# Determiner-noun codeswitching in Welsh-English and Spanish-English bilinguals

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#### Introduction

**Codeswitching** occurs when an individual alternates between two or more languages in a single utterance.

**Determiner-noun codeswitches**, which involve the determiner coming from one language and the noun from another, are very prevalent in bilingual speech.

el	cat	"the cat"	(Spanish Det. + English Noun)
У	ring	"the ring"	(Welsh Det. + English Noun)
the	perro	"the dog"	(English Det. + Spanish Noun)

#### Theories

**Minimalist Theory:** the determiner will always come from the gendered language, in this case either Welsh or Spanish.

Matrix Language Frame Theory: the determiner will come from the matrix language, which is the language containing the finite verb.

# Herring, Deuchar et al. Experiment

Herring et. al. (2010) studied Welsh-English and Spanish-English corpora to test whether each theory could make a prediction about the language of the determiner, and subsequently whether this prediction was correct.

## Welsh-English Results:

	Minimalist Theory	Matrix Language Frame Theory
Percentage for which the model can make predictions	100%	69.78%
Percentage for which the predictions are correct	100%	98.73%

#### Spanish-English Results:

	Minimalist Theory	Matrix Language Frame Theory
Percentage for which the model can make predictions	100%	90%
Percentage for which the predictions are correct	92%	97.78%

While there are different results from the two corpora, overall the minimalist theory proved to be more accurate at making predictions.

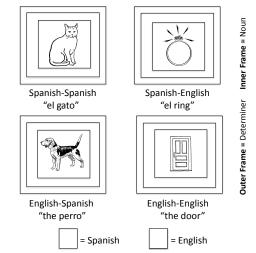
# **Our Experiment**

We will conduct a two-part empirical study based on Herring et. al.'s (2010), partly at the Pennsylvania State University, and partly at Bangor University, Wales.

At Penn State, we will test Spanish-English bilinguals and at Bangor, Welsh-English bilinguals.

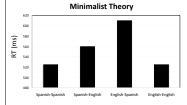
In both cases, participants will view a series of pictures and will then be asked to name them using a determiner and a noun. The colored frames surrounding the pictures will indicate in which languages the determiners and the nouns should be spoken. Responses will be recorded through a microphone and reaction times will be measured.

#### Four Conditions (Spanish-English as example):

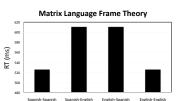


## **Predicted Results**

For these purposes, we consider the matrix language to be the language of the noun.



The English-Spanish condition would have the highest RT because English is not a gendered language.



Spanish-English and English-Spanish conditions would have equal RTs because of the matrix language.

We would expect the same results from Welsh-English bilinguals.

#### References

Herring, J. R., Deuchar, M., & Parafita, M. C. (2010). "I saw the madre": evaluating predictions about codeswitched determiner-noun sequences using Spanish – English and Welsh – English data. *International Journal Of Bilingual Education And Bilingualism*, 13, 37-41.