

Topic fronting in Spanish and English codeswitching: A cross-community perspective

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Abstract

This pilot study examines how topic preposing interacts with codeswitching in Spanish-English bilingual speech in Puerto Rico and Gibraltar, two communities with markedly different sociolinguistic profiles. In Puerto Rico, Spanish remains the dominant language of everyday life, while English occupies a socially stratified institutional role and bilingual proficiency is unevenly distributed across socioeconomic groups. Gibraltar, conversely, exhibits a long-term, intergenerational shift toward English dominance, with Spanish functioning largely as a heritage language and the locally rooted contact variety *Llanito* extending beyond spontaneous codeswitching. Using written acceptability judgments, the study compares English-style topic preposing and Spanish-style Clitic Left Dislocation (CLLD) across clauses where Spanish or English provides the structural frame. Results show greater acceptability for topic preposing in Spanish-framed clauses and reduced acceptability in English-embedded contexts, reflecting known syntactic constraints. Crucially, however, bilinguals in both communities exhibit a degree of structural alignment, producing intermediate acceptability ratings in codeswitched utterances. These findings highlight the combined influence of matrix language selection and sociolinguistic context on topic-fronting strategies in bilingual speech. The data suggest that despite divergent histories of language contact, dominance, and prestige, bilingual speakers deploy a shared, highly adaptive discourse strategy that bridges the cognitive demands of the syntax-information structure interface.

1. Introduction

Codeswitching, the alternation between two or more languages within a single discourse or utterance (Beatty Martínez et al. 2025), remains a central empirical domain for investigating multilingual competence and the architecture of bilingual grammar (Torres Cacoullous and Travis 2015, Lipski 1985, Poplack 1980; 2001, López 2020). Rather than a peripheral or unpredictable behavior, codeswitching provides a crucial window into how bilingual speakers integrate syntactic, prosodic, and pragmatic information during real time language production (Cedden, Meyer, Özkara, and von Stutterheim 2024, Kaushanskaya and Crespo 2019). Recent research has underscored the importance of examining this phenomenon at linguistic interfaces, particularly the interface between syntax and information structure, to refine our understanding of the constraints and strategies that guide bilingual sentence formation (Bustín, Muntendam, and Sunderman 2024, Deuchar 2012, González Vilbazo and López 2011; 2012, González Vilbazo and Ramos 2019, Koronkiewicz 2023, Merchant 2015, Muntendam and Parafita Couto 2024, Olson and Ortega Llebaria 2010, Stoianov, Silva, and Nevins 2023, among others).

In this pilot study, we examine the relationship between topic preposing and codeswitching in two completely different contact settings, Puerto Rico and Gibraltar. Although both contexts involve sustained interaction between Spanish and English, their sociolinguistic ecologies are fundamentally distinct (García Caba 2022, Gerke 2018, González Rivera 2020; 2021, González Rivera and Ortiz López 2018, Lara Bermejo 2025, Levey 2006a; 2006b; 2008, Pousada 2008, Weston 2012, Vázquez Amador 2018). In Puerto Rico, Spanish remains the dominant and unmarked language of everyday life across the island, while English occupies a socially stratified and often symbolic position tied to institutional settings such as the judiciary, government administration, and specific economic sectors (Carroll 2016a, Schmidt 2014, Suárez 2005, Valdez 2014). The island's history of contested language policy, along with persistent ideological associations between Spanish, identity, and political belonging, has shaped a context in which most Puerto Ricans do not consider themselves bilingual in a functional sense (Shenk 2012, Domínguez-Rosado 2015). Although English is a compulsory subject in the public school system, instruction typically occurs in Spanish, opportunities for meaningful communicative use are limited, and teachers are not always specialized in English language pedagogy (Mari and Carroll 2020, Morales Lugo 2020, Pérez Casas 2008,

© 2026 Ángel L. Jiménez-Fernández, M. Carmen Parafita Couto, and Melvin González Rivera. *Nordlyd* 49.1: 71–92, Special issue in honor of Johan Rooryck, edited by Jeroen van Craenenbroeck, Aysa Ekanger, Camil Staps, and Guido Vanden Wyngaerd. Published at the University of Tromsø – The Arctic University of Norway.
<http://septentrio.uit.no/index.php/nordlyd> <https://doi.org/10.7557/12.8257>

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Guzzardo Tamargo et al. 2018). As a result, access to bilingual proficiency correlates strongly with private education and higher socioeconomic status, and lower- and working-class Puerto Ricans tend to be monolingual in Spanish, a pattern documented consistently in previous research (González Rivera 2020, Schmidt 2014, Vélez 1999). Notably, younger Puerto Ricans are more likely than older generations to engage in Spanish-English alternation. Within this uneven sociolinguistic landscape, Spanish and English code switching emerges as a marked practice concentrated among particular bilingual communities, although its syntactic dimensions remain underexamined, especially at the interface with information structure (Guzzardo Tamargo and Vélez Avilés 2017).

Gibraltar presents a different configuration. Spanish and English bilingual practices labeled as *Llanito* or *Yanito* include a historically rooted contact variety influenced by Andalusian Spanish, British English, and other Mediterranean languages. Although Llanito incorporates code switched elements, it constitutes a broader linguistic repertoire rather than a codeswitching system per se (Rodríguez García 2022). At the same time, recent work documents a rapid shift toward English dominance and a reduction in intergenerational Spanish use, with older speakers showing more frequent alternation than younger ones (Macdonald 2024, Seoane 2023). These differences between a socially stratified bilingual setting such as Puerto Rico and a setting experiencing language shift such as Gibraltar provide a framework for examining how topic fronting operates across distinct bilingual grammars.

Our primary aim is to investigate how bilingual speakers in Puerto Rico and Gibraltar process and judge sentences involving the fronting of topics, either through English-type topic preposing or Spanish-type Clitic Left Dislocation (CLLD), in matrix and embedded clauses. In what follows, the term "matrix language" is used descriptively to refer to the language that supplies the morphosyntactic frame of the clause. This study explicitly does not adopt the theoretical assumptions or morpheme-election mechanisms of the Matrix Language Frame (MLF) model (Myers-Scotton 1993); the terminology functions purely to identify the provider of the structural constraints governing the utterance.

We test whether the acceptability of topic preposing is shaped by the language that provides the structural frame and by the constraints that follow from it. English, with its rigid SVO word order and its restriction of topic fronting to root contexts, is expected to inhibit topic movement in embedded environments. Spanish, by contrast, permits greater syntactic flexibility, including CLLD in both root and all types of embedded clauses (Jiménez-Fernández and Miyagawa 2014). Our hypothesis is therefore that topic preposing will be more acceptable when Spanish provides the frame of the clause, and that embedded topic preposing in English environments will be dispreferred due to its status as a root phenomenon in this language.

To test this hypothesis, we designed a written acceptability judgment task using a four-point Likert scale, administered to 21 Puerto Rican and 37 Gibraltarian bilinguals. The stimuli included monolingual Spanish and English sentences, as well as code switched sentences varying in matrix language, clause type, and topic position. By comparing responses across communities and conditions, we assess how strategies of information packaging such as topic fronting are shaped by the grammatical properties of the matrix language and by the sociolinguistic context in which bilingualism unfolds.

The remainder of the paper is organized as follows. Section 2 provides a comparative overview of the sociolinguistic and grammatical contexts of Spanish and English code switching in Puerto Rico and Gibraltar, with particular attention to previous research. Section 3 briefly outlines the theoretical background relevant to topic preposing in English and Spanish. Section 4 presents the experimental design, including methodology, participant demographics, and test items. Section 5 discusses the results in light of current work on code switching and information structure. Section 6 offers the conclusions and some directions for future research.

2. Codeswitching in Puerto Rico and Gibraltar

Spanish-English bilingualism has produced complex and uneven linguistic ecosystems in Puerto Rico and Gibraltar. Although both communities maintain long-standing connections to Spanish and English, the nature of bilingual practices differs substantially across the two contexts. Puerto Rico displays a socially stratified pattern of bilingualism shaped by education, socioeconomic status, and language ideologies,

whereas Gibraltar encompasses a historically rooted contact repertoire in which Spanish, English, and other Mediterranean influences have long coexisted, including the variety known as Llanito. Because these settings diverge in demographic patterns, generational language use, and the sociopolitical positioning of each language, the forms and functions of codeswitching also differ across the two communities. This section provides an overview of bilingual practices in Puerto Rico and Gibraltar and reviews previous research on Spanish-English alternation in each setting, laying the groundwork for the cross-community comparison developed in sections 2.1, 2.2, and 2.3.

2.1. *Spanish-English bilingualism in Puerto Rico*

Puerto Rico illustrates a historically layered and politically complex case of Spanish-English contact shaped by more than a century of cultural and administrative ties to the United States (Carroll 2016b, Domínguez Rosado 2015, González Rivera 2020; 2021, González Rivera and Ortiz López 2018, Pousada 1999, Shenk 2015, Torres González 2002). The island's contact history begins following the cession of Puerto Rico from Spain to the United States in 1898, an event that inaugurated prolonged debates over linguistic legitimacy, educational policy, and political identity. Although English has held institutional visibility since the early twentieth century, its societal penetration has remained limited. Research consistently shows that Puerto Rico does not constitute a functionally bilingual society, and that the distribution of English proficiency is highly unequal across social groups (Shenk 2012, Domínguez-Rosado 2015). Spanish has continued to serve as the dominant and unmarked language across virtually all domains of everyday life, including interpersonal communication, commerce, media consumption, and local governance.

One of the clearest indicators of unequal access to bilingual proficiency is the structure of public education. English is formally taught as a single subject from kindergarten through twelfth grade, yet instructional practices overwhelmingly favor Spanish as the primary medium of instruction, translation-based activities, and decontextualized grammar drills (Carroll 2016a, Pérez Casas 2016, Suárez Vázquez 2020). In many schools, English courses are delivered by teachers trained in other languages, a reality that constrains both curricular effectiveness and opportunities for students to engage in meaningful communicative use of English. Exposure to English outside the classroom remains limited for most students, especially in rural municipalities and working-class communities. Consequently, English proficiency correlates strongly with private schooling, socioeconomic advantage, and urban concentration, particularly in metropolitan regions such as San Juan (González Rivera and Ortiz López 2018, Guzzardo Tamargo et al. 2018). Lower- and working-class Puerto Ricans tend to be monolingual Spanish speakers, a pattern well documented in sociolinguistic work (González Rivera 2020, Schmidt 2014, Vélez 1999). In contrast, younger speakers in metropolitan areas, especially those with access to private or specialized language education, are more likely to report higher levels of bilingual competence and to use English in informal, digital, or semi-professional contexts. Recent policy initiatives have sought to expand bilingual education through pilot programs in public schools, including the implementation of Spanish-English instructional models and targeted teacher training in collaboration with the University of Puerto Rico; however, these efforts remain limited in scope and are still in early stages of implementation.

Within this highly stratified linguistic landscape, Spanish-English codeswitching (CS) does not constitute a generalized societal norm but rather a marked and localized practice, concentrated among bilingual subgroups. Earlier studies emphasized ideological and attitudinal dimensions of CS. Guzzardo Tamargo and Vélez Avilés (2017) found that university students generally viewed CS favorably in informal registers, even as broader societal ideologies continued to associate Spanish with authenticity and cultural belonging (cf. Guzzardo Tamargo et al. 2018). Pérez Casas (2016), drawing on ethnographic work, showed that speakers strategically mobilize CS to position themselves within professional and social networks, suggesting that alternating between languages allows them to negotiate membership, authority, and stance. Clachar (2016) similarly documented CS among return migrants and bilingual youth in online discourse, demonstrating its function as a resource for identity alignment, narrative structuring, and rhetorical emphasis.

Recent work expands this line of inquiry by incorporating prosodic, syntactic, and pragmatic perspectives. Carrasco (2023) provides a multidimensional analysis of bilingual Puerto Rican speech,

examining code-switching through a combined syntactic, prosodic, and sociopragmatic framework and segmenting bilingual discourse into intonation units (IUs). This approach allows for the examination of switch placement relative to prosodic boundaries and syntactic structure (e.g., *se la llevó un tipo rico // and he's making a really cheap excuse; it was a very weird conversation que ellos tuvieron ahí*). Building on prior research, Carrasco situates Puerto Rican bilingual speech within a broader body of work showing that switches frequently align with prosodic boundaries, particularly where syntactic units reach completion, while also highlighting the role of bilingual competence and discourse organization in shaping switching patterns.

From a discourse-functional perspective, CS in Puerto Rico fulfills a range of communicative purposes. Speakers use alternation to emphasize key information, elaborate on ideas, introduce stance, and manage informational flow. CS may fill lexical gaps within a particular genre, mark a shift in footing, or index changes in audience orientation. Importantly, CS behavior varies by genre, with narrative and spontaneous speech eliciting distinct configurations of switch placement, pragmatic motivation, and discourse segmentation.

Taken together, these studies reveal that Spanish-English code switching in Puerto Rico is shaped by a constellation of structural, ideological, and social factors. While earlier research focused primarily on identity, attitudes, and sociopolitical meanings, recent work incorporating interface-sensitive approaches adds a crucial grammatical dimension to the field. Integrating syntax, information structure, prosody, and pragmatics provides a more comprehensive account of bilingual competence and illustrates how Puerto Rican bilinguals coordinate multiple levels of linguistic structure in real-time interaction. Furthermore, the highly stratified distribution of bilingualism on the island underscores that CS practices emerge within specific demographic and sociolinguistic profiles, rather than as a generalized feature of the speech community. This sociolinguistic patterning has direct implications for cross-community comparison, particularly when contrasted with the distinct bilingual ecology of Gibraltar explored in the following section.

2.2. *Spanish-English bilingualism in Gibraltar*

Gibraltar presents a sociolinguistic configuration markedly different from that of Puerto Rico. Spanish and English have coexisted on the Rock for centuries, but their interaction has produced a distinctive contact repertoire rather than a socially stratified bilingual divide. The most emblematic outcome of this history is the variety commonly known as *Llanito*, a locally anchored linguistic system that draws primarily from Spanish and English while incorporating lexical and structural influences from Mediterranean languages, including Italian and Hebrew (Levey 2006a; 2006b; 2008, Moyer 1992, Loureiro-Porto and Suárez-Gómez. 2017). Although *Llanito* includes practices that resemble codeswitching, scholars have emphasized that it also displays characteristics associated with mixed or hybrid contact varieties, such as morphophonological integration and lexical items whose etymological origins have become opaque due to structural adaptation (Macdonald 2024). Words such as *dentica* 'identity card' and *focona* 'four corners' illustrate this deeper level of convergence (in the sense of Torres Cacoullós and Travis 2015) and local innovation (with thanks to one reviewer for the examples). For this reason, *Llanito* cannot be reduced to codeswitching alone, but instead reflects a historical layering of linguistic resources that extends beyond alternation between Spanish and English.

The sociolinguistic distribution of *Llanito* has shifted considerably across generations. Historical evidence indicates that Spanish was the dominant vernacular until the mid-twentieth century, functioning as the principal language of domestic life, informal interactions, and early schooling through religious institutions (Oda Ángel 2024). This situation changed dramatically following the educational reforms associated with the WWII evacuations. The Clifford Report of 1944 recommended English as the sole medium of instruction and relegated Spanish to a foreign language taught only after age eleven. These policies inaugurated a generational rupture that limited the intergenerational transmission of Spanish, progressively eroding bilingualism and establishing English as the primary language of institutional and public life. As a consequence, *Llanito* is now strongly associated with older speakers, while younger

Gibraltarians tend to exhibit English dominant bilingual profiles and more limited productive command of Spanish (Macdonald 2024, García Caba 2022).

This generational divide has also influenced local ideologies and linguistic insecurities. Political figures, including Chief Minister Fabian Picardo and Deputy Chief Minister Joseph Garcia, have framed Llanito as a repository of cultural memory and communal identity, even as they acknowledge the ongoing anglicization of the younger generations (Macdonald 2024). Cases in which grandparents and grandchildren require English to communicate illustrate the extent of this linguistic shift. These dynamics contribute to a tension between the symbolic value of Spanish as a heritage resource and its decreasing functional presence in everyday domains.

Codeswitching in Gibraltar therefore operates within a complex ideological and identity charged environment. Earlier work by Moyer (1992; 1998; 1999) and Levey (2008) documented the structural and pragmatic patterns of bilingual alternation, showing that speakers employ Spanish and English to mark stance, organize discourse, and index conversational alignment. More recent studies have expanded this perspective by examining attitudes and ideologies surrounding bilingual practices. García Caba's (2022) analysis of the satirical newspaper column "Calentita" reveals ambivalent attitudes toward bilingualism. Llanito is celebrated for its humor, flexibility, and symbolic distinctiveness, yet Spanish is often treated with linguistic insecurity or rendered comically through nonstandard orthography. The column's rapid intra-sentential switching and playful calques such as *Espanish hellection* (*Español* and *Spanish*, and *hell* and *election* respectively) parody both languages while reinforcing the high prestige status of English.

The marginalization of Spanish in public domains is also connected to broader geopolitical tensions. Oda Ángel (2024) describes Spanish as a heritage language whose decline reflects not only shifting preferences but also longstanding institutional policies that restricted its educational presence and diminished its prestige. Chevasco (2021) further notes that Gibraltarians often view overtly Spanish linguistic practices with ambivalence, balancing a desire to preserve bilingualism with concerns that strong Spanish affiliation may be perceived as politically compromising. Surveys conducted by Chevasco show that while most young Gibraltarians support the idea of bilingual education, many doubt the long-term viability of Spanish-English bilingualism.

Despite this uncertainty, certain bilingual practices remain robust among younger speakers. One example is the use of the discourse marker *bueno* within English-dominant interactions. Rodríguez García and Goría's (2023) analysis shows that *bueno* is especially frequent in clause-initial position and often appears in dialogical sequences, where it serves turn-taking, topic-shifting, and discourse-organizing functions. These patterns align with Muysken's (2013) concept of backflagging, in which speakers retain specific discourse markers from a receding language as interactional anchors within a dominant language frame. The authors show that *bueno* occurs much more often than its English counterpart *well* in the bilingual corpus, which suggests that its pragmatic utility remains salient even under conditions of language shift. The presence of collocations such as *pero bueno*, *pues bueno*, and *bueno espérate* points to pragmatic routinization and high cognitive availability of this marker. From a theoretical perspective, these findings challenge the assumption that bilingual practices in advanced language shift settings are purely symbolic, instead showing that speakers integrate Spanish resources into English discourse in structurally patterned ways.

Recent work by Vázquez Amador (2018) further complements this picture. Her analysis of oral narratives demonstrates a high density of intra-sentential and inter-sentential switches across genres, often motivated by pragmatic needs, affective emphasis, or lexical availability. Generational differences also play a role, with younger speakers showing more syntactic interference and increased reliance on English lexical items embedded within Spanish morphosyntactic structures. Certain English words such as *tea*, *army*, and *comprehensive* remain stable in their original form across contexts, reflecting local cultural salience.

These studies portray Gibraltar as a community in which bilingualism, CS, and language ideologies are deeply intertwined. Llanito now occupies an increasingly constrained space, valued as a cultural emblem yet threatened by the dominance of English and by historical policies limiting Spanish transmission. At the same time, contemporary bilingual practices show that Spanish continues to function as a pragmatic and interactional resource, even among speakers with limited productive command of the language. This evolving landscape provides an essential point of comparison for Puerto Rico, where

bilingualism follows a different trajectory shaped by stratification rather than language shift. The contrasts between these contexts form the basis for the cross-community analysis developed in section 2.3.

2.3. *Cross-community comparison*

The bilingual settings of Puerto Rico and Gibraltar offer complementary perspectives on Spanish-English contact, yet they differ significantly in their sociolinguistic foundations, historical trajectories, and patterns of everyday bilingual practice. Although both communities exhibit Spanish and English in sustained interaction, the conditions motivating bilingualism, the distribution of each language across social domains, and the availability of bilingual repertoires vary widely. These contextual differences shape not only linguistic attitudes and ideologies but also the structural configurations that speakers activate during codeswitching.

In Puerto Rico, Spanish is the dominant and unmarked language for nearly all domains of daily life, while English holds a socially stratified and often symbolic position tied to governmental, judicial, and professional institutions (Carroll 2016a; 2016b, González Rivera 2020; 2021, Shenk 2015). Because English instruction in public schools is limited to a single course that rarely promotes meaningful communicative competence (Pérez Casas 2016, Suárez Vázquez 2020), access to high levels of bilingual proficiency correlates strongly with socioeconomic privilege and private education (Mari and Carroll 2020, Guzzardo Tamargo et al. 2018). Consequently, codeswitching is not a generalized societal norm but instead a marked practice concentrated within particular bilingual networks, especially among younger, urban, and socioeconomically advantaged populations.

The sociolinguistic landscape of Gibraltar stands in sharp contrast. Spanish once served as the dominant vernacular throughout much of the nineteenth and early twentieth centuries, but educational reforms implemented during and after the WWII evacuations, most notably those stemming from the Clifford Report of 1944, established English as the sole language of instruction and relegated Spanish to a secondary subject taught later in schooling (Oda-Ángel 2024). These policies produced a generational shift that limited the intergenerational transmission of Spanish, promoting an English-dominant profile among younger speakers (Macdonald 2024, García Caba 2022). Llanito continues to index cultural identity and communal belonging, yet is increasingly associated with older members of the community. Younger Gibraltarians typically understand Llanito passively but rarely produce it with the fluency observed in previous generations (Macdonald 2024).¹

These divergent histories yield fundamentally different bilingual ecologies. Puerto Rico represents a stratified model in which bilingualism arises unevenly across sectors of the population, whereas Gibraltar illustrates a community undergoing a long-term language shift in which English has expanded across public institutions, education, and media. These trajectories influence not only symbolic valuations of Spanish and English but also the structural environments in which codeswitching occurs. For instance, in Puerto Rico, Spanish remains the primary matrix language for bilingual speech, with English typically inserted in contexts related to stance-taking, emphasis, or lexical availability (Guzzardo Tamargo and Vélez Avilés 2017, Pérez Casas 2016, Carrasco 2023). In Gibraltar, however, English more frequently serves as the structural frame for bilingual discourse, even as speakers retain Spanish discourse markers such as *bueno* as interactional anchors within English-dominant exchanges (Rodríguez García and Goría 2023). These differences align with broader sociolinguistic patterns: Spanish serves as a majority community language in Puerto Rico, whereas in Gibraltar it increasingly functions as a heritage language with limited institutional support (Oda-Ángel 2024).

¹ We take Llanito as a variety characterized by Spanish-English CS, but this assumption is far from criticism. As a reviewer points out, Llanito is a historically rooted contact variety that incorporates elements of Andalusian Spanish, British English, and other Mediterranean languages (notably Italian, Genoese, Maltese, and Hebrew; see Rodríguez García 2022). Over time, Llanito has developed structural and lexical features that may go beyond spontaneous code-switching. However, for our study this does not pose any problem since we are interested just in the switch between English and Spanish, using more local (but neutral) English and Spanish vocabulary in the relevant examples (see the appendix).

| Dimension | Puerto Rico | Gibraltar |
|--|--|--|
| Historical trajectory of contact | Contact with English began after U.S. annexation in 1898, involving contested educational and governmental policies (Carroll 2016b, Domínguez-Rosado 2015). | Longstanding contact between Spanish, English, and Mediterranean languages; Spanish was historically the dominant vernacular until mid-20th century (Levey 2006a, Oda-Ángel 2024). |
| Dominant language in everyday life | Spanish is the dominant and unmarked language across all social domains. | English is increasingly dominant in public, educational, and administrative contexts (Macdonald 2024, García Caba 2022). |
| Role and status of English | Symbolic and institutional; socially stratified; linked to higher SES and private education (Mari and Carroll 2020, Guzzardo Tamargo et al. 2018). | High-prestige language; institutionalized through monolingual English schooling since 1944; expanding generationally. |
| Role and status of Spanish | Majority community language; ideologically tied to identity and belonging (Shenk 2015). | Functions as a heritage language, declining in active use among younger generations (Oda-Ángel 2024, Macdonald 2024). |
| Educational model | Public schools teach English as a single subject with limited communicative practice; instruction largely in Spanish; access to effective bilingual education restricted to private schools (Pérez Casas 2016, Suárez Vázquez 2020). | Monolingual English-medium system instituted after Clifford Report (1944); Spanish relegated to late foreign-language instruction. |
| Distribution of bilingual proficiency | Highly stratified; bilingualism concentrated among younger, urban, and higher-SES groups (Guzzardo Tamargo et al. 2018). | Strong generational divide; older speakers maintain Llanito/Spanish competence, younger speakers are English-dominant (Macdonald 2024). |
| Nature of bilingual repertoire | Spanish-dominant bilingualism; English incorporated primarily for stance, emphasis, or lexical access (Pérez Casas 2016, Carrasco 2023). | English-dominant bilingualism; residual use of Spanish discourse markers (e.g., <i>bueno</i>) and certain culturally salient lexicon (Rodríguez García and Goría 2023). |
| Status of codeswitching | Marked localized practice; not a community-wide norm; used strategically by specific bilingual populations (Guzzardo Tamargo and Vélez Avilés 2017). | Embedded within a broader contact repertoire; includes both codeswitching and features of a hybrid variety (Llanito). |
| Llanito / hybrid code | Not applicable. | Locally rooted variety integrating Spanish, English, and Mediterranean elements; shows morphophonological integration and lexical innovation (Levey 2008, Macdonald 2024). |
| Ideologies and attitudes | Spanish linked to authenticity and identity; CS stigmatized in some contexts but increasingly accepted among youth. | Ambivalence toward Spanish; <i>Llanito</i> valued culturally but declining; English associated with modernity and prestige (García Caba 2022, Chevasco 2021). |
| Generational patterns | Younger bilinguals use more CS; older generations overwhelmingly Spanish-monolingual (Shenk 2015). | Older generations maintain Spanish/ <i>Llanito</i> ; younger speakers shift toward English with passive knowledge of Spanish (Macdonald 2024). |
| Matrix language tendencies in CS | Spanish usually provides the structural frame; English is typically inserted. | English often provides the frame; Spanish provides discourse markers and lexical insertions. |
| Relevance for topic-preposing study | Spanish flexibility in topic fronting (CLLD) may increase acceptability of fronted constituents even in bilingual sequences. | English constraints on root phenomena may limit acceptability of embedded topic fronting in bilingual utterances. |

Table 1: Comparative overview of Spanish-English contact in Puerto Rico and Gibraltar.

Despite extensive sociolinguistic research in both settings, few studies have directly compared their grammatical behavior in code-switched contexts, and even fewer have examined how discourse-related strategies, such as topic fronting, interact with syntactic constraints during bilingual speech. This gap is notable given that English and Spanish differ substantially in how topic structures are licensed. As we have observed earlier, Spanish permits Clitic Left Dislocation in both root and embedded clauses, while English generally restricts Topic Preposing to root contexts, reflecting its status as a root phenomenon (Jiménez-Fernández and Miyagawa 2014, Jiménez-Fernández 2020, Yang 2024). These contrasts provide a productive testing ground for examining how speakers in different bilingual communities respond to syntactic environments that require the integration of discourse features with structural constraints.

Our study engages directly with this interface. Rather than assuming structural convergence, a claim that requires evidence of systematic diachronic grammatical change in one language due to contact (cf. Torres Cacoullos and Travis 2015), we investigate whether bilingual speakers in Puerto Rico and Gibraltar display synchronic structural alignment by showing sensitivity to the syntactic constraints of the matrix language when evaluating topic-preposed structures in code-switched sentences. Because matrix language selection differs across the two communities, and because English and Spanish impose distinct limits on topic movement, a cross-community comparison can reveal whether bilingual speakers adjust their acceptability judgments in line with the structural properties of the language providing the clause frame. This approach allows us to identify patterns of structural alignment without making claims about permanent grammatical change or contact-induced convergence.

To summarize the sociolinguistic and grammatical contrasts discussed in the preceding sections, table 1 offers a comparative overview of the two contact settings. The table highlights key dimensions relevant to codeswitching, including patterns of language dominance, institutional support for bilingualism, functional uses of each language, and the degree of flexibility available for topic-related constructions within bilingual discourse. These contrasts establish the empirical foundation for our experimental design. The following section develops the theoretical framework, focusing on how topic preposing operates in English and Spanish and on the syntactic and discourse-pragmatic constraints most relevant to bilingual speech.

3. Topic preposing in English and Spanish

The Information Flow Principle is associated with the regular ordering of information in discourse, moving from given information to new information (Chafe 1976). Following this principle, in any written or oral production this means that there will be a special position at the end of the sentence reserved for the most important information, whereas the first position in the sentence is devoted to information which links said sentence with the previous context.

To illustrate, let's pay attention to the following mini-dialogue, from Jiménez-Fernández (2020:86), which consists of a question and two possible answers:

- (1) Q: Where did you see Mary?
 A. *I saw her* in the supermarket.
 A'. In the supermarket *I saw her*.

In the two replies, the old information is marked in italics and the new information is underlined. The answer in A is more natural and appropriate than the one in A' since it obeys the Information Flow Principle. The background portion of the sentence is given at the beginning, whereas the constituent satisfying the information request in the question is placed at the end, thereby standing up as the focus of the sentence (Bierner 1994, Leech and Svartvik 2013).

Behind this splitting of information in terms of old and given, we also find the classical division of the sentence in terms of topic and comment (Chafe 1987, Prince 1981). The topic portion is made up of given information and is the starting point of the message that the speaker wants to deliver. According to Reinhart (1982), the topic is what the sentence is about. Actually, the comment part is the information offered to somehow qualify the topic constituent (Krifka 2007, Cruschina et al. 2022). For example, in (2),

the fronted DP object *that kind of behaviour* occupies the topic position, marking the point at which the speaker will comment on it. This instantiates the phenomenon of topic fronting in English:

- (2) That kind of behaviour, we cannot tolerate in a civilised society. (Radford 2009:329)

However, in Spanish the discourse-induced placement of a constituent as topic in the left periphery (LP) triggers the insertion of a resumptive clitic if the topic is an object (Zubizarreta 1999, López 2009, Leonetti 2014, Fernández-Sánchez 2017, among many others). Hence, the phenomenon is generally known as Clitic Left Dislocation (CLLD), which is illustrated in (3):

- (3) El cordero, yo lo hago al horno con menta.
the lamb I CL-ACC.3SG.MSC COOK-PRES.ISG to.the oven with mint
 ‘Lamb, I usually cook it with mint and in the oven.’
 (adapted from Fernández-Sánchez 2017:3)

We may observe that the DP object *el cordero* ‘the lamb’ has been fronted to a topic position and it is resumed by the clitic *lo* ‘it’.

The phenomenon of Topic Preposing or Topicalization is attested both in simple sentences (2)–(3) and in subordinate clauses within complex sentences in the two languages under examination. Additionally, concerning complex sentences, the topic is an element belonging to the embedded clause, but it can surface in the LP of either the subordinate clause or the matrix clause. The following sentences illustrate this distribution in English complex sentences, namely topic in the embedded clause (4a) and topic in the matrix clause (4b), both adapted from Radford (2009):

- (4) a. The president announced [that that kind of behaviour, we cannot tolerate in a civilised society].
 b. That kind of behaviour, the president announced [that we cannot tolerate in a civilised society].

The following set replicated the very same situation in Spanish, adapted from Jiménez-Fernández (2020:93, ex. (19a)):

- (5) a. El Presidente dice que *ese tipo de comportamiento* no lo
the president say-PRES.3SG that this kind of behaviour not it
 podemos tolerar en una sociedad civilizada.
can-PRES.IPL to.tolerate in a society civilized
 ‘The President says that this kind of behaviour, we can’t tolerate in a civilised society.’
 b. *Ese tipo de comportamiento*, el Presidente dice que no lo
this kind of behaviour the president say-PRES.3SG that not it
 podemos tolerar en una sociedad civilizada.
can-PRES.IPL to.tolerate in a society civilized
 ‘This kind of behaviour, the President says that we can’t tolerate in a civilised society.’

Taking into account the examples in (4)–(5), English and Spanish seem to show similar behaviour with respect to the distribution of topics. However, it is widely known that this type of information structural phenomenon has root properties. They are classified as root transformations (Emonds 1969; 2004) or Main Clause Phenomena (Haegeman 2012). This licensing in embedded contexts is crucial in our study since at least some root phenomena are subject to parametric variation (Jiménez-Fernández and Miyagawa 2014, Jiménez-Fernández 2018; 2023).

A number of recent works have analyzed the composition and extent of phrasal hierarchies of different clause types, distinguishing between root, root-like and different types of embedded clauses, and the relevant discourse phenomena which are permitted in each of these contexts (cf. Hooper and Thompson 1973, Emonds 1970; 1976; 2004, Haegeman 2002, Meinunger 2004, Heycock 2006, Jiménez-Fernández and Miyagawa 2014, Miyagawa 2017, Jiménez-Fernández 2018, Frascarelli and Jiménez-Fernández 2016). These linguists have claimed that some discourse-based phenomena are licensed in root or root-like clauses.

Concentrating on the category of topic, Jiménez-Fernández and Miyagawa (2014) have shown that some types of topics that in English are banned from subordinate contexts are indeed allowed in other languages such as Spanish or Japanese. Let's illustrate with the sentences in (6)–(7), where a Contrastive Topic has been fronted:

- (6) a. We saw that each part he had examined carefully. (E)
 (Hooper and Thompson's 1973 example (125))
 b. *It was impossible that each part he had examined carefully. (C)
 (Hooper and Thompson's 1973 example (99))
- (7) a. Sé que tu libro no lo has terminado todavía.
know-PRES.1SG that your book not CL have-PRES.3SG finished yet
 'I know that you haven't finished the book yet.'
 (Jiménez-Fernández and Miyagawa 2014, ex. (38))
 b. Es probable que ese coche lo haya conducido Juan
be-PRES.3SG probable that that car CL have-PRES.SUBJ.3SG driven Juan
sólo una vez.
only one time
 'It's probable that Juan has driven that car just once.'
 (Jiménez-Fernández and Miyagawa 2014, ex. (21a))

In English a topic can be preposed in a subordinate clause which is interpreted as asserted or non-factive, as Hooper and Thompson (1973) show. This explains why (6a) is well-formed, whereas (6b) is not. However, in Spanish this restriction does not hold and CLLD is allowed in both factive and non-factive embedded contexts.²

In our next section, we present the pilot study we have carried out, based on the fronting of a topic in root clauses and in subordinate clauses.

4. Methodology and experimental design

This study employed an experimental approach to examine the acceptability of topic-preposed structures in Spanish-English code-switched utterances. The methodology was designed to compare bilingual speakers from Puerto Rico and Gibraltar, focusing on their grammatical intuitions in contexts involving intra-sentential switching and discourse-level operations. The experiment consisted of an acceptability judgment task constructed to test theoretical predictions about topic preposing in bilingual speech.

4.1. Participants

A total of 58 adult bilingual speakers participated in the study, including 21 Puerto Rican university students from the University of Puerto Rico at Mayagüez (RUM), aged between 18 and 22, and 37 Gibraltarian bilinguals, aged between 20 and 60. The Gibraltarian group included some university students, but was composed primarily of professionals such as teachers, lawyers, and administrators. Recruitment was conducted through personal networks and community referrals, focusing on individuals who regularly engage in codeswitching.

² Topic fronting is subject to parametric variation. The theoretical analysis that Jiménez-Fernández and Miyagawa (2014) put forth is based on the notion of feature inheritance and competition for the same position in the Left Periphery. Avoiding technicalities, we can reduce the analysis to the different position targeted by topics in English and Spanish. The specifier of the Complementizer Phrase is the slot where English topics move, whereas the specifier of the Tense Phrase area is the position occupied by (at least some types of) Spanish topics. This leads to the different well-formedness situations described in the text above. For a full account, see Jiménez-Fernández and Miyagawa (2014) and references therein.

To assess eligibility, participants completed a brief sociolinguistic background questionnaire covering domains such as age of acquisition for each language, frequency of language use in different contexts (home, school, media), and self-rated fluency. All participants reported frequent exposure to and use of codeswitching in informal settings.

4.2. *Materials and stimulus design*

The experimental materials were designed to allow a detailed analysis of how topic preposing is evaluated in code-switched constructions, depending on matrix language, clause type, and topicalization structure. Stimuli were tailored to reflect local codeswitching patterns from two bilingual communities: Puerto Rico and Gibraltar. The sentence stimuli varied by matrix language (Spanish vs. English), embedded language (Spanish vs. English), lexical type (monolingual vs. code-switched), word order (canonical vs. non-canonical), presence/absence of articles, and sentence complexity (simple vs. embedded clause). They included culturally specific food terms for each community (Puerto Rico: *rice and beans*, *arroz con habichuelas*; Gibraltar: *fried squids*, *chocos fritos*)³ and were randomized across all combinations of these factors. Notably, the Puerto Rican Spanish stimuli frequently had bare noun phrases (DPs without a definite article). While historical linguistic analyses confirm that standard Peninsular Spanish heavily grammaticalized the definite article for generic or abstract reference (Alonso 1951), Antillean Caribbean varieties exhibit unique tolerances. In Puerto Rican Spanish, lexicalized cultural compounds such as *arroz con habichuelas* are perfectly acceptable as bare preposed topics.⁴ Retaining these bare DPs ensured that participants were reacting to the syntactic manipulation of topic fronting rather than countering an artificial artifact that felt foreign to their local dialect. Sentences such as (8)–(9) give us an idea of the items that informants had to judge, but see the appendix for a full account of these sentences:

- (8) El rice and beans Ana lo odiaba de pequeña, pero le gustaba la pasta.
the ... Ana CL.ACC hated of small but CL.DAT liked the pasta
 ‘Ana hated rice and beans as a child, but she liked pasta.’
- (9) Antonio dijo que el rice and beans lo detestaba cuando era pequeño.
Antonio said that the ... CL.ACC hated when was small
 ‘Antonio said that he hated rice and beans when he was a child.’

In contexts of codeswitching the preposed topic was in one language whereas the rest of the sentence was uttered in the other language.

³ The examples of the two surveys had sentences where the lexicon was adapted to the relevant geographical area, based on real restaurant menus. Therefore, while the PR experiment used the preposed topic *el rice and beans*, the Gibraltarian one had the constituent *los fried squids*. Gender was controlled so all DPs were masculine, hence avoiding the controversial issue of masculine preference even for naturally feminine nouns (cf. Seoane 2023).

⁴ A reviewer points out that bare DPs as preposed topics are not allowed in Spanish. We are aware of this constraint in Standard Spanish (**Pan, no (lo) quiero* ‘Bread, I don’t want’; Real Academia Española y Asociación de Academias de la Lengua Española 2010). However, the use of these bare preposed topics is quite prolific in Puerto Rican Spanish. A small follow-up acceptability questionnaire was designed to probe the naturalness of candidate bare preposed-topic structures in Puerto Rican Spanish. The instrument consisted of short context–sentence pairs built around a shared family-gathering scenario, with each item including a brief discourse context followed by a target sentence featuring a bare preposed topic. We recruited 12 informants. These participants were asked to provide a binary Yes/No judgment as to whether they would say the sentence. Despite the mixed results, a few items showed a high degree of acceptability, including *Arroz con dulce, lo hacía mi abuela bien rico para las fiestas* (‘Sweet rice pudding, my grandmother used to make it really well for the holidays’), *Arroz con gandules, lo comíamos mucho en Navidad* (‘Rice with pigeon peas, we used to eat it a lot at Christmas’), *Tostones, los comíamos siempre con un buen asopao de gandules* (‘Fried plantains, we would always eat them with a good pigeon-pea stew’), and *Empanadillas, las vendían allí cerquita* (‘Turnovers, they used to sell them very nearby’). These data provide preliminary support for the acceptability of bare preposed-topic structures in Puerto Rican Spanish.

The test included 35 randomized tokens containing examples where the matrix language was either English or Spanish (see examples (8)–(9) for PR) and examples where there was no code-switching ((10)–(11) for PR).

(10) Rice and beans Ana hated as a child, but she liked pasta.

(11) The rice and beans Ana hated as a child, but she liked pasta.

To mitigate participant fatigue and prevent the development of predictive answering strategies during the task, 6 filler sentences were strategically interspersed throughout the survey. These acted as attention checks, ensuring that participants remained cognitively engaged with the target syntactic manipulations.

4.3. Procedure

Participants were instructed to read each sentence and rate it according to how natural or acceptable it would be in typical bilingual speech, as used in their community. Participants were presented with each sentence and asked to rate its acceptability in terms of everyday bilingual speech. Ratings were collected using a 4-point Likert scale, visually represented by smiley faces: 😊 (completely acceptable), 😊 (somewhat acceptable), 😐 (somewhat unacceptable) and 😞 (completely unacceptable). This format was chosen to facilitate intuitive judgments. The task was administered via Qualtrics in written form, with all instructions presented in a code-switched format to reflect and reinforce the bilingual context under investigation. Prior to the main task, a brief training section familiarized participants with the rating scale. The task was self-paced and conducted entirely online using the Qualtrics platform).

4.4. Data analysis

Responses were compared across the two bilingual communities as well as across language contexts (Spanish as ML, English as ML, and unilingual controls). Mean acceptability ratings were calculated for each syntactic type and condition, allowing for cross-linguistic and regional comparisons. Because this research functions as an exploratory pilot study with a restricted sample size (N=58 across communities), the data analysis relies strictly on descriptive statistics (mean acceptability ratings). Conducting formal inferential significance tests on underpowered pilot data is methodologically perilous; it significantly inflates the risk of Type II errors and frequently leads to the establishment of inappropriate conclusions (Kunselman 2024). Therefore, the descriptive means are utilized to map structural trends and establish baseline variance to inform future, fully powered statistical analyses.

4.5. Results

The results suggest that bilingual informants generally fall into an intermediate position regarding the acceptability of code-switched sentences. This middle-ground tendency is skewed slightly toward greater acceptability, rather than dispreference or rejection. This pattern is consistent with prior findings on bilingual acceptability judgments (cf. Stadthagen González et al. 2017 for this tendency among bilingual informants; Jiménez-Fernández 2023 for bilinguals in PR; Lewis 2023 for bilinguals in an English-speaking community in Yaiza, Lanzarote).

4.5.1. English as matrix language (codeswitched sentences)

As shown in figure 1, when English served as the matrix language, bilingual participants from both Puerto Rico and Gibraltar rated topic preposing as moderately acceptable in root clauses. However, acceptability declined in subordinate contexts and reached the lowest levels when the topicalized constituent appeared across clausal boundaries.

These results suggest that topic preposing is most acceptable in root contexts, aligning with the analysis of Topic Fronting in English as a root transformation (Emonds 1969, Haegeman 2012, Jiménez-Fernández and Miyagawa 2014, Jiménez-Fernández 2020; 2023). However, bilinguals rated even some embedded cases as marginally acceptable, indicating possible flexibility in bilingual competence.

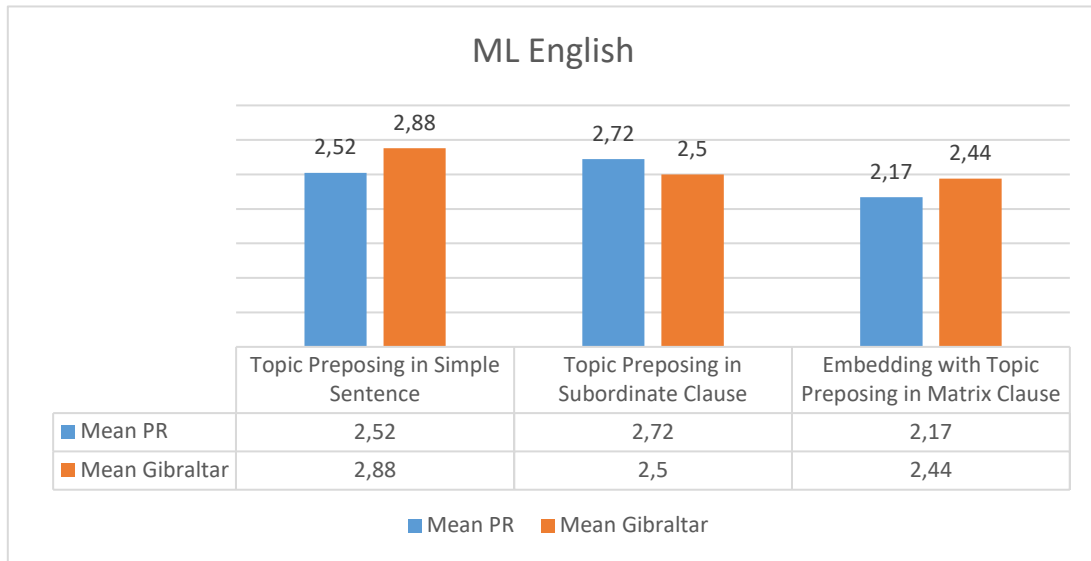


Figure 1: Acceptability ratings for topic preposing with English as the Matrix Language.

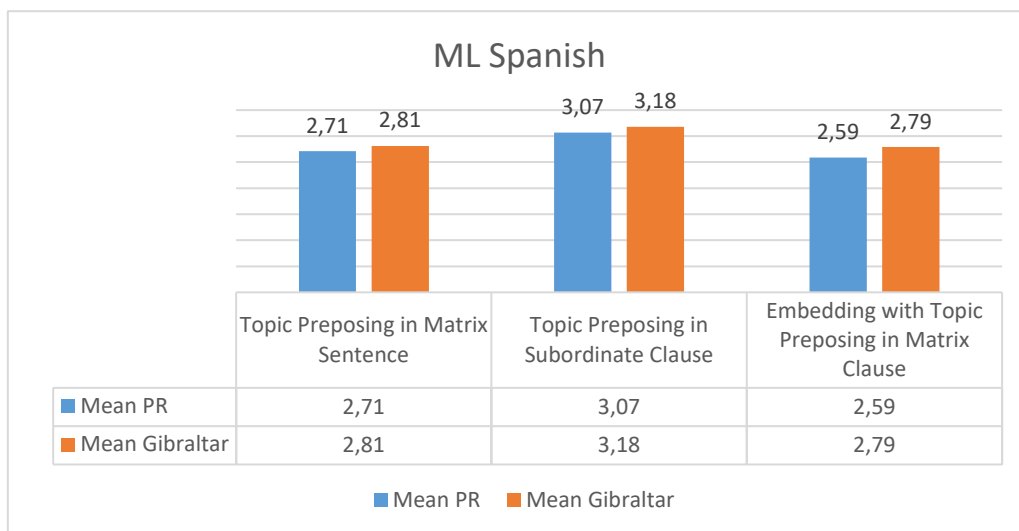


Figure 2: Acceptability ratings for Clitic Left Dislocation with Spanish as the Matrix Language.

4.5.2. Spanish as matrix language (codeswitched sentences)

Figure 2 displays results for the same syntactic conditions with Spanish as the matrix language. Ratings were consistently higher than in the English ML condition, particularly for topic preposing in subordinate clauses.

These results reflect the greater syntactic flexibility of Spanish CLLD, which is not constrained to root clauses. The high ratings for subordinate structures confirm previous analyses that CLLD is a non-root phenomenon (cf. Blokzijl et al. 2017, Parafita Couto and Gullberg 2020, Vaughan Evans et al. 2020, Parafita Couto et al. 2024).

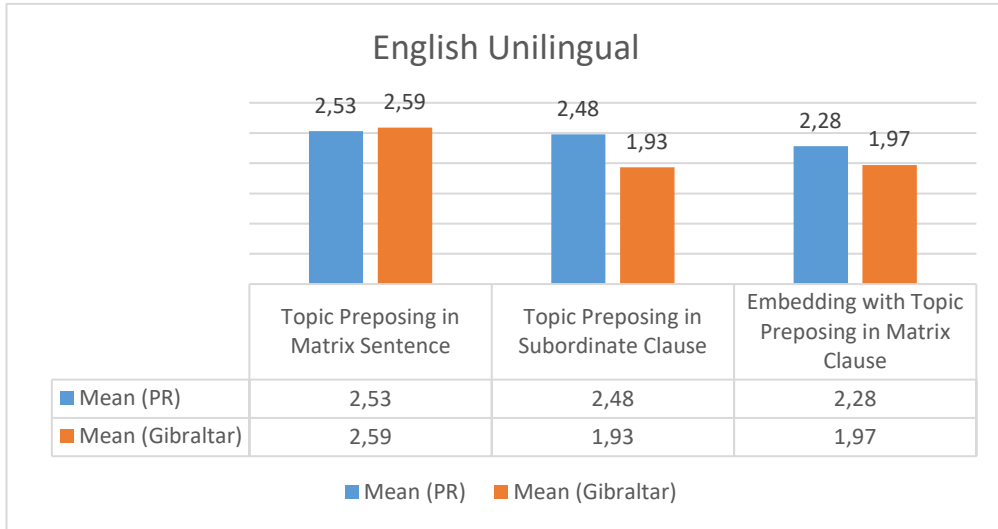


Figure 3: Acceptability ratings for Topic Fronting in Unilingual English contexts.

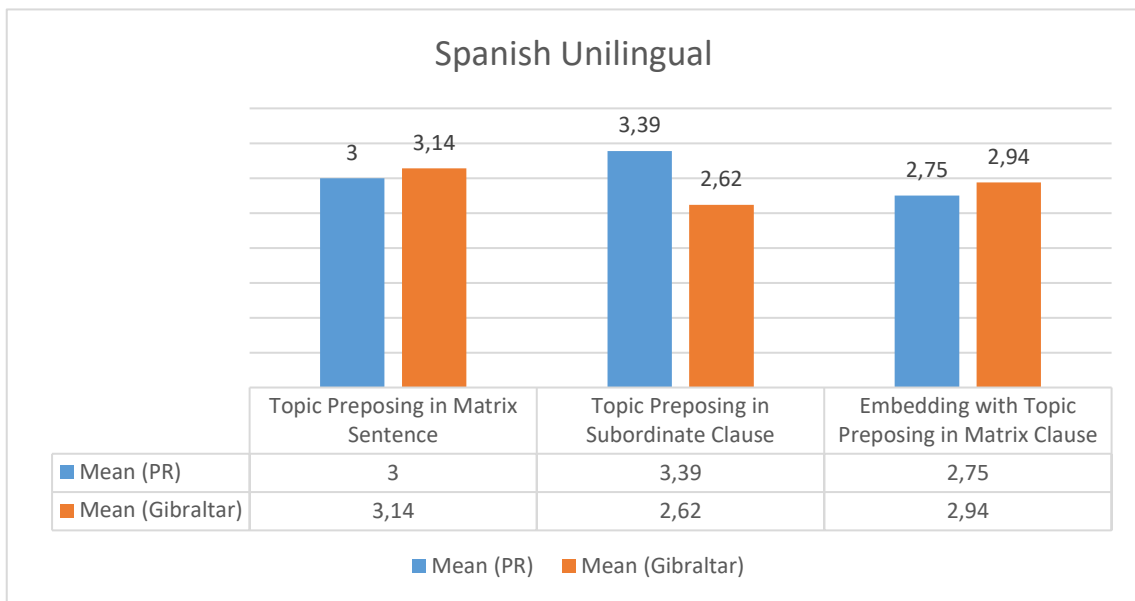


Figure 4: Acceptability ratings for Clitic Left Dislocation in Unilingual Spanish contexts.

4.5.3. Unilingual English conditions

Figure 3 provides data from unilingual English sentences. Topic Fronting in matrix contexts received the highest ratings, while acceptability declined in subordinate and embedded contexts – particularly among Gibraltarian speakers. As observed here, monolingual Topic Fronting is fully acceptable in root clauses, its acceptability decreases when the topic is preposed inside the embedded clause and it reaches the worst outcome when fronting trespasses the clausal boundary. We connect this result with the status of root transformation that Topic Fronting has in English (Emonds 1969, Haegeman 2012, Jiménez-Fernández and Miyagawa 2014, Jiménez-Fernández 2020) and show that informants had the English grammar internalized.

These results are consistent with well-established constraints on English Topic Fronting, which is typically limited to root contexts. The particularly low ratings in Gibraltar suggest a more conservative application of this grammatical restriction in that community.

4.5.4. *Unilingual Spanish conditions*

Figure 4 presents the results for monolingual Spanish constructions. Here, Clitic Left Dislocation was judged highly acceptable across all syntactic environments, supporting its analysis as a discourse-linked but syntactically flexible construction.

These data confirm that CLLD in Spanish is not restricted to root contexts and is generally perceived as natural in both matrix and embedded structures (cf. Jiménez-Fernández and Miyagawa 2014, Jiménez-Fernández 2020, Yang 2023).

4.5.5. *Spanish and English in contrast*

Two major patterns emerge when comparing English and Spanish data, both in unilingual and bilingual contexts:

- i. Information structure mismatch in unilingual contexts: Spanish CLLD received higher acceptability ratings (mean $\approx 3/4$) compared to English Topic Fronting (mean $\approx 2.5/4$). This reflects structural asymmetries in how the two languages license topicalization.
- ii. Structural alignment in bilingual contexts: in bilingual constructions, ratings for Spanish CLLD (mean $\approx 2.7/4$) and English Topic Fronting (mean $\approx 2.5/4$) become more aligned. This suggests that bilingual speakers may apply a compromise grammar or exhibit flexible representations shaped by both systems.

When framing the results of our study in the context of bilingualism, the observed acceptability patterns point to similarities in bilingual grammar, not dependable on language exposure or community-specific sociolinguistic factors. In other words, bilinguals tend to show a similar behaviour in the two languages which is not correlated with standard differences between monolingual Spanish and English speakers. The similarities between the speakers in Puerto Rico and Gibraltar do not reflect distinct histories of language contact, dominance, or prestige, as far as our results are concerned.⁵

5. Conclusions and future research

This study offers preliminary insights into the syntax-discourse interface in bilingual communities in Puerto Rico and Gibraltar. The central finding is that sentences involving codeswitching are generally judged acceptable by bilingual informants, regardless of the matrix language. This outcome challenges the initial hypothesis that expected differential acceptability based on the syntactic rigidity of English versus the flexibility of Spanish in topic preposing structures.

An important exception to this trend emerges with topic preposing in English embedded clauses, where lower acceptability ratings suggest sensitivity to the root phenomenon constraint in English. This aligns with well-established analyses identifying Topic Fronting in English as a root transformation, subject to parametric variation across languages (cf. Emonds 1969, Haegeman 2012, Jiménez-Fernández and Miyagawa 2014). Despite this exception, the broader pattern points to a dynamic structural alignment in the information structure (IS) strategy employed by bilingual speakers. Specifically, topic preposing

⁵ We are aware that participant fatigue and the neutral response bias are common in grammaticality or acceptability judgment tasks, as one reviewer points out. When participants are exposed to a large number of structurally similar or repetitive stimuli, especially without breaks or feedback, response exhaustion can set in. This fatigue often leads participants to default to neutral ratings rather than carefully discriminating among subtle grammatical contrasts. As a result, apparent patterns of what we have called moderate acceptability may reflect task fatigue or uncertainty rather than genuine grammatical tolerance or language use. However, as observed earlier, to avoid this bias, our survey contained randomized items, included fillers, counterbalanced conditions. For discussion, see Schütze (1996) and Wasow and Arnold (2005).

appears to be broadly acceptable across different syntactic contexts, suggesting that bilingual grammars may accommodate or negotiate the constraints of both input languages. This aligns with prior work that emphasizes the dynamic and adaptive nature of bilingual competence (cf. Muntendam and Parafita Couto 2024). Furthermore, the cross-community comparison yields deeply revealing implications regarding the limits of sociolinguistic influence on core syntax. Puerto Rico and Gibraltar represent vastly different sociolinguistic ecologies. One might logically hypothesize that Gibraltarian speakers, heavily dominant in English, would forcefully impose English SVO rigidity onto Spanish frames. Instead, the acceptability patterns between the two communities were remarkably aligned. This suggests that while macro-sociolinguistic context heavily dictates *when* and *why* a bilingual chooses to codeswitch, the underlying cognitive mechanisms governing the syntax-information structure interface are universally shared across advanced bilinguals.

This study opens a promising new line of research at the intersection of codeswitching, syntax, and discourse. By examining topic fronting in code-switched environments, we contribute to a deeper understanding of how bilingual speakers manage structural and pragmatic constraints across languages. Expanding the empirical base to larger participant cohorts from other bilingual contexts such as Belize, the American Virgin Islands, New Mexico, the Philippines, and Miami will test whether informants similarly accept fronted topics in the discourse-linked (DL) language when the matrix language differs and facilitate inferential statistical modelling. Additionally, corroborating these isolated acceptability judgments with robust, spontaneous corpus data (Parafita Couto et al. 2023) will clarify whether the intermediate cognitive acceptance of embedded fronting translates into actual verbal production. In sum, the overall tendency toward uniformity in the acceptability of topic preposing points strongly toward a shared, highly adaptive cognitive architecture operating within all bilingual grammars.

Appendix: Study materials

Items to test (Puerto Rico):

Spanish as matrix language (ML) and English as Embedded Language (EL):

1. Rice and beans Ana lo odiaba de pequeña, pero le gustaba la pasta.
2. Rice and beans lo odiaba Ana de pequeña, pero le gustaba la pasta.
3. El rice and beans Ana lo odiaba de pequeña, pero le gustaba la pasta.
4. El rice and beans lo odiaba Ana de pequeña, pero le gustaba la pasta.
5. The rice and beans Ana lo odiaba de pequeña, pero le gustaba la pasta.
6. The rice and beans lo odiaba Ana de pequeña, pero le gustaba la pasta.

Monolingual Spanish (control):

1. El arroz con habichuelas lo odiaba Ana de pequeña, pero le gustaba la pasta.
2. El arroz con habichuelas Ana lo odiaba de pequeña, pero le gustaba la pasta.
3. Arroz con habichuelas lo odiaba Ana de pequeña, pero le gustaba la pasta.
4. Arroz con habichuelas Ana lo odiaba de pequeña, pero le gustaba la pasta.

English as ML and Spanish as EL:

1. El arroz con habichuelas Ana hated as a child, but she liked pasta.
2. Arroz con habichuelas Ana hated as a child, but she liked pasta.
3. The arroz con habichuelas Ana hated as a child, but she liked pasta.

Monolingual English:

1. Rice and beans Ana hated as a child, but she liked pasta.
2. The rice and beans Ana hated as a child, but she liked pasta.

Spanish as ML and English as EL (complex sentences):

1. Antonio dijo que el rice and beans lo detestaba cuando era pequeño.
2. El rice and beans Antonio dijo que lo detestaba cuando era pequeño.
3. Antonio dijo que rice and beans lo detestaba cuando era pequeño.
4. Rice and beans Antonio dijo que lo detestaba cuando era pequeño.
5. Antonio dijo que the rice and beans lo detestaba cuando era pequeño.
6. The rice and beans Antonio dijo que lo detestaba cuando era pequeño.

Monolingual Spanish:

1. Antonio dijo que el arroz con habichuelas lo detestaba cuando era pequeño.
2. El arroz con habichuelas Antonio dijo que lo detestaba cuando era pequeño.
3. Antonio dijo que arroz con habichuelas lo detestaba cuando era pequeño.
4. Arroz con habichuelas Antonio dijo que lo detestaba cuando era pequeño.

English as ML and Spanish as EL (complex sentences):

1. Antonio said that el arroz con habichuelas he hated as a child.
2. El arroz con habichuelas Antonio said that he hated as a child.
3. Antonio said that arroz con habichuelas he hated as a child.
4. Arroz con habichuelas Antonio said that he hated as a child.
5. Antonio said that the arroz con habichuelas he hated as a child.
6. The arroz con habichuelas Antonio said that he hated as a child.

Monolingual English:

1. Antonio said that rice and beans he hated as a child.
2. Rice and beans Antonio said that he hated as a child.
3. Antonio said that the rice and beans he hated as a child.
4. The rice and beans Antonio said that he hated as a child.
- 5.

Items to test (Gibraltar):

Spanish as matrix language (ML) and English as Embedded Language (EL):

1. Fried squids Mary los odiaba de chica, pero le gustaba la pasta.
2. Fried squids los odiaba Mary de chica, pero le gustaba la pasta.
3. Los fried squids Mary los odiaba de chica, pero le gustaba la pasta.
4. Los fried squids los odiaba Mary de chica, pero le gustaba la pasta.

Monolingual Spanish (control):

1. Los chocos fritos los odiaba Mary de chica, pero le gustaba la pasta.
2. Los chocos fritos Mary los odiaba de chica, pero le gustaba la pasta.
3. Chocos fritos los odiaba Mary de chica, pero le gustaba la pasta.
4. Chocos fritos Mary los odiaba de chica, pero le gustaba la pasta.

English as ML and Spanish as EL:

1. Los chocos fritos Mary hated them as a child, but she liked pasta.
2. Chocos fritos Mary hated them as a child, but she liked pasta.
3. Los chocos fritos Mary hated as a child, but she liked pasta.
4. Chocos fritos Mary hated as a child, but she liked pasta.

Monolingual English:

1. Fried squids Mary hated as a child, but she liked pasta.
2. The fried squids Mary hated as a child, but she liked pasta.

Spanish as ML and English as EL (complex sentences):

1. Tony dijo que los fried squids los odiaba cuando era pequeño.
2. Los fried squids Tony dijo que los odiaba cuando era pequeño.
3. Tony dijo que fried squids los odiaba cuando era pequeño.
4. Fried squids Tony dijo que los odiaba cuando era pequeño.

Monolingual Spanish:

1. Tony dijo que los chocos fritos los odiaba cuando era pequeño.
2. Los chocos fritos Tony dijo que los odiaba cuando era pequeño.

English as ML and Spanish as EL (complex sentences):

1. Tony said that chocos fritos he hated them as a child.
2. Los chocos fritos Tony said that he hated them as a child.
3. Tony said that los chocos fritos he hated as a child.
4. Los chocos fritos Tony said that he hated as a child.

Monolingual English:

1. Tony said that fried squids he hated as a child.
2. Fried squids Tony said that he hated as a child.
3. Tony said that fried squids he hated them as a child.
4. Fried squids Tony said that he hated them as a child.

Acknowledgements

It is a great pleasure to contribute to this volume in honor of Johan Rooryck. We would like to thank him warmly for his generosity, encouragement, and friendship over the years. M. Carmen Parafita Couto is particularly grateful for the opportunity to have worked with him at Leiden University under his supervision, an experience that shaped her deeply both intellectually and personally. Ángel Jiménez-Fernández and Melvin González Rivera also wish to express their sincere appreciation for his support, warmth, and inspiring example. Johan combines intellectual brilliance with extraordinary humanity, and it is a joy for all three of us to honor him as a scholar, mentor, and colleague.

Earlier versions of this work have been presented in conferences such as BHL 2024 (Puebla, Mexico), LSRL 55 (Santo Domingo, Dominican Republic), GIC2 (Vigo, Spain), ISB 15 (Donostia, Spain), Going Romance 31 (Braga, Portugal), SLE 57 (Helsinki, Finland), among others.

This publication is part of the project PID2022-137233NB-I00, funded by MICIU/AEI/10.13039/501100011033 and by ERDF/EU, grant number PID2022-137233NB-I00. Parafita Couto acknowledges support from ATR2024-154931, funded by MICIU/AEI/10.13039/501100011033.

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