repente, un niño derramó , ausando una pequeña risa entre los comensales. Desde afuera, el haba suavemente mientras un hombre mayor observaba las gaviotas	Figure 1. Mean recall t switched words were re words (M = 0.13. A t-te
con orgullo la especialidad de la casa: una deliciosa paella. En otra con copas de vino, disfrutando del ambiente relajado mientras una vo desde una esquina. Los niños en el restaurante esperaban y la camarera no tardó en traerles un plato de calamares fritos. ponerse en el horizonte, bañando el restaurante en una luz dorada, urante se reflejaban en el agua. Al final, un cliente sacó su móvil para capturando el momento perfecto. ming as a dog ng a snack soft ruzaba ang out, dor cture of tisurely te, the	Anderson, J. (2 attention and m Bialystok, E. (2 interpretations. Beatty-Martíne control: Beyond 92, 75–92. Green, D. W., & control hypothe



Conclusion

Preliminary findings from the first 20 participants out of the projected 60 indicate that code-switched words were remembered more frequently than non-code-switched words, with mean recall rates of 0.18 and 0.13, respectively. A t-test analysis yielded a p-value of 0.08, suggesting a trend toward significance. Given the current trajectory, it is anticipated that with the full sample, the results may reach statistical significance.

Future Studies

Long-Term Retention: Test recall after 24 hours or a week to see if code-switching effects persist. • Neural Mechanisms: Use EEG or fMRI to study brain activity during code-switched vs. non-code-switched recall.

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