

Bilingual preposition-stranding acceptability in heritage speaker Spanish, English, and code-switching

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This study investigates the availability of *preposition stranding* (*p-stranding*) in intrasentential code-switching (CS) among US heritage speakers of Spanish. P-stranding involves extracting a determiner phrase (DP) from a prepositional phrase (PP), a construction that is allowed in English (1), but in Spanish the preposition is traditionally pied-piped with the DP (2). Law (2006) argues that the (un)availability is “related to the independent grammatical property of [the determiner] incorporating into [the preposition]” (p. 633). Spanish is subject to a syntax-morphology-interface condition where “elements that undergo suppletive rules must form a syntactic unit X⁰” (Law, 2006, p. 647), which ends up preventing the extraction of a DP from a PP. P-stranding and pied piping in intrasentential CS (3-4) provide a test case by which to see if Law’s analysis stands.

Following Law’s (2006) analysis, there are three different outcomes depending on which element(s) motivate(s) D+P incorporation: (a) if incorporation is dependent upon the features inherent to the determiner, p-stranding should be accepted with English-to-Spanish switches (i.e., an English DP with a Spanish preposition) (3); (b) if incorporation is dependent upon the features inherent to the preposition, p-stranding should be accepted with Spanish-to-English switches (i.e., a Spanish DP with an English preposition) (4); or (c) if incorporation is dependent upon the features of both the determiner and the preposition, then p-stranding should be rejected in all switches. Previous research has supported the second option (Koronkiewicz, 2022). However, that study only included one preposition (*with/con*). Furthermore, it did not explicitly test pied-piping, nor did it include matrix wh-questions, a common context for p-stranding. By expanding both the lexical items and the structures, we can gain a more complete understanding of how Law’s analysis aligns with language mixing data.

Participants completed a written acceptability judgment task with a 7-point Likert scale. The task included CS stimuli with p-stranding and pied piping, switching from either Spanish-to-English or vice versa, with comparison monolingual equivalents for Spanish and English included in separate subsequent blocks. The following prepositions were included in the experiment: *with/con* ‘with’, *of/de*, and *to/a*. The individuals who participated in the study were all US heritage speakers of Spanish ($N=7$). Data collection is still ongoing, but preliminary results (after standardizing the ratings into z-scores) suggest that participants exhibited the expected distinction, as they: (i) rejected p-stranding in monolingual Spanish ($M=-1.28$, $SD=1.06$), but accepted pied piping ($M=0.25$, $SD=0.68$); and accepted p-stranding in monolingual English ($M=0.31$, $SD=0.62$), but rejected pied piping ($M=-1.42$, $SD=1.04$). As for CS, they rejected almost everything: p-stranding in English-to-Spanish CS ($M=-1.35$, $SD=1.05$), and pied piping in both English-to-Spanish CS ($M=-0.40$, $SD=1.02$) and in Spanish-to-English CS ($M=-0.42$, $SD=1.08$). The one marginally acceptable option was p-stranding in Spanish-to-English CS ($M=0.01$, $SD=0.86$). Importantly, there were no differences based on the lexical preposition nor the structure. Overall, these results align with previous findings (Koronkiewicz, 2022), as only a Spanish DP extracted from an English PP is possible in CS, further suggesting that it is the language of the preposition that dictates incorporation.

- (1) a. What guy is Ashley dancing with?
 b. Emily doesn't know what friend Frank is working with.
 c. United is the company Ruby is flying with.
- (2) a. * Qué hombre está bailando Araceli con?
 'What guy is Araceli dancing with?'
 b. Con qué hombre está bailando Araceli?
 'With what guy is Araceli dancing?'
 c. * Elisa no sabe qué amigo Fernando está trabajando con.
 'Elisa doesn't know what friend Fernando is working with.'
 d. Elisa no sabe con qué amigo Fernando está trabajando.
 'Elisa doesn't know with what friend Fernando is working.'
 e. * United es la compañía que Roberta está volando con.
 'United is the company that Roberta is flying with.'
 f. United es la compañía con la que Roberta está volando.
 'United is the company with which Roberta is flying.'
- (3) a. *Qué hombre* is Ashley dancing with?
 'What guy is Ashley dancing with?'
 b. *Elisa no sabe qué amigo* Frank is working with.
 'Elisa doesn't know what friend Frank is working with.'
 c. *United es la compañía que* Ruby is flying with.
 'United is the company that Ruby is flying with.'
- (4) a. What guy *está bailando Araceli con?*
 'What guy is Araceli dancing with?'
 b. Emily doesn't know what friend *Fernando está trabajando con.*
 'Emily doesn't know what friend Fernando is working with.'
 c. United is the company *Roberta está volando con.*
 'United is the company Roberta is flying with.'

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