English/Spanish Relatives and Their Relative Information Structure: A View from Language Contact in Puerto Rico*

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Abstract

The goal of this paper is to analyse the impact of Main Clause Phenomena (MCP) such as Negative Preposing (NPr) in four types of relative clauses, namely definite restrictive, indefinite restrictive, non-restrictive and kind-defining relative clauses, establishing a contrast between English and Spanish and discussing the interconnection of the two languages in a language contact situation such as the one observed in Puerto Rico. To this end, I have carried out an experiment with monolingual native speakers of the two languages (control groups), where they have to judge the grammaticality/acceptability of the different types of relatives when NPr takes place. In addition, the same task is carried out by a bilingual group of Puerto Ricans (PR). The main purpose was to detect any interference of one language upon the other one regarding the licensing conditions of NPr in relative clauses. The main empirical result shows that English makes a distinction in terms of acceptability between types of relatives with NPr, whereas in Spanish NPr is licensed in all types of relatives, and this situation seems to be mimicked in the language contact situation in Puerto Rico, though some crucial differences are detected which suggest that PR bilinguals have an integrated I-language (*sensu* López 2020). The results support the idea that there are two big groups of relatives, namely asserted (very similar to root clauses) and non-asserted relatives. The latter include definite restrictive relatives, whereas the former include non-restrictive relatives, kind-defining relatives and indefinite restrictive relatives. Based on discourse-feature inheritance, intervention and the projection of a factive operator in non-asserted relatives (subject to parametric variation), I argue that the PR results show that when processing one specific language they may apply a syntactic rule of the other language, which I take to support the integrationist view of bilingualism.

Keywords: negative preposing; relative clauses; assertion; main clause phenomena; experiment; parametric variation; language contact; Puerto Rican bilinguals

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Resum. *Relatives españoles/angleses i la seva relativa estructura informativa: una visió des del contacte de llengües a Puerto Rico*

L'objectiu d'aquest article és analitzar l'impacte dels fenòmens de clàusula principal (MCP) com ara l'anteposició negativa (AN) en quatre tipus d'oracions relatives, això és, les oracions de relatiu definides, les restrictives indefinides, les no restrictives i les definidores de tipus, establint un contrast entre l'anglès i l'espanyol i discutint la interconnexió de totes dues llengües en una situació de contacte lingüístic com l'observada a Puerto Rico. Amb aquesta finalitat, he realitzat un experiment amb parlants nadius monolingües de totes dues llengües (grups de control), en què han hagut de jutjar la gramaticalitat/acceptabilitat dels diferents tipus de relatives amb AN. A més, un grup bilingüe de porto-riquenys (PR) també va fer la mateixa tasca. L'objectiu principal era detectar qualsevol interferència d'un idioma sobre l'altre pel que fa a les condicions de legitimació de l'AN en clàusules relatives. El principal resultat empíric és que l'anglès fa una distinció pel que fa a l'acceptabilitat entre els tipus de relatives amb AN, mentre que en espanyol l'AN es legitima en tota mena de relatives i aquesta situació sembla donar-se també en la situació lingüística de contacte a Puerto Rico, tot i que es detecten algunes diferències crucials que semblen suggerir que els bilingües porto-riquenys (grup PR) tenen una llengua I integrada (*sensu* López 2020). Els resultats donen suport a la idea que hi ha dos grans grups de relatives, això és, les assertives (molt semblants a les oracions arrel) i les no assertives. Aquest segon grup inclou les relatives restrictives definides, mentre que aquell inclou les relatives no restrictives, les relatives definidores de tipus i les relatives restrictives indefinides.

Paraules clau: anteposició negativa; clàusules relatives; asserció; fenòmens de clàusula matriu; experiment; variació paramètrica; contacte de llengües; porto-riquenys bilingües

Table of Contents

1. Introduction
2. Language contact in Puerto Rico
3. Towards a typology of relatives
4. The survey
5. Relatives: assertion, feature inheritance and factive operator
6. Concluding remarks
References

1. Introduction

The syntax and semantics of relative clauses have been a recurrent research topic in the literature across languages. In traditional grammar, relative clauses are defined depending on whether they describe the antecedent by adding crucial information to identify it or they provide additional information about it, not necessary for its identification. This is the classical distinction between restrictive and non-restrictive relative clauses respectively, which Quirk et al. (1986: 1247) illustrate as in (1-2) for English:

(1) The woman who is approaching us seems to be somebody I know.

(2) The bible, which has been retranslated, remains a bestseller.

In Spanish, we find exactly the same distinction between restrictive and non-restrictive relative clauses, as illustrated in (3) and (4) respectively, taken from Brucart (1999: 409):

(3) La casa tenía dos habitaciones que daban al parque.
the house have two rooms that faced to.the park
'The house had two rooms that faced the park.'

(4) La casa tenía dos habitaciones, que daban al parque.
the house have two rooms that faced to.the park
'The house had two rooms, which faced the park.'

The syntactic, semantic and phonological properties have been largely discussed, though sometimes no consensus is found among linguists. However, the discourse and information structure (IS) properties of relatives have stayed unclear with notable exceptions such as Hooper & Thomson (1973), Emonds (1976), Gärtner (2000), Radford (2009, 2019), Antomo (2012), Haegeman (2012), Matić, van Gijn & Van Valin (2014), Leonetti & Escandell (2017), among others. Their main line in the treatment of relative clauses takes into account their propositional content in terms of presupposition or assertion. It is a widespread claim that restrictive relatives express presupposition whereas non-restrictive relatives convey assertion (patterning with main clauses).

To illustrate, the information provided by the restrictive relative clause in (1) and (3) is already present in the Common Ground of the interlocutors. They share the information that there is someone approaching them in (1) and that the two rooms were facing the park. In other words, they express presupposed information.

On the other hand, in (2) and (4) the content of the relatives is not in the Common Ground yet. It is information that the speaker is adding as new. Therefore, in (2) the addressee is not familiar with the fact that the Bible has been retranslated; or in (4) the fact that the two rooms were facing the park is not shared by the participants in the communicative act. More precisely, the relatives in (2) and (4) express an assertion or asserted information.

In connection with the information structure of relative clauses, in the literature there has been a hot debate concerning the type of discourse categories that can occur in root and non-root clauses. Since Emonds (1970), it is standardly assumed that some IS phenomena are Root Transformations or Main Clause Phenomena (MCP), i.e. they can only occur in root or root-like sentences (Emonds 1970, 1976, 2004; Hooper & Thompson 1973; Haegeman 2002; Meinunger 2004; Heycock 2006; Bianchi & Frascarelli 2010; Jiménez-Fernández & Miyagawa 2014; Miyagawa 2017; Jiménez-Fernández 2018, 2020, 2021; Frascarelli & Jiménez-Fernández 2021). Among these MCP, Emonds (2004) lists Negative Preposing (NPr) or Locative Inversion, as in (5) and (6) respectively, from Emonds (2004: 86, his examples (21a-b)):

(5) Not one book did John give to his child.

(6) Into the pool jumped Mary.

When these phenomena take place in an embedded context, the result may be well-formed, as in (7), or ill-formed, as in (8):

(7) a. I exclaimed that NEVER IN MY LIFE had I seen such a crowd. (Class A)
(Hooper & Thompson 1973: 474, example 43)

b. It seems that NEVER BEFORE have prices been so high. (Class B)
(Green 1976: 389, example 47a)

c. I found out that never before had he had to borrow money. (Class E)
(Hooper & Thompson 1973: 480, example 119)

(8) a. *It's likely that SELDOM did he drive that car. (Class C)
(Hooper & Thompson 1973: 479, example 96)

b. *He was surprised that NEVER IN MY LIFE had I seen a hippopotamus. (Class D)
(Hooper & Thompson 1973: 479, example 103)

As indicated after each example, the embedded sentences are selected by a different type of predicate, according to Hooper and Thompson's typology. This classification is based on whether the subordinate clause express assertion or presupposition. Class A, B and E verbs are those which require an asserted embedded clause, whereas Class C and D verbs are those which select a presupposed clause. If the selecting verb requires a presupposed embedded sentence, NPr is banned, as observed in (8). Conversely, if the verb selects an asserted embedded sentence, NPr is allowed. It is safe to claim that assertion stands for a root context, while presupposition does not.

As regards relative clauses, they have also been analysed in terms of asserted (non-restrictive) and presupposed (restrictive). The prediction will thus be that in restrictive relatives MCP are not allowed since they are presupposed, whereas in non-restrictive relatives MCP are permitted since they are asserted, similar to matrix clauses. This is illustrated for English in (9a-b), extracted from Hooper & Thompson (1973: 489):

(9) a. *The car that only rarely did I drive is in excellent condition.

b. This car, which only rarely did I drive, is in excellent condition.

However, the judgments are very shaky since other linguists consider constructions such as (9a) fully acceptable (Culicover 1991; Radford 2019). This is the case of (10):

(10) A university is the kind of place in which, that kind of behavior, we cannot tolerate.
(Radford 2009: 327, his example 9a)

In addition, Gärtner (2000) gives examples of restrictive relatives where NPr is possible in English:

(11) I saw a dress which under no circumstances would I have bought.

In both (10) and (11) a restrictive clause is involved, yet NPr is fully legitimate.

In the literature on Spanish relatives and MCP, Leonetti & Escandell (2017) stand to suggest that assertion is again the key factor distinguishing the two types of relatives, and an information focus interpretation is not available on a postverbal subject in restrictive relatives, since this discourse category qualifies as an MCP and thus is banned in this type of relatives due to its presupposed status. Examples in (12) show the contrast between the focus interpretation of the postverbal subject in a root clause as opposed to the blocking of this interpretation in the restrictive relative (Leonetti & Escandell 2017: 436):

(12) a. Alquiló el apartamento Ernesto.
rented the flat Ernesto
'Ernesto rented the flat.'

b. El apartamento [que alquiló Ernesto]
the flat that rented Ernesto
'The flat that Ernesto rented.'

Both sentences are grammatical but only in the root clause (12a) is the focus interpretation of the subject available, as the authors clearly claim. For them the postverbal subject in the relative clause in (12b) does not have a focus reading.

However, it should be noted that in a context in which narrow focus is induced on the subject of a relative clause, this can be postverbal:

(13) a. Pero vamos a ver. Ese apartamento, ¿quién lo ha comprado?
but go-2SG to see this flat who CL.ACC have bought
'So, let's see. Who bought this flat?'

b. ¡Tú es que no te enteras! Es el apartamento que compró Ernesto.
you is that NEG SE realize is the flat that bought Ernesto

The problem with Leonetti and Escandell's proposal is that they do not provide empirical support for the focal or non-focal reading of postverbal subjects in relative clauses. My intuition is that focus can appear in either of them. They discuss cases of narrow focus, possibly exhaustive as in the answer (12a) to the question in *¿Quién alquiló el apartamento?* 'Who rented the flat?'.

In any case it seems that this is a case of focus in-situ, so no movement is involved. This cannot be accounted for in terms of syntax. Leonetti and Escandell argue that given the presupposed nature of restrictive relatives, focus (as an MCP) is pragmatically incompatible in these contexts.

Nevertheless, if a focused object moves to the left periphery of a restrictive relative clause, ungrammaticality is expected, contrary to facts:

(14) a. Pablo es un mal político porque no satisface a una parte
Pablo is a bad politician because NEG satisfy-PRES.3SG to a part
de sus simpatizantes.
of his sympathizers
'Pablo is a bad politician given that he doesn't satisfy a section of his voters.'

b. No, no. Pablo es un político que A NINGÚN VOTANTE
NEG NEG Pablo is a politician that to no voter
satisface, no solo a sus simpatizantes.
satisfies not only to his sympathizers
'No, no. Pablo is a politician that satisfies no voters at all, not only his sympathizers.'

The DP *ningún votante* 'no voter' is a Contrastive Focus (with the relevant contrastive stress), which is supposed to be an MCP. The relative clause where it occurs is restrictive and hence it is presupposed. However, in a language such as Spanish, Contrastive Focus can be fronted to the Left Periphery even in restrictive clauses. In other words, fronting in (14) shows that presupposition is not fully incompatible with MCP, and that a purely semantic/pragmatic analysis cannot account for the full range of data.

Another puzzle which is posed by relatives is that the correlation between restrictives and presupposition, on the one hand, and between non-restrictives and assertion is not clear-cut in that some restrictives can be asserted depending on the type of Determiner (D) which introduces the antecedent. The notion of definiteness plays a crucial role in determining the presupposed or asserted status of the relative in that when the D is definite the information in the restrictive relative is part of the Common Ground, but when the D is indefinite, the information in the following restrictive relative is not present in the CG, and hence the clause expresses an assertion (Gärtner 2000; Antomo 2012). If asserted relatives do allow MCP, it is predicted that they will occur in these indefinite restrictive relatives. The prediction is borne out in light of examples such as (11).

Finally, another puzzle is represented by the so-called kind-defining relatives (Benincà 2012; Radford 2019). Independently of whether the D in the antecedent is definite or indefinite, the apparently restrictive relative does express assertion and does not restrict the reference of the preceding noun in order to identify it, but rather indicates the class that the noun head belongs to (Benincà & Cinque 2014; Radford 2019). This type of relative is illustrated in (15).

(15) He's a guy [who/that gets into a lot of fights]. (Radford 2019: 10, example (10))

Here the head *guy* stands for *the kind of guy*, identifying thus the specific class of guys, and the following relative just specifies a defining property of this class, which is not part of the Common Ground, and hence expresses new information. According to Benincà (2012), these kind-defining relatives are assertions. It can therefore be predicted that MCP will be allowed in these relatives. Again, this prediction is borne out by examples such as (16):

(16) Terry is the person [to whom only books like these would I give].
(Culicover 1996: 456, example (37a))

In (16) the relative clause includes a fronted focus, and the outcome is well-formed, though the relative is apparently restrictive and the head noun is introduced by a definite D.

The goal of this paper is to analyse the impact of Main Clause Phenomena such as Negative Preposing in two types of relative clauses, namely restrictive and non-restrictive relative clauses, establishing a contrast between English and Spanish. I will discuss the licensing conditions in three types of 'restrictive' relatives, namely definite restrictives, indefinite restrictives and kind-defining relatives.[1] To this end, and due to the disagreement on the grammaticality of these sentences that I found in the literature, I have carried out an experiment with native speakers of the two languages, where their main task was to judge the grammaticality/acceptability of the four types of relatives, when NPr takes place.

In addition, and using the results of the surveys in Standard Spanish and Standard English[2], I address the issue of bilingualism by examining the data from Puerto Rican (PR) bilingual speakers so as to see whether evidence can be found that bilinguals have one single I-language or two separate grammatical systems as far as syntactic rules are concerned. In particular, I will argue for an integrationist view of bilingualism (López 2020; Vaughan-Evans et al. 2014), based on the language contact situation in Puerto Rico. See Serratrice (2013) for a full account of the nature of the system(s) developed by bilinguals.

My initial hypothesis is that Standard English relatives differ regarding the acceptability of NPr depending on the type of relative; on the other hand, Standard Spanish allows NPr in all types of relatives. However, this situation is predicted to be different in PR bilinguals in that they may apply syntactic rules of a language in the other language, thereby producing crucially distinct grammaticality judgements in the survey. The application of a Spanish rule in the English sentence is one instance of what Serratrice (2013) calls cross-linguistic effects. If this application of a Spanish rule in English can be proved to show up, my findings will support the integrationist view of bilingualism (as opposed to the separationist view) – see below for some general empirical evidence in favour of the separationist view.

My research questions are then two. First, how can we explain in a principled way why languages vary with respect to the licensing of MCP in general and

1. For a full discussion of types of relatives, see Radford (2019) and references therein. I adopt a unitary approach to non-restrictive relatives. However, there are other approaches which distinguish between two integrated and non-integrated non-restrictives (Cinque 2006, 2008) depending on different grammatical properties such as the obligatory adjacency to the antecedent. To this two-member classification, del Gobbo (2017) adds a third type (semi-integrated non-restrictives), which differ from the other two in terms of binding and illocutionary independence. I leave for future research the possibly distinct behaviour of these three types in terms of information structure and their root-like status.
2. It is common practice in variationist studies to use the term 'standard' to refer to the general language without any dialectal flavor (Ticio 2018). I follow this trend and use the term only for methodological purposes.

NPr in particular. And secondly, how can we account for the distinct grammatical behaviour in bilinguals.

Given that a purely semantic account cannot explain this parametric difference, I explore a syntactic analysis which includes two main ingredients, namely 1) the inheritance of discourse features by T(ense) from C(omplementiser), which characterizes languages such as Spanish but not English (Jiménez-Fernández 2010, 2011; Jiménez-Fernández & Miyagawa 2014; Miyagawa 2017; Jiménez-Fernández 2018, 2020; Ojea 2019)[3]; and 2) the presence of a factive operator (endowed with an interpretable [Non-Assertion] feature) above TP, which moves to Force in restrictive relatives, and the absence thereof in non-restrictive relatives. The NPr constituent is attracted to spec-FocP in English and in moving up there it crosses the chain formed by the factive operator in restrictive relatives. Following Richards (2001), this creates crossing chains which lead to ill-formedness. Conversely, in non-restrictive relatives, there is no factive operator and then NPr is freely allowed since its chain does not cross any other chain. This analysis correctly predicts the compatibility of NPr in asserted contexts (non-restrictives, indefinite restrictives and kind-defining relatives) and its banning in presupposed contexts (restrictives) in English.

On the other hand, building on Jiménez-Fernández (2021), for Spanish I suggest that the NPr element undergoes movement to the specifier of Tense Phrase after the relevant discourse feature has been inherited by T, and hence this chain will never cross the higher chain formed by the factive operator in definite restrictive relatives (presupposed clauses). This explains why Spanish NPr is not constrained to asserted contexts and is thus allowed in restrictive relatives.

This article is organised as follows. In Section 2, I very briefly discuss the language contact situation in Puerto Rico and how a formal account can be provided of the bilingual I-language. In Section 3, I address the syntax and information structure of the four types of relatives I have taken into account, and their compatibility with NPr. In Section 4, I present the experimental work I have carried out in order to get the grammaticality judgments of native speakers of Standard English and Spanish and make a contrast with PR bilinguals. In this section I also discuss the results of the experiment. In Section 5, I put forth my formal analysis, based on the occurrence of an event operator in restrictive relative clauses and the different syntactic position targeted by NPr in English and Spanish. I also provide independent evidence for the projection of this factive operator in the syntax and for the variation in the position occupied by the fronted negative constituent in English and Spanish. Finally, in Section 6, I provide conclusions for the paper.

3. A reflex of the inheritance of discourse features from C to T consists in the agreement that DPs other than subjects show with T when they are topics. This is attested in Brazilian Portuguese (Kato & Ordóñez 2019) and Ripano, an Italo-Romance language spoken in central Italy (D'Alessandro 2020).

2. Language contact in Puerto Rico

2.1. The formalization of the bilingual I-language

When discussing language contact and bilingualism, a crucial issue to tackle is whether bilinguals have one or two (maybe more) grammatical systems. In other words, the integral or separate status of bilinguals' internal language (I-language) makes different predictions about the nature of their grammatical systems.

Separationists claim that bilinguals have two separate grammatical systems (Woolford 1983), whereas integrationists such as MacSwan (1999) argue for two lexicons, two PFs but one computational system. A more radical view is taken by López (2020), who puts forth the idea that bilinguals are endowed with one lexicon, one PF and one syntax, so lexical items, phonological rules and syntactic rules are stored in just one compartment.

In light of this, from a separationist perspective, bilinguals change from one system to another in situations of code-switching, when from an integrationist view, they do not have to change since they are provided with just one system.[4] Standing on the lexical-syntactic side, an empirical argument in favour of the integrated I-language is given by López (2020), based on the selectional properties of the verb *hacer* 'do' in a German/Spanish bilingual context. These bilinguals may produce sentences such as (17):

(17) Juan hizo arbeiten.
Juan made work.INF
'Juan worked.' (López 2020: 18, ex. 8c)

The Spanish light verb *hacer* may select a German infinitive such as *arbeiten* 'to work'. López's reasoning is very clear. If bilinguals have two separate systems, they cannot swap from one lexicon to another and select a German word to enter the syntactic derivation in Spanish. On the contrary, if they have an integrated system with just one lexicon and one syntax, we can explain why these German/Spanish bilinguals produce sentences such as (17) by simply assuming that both German and Spanish lexical-syntactic material share a single compartment where these bilinguals have generated a new rule 'hacer + German infinitive'. This leads to consider the integrationist view to be superior to the separationist one.

Another argument supporting the integrationist view comes from economy. López (2020) mentions the rule of syntactic dislocation in Spanish/French bilinguals. Both languages are typologically similar. Specifically, dislocations are identical in that both languages move an element to the left periphery and resume it with a clitic which agrees in gender and number with the dislocated element.

4. In the case of MacSwan, codeswitching was explained by changing from one lexicon to another one. However, López's (2020) more radically integrationist view is that bilinguals pick up words from the same compartment, even though they belong to two languages. What MacSwan and López share is their claim that bilinguals have a single computational system. In this respect, both authors are seen as integrationists.

For separationism, these bilinguals should learn two separate rules, when it clearly amounts to exactly the same rule. Under MacSwan's integrationist approach bilinguals instantiate different applications of the same rule, which is explained by the single computational system that MacSwan proposes. In separationist approaches bilinguals have to learn two rules since they have two computations systems. However, if their syntax is integrated, French/Spanish bilinguals only have to learn one single rule which applies in the two languages, thereby alleviating the acquisition task, a welcome result.[5]

From this, I conclude that integrationism has a degree of explanatory power higher than separationism. In the rest of this work, I will support the integral status of bilinguals' I-language by analysing the possibility of applying an English syntactic rule in Puerto Rican Spanish or a Spanish syntactic rule in Puerto Rican English. If these two scenarios show up in the bilingual situation of Puerto Rico, it will prove that during processing a particular language a bilingual has an integral single I-language because they simply store English and Spanish syntax in their only linguistic system. This will ultimately lend support to López's and MacSwan's integrationist approaches, given that in both approaches there is a single computational system, where syntactic rules of the two languages involved in bilinguals are stored.

2.2. Puerto Rican bilingual situation

The linguistic contact between English and Spanish in Puerto Rico has a long tradition on the island. After Spain gave up the old colony to the USA, English has been gaining ground and nowadays both English and Spanish are official languages. However, the situation of bilingualism is not uniform since English has been the language that Puerto Ricans have to use in educational, economic or political circumstances, whereas Spanish is viewed as the language used in colloquial situations (González Rivera & Ortiz López 2018; Ortiz López & González Rivera, Forthcoming).[6]

In a survey carried out by Alvar (1986), around 78% of participants claimed to know English quite well (as opposed to 22% that considered English as an unfamiliar language). In this context a cultural mixture and interference between English and Spanish is expected, motivating the current bilingual situation. Though

5. Dislocation dependencies are very elegantly described if the hypothesis that bilinguals have a single integrated grammar is correct. López (2020: 187) give the following German/Spanish example of codeswitching:

   (i) Das Buch, Hans lo hizo verkaufen.
   the.DEF.N book Hans CL.ACC.M did sell
   'Hans sold the book.'

   The interesting property is that these bilinguals can dislocate a German DP containing a neuter noun (*Buch* 'book') and resume it via a Spanish masculine clitic, which is allowed because they share the [-feminine] feature. This can be explained if the two grammars are stored in the same compartment.

6. See González Rivera (2020) for a discussion of the controversial current bilingual situation in PR.

the dominant language in PR is and has always been Spanish, it is clear that the linguistic situation in the island is that of language contact (see Serratrice 2013 for the notion of dominant language). At any rate, it is undeniable that Puerto Rico is a country where English has influenced Spanish and Spanish has influenced English in a language contact situation.[7] Below I will present the demographic data concerning the survey that I have conducted, which point out to this conclusion, namely Puerto Ricans are bilinguals to at least some extent. In fact, linguists such as Pousada (2000) found that the number of Puerto Ricans who are what she calls competent bilinguals has increased in the last decades. Though the issue about PR English is very controversial, Nash (1971) and, more recently, Pousada (2018) claim that PR English has its own status as a language. I assume this status of PR English.

Let me illustrate some syntactic properties of English identified in PR Spanish. Lipski (1996: 358) provides us with PR Spanish examples such as (18):

(18) a. El problema está siendo considerado.
the problem is being considered
'The problem is being considered.'

b. La guagua está supuesta a llegar a las 11:15.
the bus is supposed to.arrive at the 11:15
'The bus is supposed to arrive at 11:15.'

The corresponding sentences in standard Spanish are those in (19):

(19) a. Se está considerando el problema.
SE IS considering the problem
'They are considering the problema.'

b. Se supone que la guagua llegará a las 11:15.
se supposes that the bus will.arrive at the 11:15
'It is supposed that the bus will arrive at 11:15.'

The problem revolves around the use of types of passive. In standard Spanish the middle se-construction is preferred over the periphrastic passive, whereas in standard English the latter is the only option. What speakers have done here is to apply an English rule in the Spanish sentences, resulting in what is sometimes referred to as Spanglish, and (incidentally) supporting the integrationist view of

7. See Morales (1986, 1989, 1999) on different factors dealing with the influence of English on Puerto Rican Spanish. The author claims that one of the factors influencing the use of overt pronominal subjects and the rigid SVO order is the contact with English. However, this is not so clear since other Caribbean varieties of Spanish (Cuban and Dominican) have developed similar properties and they have not had the same contact situation, see Frascarelli & Jiménez-Fernández (2019) for the grammatical properties of Caribbean Spanish, and Jiménez-Fernández & Quiles (2020), Ticio (2018) and Comínguez (2018) for those in PR Spanish, based on experimental and theoretical work.

bilingualism since these speakers have taken the English rule from the set of all syntactic rules they have stored in order to produce a Spanish sentence.

The reverse process is also attested in Puerto Rico, namely the influence of Spanish on English. Observe the sentences in (20):

(20) They tell me how important is the bill for them.

Embedded questions in standard English do not allow subject-verb inversion. However, Fayer et al. (1998) detect cases of inverted word order such as the one in (20). The explanation for this again is that the speakers have selected a Spanish rule while they were processing English, supporting the integrationist view of bilingualism.[8] As López (2020: 118) puts it (R stands for rule and L for language),

> If the grammatical system of a bilingual is really integrated, we should expect Rx to apply in a Ly structure, if the environmental conditions are right. Another plausible expectation is that Rx would be active even when Ly is being processed. Both expectations are fulfilled. This would be totally mysterious if the two grammatical systems were separate.

The exchange of rules belonging to other languages is precisely what is expected in situations of language contact. This motivates my discussion of the compatibility of Negative Preposing in different types of relative clauses in both PR Spanish and Puerto Rican English, so as to detect any 'wrong' application in the 'wrong' language.

3. Towards a typology of relatives

3.1. Restrictives vs. non-restrictives

It is widely acknowledged in descriptive grammar that relative clauses are classified into types depending on whether they are restrictive or non-restrictive (Quirk et al. 1985; Huddleston & Pullum 2001; Brucart 1999; among many others). Radford (2019) illustrates the two types as follows:

(21) a. The allegations [**which**/**that**/**ø** Trump made during his campaign] turned out to be fake.

b. These allegations, [**which**/***that**/***ø** Trump made during his campaign], turned out to be fake.
(Radford 2019: 7, (1a-b))

From a semantic point of view, in (21a) the bracketed relative is restrictive and as such "it restricts the class of entities denoted by the head/antecedent to those which have the property described in the relative clause" (Radford 2019: 7).

8. Though preverbal subjects are preferred in PR, I assume with Ticio (2018) that in specific constructions VS is also possible.

More precisely, it serves the purpose of providing information so as to identify the antecedent in a given context. Conversely, in (21b) the bracketed relative is non-restrictive or appositive and gives further information about the antecedent, which is not necessary to identify it.

From a discourse-interpretative perspective, as I have observed earlier, the two types differ with respect to their connection with the Common Ground. Restrictive relatives are part of the CG, and hence they express presupposition. As such, they display shared information. By contrast, non-restrictive relatives do not belong to the CG and then they convey assertion, so their content is new (Gärtner 2000; Antomo 2012; Leonetti & Escandell 2017). If this is correct, the two types could be taken as two syntactic contexts to test the possible availability of MCP. Specifically, if non-restrictives are asserted and MCP can only occur in assertions, the prediction is that MCP are licensed in non-restrictives but banned in restrictives. Here are additional examples which confirm the validity of this prediction:

(22) *The car that only rarely did I drive is in excellent condition.
(Hooper & Thompson 1973: 489, example 199)

(23) *These are the students to whom, this book, I will recommend.
(Haegeman 2012: 27, example 31a)

(24) *The students that only at weekends did I see are living in the country now.
(Emonds 1976: 29, example 21)

(25) Hal, who under no circumstances would I trust, asked for a key to the vault.
(Hooper & Thompson 1973: 472, example 41)

(26) This car, which only rarely did I drive, is in excellent condition.
(Hooper & Thompson 1973: 489, example 198)

(27) It's a demonstration of modern football, where time, you just don't get.
(Radford 2019, citing Brendan Rogers, Sky Sports TV)

(28) This is purely an admin charge by FedEx, [**which** *at no point did* I agree to paying]
(Radford 2019: 20, example 33d)

Both Negative Preposing and Topicalization are MCP in English (Emonds 2004) and hence are excluded from presupposed sentences such as the restrictive relatives in (22-24). Note that the head of the two relatives here is definite, which is an indication that the information conveyed by the combination "DP+relative" clause is presupposed.

Regarding non-restrictive relatives, they have been typed as expressing assertion. The prediction now was that if MCP are root transformations they should

be licensed in non-restrictive relatives, which is exactly what examples (25-28) show.[9]

In Spanish restrictive relatives are compatible with Topic Fronting in the form of Clitic Left Dislocation (CLLD)[10] and with NPr, as illustrated in (29) and (30), given the right pragmatic context. In addition, appositive or non-restrictive relatives can host these MCP, as shown in (31) and (32).

(29) El coche que solo alguna vez he conducido está en excelentes
the car that only some time have driven is in excellent
condiciones, pero al de allá hay que hacerle un montón
conditions but to.the of there have that to.do.it a lot
de reparaciones.
of repairs
'The car that only on some occasion have I driven is in excellent condition, but the one over there must be thoroughly repaired.'

(30) Los estudiantes que nunca antes se hayan leído este libro pueden
the students that never before SE have read this book can
sacarlo de la biblioteca.
take.INF.CL out of the library
'The students that have never before read this book can take it out from the library.'

(31) Este coche, que solo alguna vez he conducido yo, está en
this car that only some time have driven I is in
condiciones excelentes.
conditions excellent
'This car, which only on occasions have I driven, is in excellent condition.'

(32) Es toda una prueba de arte moderno, donde el tiempo no lo
is all a proof of art modern where the time NEG CL.ACC
cuentan como horas trabajadas.
count as hours worked
'This is a full proof of modern art, where they don't count time as working hours.'

9. Other MCP have been claimed to show the same distribution in definite and indefinite relatives. For example, Locative Inversion displays the same restriction, as illustrated in (i) and (ii):

(i) The rotunda, in which stands a statue of Washington, will be repainted.
(ii) *The rotunda in which stands a statue of Washington will be repainted.
(Hooper & Thomson 1973: 487, examples (200-201))

Locative Inversion is licensed only in non-restrictive relatives (i). See Ojea (2019, 2020) for a recent analysis of LI in terms of information structure and for its root status.

10. On the root or non-root character of CLLD in Spanish, based on different types of topics (Bianchi & Frascarelli 2010), see Jiménez-Fernández & Miyagawa (2014) and Jiménez-Fernández (2020).

Examples in (29-30) involve restrictive relatives whose presupposed status is fully compatible with NPr, contrary to what we would expect in a semantic analysis. This is puzzling since in a language such as English NPr is not allowed in a context where it is licensed in another language such as Spanish. I will return to this issue below. On the other hand, Spanish does pattern with English in allowing NPr and CLLD in non-restrictive relatives, as shown by examples (31-32).

Evidence for the root status of appositive or non-restrictive relatives is that they can be used as independent sentences, as mentioned by Radford (2019: 8, example (2)):

(33) The mail that came early yesterday, which was a surprise, held good news. *Which really lifted Robert's spirits.* (Reid 1997: 7)

3.2. Definite vs. indefinite relatives

One of the reasons why we find a certain discrepancy in native speakers' grammaticality judgments is that not all apparently restrictive clauses are really restrictive. Some linguists such as Haegeman (2012) adduce shaky grammaticality judgments to interspeaker variation, since for her some speakers are more liberal than others. Although this sociological factor may be of crucial relevance, some other factors may also be at stake in the different grammaticality judgments. One is the distinction between two types of restrictive relatives, namely those whose antecedent is definite and those where the antecedent is indefinite. This is illustrated for English in (34):

(34) a. I know the girl who speaks Basque. (Hooper & Thompson 1973: 491, ex. 220)

b. I know a girl who speaks Basque. (Hooper & Thompson 1973: 490, ex. 218)

In these two examples the relative clause is restrictive and hence it serves to identify the referent of the antecedent. However, the information provided by each restrictive relative is different in that in (34a) the information is already present in the CG and thus it is presupposed. Conversely, in (34b) the information in the restrictive relative is something which is actually being added in the communicative act, and thus it is new. As such, the relative clause in (34b) is an assertion.[11]

The crucial factor inducing one or another interpretation is the definite or indefinite character of the D introducing the head noun. If D is definite, the relative is interpreted as presupposed. On the other hand, if D is indefinite, the relative will show an asserted interpretation.

Evidence for this further ramification in the classification of relatives comes from Spanish. Let us observe the Spanish sentences corresponding to (34), partially adapted:

11. Leonetti & Escandell (2017) make the distinction between restrictive and non-restrictive relatives as a clear-cut classification of two types. Restrictives are presupposed and non-restrictive are asserted. As is clear from the examples in the text, restrictives should subsequently split into two groups, i.e., those which express presupposition and those which convey assertion.

(35) a. Busco a la chica que habla/*hable Euskera.
search.1SG to the girl who speak.IND/speak.SUBJ Basque
'I'm searching for the girl who speaks Basque.'

b. Busco una chica que *habla/hable Euskera.
search.1SG a girl who speak.IND/speak.SUBJ Basque
'I'm searching for a girl who can speak Basque.'

Leonetti (2008) has claimed that personal direct objects are cases of Differential Object Marking (DOM) and hence introduced by the prepositional case particle *a* when they are definite. In view of this property, the DP *la chica* 'the girl' in (35a) is definite but *una chica* 'a girl' in (35b) is indefinite. As a consequence, only the former is a case of DOM.

In addition, the mood in the relatives is different since relatives may involve either indicative or subjunctive. However, the definite head of the relative requires indicative, whereas the indefinite head is followed by subjunctive. This is evidence that the two types of restrictive relatives are morphologically and syntactically different, which supports the above-mentioned two-fold classification of restrictive relatives. I will call the two types definite restrictive relatives and indefinite restrictive relatives depending on the definite or indefinite nature of the head noun serving as antecedent.

In connection with their discourse interpretation, the two types of restrictive relatives diverge from one another in the kind of information they express with respect to the CG. What I call indefinite restrictives convey information which is not part of the CG and hence they qualify as assertions. By contrast, indefinite restrictives express information which is already shared by interlocutors and therefore, does belong to the CG, being thereby dubbed as presuppositions. If this distinction is correct, indefinite restrictives are expected to allow MCP, whereas definite restrictives do not. In what follows I will show that this prediction is borne out.

Let me start by illustrating this indefinite vs. definite classification of restrictives with the examples from German, extracted from Gärtner (2000: 114, his examples (37)), which instantiate the possible occurrence of Verb-Second in relatives.[12]

(36) a. Ich kenne **einen** Linguisten, [der hat über Toba Batak gearbeitet].
I know a linguist [that has on T.B. worked

b. Ich kenne **einen** Linguisten, [der über Toba Batak gearbeitet hat].

c. *Ich kenne **jeden** Linguisten, [der hat über Toba Batak gearbeitet]. [EVERY]

d. Ich kenne **jeden** Linguisten, [der über Toba Batak gearbeitet hat].

e. *Ich kenne **den** Linguisten, [der hat über Toba Batak gearbeitet]. [THE]

f. Ich kenne **den** Linguisten, [der über Toba Batak gearbeitet hat].

12. Verb-Second is actually the first phenomenon which was suggested to be an MCP or Root Transformation in Germanic languages (Heycock 2005; Gärtner 2002; Wiklund et al. 2009).

In German subordinate clauses, the most natural position for the inflected verb is final. This final occurrence is attested in restrictive relative clauses regardless of whether the head noun is indefinite, as in (36b), or definite, as in (36d) and (36f). However, V-2 is a phenomenon which has been claimed to show root properties, and from the paradigm in (36) it can be concluded that only in indefinite restrictive relatives is V-2 licensed, as in (36b). On the other hand, in definite restrictive relatives the phenomenon is banned, as illustrated in (36c) and (36e). This situation is expected if indefinite restrictives express an assertion, while definite restrictives convey a presupposition.

The immediate consequence for the object of study in this work is that it is predicted that NPr, as an MCP and hence as requiring assertion, will be permitted in indefinite restrictives but not in definite restrictives. The following set of English examples seem to make this prediction valid.

(37) a. *The students that only at weekends did I see are living in the country now. (Emonds 1976: 29, example 21)

b. *The children that never in their lives had had such fun fell into bed exhausted. (Hooper & Thompson 1973: 466, example 4)

c. *The car that only rarely did I drive is in excellent condition. (Hooper & Thompson 1973: 489, example 199)

(38) a. I saw a dress which under no circumstances would I have bought. (Hooper & Thompson 1973: 490, example 216)

b. You'll go to a restaurant where not only are you going to eat sushi, but you'll also be learning how to make them. (Alan Sugar, The Apprentice, BBC1, April 15, 2009, 22.45; via Haegeman 2012: 41, example 59d)

c. It is something which in none of the adult languages are we finding. (attested: Caroline Heycock, LAGB talk, July 9, 2009; as cited in Haegeman 2012: 41, example 59e)

The examples in (37) include relative clauses which modify a definite noun head; whereas those in (38) involve relatives which depend on an indefinite noun head. As we may observe, NPr is compatible in indefinite relatives, but banned in definite relatives, confirming the prediction that only sentences with an asserted interpretation allows the presence of an MCP such as NPr.

The puzzle shows up when we pay attention to the licensing conditions of NPr in definite and indefinite relatives in other languages such as Spanish. The compatibility of NPr in indefinite relatives is expected, as illustrated in (39). By contrast, the optimal occurrence of NPr in definite relatives is not, given that they express presupposition and MCP are incompatible with presupposed clauses. Examples in (40) show that this is not accurate for Spanish (both examples are extracted from the experiment that I will present below).

(39) a. He visto un vestido que ni de broma me habría comprado.
have seen a dress that NEG of joke SE would.have bought
'I have seen a dress that not even jokingly would I have bought.'

b. Es algo que en ninguna lengua adulta vamos a encontrar.
is something that in no language adult go to find
'It's something that in no adult language are we to find.'

(40) a. El coche que solo alguna vez he conducido está en excelentes
the car that only some time have driven is in excellent
condiciones, pero al de allá hay que hacerle un montón de
conditions but to.the of there have that to.do.it a lot of
reparaciones.
repairs
'The car that only on some occasion have I driven is in excellent condition, but the one over there must be thoroughly repaired.'

b. Los estudiantes que solo los fines de semana veíamos viven en el
the students that only the weekends saw live in the
campo ahora.
countryside now
'The students that we only say at weekends live in the countryside now.'

The examples point to the non-accuracy of a semantic analysis, since they show the distribution of MCP cannot rely on a one-to-one correspondence between assertion/presupposition and MCP. Taking into account the difference in interpretation, I will present a formal proposal based on syntactic differences cross-linguistically.

3.3. The puzzle of kind-defining relatives

An additional mystery (already mentioned in the Introduction) seems to be that, even within the same language, the definite/indefinite split is far from clear with respect to the licensing of NPr, in light of the following examples in English:

(41) a. Syntax is the kind of subject which only very rarely will students enjoy. (Radford 2009: 330, example 8b)

b. A university is the kind of place in which, that kind of behavior, under no circumstances will the authorities tolerate. (Radford 2009: 327, example 9a)

c. Terry is the person to whom only books like these would I give. (Culicover 1996: 456, example 37a)

One of the problems I mentioned earlier is the lack of consensus among speakers as to the grammaticality of relatives which include NPr. All the examples in (41) are provided by linguists to illustrate that NPr is possible in definite relatives.

It is strikingly interesting that in examples (41a-c) the head noun does not actually refer to a specific entity but to the class of entities to which the noun belongs. In Benincà's (2012: 96) words, "these relatives do not have the function of narrowing down the reference of the head noun, which can remain undetermined, but that of providing the features which characterize the class they belong to." An indication that the noun head comprises a whole class is that in examples (41a-b) the expression 'the kind of' is explicitly included to indicate that a specific subject or place are not being talked about. Note that this expression can be optionally inserted in (41c):

(42) Terry is the **kind of** person to whom only books like these would I give.

This is also an indication that the head noun does not refer to a specific person; to the contrary, it identifies Terry as an entity belonging to a type of person.

In terms of interpretation, these kind-defining relatives pattern with non-restrictive relatives in sharing quite a few grammatical properties. One such property is the licensing of negative polarity items such as *mica* in Italian, which is fine in non-restrictive relatives but unacceptable in restrictive relatives:

(43) a. Hanno invitato Mario, che non conosco mica.
have invited Mario, whom NEG know NEG
'They have invited Mario, whom I don't know at all.'

b. *Hanno invitato il ragazzo che non conosco mica.
have invited the boy that NEG know NEG
'I have invited the boy that I don't know at all.'
(Benincà 2012: 98, examples 12a-b)

In Spanish and English, the same observation holds, as illustrated in (44-45):

(44) a. Han invitado a Pedro, al que no conozco de nada.
have invited to Pedro, to.the whom NEG know NEG
'They have invited Pedro, whom I don't know at all.'

b. They have invited Peter, whom I don't know at all.

(45) a. *Han invitado al chico que no conozco de nada.
have invited to.the boy that NEG know NEG
'I have invited the boy that I don't know at all.'

b. *They have invited the boy that I don't know at all.

When it comes to kind-defining relatives, in the three languages the negative particle is compatible, highlighting their similarity with non-restrictive relatives:

(46) a. Questi sono i libri che non ho mica ancora letto.
these are the books that NEG have NEG yet read
'These are the books that I haven't read yet.'

b. Mario è un uomo che non esita mica a rischiare.
Mario is a man that NEG hesitate NEG to risk
'Mario is a man that doesn't hesitate to risk at all.'
(Benincà 2012: 98, examples 13a-b)

(47) a. Ese es el libro que no me leería para nada.
that is the book that NEG SE would.read NEG
'That is the book that I wouldn't read at all.'

b. Pedro es un hombre que no duda para nada en arriesgarse.
Pedro is a man that NEG hesitate NEG in to.risk
'Pedro is a man that doesn't hesitate to risk at all.'

(48) a. This is the book that I wouldn't read at all.
b. Peter is a man that doesn't hesitate at all in taking a risk.

From the data in (46-48) the conclusion can be drawn that these kind-defining relatives pattern with non-restrictive relatives. From an interpretive perspective, kind-defining relatives are not presupposed to be true, which is another property that they share with non-restrictives. The information provided by the kind-defining relative is asserted and new, contrary to that of restrictive relatives. However, the head noun is non-referential (Radford 2019) since it is a predicate.

These relatives may be ambiguous, though. They may have a truly restrictive reading, in which case they are predicted to ban NPr. On the other hand, they can be interpreted as kind-defining relatives and hence will allow NPr. Let us consider the following set:

(49) a. These are the books which only with great difficulty can Lee carry.

b. These are the books which only to Robin will Lee give.

c. These are the books which only on this table will Lee put. (Culicover 1991: 8, example 16)

d. This is the man that/who only once did I talk to. (Culicover 1991: 16, n. 26 example i)

Culicover (1991) gives these examples to illustrate the compatibility of restrictive relative clauses with NPr. In (50a-c) we can obtain a kind-defining interpretation if we add 'kind of' to the head noun:

(50) a. These are the kind of books which only with great difficulty can Lee carry.

b. These are the kind of books which only to Robin will Lee give.

c. These are the kind of books which only on this table will Lee put.

These relatives exhibit a clear kind-defining reading in that they do not narrow the reference of the head noun. As kind-defining relatives they allow the occurrence of NPr. By contrast, if the 'kind of'-test is applied in (49d), the outcome is (at best) marginal:

(51) ??/*This is the kind of man that/who only once did I talk to.[13]

My intuition here is that when an ambiguous sentence contains a case of NPr, the only available interpretation is that of a kind-defining relative. However, the grammaticality judgments are very shaky, and this is why any theoretical analysis should also involve experimental work so as to make sure that the empirical data used to sustain the proposal are sound. In this connection, I have carried out an experiment with both English and Spanish informants in order to detect any differences across types of relatives as regards their compatibility with MCP language-internally and cross-linguistically. I present the description of this survey in the next section.

4. The survey

Haegeman (2012) claims that in English relative clauses (particularly, in restrictive relatives) Topic and Focus Fronting is not available because this movement can only occur in root or root-like sentences. This is especially relevant with the fronting of an argument (as opposed to an adjunct).

Due to the disagreeing judgments found in the literature, an experiment was deemed necessary. That is, based on their introspective judgments, theoretical linguists disagree about the acceptability of NPr in different syntactic contexts (relative clauses included). A possible solution lies in conducting experiments which may take into account real data, such as those that are commonly used by the average speaker (see Radford 2018 for the notion of real language).

Recall that my starting working hypothesis is that in English relatives a distinction is expected to emerge between restrictive and non-restrictive relatives with respect to the possible occurrence of NPr, given that this will only be accepted in non-restrictive relatives. On the other hand, Spanish does not exhibit any discrimination pattern, and hence NPr is compatible with all types of relatives. This might have been altered in PR bilinguals given that they store all the syntactic rules (English and Spanish) in one single integrated system.

In order to validate this hypothesis, I have tested the compatibility of NPr in the three types of relatives that I have discussed in previous sections, namely restrictive, non-restrictive and kind-defining relative clauses.

13. There seems to be a connection between types of relatives and mood (Benincà 2012; Benincà & Cinque 2014). In particular, there is a preference for irrealis mood in kind-defining relatives in English and Spanish. So, for example, the conditional favours a kind-defining interpretation of the relative since it expresses irrealis mood. This explains why (47a) and (47b) display a clear kind-defining interpretation. By contrast, in (51) the past tense expresses a realis mood which is compatible only with true restrictive relatives.

4.1. Methodology

I recruited volunteering informants through social media and e-mail. Concerning demographic information, in both languages I had a homogeneous group with informants who either have a university degree or were university students. For Standard English, participants were mostly British (from England 50% and Scotland 20%), though I also had some American (from California 20%) and New Zealand (10%) informants. For Standard Spanish, the informants belonged to two varieties, Peninsular Spanish (from Andalusia 15%, Madrid 10%, Asturias 10% and Catalonia 15%) and Latin American Spanish (from Argentina 20%, Ecuador 10%, Mexico 10% and Puerto Rico 10%; monolingual speakers).

On the other hand, for Puerto Rican Spanish and English, all informants were living on the island, mostly in Mayagüez (40%), San Juan (20%), Ponce (20%), Aguada (10%) and another town (10%). All the participants were (to at least some extent) bilingual.[14] To make sure these speakers had a proficiency level of English, in their survey I included an additional question concerning their level of English. Figure 1 shows that most of the informants were bilingual, where Option 6 means 'Understand, write and speak English perfectly':[15]

The experiment comprised 18 items: 4 restrictive relatives (2 definite restrictives and 2 indefinite restrictives), 4 non-restrictive relatives, 4 kind-defining relatives, and 6 fillers. All the items were conveniently randomized so as to avoid the creation of a specific response pattern on the informants' part.

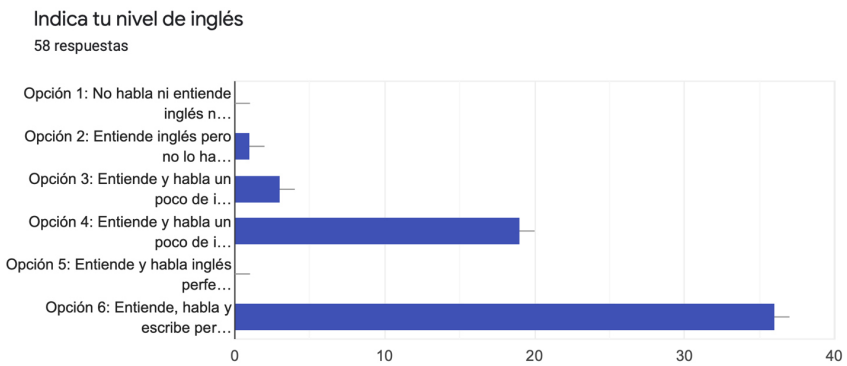


Figure 1. Level of English in PR participants.

14. As a reviewer points out, the claims I make in this paper would be stronger if PR Spanish monolinguals and English speakers of a close variety were tested. I intend to undertake this task in the near future, given that the emerging picture would be more complete. At any rate, it is important to note that I did not observe differences among English native speakers that could be adduced to dialectal variation in the use of NPr in relatives.
15. I most heartedly thank Melvin González and Dianne Quiles for their help in gathering participants for the PR experiment.

All of the tested items were preceded by a context, inducing the specific discourse reading of NPr as a focused constituent. The task was presented precisely in very plain words, trying to avoid any reference to linguistic technicalities. The survey was done by using Google Forms, which was also very helpful in getting the statistical analysis. This statistical work was carried out by using Numbers (by Mac).

The surveys can be found at the following addresses:

— Spanish test
<https://docs.google.com/forms/d/1cXss0C1JLMRc3hq2305Tm6uiQWCaBklIQkZNf2M53KY/edit>
— Standard English test
<https://docs.google.com/forms/d/1I5h8np49N4F1Mggp8B_RoYdgPh6tGtbeoxkX6teAyN0/edit>
— PR Spanish test
<https://docs.google.com/forms/d/1EnDUFsxqXx3r4ye8LvPFzhUz_NOMwKs2JmzNfpSIYKY/edit>
— PR English test
<https://docs.google.com/forms/d/1TKIncNgBpwu-JNPPjpIegesL2KyZKEyzKg_nexEYYjs/edit>

Participants had to judge the relevant sentences by using a 7-point Likert scale, where 1 was meant for full unacceptability and 7 stood for full acceptability. The reason why I have chosen a 7-point Likert scale is that this would offer the informants a more fine-grained choice, in contrast to alternatives with 2 or 3 options. As we will see in the results, bilinguals may rate sentences by using the extreme pole in the scale. See Stadthagen-González et al. (2017) for a different view. I The exploration of the contrast between the Likert scale and a possible 2-alternative forced choice is beyond the scope of this research.

I had 49 responses for Standard English and 61 responses for Standard Spanish, whereas for PR English/Spanish I had 60 responses. Examples of the items that I have tested in English and Spanish follow, with a specific indication of the type of relative:[16]

16. The PR surveys were adapted in terms of general lexicon, spelling and sometimes morpho-syntactic rules for verb forms. This was done by a native PR beta tester before conducting the experiment. For example, the PR version for a Standard Spanish sentence such as (58), with a definite restrictive relative, changes in the use of vocabulary (*carro* 'car' or manejar 'drive') and the Caribbean preference for simple past over present perfect:

    (i) El carro que solo alguna vez manejó su dueño está en excelentes condiciones, pero al de allá hay que hacerle un montón de reparaciones.
    'The car that only on some occasions did its owner drive is in excellent conditions, but the one over there has to be thoroughly fixed.'

4.1.1. English

1. Non-restrictive

(52) [Context: A teacher complains about the lack of success that his subject has with foreign students, after another teacher told him that he had heard that syntax was very popular especially with foreign students.]
Syntax 1, which only very rarely do foreign students take, is not very popular among local students either.

2. Kind-Defining

(53) [Context: A second-hand car salesman is trying to sell a car to some clients.]
They are people who in no way could you reproach for their behaviour, which was impeccable.

3. Definite restrictive

(54) [Context: A second-hand car salesman is trying to sell a car to some clients.]
The car which only with great reluctance did he agree to sell is the Maserati.

4. Indefinite restrictive

(55) [Context: A couple are organizing their exotic vacation plans in a far-away country where there might be local conflicts. He says to her:]
In Asia there are several countries in which not a single tourist have terrorists kidnapped. At least so far…

4.1.2. Spanish

1. Non-restrictive

(56) [Contexto: Un profesor se queja del poco éxito que tiene su asignatura entre los estudiantes, después de que otro profesor le dijera que había oído que la sintaxis gozaba de gran popularidad especialmente entre los estudiantes Erasmus]
'A teacher complains about the lack of success that his subject has with foreign students, after another teacher told him that he had heard that syntax was very popular especially among Erasmus students.'
Sintaxis 1, en la que rara vez se matriculan estudiantes Erasmus, no es tampoco muy popular entre los alumnos españoles.
'*Syntax 1,* which only very rarely do Erasmus students take, is not very popular among Spanish students either.

2. Kind-defining

(57) [Contexto: Un vendedor de coches de segunda mano está intentando vender uno a unos clientes]
'A second-hand car salesman is trying to sell a car to some clients.'
Estos son coches que de ninguna manera podrían encontrar ustedes en otros talleres de segunda mano.
'These are cars that in no way would you find in other second-hand shops.'

3. Definite restrictive

(58) [Contexto: Un vendedor de coches de segunda mano está intentando vender uno a unos clientes]
'A second-hand car salesman is trying to sell a car to some clients.'
El coche que solo alguna vez ha conducido su dueño está en excelentes condiciones, pero al de allá hay que hacerle un montón de reparaciones.
'The car that only on some occasions did its owner drive is in excellent conditions, but the one over there has to be thoroughly fixed.'

4. Indefinite restrictive

(59) [Contexto: Una pareja está organizando unas vacaciones exóticas en algún país lejano donde puede haber conflictos internos. Él le dice a ella:]
'A couple are organizing their exotic vacation plans in a far-away country where there might be local conflicts. He says to her:]
En Asia hay varios países en los que a ningún turista han secuestrado esos terroristas. Por ahora…
'In Asia there are several countries in which not a single tourist have those terrorists kidnapped. At least so far…'

As can be observed, there is a systematic parallelism between English and Spanish examples, both in content and syntactic structure. This will help in discriminating between those relatives which do and do not accept NPr in a language, but not in the other.[17]

4.2. Results

In this section I will present the data obtained from the experiment in statistical terms. In the graphs I have included information with respect to the number of informants who opted for a specific response alongside the percentage of informants with respect to the total amount of participants. Since the judgments are based on a 7-point Likert scale, the threshold to dub a sentence as acceptable will be that of 5, which means that the percentages include the grammaticality judgments from results in 5-7.

In what follows I present the results by using 4 graphs and then I proceed with the discussion of these results.

First, I offer a parallelism between non-restrictives in English and Spanish as regards the behaviour of NPr. As can be seen in Figure 2, an MCP such as NPr is

17. In the experiment I did not take into account the distinction between argument NPr and adjunct NPr. Haegeman (2012) claims that fronting an adjunct is much easier than fronting an argument, arguing that actually, preposed adjuncts are base-generated in the Left Periphery (see also Villa-García 2019 for a similar view and references). However, previous experimental work on NPr has explicitly shown that there is not much difference between arguments and adjuncts when they are preposed via NPr (Jiménez-Fernández 2018, 2021). I will continue this line and assume a symmetrical behaviour for arguments and adjuncts.

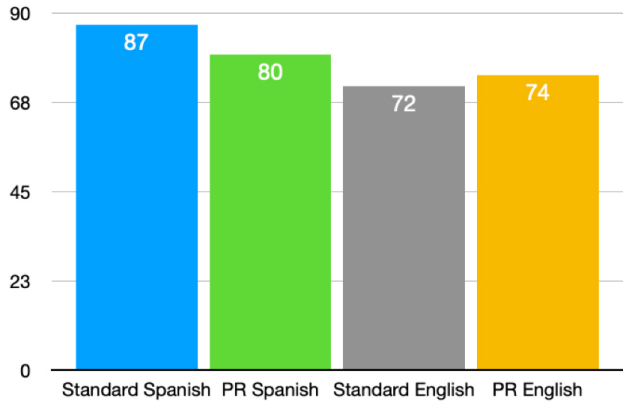


Figure 2. NPr in non-restrictive relatives.

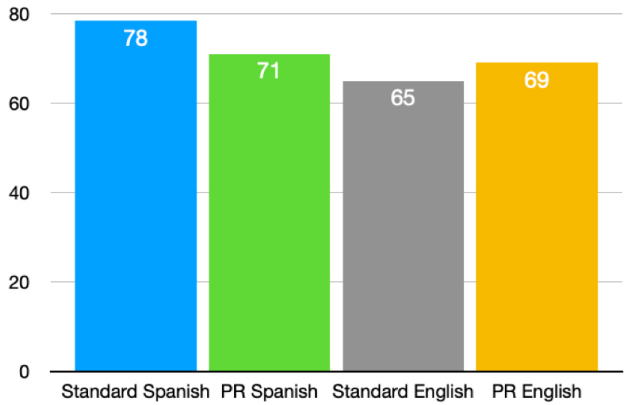


Figure 3. NPr in kind-defining relatives.

licensed in this kind of relative in both languages.[18] The results show that in the 4 groups NPr is fully licensed in non-restrictive relatives. For Standard and PR Spanish the rates are higher (87% and 80%, respectively) than for Standard and PR English (72% and 74%, respectively). This minimal difference is not significant and it may be caused by the fact that English is a language with a clear preference for a rigid word order. Thus, native speakers of English find any rearrangements somewhat degraded or unnatural. Yet, the construction is fully acceptable in the four varieties. As has been observed earlier, non-restrictives are assertions and NPr is expected to be allowed in asserted contexts.

18. The results in general show that Spanish participants are more likely to accept reordering of the canonical sentence patter SVO, in contrast with English. A plausible interpretation may lie on the flexible character of the Spanish language, as opposed to the rigidity of English.

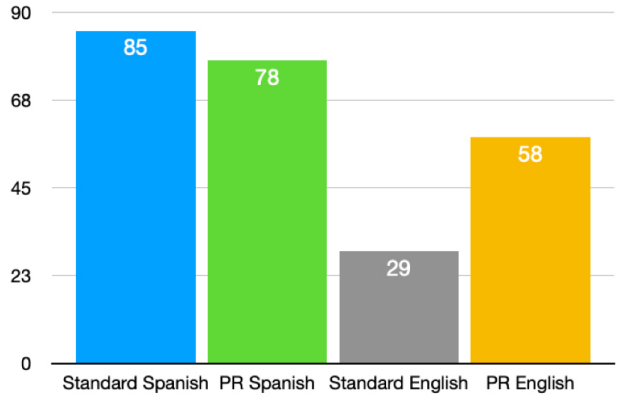


Figure 4. NPr in definite restrictive relatives.

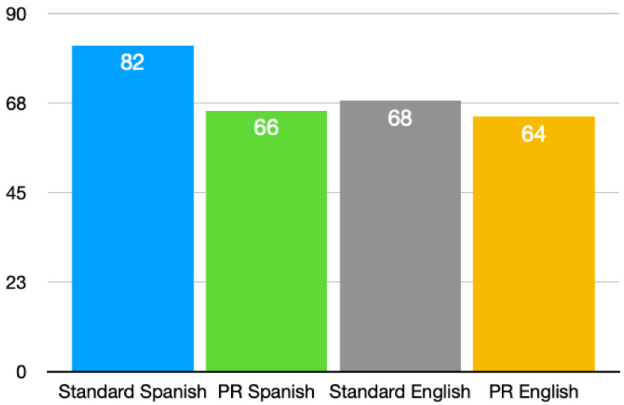


Figure 5. NPr in indefinite restrictive relatives.

Moving on to kind-defining restrictives, the results of the survey are collected in Figure 3. When confronted with NPr in kind-defining relatives, speakers of Standard and PR Spanish rate the construction quite high (78% and 71%, respectively). Concerning English, the standard variety still considers NPr in kind-defining relatives grammatical, but their acceptability score decreases a bit (65%). Finally, for PR English, the level of grammaticality increases, which supports the possibility that PR English takes after PR Spanish. In other words, for these bilinguals, rearrangements of word order are quite natural in the two languages.

As far as restrictive relatives are concerned, I have separated definite and indefinite restrictives. As discussed earlier, indefinite restrictives are asserted, whereas definite restrictives are presupposed. From the claim that only asserted clauses allow MCP, NPr is expected to be banned in definite restrictives but licensed in indefinite restrictives.

With regard to the results of the experiment which involve definite restrictives in Figure 4, the data confirm that the compatibility of NPr and definite restrictives is impossible in Standard English, achieving a score of only 29%. In contrast, in Standard and PR Spanish the grammaticality of these constructions is given a very high rate (85% and 78%). This confirms the grammatical status of NPr in presupposed contexts, which is unexpected in a purely semantic analysis (Jiménez-Fernández 2021). When comparing the Standard Spanish and Standard English outcome, the Fisher exact test shows that the difference is significant, giving a p value of 0.00001 at < .05. I will explain this significant difference in Section 5.

The most striking result in Figure 4 is the borderline percentage (58%) which is assigned by PR bilinguals to English NPr in definite restrictives. After applying the Fisher Test, it is observed that the difference between PR English and Standard English is quite significant. The Fisher exact test statistic value is 0.00001, showing that the result was significant at < .05.

This result might be interpreted as an indication that PRs are not sure whether to use the Spanish or the English syntactic rule in presupposed sentences such as a definite restrictive relative clause. One plausible explanation for this is that PR speakers have the two rules stored in the same compartment and they probably apply the Spanish rule when using English. If this is on the right track, it constitutes novel evidence for the integral view of the I-language in bilinguals. Syntactic rules pertaining to different languages are stored in one single linguistic system (López 2020). In addition, the use of a Spanish rule in PR English is indicative of the dominance of a language over another language in bilinguals (Liceras et al. 2016).[19]

Finally, let us move on to the results of the experiment with respect to the licensing of indefinite restrictive relative clauses. Figure 5 shows that when asked to judge the grammaticality of NPr in indefinite restrictive relatives, speakers of the two languages judge the construction as acceptable. Especially in Standard Spanish, informants have rated this construction quite high (82%), whereas in the rest of varieties around 65% of acceptability is produced. This is consistent with the claim that indefinite restrictives are asserted and thus allow NPr.

It is interesting, though, to note that the percentage for PR Spanish decreases with respect to Standard Spanish, which again points to the language contact situation as the most likely reason. Notice that Caribbean varieties of Spanish show properties of partial pro-drop languages. One such property is the preference for the canonical SVO order, in contrast to other possible reorderings (Frascarelli & Jiménez-Fernández 2019).

Non-restrictive, kind-defining and indefinite restrictive relatives admit Negative Preposing in the grammar of both languages and in the one of English/Spanish PR bilinguals. These results were expected given that these contexts are asserted. Thus, the first part of the starting hypothesis is validated.

19. Spanish is the dominant language in PR bilinguals, which may be the source of their applying a Spanish rule when processing English. Dominance plays a role regardless of whether bilingualism involves one or two grammatical systems (Serratrice 2013).

As for definite restrictive relatives, results are different. In Standard and PR Spanish, there is compatibility between this presupposed context and an MCP such as NPr; on the other hand, Standard English shows a clear incompatibility. The interesting and crucial result is that in PR English definite restrictives do allow NPr. This provides support for the presence of a prototypical Spanish feature in the English grammar of PR bilinguals, in keeping with my hypothesis.

The two questions that arise with these conclusions are as follows: what syntactic rules make English and Spanish different from one another and what exactly is the nature of the syntactic rule that PR speakers apply in definite restrictives. I will give a tentative answer in the following section, where I present the formal analysis of NPr in relatives.

5. Relatives: assertion, feature inheritance and factive operator

5.1. Formal analysis of relatives and NPr

In this section I will present a plausible explanation for the difference detected between English and Spanish relatives, based on the analysis put forth in Jiménez-Fernández (2018, 2021). The main ingredients of the theoretical proposal follow.

Adopting a cartographic approach, I follow Radford (2019) in claiming that relative clauses project a RelP as the top-most category. I assume with Miyagawa (2017) and Jiménez-Fernández (2018, 2020, 2021) that NPr is an assertion-dependent phenomenon, which means that it can only occur in sentences provided with assertion. Setting forth a hugely productive line of research (Jiménez-Fernández & Miyagawa 2014; Jiménez-Fernández 2018, 2020; Miyagawa 2017, 2022), I will assume that in those relatives which convey presupposition, there is a factive operator which is generated in a Functional Phrase (FP) above TP, whereas in asserted relatives there is no such operator. Movement of the Factive OP from spec-FP to spec-ForceP allows the speaker to type the sentence as non-asserted or presupposed.

I also develop an idea just mentioned in passing by Haegeman (2012) about the existence of assertion features. In particular, I propose that Force carries an uninterpretable non-assertive feature which matches the interpretable non-assertive feature in the factive operator and attracts it to its specifier. This is illustrated in (60) for presupposed relatives:

(60) $[_{\text{RelP}}$ Rel OP Rel $[[_{\text{ForceP}}$ $\text{OP}_{\text{non-assert}}$ $\text{Force}_{\sout{\text{non-assert}}}$ [FP $\sout{\text{OP}}_{\sout{\text{non-assert}}}$ F $[_{\text{TP}}$ T $[_{v\text{P}}$ DP *v*+V $\sout{\text{Rel OP}}$]]]

Additionally, in those relatives where NPr is applied, apart from the movement of the relative operator and the factive operator, a third movement takes place, namely the displacement of the negative element. The NPr-ed phrase is endowed with a focus feature which is probed by a high head in the left periphery. This creates a set of three chains.

I suggest that whenever the chain for the factive operator and the chain for NPr-ed constituent cross each other an intervention effect arises to the effect that the by-product is ill-formed. This has been proposed in Jiménez-Fernández (2021)

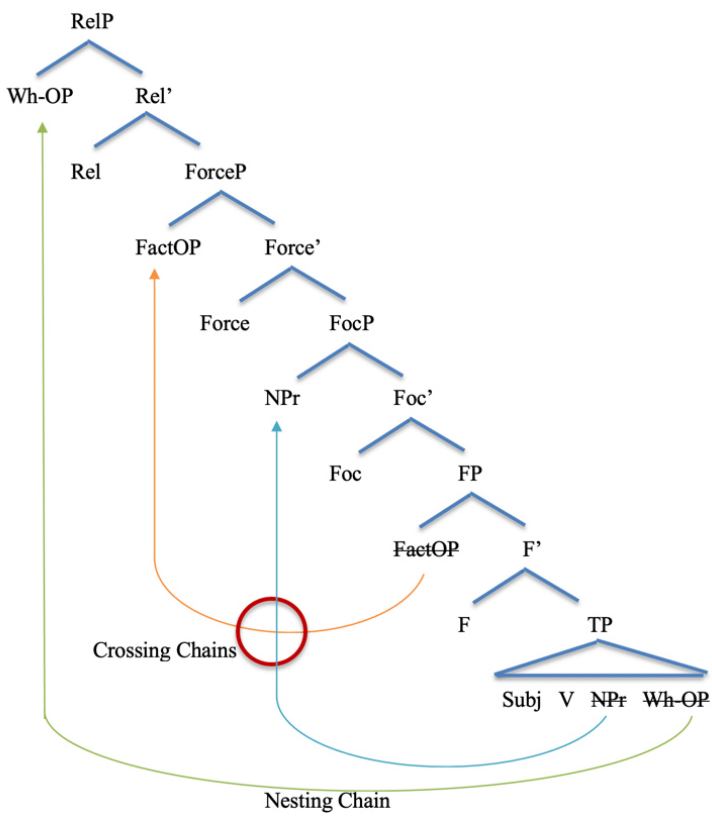
for restrictive relatives as opposed to non-restrictive relatives (presupposed vs. asserted contexts).

Here, I will recast this proposal by arguing that the intervention effect affects definite restrictive relatives in English. More specifically, in this type of relatives the factive operator exhibits a blocking effect and thus the negative constituent cannot cross the FP.

This recalls Richards' (1999) intervention effect caused by crossing chains, instead of nesting chains. Crossing chains are only allowed in multiple movements to Multiple Specifiers of a single head. In NPr cases, the negative constituent crosses FP on its way to spec-FocP. Hence, it is a case of crossing chains to different specifiers (OP to spec-ForceP and NPr to spec-FocP), thereby displaying intervention effects. Conversely, if nesting chains are obtained, the output is well-formed (see also Jiménez-Fernández 2011; Frascarelli & Jiménez-Fernández 2021, and Dalrymple & Halloway King 2013 for the influence of nesting and crossing chains in the output of a derivation).

Putting together all these ingredients, the following is the formal analysis of definite restrictive relative and NPr in English:

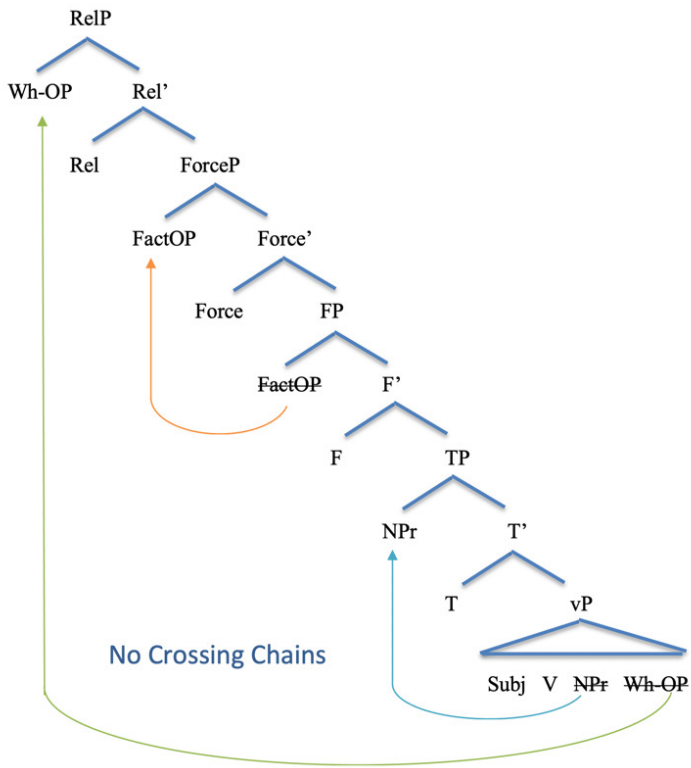
(61)



As can be observed in (61), a match of features is produced (non-assert and non-assert), but the Factive OP chain crosses the NPr chain (intervention), which leads the derivation to crash. This explains why native speakers of English rate NPr in definite restrictives so low (see Figure 4 above).

A parametric variation has been detected between English and Spanish as far as definite restrictives are concerned. The formal analysis of definite restrictive relatives and NPr in Spanish I propose is crucially based on the notion of feature inheritance. Chomsky (2008 and subseq.) argue that features enter the derivation in phasal heads and then are inherited by T by a lowering operation. This was held to apply only for agreement features. However, Miyagawa (2010, 2017), Jiménez-Fernández (2010, 2018, 2020), Jiménez-Fernández & Miyagawa (2014), Ojea (2017, 2019), Kato & Ordóñez (2019) have claimed that discourse features may also be inherited by T from C. In particular, I contend that this is the situation for the focus feature in Spanish NPr. Thus, the unvalued [foc] feature in C is lowered onto T, with crucial consequences for the derivation of definite restrictive relatives. In (62) I present the analysis:

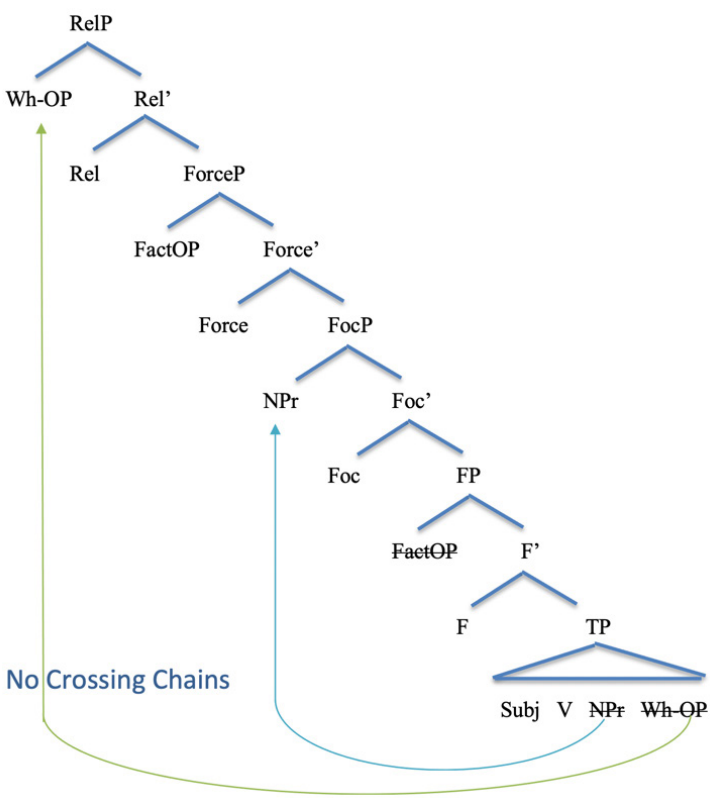
(62)



As observed, in (62), in Spanish the factive operator is also attracted to spec-ForceP. However, the NPr-ed constituent undergoes movement to Spec-TP (Jiménez-Fernández 2018) and hence, no crossing chains are produced. This explains why for this type of relatives native speakers of Spanish have given a very high score in Figure 4, showing that NPr is fully compatible with definite restrictive relative clauses. Note that NPr in definite restrictives is grammatical for both Standard and PR Spanish. Also, as mentioned earlier, contrary to Standard English, for PR English this compatibility holds as well. I will return to this issue below.

As opposed to definite restrictives, the other types are fully compatible with NPr. I group indefinite restrictives, non-restrictives and kind-defining relatives in my analysis, though differences with respect to the connection with the antecedent are sure to show up. Based on the internal syntax of these types of relatives, the formal analysis of NPr-friendly relatives in English is as in (63):

(63)

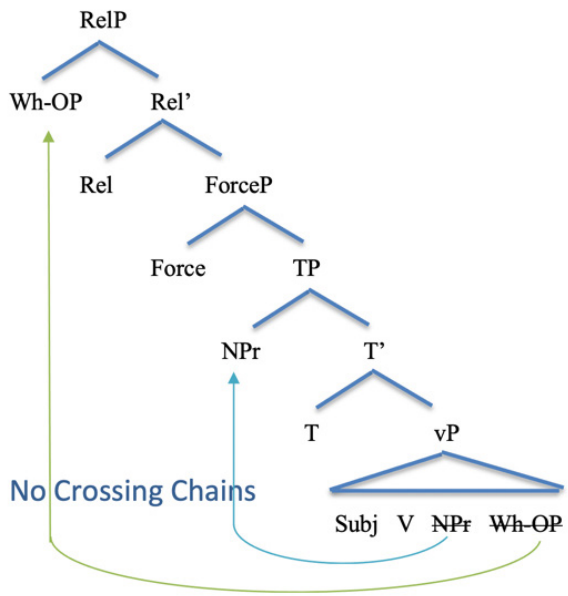


Given that there is no Factive OP in asserted clauses, in (63) there are no crossing chains with the NPr element. The NPr-ed element moves to spec-FocP and the

Rel Operator targets spec-RelP on top. As a consequence, the two chains are nesting thereby yielding a grammatical construction.

Finally, the formal analysis of NPr-friendly relatives in Spanish is shown in (64):

(64)



Since this type of relative is asserted, there is no Factive OP in Spanish either. Due to the inheritance of the [foc] feature from C to T, the focussed element moves to spec-TP. Its chain does not interfere with the chain of the Rel OP. In other words, we obtain two nesting chains, explaining why a well-formed derivation is produced and hence why the construction is grammatical.

5.2. Evidence for the presence of factivity in syntax

Much about the presence of factivity in the syntactic computation is taken for granted in the literature. Linguists such as Haegeman (2012), Haegeam & Ürögdi (2010), Jiménez-Fernández & Miyagawa (2014), Jiménez-Fernández (2018, 2020, 2021), among others, have assumed the projection of this factive or eventive operator in the syntax of factive sentences. This raises the question as to what evidence there is to support the reflex of this factive operator in syntax, given that factivity is in principle a semantic concept.

In this section, I will provide some evidence for the syntactization of factivity in connection with the syntactic selection properties of verbs with respect to their selected embedded clauses. Two pieces of evidence lending credit to the syntactic projection of factivity are presented in what follows.

First, Kastner (2015) discusses the island status of factive sentential complements for extraction. In particular, non-factives allow extraction of a wh-operator regardless of whether it is an adjunct or an argument, whereas factive clauses pose specific restrictions on the nature of wh-operators which can be extracted, as shown in (65):

(65) a. What do you think that John stole ~~what~~?

b. Who do you think ~~who~~ stole the cookies?

c. Why do you think John stole the cookies ~~why~~?

(66) a. What do you remember that John stole ~~what~~?

b. *Who do you remember ~~who~~ stole the cookies?

c. #Why do you remember that John stole the cookies ~~why~~?

Complement extraction is allowed from both factive and non-factive contexts, as in (65a) and (66a), but subject and adjunct extraction is only permitted from non-factives, as the contrast between (65b-c) and (66b-c) illustrates. These island effects can be explained in a principled way by positing a factive OP exhibiting intervention effects.

The second piece of evidence takes up the use of subjunctive or indicative in factives and non-factives. Miyagawa (2017: 52) argues that non-factive clauses take indicative, whereas factive clauses allow subjunctive only in Spanish:

(67) Él creyó que rechazaron/*rechazaran el artículo.
he believed that rejected.IND/rejected.SUBJ the paper
'He thought that they rejected the paper.'

(68) Hemos sabido que los vuelos a Chicago han/*hayan sido
have.1PL learned that the flights to Chicago have.IND/have.SUBJ been
cancelados.
cancelled
'I have learned that the flights to Chicago have been cancelled.'

As clearly shown in (67-68), there is a crucial correlation between factive/non-factive and indicative/subjunctive, namely factive verbs select subjunctive in the complement clause whereas non-factive verbs select indicative. I take this as a morphosyntactic reflex of factivity in the syntactic derivation, thereby supporting the projection of factivity in syntax.

5.3. Discourse-feature inheritance and the distinct positions for NPr in English and Spanish

As I briefly mentioned above, the derivations of relative clauses which contain an NPr-ed constituent differ in English and Spanish in that the [foc] feature involved

in the operation start in C and remain there in English. However, in Spanish the situation is different because this [foc] feature is inherited by T from C. As a consequence, Spanish allows NPr in definite restrictives because this does not interfere with the factive operator above TP, and the chains involved are nesting.

In a nutshell, in English NPr the focussed element moves to spec-FocP in the CP-area (a non-argumental position), whereas in Spanish the focussed constituent undergoes movement to spec-TP (an argumental position), after feature inheritance.

In this section I reproduce a compelling argument supporting the inheritance of [foc] in Spanish and its remaining in the CP-area in English, based on Jiménez-Fernandez (2018, 2021). The empirical argument is based on Quantifier Binding, which is ruled by Principle B, according to which an anaphor must be bound by an antecedent within its local domain.

A NPr-ed may be the antecedent of an anaphor in Spanish, which is not the situation if the focused element is not preposed:

(69) [A ninguno$_i$ de los hermanos] le ha dicho [su$_i$ madre] que
to none of the siblings CL.DAT have told their mother that
llegara más temprano.
arrive.SUBJ more early
(Intended): 'None of the siblings their mother told to arrive earlier.'
(Jiménez-Fernández 2018)

(70) *[Su$_i$ madre] no le ha dicho [a ninguno$_i$ de los hermanos] que
their mother NEG CL.DAT have told to none of the siblings that
llegara más temprano.
arrive.SUBJ more early
'Their mother told none of the siblings to arrive earlier.'

In (70) there is no bound reading between the anaphor *su* 'their' and the quantifier *ninguno* 'none'. However, the binding configuration is reversed in (69), and now the bound reading is obtained. The reason for this change lies in the creation of a new binding configuration (Miyagawa 2010). Costa (2000) claims that anaphors are A-bound and Miyagawa (2010) claims that an element moving to an A-position such as spec-TP can create a new binding configuration (anti-reconstruction) (Lasnik 2003). The prediction is that if Spanish NPr targets spec-TP, this will be able to A-bind an anaphor. This is exactly what we may find in (69).

On the contrary, if English NPr involves movement to the CP-area, the negative constituent cannot bind an anaphor. The reason is that a non-argumental position requires reconstruction of the moved element to its original position. The prediction is borne out:

(71) *To none of the siblings did their mother say that they should arrive earlier.

English passive involves movement of the theme to spec-TP. Interestingly, if we use passive for (71), the bound reading is obtained in English, thus support-

ing the creation of a new binding configuration when some constituent moves to spec-TP:

(72) None of the siblings were told by their mother to arrive earlier.

How about relatives? Observe the following sentence containing a definite restrictive relative:

(73) Esa es la noticia que [a ninguno de los hermanos]$_i$ le ha
that is the news that to none of the siblings CL.DAT have
comunicado [su$_i$ madre] todavía.
told their mother yet
'That's the news which none of the siblings their mother has told yet.'

The DP *a ninguno de los hermanos* may be the antecedent of the possessive anaphor only if this is in a position internal to TP, which supports the proposal of moving the negative constituent to spec-TP in Spanish. Conversely, in English an ill-formed configuration is produced:

(74) *These are the news which [to none of the siblings]$_i$ did [their$_i$ mother] give.

This supports moving the negative constituent to the CP-area in English, given that no new binding configuration is created and then no binding will connect *none of the siblings* to *their mother*.

5.4. Back to PR relatives

In this final section I will return to the syntactic rule that PR speakers apply in definite restrictive relatives when NPr is involved. In the language contact situation of Puerto Rico, it has been observed that while speakers process a sentence in English, they have used grammatical features which belong to Spanish.

In particular, when PR speakers judge the possibility of applying an MCP such NPr in English definite restrictive relatives, they have rated the construction quite high. In figure 4, we saw that 58% of the informants considered the construction grammatical (as opposed to 29% of Standard English speakers). Note that for PR Spanish, the construction is fully grammatical.

In light of the analysis I have presented, based on the lowering of the [foc] feature to T in Spanish, what the PR results show is that they use a syntactic rule (feature inheritance) belonging to Spanish when they speak English. In other words, for the separationist view of bilingualism this cannot be explained given that syntactic rules of different languages will be stored in different compartments. However, in the integrated model I have assumed here, the results are fully predicted, since all syntactic rules (both for English and Spanish) are grouped in one single linguistic system. Hence PR bilinguals have just one single I-language, and they are expected to apply a Spanish syntactic rule to an English sentence.

This throws new light into the concept of bilingualism and language contact. More specifically, my findings with respect to syntax contribute to see integrationism as superior to separationism as far as bilingualism is concerned, much in line with what López (2020) has proposed based on lexical, syntactic and phonological material.

6. Concluding remarks

Relative clauses have been shown to exhibit a different behaviour crosslinguistically with respect to Main Clause Phenomena such as Negative Preposing. English and Spanish non-restrictives, indefinite restrictives and kind-defining relatives do freely allow Negative Preposing since they are very similar to root clauses in that they express assertion.

Definite restrictives express presupposition, and consequently English definite restrictives do not allow N Preposing whereas Spanish ones do. The compatibility of Negative Preposing with relatives has also been tested in PR bilinguals to see whether they have their two grammars separate in their mind or whether they have a single grammatical system.

A theoretical explanation for the parametric variation has been presented based on the projection of a Factive Operator whose chain is crossed by the negative constituent when moving to FocP in English. Conversely, there is no crossing in Spanish given that the NPr targets the TP area after feature inheritance, which is lower than the Factive Operator.

As far as Puerto Rican bilinguals are concerned, it has been shown that they can apply a Spanish syntactic rule while processing English, which is explained by the plausible application of feature inheritance even in English. Ultimately, this supports the integrated model of bilingualism proposed in López (2020), which is crucially based on the existence of one and only one linguistic system in bilinguals.

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