ADULT L2 SPANISH DEVELOPMENT OF SYNTACTIC AND DISCOURSE SUBJECT PROPERTIES IN AN INSTRUCTIONAL SETTING

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Abstract. Research has shown that adult learners of L2 Spanish whose L1 is a non-null subject language know from relatively early that null and postverbal subjects are allowed in Spanish. However, the properties that constrain the native use of subjects at the syntax-discourse interface tend to cause persistent difficulty. This study explores the development of both syntactic and discourse subject properties of three level groups of British adult L2 Spanish learners in an instructional setting through a contextualised judgement task. Results show that adult L2 learners of Spanish acquire the relevant L2 feature specifications which constrain purely syntactic contrasts but present a delay in the discourse subject properties, particularly in the interpretation of backward anaphora in null/overt pronominal subjects in embedded clauses and the presentational focus/neutral environment distinction in postverbal subjects with unergative and unaccusative verbs. Processing difficulties and lack of positive evidence in the type of input present in instructional settings might explain the results.

Keywords: *Adult L2A, L2 Spanish, syntactic and discourse properties, null subject parameter.*

1. Introduction

The use of overt and null pronominal subjects and the distribution of preverbal and postverbal subjects in Spanish obey a number of discourse-pragmatic constraints which have shown to be key elements in Spanish L2 subject development. It is well attested that adult L2 learners of Spanish with non-null subject L1s know from relatively early that null and overt subjects can alternate and that both preverbal and postverbal subjects are allowed in Spanish (Liceras 1989; Al Kasey and Pérez-Leroux 1998; Hertel 2003; Lozano 2002, 2006; Montrul and Rodríguez Louro 2006, Belletti, Bennati and Sorace 2007; Rothman and Iverson 2007, among others). What adult L2 learners of Spanish, even at near-native levels, seem to have difficulty with is the properties that constrain the native use of null vs. overt subjects and subject-verb inversion at the syntax-discourse interface (Pérez-Leroux and Glass 1997, 1999; Liceras and Díaz 1999; Lozano 2002, 2006; Hertel 2003; Montrul 2004; Sorace and Filiaci 2006; Belletti, Bennati and Sorace 2007; Rothman, 2007, among others).

This article explores the development of both syntactic and discourse subject properties of three groups of British adult L2 Spanish learners in a classroom context, namely Elementary, Intermediate and Advanced learners of Spanish. A contextualised judgement task was designed. The three groups of learners and a native control group were presented with sentences which contained syntactically and stylistically (im)possible null and overt pronominal and expletive subjects in main and embedded clauses and instances of subject-verb inversion with both unergative and unaccusative constructions in neutral and focused contexts. More specifically, the study has three main goals, namely to determine how adult L2 Spanish learners acquire subject properties at three different stages of development, to determine if the three properties tested (i.e. null/overt referential subjects, null/overt expletive subjects, pre/postverbal

subjects) develop in a similar way and to compare the judgements of each of the groups with the control group. A brief account of how the learners justified their judgements will also be provided.

This article is organised as follows. The next section briefly deals with a syntactic characterization of subjects in Spanish adopted in this study and reviews the discourse-syntactic constraints on Spanish subject use. Section 3 explores the L2A research conducted in the field and section 4 focuses on the present study, its research questions and hypotheses and its methodological aspects. Section 5 presents the results and section 6 discusses the results and draws basic concluding remarks.

2. Syntactic and discourse properties of Spanish subjects

Early research on the L2A of English subjects adopted the traditional version of the Null Subject Parameter (NSP) (Chomsky 1981; Jaeggli 1982; Jaeggli and Safir 1989; Rizzi 1982, 1986), which provided an account of a cluster of phenomena present in null subject languages but absent in overt subject languages. The traditional version of the NSP was formulated on the basis of parametric variation related to richness of inflection and identification properties by which languages with a positive null subject value (i.e Spanish and Italian but not English or French) share a number of properties, exemplified in (1), which include null subjects, the absence of expletive pronouns, subject-verb inversion and *that*-trace sequences[1]:

(1)   a. Yo/pro sé tocar el piano.
       b. pro/*Ello llueve mucho en el norte.
       c. Ella vino ayer/Vino ella ayer.
       d. ¿Quién dices que/*__ va a venir?

The NSP is accounted for differently within Minimalism and hence the related presumably clustered properties of subjects in English and Spanish are analyzed differently. Within Minimalism, the traditional NSP is reduced to the parameterisation of the way in which the EPP requirement is satisfied, or in other words, the way in which the uninterpretable [-person] feature on T is checked. This EPP-feature has to be checked by a [nominal] lexical category and this is done moving/merging the overt subject DP to Spec-TP in English but by verb-raising (v to T) in Spanish. Spanish verbal inflectional morphology has the same nominal [+person, +interpretable] φ-features as English pronouns and therefore the EPP-feature is satisfied via verb-raising without the need of an overt nominal subject. English verbal inflectional morphology has [-person, -interpretable] φ-features and therefore requires an overt subject (Alexiadou and Anagnastopoulou 1998; Ordóñez and Treviño 1999; Chomsky 2000, 2001, 2005, among others). In the words of Alexiadou and Anagnostopoulou (1998):

> "[…] verbal agreement morphology in these languages includes a nominal element ([+D, +interpretable φ-features, potential +Case]). This means that the verbal agreement affixes in, for instance, the Greek paradigm […] have exactly the same status as the pronouns in the English paradigm […]. […] Assuming that verbal agreement has the categorical status

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[1] *That*-trace effects, although present in some of the earlier studies on L2 subjects, will not be included in the present study, as they have been given totally distinct syntactic accounts (see Pesetsky and Torrego 2001, 2004).

of a pronoun in pro-drop languages, V-raising checks the EPP-feature the same way XP-raising does in on-pro-drop languages" (1998: 516-517)

It follows that L2 Spanish learners whose L1 is English will have to acquire the [+person, +interpretable] ɸ-features of Spanish verbal morphology in order to reset the NSP.

Although Spanish has the grammatical option of omitting lexical and pronominal subjects, their omission is not entirely optional but constrained by discourse-pragmatic considerations. In general terms, the overt use of a personal pronoun in a position where it could normally be omitted results from emphatic or contrastive reasons whereas its omission indicates neutrality or lack of emphasis as the examples below illustrate:

(2)　　a. ¡*Él* hizo trampas! (and not me or anyone else – emphatic use)
　　　　　HE cheated!
　　　　b. ¡Ø Hizo trampas! (neutral use)

Overt subject pronouns are hence used for emphasis and disambiguation of the referent and are interpreted as focused elements which give new and contrastive information whereas null subject pronouns represent continuity in discourse topic and hence cannot be used when the information of the subject is new in the discourse:

(3)　　a. ¿Quién viene?
　　　　　'Who comes?'
　　　　b. Ella viene.
　　　　　'She comes'
　　　　c. *Viene.
　　　　　'(She) comes'
(4)　　a. ¿Quién cree Juan$_i$ que __ ganará el premio?
　　　　　'Who does Juan believe will win the prize?'
　　　　b. Juan$_i$ cree que él$_i$/*pro$_i$ ganará el premio.
　　　　　'Juan believes that he will win the prize'
　　　　c. ¿Qué cree Juan$_i$ que obtendrá __ en el concurso?
　　　　　'What does Juan believe he will get in the contest?'
　　　　d. Juan$_i$ cree que *él$_i$/pro$_i$ ganará el premio.
　　　　　'Juan believes that he will win the prize'
　　　　　　　　　　　　　　　　　　　　(Pérez-Leroux and Glass 1999: 226)

Regarding the apparently free word order in Spanish, the possibility for subjects to appear pre and postverbally is strongly determined by lexical verb class and discourse structure factors, which follow from the minimalist syntactic accounts of Spanish preverbal subjects by which subjects are moved from spec-vP to a preverbal non-argumental position higher than TP and within the CP-domain for pragmatic reasons (Alexiadou and Anagnostopoulou 1998; Ordóñez and Treviño 1999; Rizzi 2004, 2005;). In sentences with transitive verbs, the subject can appear either preverbally (SVO), postverbally (VSO) or after the object (VOS), although in neutral focus structures, native Spanish speakers tend to prefer SVO orders. Both VSO and VOS orders are possible in contrastive focus (i.e. emphatic) structures and information/presentational focus (i.e. new versus old information) although native Spanish speakers tend to prefer VOS orders and consider VSO orders unnatural and strongly marked. As for intransitive verbs, they are classified into unergatives and unaccusatives according to the 'Unaccusative Hypothesis' or the 'Split-Intransitivity Hypothesis' (Burzio 1986; Levin and Rappaport-Hovav 1995) and on the basis of where the subject is base-generated.

The subject of unergative verbs like *gritar* 'to shout' is generated preverbally in spec-VP whereas the subject of unaccusative verbs like *llegar* 'to arrive' is base-generated postverbally in object position. The discourse neutral word order for unergative verbs is thus SV whereas for unaccusative verbs it is VS. Neutral contexts are elicited by the 'out of the blue' question 'What happened?', which requires an unfocused answer, as the whole sentence is new information. Spanish inappropriate word order, though not ungrammatical, yields pragmatic anomaly, whereas inappropriate word order in English results in ungrammaticality:

(5)   'What happened last night in the street?'
        a. A woman shouted.   English unergative: SV
        b. Una mujer gritó.   Spanish unergative: SV
        c. *Shouted a woman.   English unergative: *VS
        d. ?? Gritó una mujer.   Spanish unergative: ??VS

(6)   'What happened last night at the party?'
        a. The police arrived.   English unaccusative: SV
        b. ??La policía vino.   Spanish unaccusative: ??SV
        c. *Arrived the police.   English unaccusative: *VS
        d. Vino la policía.   Spanish unaccusative: VS
                                       (Lozano 2006: 147-148)

While word order is constrained in Spanish by the 'Unaccusative Hypothesis' in unfocused contexts, it is constrained by discourse structure and more specifically by information focus at the syntax-discourse interface. Informationally focused elements (i.e. new information) are placed in sentence-final position in Spanish (Zubizarreta 1998) and hence syntactic word order is affected. When the subject is informationally focused as in the answer to the question 'Who called while I was gone?', both unergative and unaccusative verbs trigger VS word orders. In contrast, informational focus is realised only phonologically, but not syntactically, in English, where the focused element is stressed:

(7)   'Who called while I was gone?' (unergative verb)
        a. Llamó <u>tu tía</u>.   Spanish: prosodic and syntactic (VS)
                                       effects.
        b. YOUR AUNT called.   English: only prosodic effects.

(8)   'Who came while I was gone?' (unaccusative verb)
        a. Vino <u>tu tía</u>.   Spanish: prosodic and syntactic (VS)
                                       effects.
        b. YOUR AUNT came.   English: only prosodic effects.

3. Previous L2 research on the use and distribution of Spanish null and overt subjects

Research on the area shows that learners of L2 Spanish whose L1s are non-pro-drop languages can indeed acquire referential and expletive null subjects and postverbal subjects and use them in contexts where they would not be used in their L1 (Liceras 1989; AlKasey and Pérez-Leroux 1999; Liceras and Díaz 1999; Isabelli 2004; Montrul

and Rodríguez Louro 2006; Rothman 2007, among others). However, the extent to which learners use null and postverbal subjects is clearly not native-like and their discursive distribution is problematic even for advanced L2 learners. Some studies explain this referring to the L2 vulnerability of the syntax/pragmatics interface and dissociate it from purely syntactic accounts (Sorace and Filiaci 2006; Montrul and Rodríguez Louro 2006; Rothman 2007). This section reviews some recent studies on the syntactic and discourse properties of L2 subjects of pro-drop languages by non-pro-drop L1 adult speakers.

Regarding null/overt pronominal subject distribution, Sorace and Filiaci (2006) provide a processing account for the interpretation of intrasentential anaphora by English adult near-native speakers of L2 Italian and native Italian speakers. The authors claim that the syntax-pragmatics interface vulnerability results "not so much from representational deficits, but from inadequate processing resources or 'shallow' parsing strategies" (2006: 341), along the lines of Clahsen and Felser (2006) and Carminati (2002; 2005). Participants were presented with complex sentences in which the subordinate clause included an overt or null pronominal subject and either preceded (backward anaphora) or followed (forward anaphora) the main clause, and carried out a picture verification task interpreting the possible antecedents of the null/overt pronominal subject.

The authors predicted that the interpretation of anaphoric overt pronouns would be more problematic than that of null pronouns (Belletti, Bennati and Sorace 2005; Filiaci 2003), allowing overt pronouns in subordinate clauses to co-refer with the subject of the main clause and that backward anaphora would create more processing difficulties than forward anaphora for the near-native group. Results supported these predictions and the authors conclude that although near-native speakers have acquired the syntactic constraints of a null subject grammar, they do not have the necessary processing strategies to coordinate syntactic and discourse knowledge when linking pronouns to their antecedents, as the optionality found in the interpretation of overt pronouns shows.

Also focusing on adult L1 English near-native speakers of Italian, Belletti, Bennati and Sorace (2007) conducted several experiments on the controlled and spontaneous production and interpretation of null and overt pronominal subjects and postverbal subjects across verb types and established comparisons with a group of control native speakers of Italian in order to examine the role of syntactic and discourse factors in near-native subject use. Participants were tested on spontaneous production of null and overt subjects with a story telling task, on their controlled production of focus new information postverbal subjects with videos and comprehension questions, on their interpretation of null and overt pronominal subjects in anaphora contexts with a picture verification task and on their production of preverbal and postverbal subjects with a headline creation task.

Results indicate that near-native speakers of Italian master the crucial properties of the null subject parameter in their L2, although they show residual optionality of some grammatical and discourse subject features of their L1 English which are not native-like but compatible with the L2 grammatical system. More specifically, near-native speakers display a native-like use and interpretation of null pronominal subjects but an overuse of overt pronouns in inappropriate discourse contexts and a non-native-like interpretation of overt pronominal subjects in anaphora contexts. Likewise, postverbal subjects are underused across verb classes (except with unaccusatives) and new information focused preverbal subjects are overproduced. The authors conclude that the differences found between native and near-native grammars do not only involve

the presence of formal grammatical principles but "rather the interplay of formal principles and grammatical options in domains at the interface with discourse" (2007: 682). The authors also point out that the dissociation between the accurate use of null subjects and the non-native use of postverbal subjects suggests that the traditional formulation of the null subject parameter in terms of *pro-licensing* (Rizzi, 1982) may not be sufficient to account for both properties in L2 grammars and that discourse factors need to be seriously considered and incorporated in the theory.

Hertel (2003) and Lozano (2006) tested native English adult L2 learners of Spanish on their acquisition of subject inversion according to both syntactic and discourse structure properties. Both studies predict that L2 learners will present more difficulties acquiring word order with informationally focused structures than in neutral contexts, where the distribution is determined by the unaccusative-unergative distinction, as seen above.

Hertel's (2003) study included beginner, low intermediate, high intermediate and advanced English-speaking adult learners of Spanish, who completed a contextualised written production task in which they were presented with short stories and had to answer a question which targeted at unaccusative and unergative verbs with different information structures. The questions focused on the entire sentence or on the subject, thus triggering a discourse-neutral interpretation or an informationally focused subject, respectively.

Results on the answers to the global questions show that inversion in unaccusatives was mainly produced by the advanced learners and the control group, as the lower proficiency learners produced little or no inversion, possibly transferring their L1 word order. As for global questions with unergative verbs, percentages of VS orders are very low, though advanced learners produced significantly more inverted sentences than the other learner groups and the native speakers. According to the author, advanced learners seem to have generalised inversion to the unergative verbs in this type of questions. All groups except for beginners produced more VS sentences with unaccusatives than with unergatives, though the difference in verb type is only significant in the case of advanced learners and the native group. Results on focused subject questions reveal that beginner and low intermediate learners transfer their L1 SV order again, showing that they are not sensitive to Spanish discourse structure and producing practically no VS responses with either type of verb. High intermediate and advanced learners increasingly produce more VS orders with unaccusative and unergative verbs.

Hertel concludes that the word order effects of verb class and discourse structure are acquired late in L2 Spanish, namely at the advanced level, and preceded by L1 Transfer. Thus the prediction that discourse constraints on word order would be acquired after verb class lexical constraints on word order is not met in this study, as VS percentages raise earlier for focused subject questions in the two verb types than for global questions in the unaccusative verb type. Although, according to the author, advanced learners show native-like sensitivity to verb class and discourse structure, the lexical and focus-related inversion remains optional.

Lozano (2006) carried out a very similar study to test the distribution of SV and VS word order in adult advanced L2 Spanish, which included two experimental groups of Greek and English adult advanced learners of Spanish and native Spanish speakers. Learners completed a contextualised acceptability judgement test with paired target sentences. Each contextualised stimulus and question represented an unfocused or informationally focused environment with unergative and unnacusative verbs, thus

favouring a SV or VS word order. Learners were provided with both orders and were required to rate their acceptability on a 5-point rating scale.

Results on unfocused contexts with unergative verbs reveal that both Greek and English learners of Spanish significantly prefer SV to VS, as native speakers do and as predicted by the author's hypothesis. The acceptance of SV does not differ between groups, though the acceptance of the pragmatically odd VS order does differ between groups, with the English and Greek groups accepting a higher percentage of VS orders than the native control group. As for the unfocused contexts with unaccusative verbs, results show that both groups of learners significantly prefer VS to SV, as the native control group does and supporting the author's predictions. In this case, the acceptance of both VS and SV does not differ between groups, showing native-like knowledge.

Regarding informationally focused contexts, where VS is the preferred order with both unergative and unaccusative verbs, results reveal that whereas the native control group significantly prefers VS to SV order with both types of verbs, L2 learners simultaneously accept both SV and VS orders, resulting in non-native optionality. Between-group comparisons show that although the learners' acceptance of the preferred VS order does not differ significantly from that of the native control group, their acceptance of the pragmatically odd SV order is significantly higher than that of the control group. Overall, results clearly indicate that properties at the syntax-discourse interface are persistently more problematic for advanced speakers than syntactic properties, as was observed in previous studies.

4. The study

4.1 Research questions and hypotheses

Whether adult L2 learners can indeed acquire L2 feature specifications from minimal exposure to input in instructional settings and can reset parameters already specified in their L1 in the way child L2 learners in immersion settings do has been a central question in generative L2A. Assuming that the initial state of L2 grammars is necessarily affected by L1 Transfer, research has yet to determine if adult L2 learners have Full Access to UG and can therefore successfully acquire L2 feature specifications not present in their L1 in order to restructure their L1 transferred grammars (Schwartz and Sprouse 2000; White 2003; Slabakova 2006, Jason and Rothman 2007a, 2007b, among others) or if adult L2 learners only partially access UG and cannot reset parameters (Liceras 1996, 1998; Hawkins and Chan 1997; Hawkins 2005, among others). Non-native adult grammars are indeed natural languages which might locally restructure L1 linguistic representations through general learning explicit mechanisms and achieve superficial similarity to the target grammar. However, partial access to UG cannot entail parameter-resetting in the L1A sense. The Partial Access Hypothesis has more recently been presented and analyzed under the minimalist 'Interpretability Hypothesis' (Tsimpli and Mastropavlou 2007; Tsimpli and Dimitrakopoulou 2007; Hawkins and Hattori 2006, among others), by which uninterpretable features are hypothesised to be inaccessible for the adult L2 learner. In this way, if these uninterpretable features are not selected in the process of L1A they are persistently problematic for the L2 learner, which accounts for adult L2 learners' permanent variability or lack of convergence with respect to the native speaker. UG still constrains L2 adult grammars, as UG computational devices, their operating principles, interpretable syntactic features and uninterpretable features acquired in the learner's

L1A process remain available to the adult L2 learner. If the L2 grammar presents uninterpretable features which are not present in the learner's L1, then these remain unavailable. However, adult L2 learners might make use of the other UG options which remain available to the learner's general learning mechanisms to identify, analyze and produce L2 structures which involve uninterpretable features and diverge from their L1. Tsimpli and Dimitrakopoulou (2007) suggest that L2 learners might make use of interpretable features to 'compensate' for the unavailability of uninterpretable features and they can then create structures which are superficially native-like.

Within the context of the present study and according to the 'Interpretability Hypothesis', adult L2 learners of Spanish whose L1 is English might indeed acquire the [+interpretable] φ-features of Spanish verbal inflectional morphology, which diverge from their L1 [-interpretable] φ-features and which will allow them to accept and use null and postverbal subjects. However, discourse properties concerning subject use and distribution will presumably cause more problems among L2 learners.

Four research questions guide the present study:
- How do English-speaking adult L2 learners of Spanish acquire syntactic and discourse subject properties at elementary, intermediate and advanced stages of development?
- Do the three subject properties traditionally associated together as a cluster under the Null Subject Parameter (i.e. null/overt pronominal subjects in main and subordinate clauses, null/overt expletive subjects and pre/postverbal subjects) develop in a similar way at the three stages?
- How do the learners' judgements differ from those of the native control group?
- Are the results coherent with the 'Interpretability Hypothesis' (Tsimpli and Dimitrakopoulou 2007) proposed for adult L2A?

We hypothesise that adult L2 learners of Spanish will develop their judgement of both the syntactic and discursive properties of subjects towards native-like results. However, their judgements will radically differ from those of the native control group, especially in the beginner group, where the presence of Spanish L1 transferred structures is assumed to take over. Yet as their proficiency increases, learners may possibly acquire the [+interpretable] φ-features of Spanish verbal inflectional morphology and may be aware of purely syntactic subject properties. Discourse properties are predicted to be more complex to acquire and hence delayed. Most studies on the field indicate that properties at the syntax-discourse interface are vulnerable and residual optionality is observed at least in adult advanced learners and even near-native speakers (Lozano 2002, 2006; Hertel 2003; Montrul 2004; Montrul and Rodríguez Louro 2006; Belletti, Bennati and Sorace 2007; Sorace and Filiaci 2006). This delay in acquisition is also to be expected as discourse contrasts are expressed prosodically but not syntactically in the learners' L1, English, and non-native-like word order or empty subject distribution do not result in ungrammaticality or lack of comprehension and hence input data may be confusing.

4.2 Methodology

In order to study subject development in English adult L2 learners of Spanish, data from three groups who attended *Instituto Cervantes* in London were collected at the start of the courses. The groups were A2 (Elementary - exposed to 120 hours of classroom input

at the time of the study), B2 (Intermediate – exposed to 240 hours of classroom input at the time of the study) and C2 (Advanced – exposed to 510 hours of classroom input at the time of the study)[2]. The Elementary group had 24 participants with an average age of 32.82, ranging from 23 to 57. They were mainly professional graduates and students who needed Spanish for their jobs and future careers. Only a few of them could speak another foreign language and all of them had only been exposed to Spanish in *Instituto Cervantes*. The Intermediate group had 26 participants with an average age of 36.05, ranging from 19 to 52. They were university students and professional graduates and they had all done all the Spanish courses in *Instituto Cervantes* although three students had previously learnt some Spanish at school. Only a few of them could speak another foreign language and they all needed Spanish for their professional careers. The Advanced group had 12 participants with an average age of 45.40, ranging from 32 to 57. They were professional graduates and all of them had taken other courses in other schools before studying Spanish in *Instituto Cervantes*. They all reported having learnt Spanish for 7 to 9 years at the time of the study so the number of hours of exposure is certainly higher than what has been calculated according to the official course in the centre. The majority of them were directly related to the Spanish language, either because of their jobs or friends and relatives living in Spain.

An untimed grammaticality judgement task was administered to the students of the three levels tested in sessions of 20-30 minutes[3]. The test included 15 pairs of sentences which either gave two grammatical options displaying a discourse contrast or presented the grammatical and ungrammatical options of a syntactic contrast. Informants were asked to judge the grammaticality of each sentence within each pair and state the reason of their judgement. This allowed the informants to justify their choices in the judgement of the sentences and the researcher to make sure that informants were paying attention to the task and not responding randomly. Sentences including preverbal/postverbal subjects and null/overt pronominal subjects in stylistically (im)possible environments were presented with a context, which clarified the discourse properties of the subject in the sentences to be judged. The sentences in the task are illustrated in Appendix 1 and include:

- null/overt pronominal subjects in main clauses, which test whether learners accept null subjects (syntactic property) and whether learners are sensitive to the topic/focus distinction (discourse property).
- null/overt pronominal subjects in subordinate clauses, which test whether learners accept null subjects (syntactic property) and whether learners prefer co-referring the overt pronominal subject of the subordinate clause with the lexical subject of the main clause or prefer a null subject in the subordinate clause (assigning reference to pronouns in backward anaphora contexts – syntactic-discourse property).
- null/overt expletive subjects, which test whether learners accept and/or prefer null or overt expletive subjects (syntactic property).
- postverbal/preverbal subjects with unaccusative verbs (in a presentational focus environment and in a neutral environment, both triggering VS), which test whether learners accept postverbal subjects (syntactic property) and whether they are sensitive to the lexical verb class (lexical class property).

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[2] Students from a number of nationalities attend Spanish classes at *Instituto Cervantes* in London, but only those students who had English as their first language were chosen for the study.
[3] The timing of the test varied slightly for the Elementary group as some vocabulary help was provided to students so that they could cope with the task without lexical interference.

- postverbal/preverbal subjects with unergative verbs (in a presentational focus environment and in a neutral environment, the former triggering VS and the latter SV), which test whether learners accept postverbal subjects (syntactic property), whether they are aware of the information focus structure and its syntactic consequences (discourse-syntactic property) and whether they are sensitive to the lexical verb class (lexical class property).

The experimenter observed a number of classes of all the levels tested before designing the task and carried out a pre-test consisting of sentences totally unrelated to subject properties to familiarise the students with the format of the task. The sentences in the task were presented in an order that could not create a pattern for the informants, thus sentences which tested the same linguistic phenomenon were obviously not presented together. The students were told to imagine they were language teachers and to carefully and individually read the pairs of sentences, decide whether each of the sentences sounded right or wrong and specify why. It was specifically clarified that they did not have to focus on the content of the sentences but on their structure. It was also emphasised that the test was by no means assessing their knowledge and that any kind of answer was equally relevant. They were allowed to ask the experimenter if they had any doubts about the task or the sentences. After the specified time, the tests were collected. Informants had a feedback session with their teachers where they went over the sentences as a follow-up activity.

Control group data were obtained from adult Spanish native speakers living in Spain who were neither linguists nor language teachers in order to avoid bias in the results. Thirteen Spanish informants were contacted and asked to participate in the control group task. The informants were first introduced to the task and given specific instructions on how to carry it out. The same test that was given to the experimental groups was sent to the native speakers and they were specifically asked to complete the test in a 15-minute session. The informants had an average age of 26.61 and were all university graduates or professionals working in a variety of areas which are not related to the language world. The general procedure of the task, the sentences, the order of presentation and the linguistic items to be tested were the same as in the experimental group.

The data obtained from the experimental and control groups were transcribed, coded and statistically analyzed to compare the three stages of development in adult L2A, to compare control native and non-native data at the three stages of development and for each condition examined in the task and to compare the development of subject properties among themselves at each of the three stages.

5. Results

As the sample size of participants in this study was rather small, the Kolmogorov-Smirnov test of normality of distribution with the Lilliefors significance correction was applied to all variables. The data were not normally distributed, as indicated by the results (p<.05) and hence non-parametric tests, namely, Kruskal-Wallis tests, Mann-Whitney U tests and Wilcoxon Z tests, were applied. The level of significance was α=.05 all throughout the analysis.

In order to analyse the development of the learners' judgements along the three learning stages, a non-parametric one-way analysis of variance Kruskal-Wallis test was first applied to the three groups with respect to their correct judgements. Three of the

five variables tested displayed significant p-values, namely Pronominal Subjects in Main and Subordinate Clauses and Expletive Subjects (H 20.260, p=.000; H 24.613, p=.000; H 22.217, p=.000). This indicates that at least one of the level groups had a significantly different median in each variable. The two variables concerning postverbal subjects, namely Postverbal Subjects with Unnacusative Verbs and Potservbal Subjects with Unergative Verbs displayed non-significant results in the test (H 3.648, p=.161; H 3.466, p=.177). In order to see where exactly the differences emerged, the Mann-Whitney U test was applied to each variable. Table 1 illustrates significantly different percentages of correct judgements between the three levels in the first three variables but not in the remaining two. Yet percentages of correct judgements follow an increasing tendency in all variables.

Variable	Level of L2 Spanish	N	Median %	Mean %	Mann-Whitney U	p-value
Pronominal Subjects in Main Clauses	Elementary	24	66.66%	66.66%	69.000	.002*
	Intermediate	26	83.33%	81.47%	----------------	--------
	Advanced	12	100.00%	95.23%	18.500	.002*
Pronominal Subjects in Subordinate Clauses	Elementary	24	50.00%	44.11%	104.000	.027*
	Intermediate	26	50.00%	50.92%	----------------	--------
	Advanced	12	66.66%	76.18%	4.000	.000*
Expletive Subjects	Elementary	24	66.66%	65.68%	47.500	.000*
	Intermediate	26	83.33%	87.96%	----------------	--------
	Advanced	12	100.00%	100.00%	24.500	.008*
Postverbal Subjects Unaccusative Verbs	Elementary	24	66.66%	72.54%	109.500	.138
	Intermediate	26	83.33%	81.48%	----------------	--------
	Advanced	12	83.33%	85.71%	56.500	.675
Postverbal Subjects Unergative Verbs	Elementary	24	66.66%	74.50%	115.000	.185
	Intermediate	26	91.66%	84.25%	----------------	--------
	Advanced	12	100.00%	90.47%	54.000	.553

Table 1: Mann-Whitney U Test between Elementary and Intermediate and Intermediate and Advanced groups.

Our second comparative analysis contrasts non-native and native judgements in each level group. As can be seen in Table 2, the Elementary group significantly differed from the control group in all variables. Results from the Intermediate group, displayed in Table 3, show a slight development of the learners' correct judgements, but significant differences between the groups still emerge in all the variables. Regarding the Advanced group's judgements, Table 4 indicates that significant differences were still observed in three of the five properties tested, namely in Pronominal Subjects in Subordinate Clause and in Postverbal Subjects with Unaccusative and Unergative Verbs, although percentages of correct judgements increased remarkably in all variables.

Variable	Level of L2 Spanish	N	Median %	Mean %	Mann-Whitney U	p-value
Pronominal Subjects in Main Clauses	Elementary	24	66.66%	66.66%	6.000	.000*
	Control group	13	100.00%	97.43%		
	Elementary	24	50.00%	44.11%	.000	.000*

Variable	Level of L2 Spanish	N	Median %	Mean %	Mann-Whitney U	p-value
Pronominal Subjects in Subordinate Clauses	Control group	13	100.00%	93.58%		
Expletive Subjects	Elementary	24	66.66%	65.68%	6.500	.000*
	Control group	13	100.00%	100.00%		
Postverbal Subjects Unaccusative Verbs	Elementary	24	66.66%	72.54%	19.500	.000*
	Control group	13	100.00%	100.00%		
Postverbal Subjects Unergative Verbs	Elementary	24	66.66%	74.50%	39.000	.000*
	Control group	13	100.00%	100.00%		

Table 2: Mann-Whitney U Test between the Elementary and the control group.

Variable	Level of L2 Spanish	N	Median %	Mean %	Mann-Whitney U	p-value
Pronominal Subjects in Main Clauses	Intermediate	26	83.33%	81.47%	21.500	.000*
	Control group	13	100.00%	97.43%		
Pronominal Subjects in Subordinate Clauses	Intermediate	26	50.00%	50.92%	.000	.000*
	Control group	13	100.00%	93.58%		
Expletive Subjects	Intermediate	26	83.33%	87.96%	45.500	.001*
	Control group	13	100.00%	100.00%		
Postverbal Subjects Unaccusative Verbs	Intermediate	26	83.33%	81.48%	45.500	.001*
	Control group	13	100.00%	100.00%		
Postverbal Subjects Unergative Verbs	Intermediate	26	91.66%	84.25%	58.500	.003*
	Control group	13	100.00%	100.00%		

Table 3: Mann-Whitney U Test between the Intermediate and the control group.

Variable	Level of L2 Spanish	N	Median %	Mean %	Mann-Whitney U	p-value
Pronominal Subjects in Main Clauses	Advanced	12	100.00%	95.23%	39.500	.493
	Control group	13	100.00%	97.43%		
Pronominal Subjects in Subordinate Clauses	Advanced	12	66.66%	76.18%	14.000	.007*
	Control group	13	100.00%	93.58%		
Expletive Subjects	Advanced	12	100.00%	100.00%	45.500	1.000
	Control group	13	100.00%	100.00%		
Postverbal Subjects Unaccusative Verbs	Advanced	12	83.33%	85.71%	19.500	.003*
	Control group	13	100.00%	100.00%		
	Advanced	12	100.00%	90.47%	26.000	.013*

Postverbal Subjects Unergative Verbs	Control group	13	100.00%	100.00%		

Table 4: Mann-Whitney U Test between the Advanced and the control group.

The five variables under analysis were statistically compared to one another at each of the three proficiency levels so as to explore whether the different subject properties tested in the task developed in a similar way. For each level group, paired comparisons of related samples were carried out using the non-parametric Wilcoxon Z test with the Bonferroni correction to test equality of two related medians. In the Elementary and Intermediate group, equality of medians could not be rejected for any paired comparison (p> .005), except for those paired comparisons involving the variable Pronominal Subjects in Subordinate Clauses, where p< .005. In the Advanced group, only the comparisons between Pronominal Subjects in Subordinate Clauses and Pronominal Subjects in Main Clauses and Expletive Subjects resulted in significant p-values, which, together with the results in the other two groups confirm the distinct behaviour of the results obtained in the judgements of this L2 Spanish subject property. The discussion section will account for the research questions posed above in the light of the results obtained.

6. Discussion

These findings generally suggest that there is indeed development by the adult British L2 learners of Spanish examined here of both syntactic and discourse properties of Spanish subjects towards native-like results, as has also been reported in other adult L2 Spanish studies (Pérez-Leroux and Glass 1997, 1999; Liceras and Díaz 1999; Lozano 2002, 2006; Hertel 2003; Montrul 2004; Montrul and Rodríguez Louro 2006; Belletti, Bennati and Sorace 2007; Rothman and Iverson 2007, among others). In relation to the development across the three level groups, results show that there is an increasing tendency with significant differences between the three groups in Pronominal Subjects in Main and Subordinate Clauses and in Expletive Subjects. Postverbal subjects do not show such a significant development, mainly because percentages of correct judgements are already very high (i.e. above 70%) in the Elementary group, as compared to the other variables. Postverbal subjects do not reach very high percentages in the Advanced group either, so results already indicate that the use of postverbal subjects with both unaccusative and unergative verbs presents a certain degree of difficulty for the adult learners of the study (Rothman and Iverson 2007; Isabelli 2004). Pronominal Subjects in Subordinate Clauses do show significant development, although the final mean percentage in the Advanced group only reaches 76.18%, which also suggests that this particular context is harder to process, as will be justified below (Sorace and Filiaci, 2006). The highest percentages in the analysis across groups are reached in Pronominal Subjects in Main Clauses and Expletive Subjects. The former apparently present the easiest discourse constraint in the use of null/overt subjects in L2 Spanish and the latter is only constrained by a purely syntactic contrast, which as will be seen below, is much more readily acquired.

Syntactic, discourse and lexical properties of subjects were also analysed in each level group with respect to the control group. The Elementary group was found to significantly differ from the control group in the five variables analysed. The adult learners of L2 Spanish in the Elementary group allow a statistically significant percentage of non-target-like structures in the use of Pronominal Subjects in Main and Subordinate clauses, Expletive Subjects and Pre/Postverbal subjects with unergative and

unaccusative verbs. This might lead us to pose that the L1 subject properties derived from the [-interpretable] φ-features of English verbal morphology transfer to the learners' L2 Spanish still at this stage and hence the learners would not have completely acquired the [+interpretable] φ-features of Spanish verbal morphology yet. However, percentages of correct judgements are pretty high in all variables except for the use of null/overt subjects in subordinate clauses, which might also indicate that learners might be in the process of acquiring the [+interpretable] Spanish features and the significant differences with respect to the control group emerge because the Spanish L2 learners have remarkable problems with the discourse properties of subjects, particularly with the interpretation of backward anaphora in this case. In other words, learners might be aware of the fact that both null and postverbal subjects are permitted in L2 Spanish but just remain hesitant about their use. This might explain why percentages are already quite high but still significantly different from those of the control group. Exactly the same situation would apply to the intermediate group, where percentages of correct judgements have increased but they still differ from those of the control group in all variables, and again, the lowest percentage belongs to Pronominal Subjects in Subordinate clauses. The paired comparisons between the results of the five variables tested in the task in the Elementary and the Intermediate groups did not display any significant differences among them, except the Pronominal Subjects in Subordinate clauses, which significantly differed from the rest. Assuming that adult learners might be already acquiring the relevant [+interpretable] features of the target language would be coherent with the 'Interpretability Hypothesis' (Tsimpli and Dimitrakopoulou 2007), which assumes that adult L2 learners have access to interpretable features of the target language. Yet subject properties at the syntax-discourse interface and lexical properties of unergative and unaccusative verbs are causing significant differences with respect to native speakers. These properties include: the topic/focus distinction in Pronominal Subjects in Main Clauses, reference assignment to pronouns in backward anaphora contexts in Pronominal Subjects in Subordinate Clauses and the distinction between presentational focus and neutral environments in Pre/Postverbal Subjects with unaccusative and unergative verbs (Hertel 2003; Lozano 2006; Sorace and Filiaci 2006; Belletti, Bennati and Sorace 2007).

Regarding the Advanced group, significant differences with respect to the control group disappear in Pronominal Subjects in Main Clauses and in Expletive Subjects but remain in Pronominal Subjects in Subordinate Causes and in Pre/Postverbal Subjects with unaccusative and unergative verbs, although percentages of correct judgements have increased significantly in the case of subjects in subordinate clauses but not in the case of postverbal subjects, as indicated above, and percentages are remarkably high. These results suggest that adult L2 learners of Spanish in this study have indeed acquired the [+interpretable] φ-features of Spanish verbal morphology responsible for the purely syntactic properties of L2 Spanish subjects but residual optionality remains in the use and distributional properties of subjects, accounted for by discourse contrasts. The only purely syntactic subject property in the task was Expletive Subjects and it shows a native-like percentage of correct judgements. As for the remaining variables, the topic/focus distinction in Pronominal Subjects in Main Clauses is apparently the least problematic discourse property to acquire by these adult L2 learners. The distinction between presentational focus and neutral environments in Pre/Postverbal Subjects with unaccusative and unergative verbs and particularly the interpretation of backward anaphora in Pronominal Subjects in Subordinate Clauses present processing difficulties for the learners, who display non-native variability in this respect (Hertel 2003; Lozano 2006; Sorace and Filiaci 2006; Belletti, Bennati and Sorace 2007, among

others). The paired comparisons between the results of the five variables tested in the task in the Advanced group did not display any significant differences among them, except Pronominal Subjects in Subordinate clauses, which this time significantly differed from the two variables with higher results, namely Pronominal Subjects in Main Clauses and Expletive Subjects.

Bearing in mind that the data analysed in this study was obtained in a classroom setting and that learners were asked to justify their judgements, it is relevant –although beyond the scope of the present paper- to briefly explore how classroom instruction might have affected the learners' judgements independently from the fact that learners might have acquired the relevant L2 feature specifications. The learners' justifications for their judgements are not strictly metalinguistic, particularly in the Elementary and Intermediate groups, but they do show their awareness of subject properties of the target language. In the sentences with overt expletive subjects, some learners argue that the overt pronoun should be left out because Spanish favours sentences without subjects. Some other learners even reflect on the fact that it is tempting to accept the use of an overt pronoun in the context because in English they would use 'it' but that they think Spanish does not use them. Still some other learners claim that they have memorised that certain verbs such as *haber* or *llover* do not require a subject. As for sentences with null/overt subjects in main clauses, learners mainly argue that the use of pronouns in subject position is unnecessary in Spanish, which in some contexts results in a correct judgement but in some others might lead the learner to incorrect generalisations which do not consider discourse factors. Some other learners stress the fact that the use of pronouns in Spanish is redundant because the same information is contained in the verb ending and a couple of advanced learners pointed the use of emphasis in making the pronominal subjects overt in Spanish. Very similar comments are made with respect to null/overt subjects in subordinate clauses, although some learners incorrectly assume the need for an overt subject to check that it corresponds to the antecedent. With respect to postverbal subjects, learners justify their judgements claiming that a VS order is more typical of the Spanish language. Yet again this might mislead the learners when discourse factors come into play. In sum, the learners' justifications for their judgements mainly contain syntactic generalisations which surely overlook the discourse properties responsible for non-target interpretations.

7. Conclusion

This article has explored the development of syntactic and discourse subject properties of L2 Spanish by adult English speakers in an instructional setting. Results seem to confirm a relatively early acquisition of the L2 [+interpretable] ɸ-features, assumed to be accessible to adult L2 learners within the 'Interpretability Hypothesis' (Tsimpli and Dimitrakopoulou 2007) and assumed to be responsible for L2 Spanish syntactic subject properties. Subject properties at the syntax-discourse interface have proven to be vulnerable and present difficulties of processing and interpretation even in the Advanced group, as attested in previous studies. As Rothman (2007) suggests, the resetting of the NSP in L2 Spanish seems to have a very salient and frequent trigger from the input and in fact, a brief analysis of the learners' justifications of their judgements indicate that instruction does have an effect on the purely syntactic properties of subjects. However, discourse factors do not seem to be positively evident in the kind of input instructional contexts offer. As was pointed out above, non-native-like word order or empty subject distribution do not result in strict ungrammaticality or

lack of comprehension in the L2 and hence input data might also be confusing in this respect.

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Appendix 1: Sentences and linguistic items in the task.

Linguistic Item	Sentences

Pronominal Subjects in Main Clauses	5. ¿Qué quieren hacer tus sobrinos?
	  a. Quieren ir al parque.
	  b. Ellos quieren ir al parque.
	9. ¿Quién querrá un refresco?
	  a. Ella quiere una limonada.
	  b. Quiere una limonada.
	15. ¿Qué decidisteis hacer ayer por la tarde?
	  a. Nosotros decidimos ir de compras.
	  b. Decidimos ir de compras.

Pronominal subjects in Subordinate Clauses	3. a. Cuando ellos trabajan, mis padres no vienen a dormir (ellos= mis padres)
	  b. Cuando trabajan, mis padres no vienen a dormir.
	7. a. Cuando ella está cansada, mi hermanita se va a dormir (ella= mi hermanita)
	  b. Cuando está cansada, ni hermanita se va a dormir.
	12. a. Si ella estudia lo suficiente, Marta aprobará el examen (ella= Marta)
	  b. Si estudia lo suficiente, Marta aprobará el examen.

Expletive Subjects	2. a. Ello hay solo un baño en esta casa.
	  b. Hay sólo un baño en esta casa.
	10. a. La semana pasada llovió cada día.
	  b. La semana pasada lo llovió cada día.
	14. a. Ello es probable que Luisa apruebe el examen.
	  b. Es probable que Luisa apruebe el examen.

Postverbal Subjects Unaccusative Verbs	1. ¿Qué ha pasado?
	  a. Una ambulancia ha venido.
	  b. Ha venido una ambulancia.
	6. ¿Quién ha llegado?
	  a. Ha llegado el nuevo profesor de francés.
	  b. El nuevo profesor de francés ha llegado.
	13. ¿Qué ocurrió después del accidente?
	  a. Mi padre vino a ayudarnos.
	  b. Vino mi padre a ayudarnos.

Postverbal Subjects Unergative Verbs	4. ¿Qué pasó en el cine?
	  a. Los niños gritaron.
	  b. Gritaron los niños.
	8. ¿Quién llamó ayer?
	  a. Ayer llamó mi padre.
	  b. Ayer mi padre llamó.
	11. ¿Qué ocurrió cuando entrasteis al colegio?
	  a. Lloró mucho mi hermanito.
	  b. Mi hermanito lloró mucho.