Open Research Online

The Open University's repository of research publications and other research outputs

Intonational phonology and politeness in L1 and L2 Spanish

Journal Item

How to cite:

Astruc, Lluïsa and del Mar Vanrell, Maria (2016). Intonational phonology and politeness in L1 and L2 Spanish. *Probus*, 28(1) pp. 91–118.

For guidance on citations see [FAQs](#).

© [not recorded]

<https://creativecommons.org/licenses/by-nc-nd/4.0/>

Version: Accepted Manuscript

Link(s) to article on publisher's website:

<http://dx.doi.org/doi:10.1515/probus-2016-0005>

Copyright and Moral Rights for the articles on this site are retained by the individual authors and/or other copyright owners. For more information on Open Research Online's data [policy](#) on reuse of materials please consult the policies page.

oro.open.ac.uk

Intonational phonology and politeness in L1 and L2 Spanish

Lluïsa Astruc, The Open University

Maria del Mar Vanrell, Freie Universität Berlin

Abstract

This study makes a foray into the politeness strategies used by English learners of Spanish by comparing a corpus of invitations and requests recorded by 14 adult English learners of beginner level Spanish as part of their course assignment to the data recorded by 12 native speakers. The native speakers' data was collected using discourse completion tests which elicited offers and requests in scenarios controlled for social distance, power, and the cost of the request or offer. All the data was analysed pragmatically, by quantifying the occurrence of politeness strategies, and phonologically, by transcribing pitch accents and boundary tones in line with the guidelines of the Autosegmental Metrical framework. The results show that, depending on the situation, native speakers combine the use of different lexical and morpho-syntactic devices with the use of specific intonational patterns. Most learners at beginner level correctly use a limited range of morpho-syntactic politeness strategies appropriate to their level, and these are frequently reinforced with intonation. However, our data also show that beginner learners often transfer the intonational patterns of their first language.

Keywords: intonation, politeness, Spanish, offers, requests

1. Introduction

Although the interface of politeness and prosody constitutes a rapidly growing field of research, there are still very few studies that use empirical methods to explore this interface (Orozco 2008, 2010, Martín Butragueño 2011), and no studies at all so far that examine the acquisition of both politeness and intonation in the second language. To our knowledge, this is the first study to analyse the acquisition of intonational patterns used in politeness strategies among adult second language learners.

Previous research on the acquisition of politeness by adult second language learners has shown that the acquisition of politeness seems to develop at a different pace than other areas of second language competence (e.g. Koike, 1989; Bardovi-Harlig, 1999). It has been argued in the literature that certain aspects of politeness, such as the use of specific types of speech acts, are easily transferable between languages, whereas socio-pragmatic aspects such as the preference for more or less directness may take much longer to learn (e.g. Koike and Pearson 2005). It has also been noted that more proficient learners use a wider variety of linguistic politeness strategies than less proficient learners. Indeed, as learners progress, their repertoire of politeness strategies increases and these strategies are used more frequently and more appropriately (e.g. Félix-Brasdefer, 2005). This process appears to be similar to

the mastery of formulaic expressions in general in the speech of second language learners (e.g. Adinolfi 2011, Astruc and Adinolfi 2015).

The development of intonation both in the first and in the second language has received far less attention in the literature than the development of politeness. It is assumed that intonation is one of the first components of language that children acquire in their first language (e.g. Snow 2006, Astruc et al. 2013). However, it is also known that some aspects of intonation, such as intonational contours, are acquired very early in the first language, while other aspects, such as fine phonetic control of pitch are mastered later (e.g. Allen Hawkins 1980, Payne et al. 2012, Snow 1994). Adult learners also seem to acquire intonational contours earlier than the fine phonetic control of timing and pitch (e.g. Ueyama and Jun 1998). This suggests that from an early stage, adult learners may be able to produce some basic intonational contours in the second language, albeit with phonetic divergences (e.g. intonation peaks can be too high or too steep, pitch range can be too wide or too narrow) in comparison to the L1 target.

In this study we have followed the conventions of the intonational phonology framework (see Ladd 1996 for an introduction) to collect and analyse a corpus of offers and requests in Spanish (the L1 corpus) to be used as a baseline for studying the acquisition of politeness strategies in a corpus of English adult beginner-level learners of Spanish at a distance learning university in the United Kingdom. Beginner-level learners provide an interesting study group because their limited language skills force them to rely on the input provided by the teaching materials to communicate. While advanced learners may have been exposed to a variety of influences (e.g. different styles and dialects in the media), beginner-level learners mostly rely on the resources – semantic, morpho-syntactic and intonational – modelled in their instructional materials. Such instructional materials at beginner level usually use formulas and routines to teach learners how to perform complex pragmatic acts such as offers, invitations, and requests.

In the following sections we will discuss linguistic politeness and the relationship between politeness and intonation.

1.1. Linguistic politeness

Linguistic politeness refers to the use of semantic, morpho-syntactic, and intonational strategies to facilitate social interactions. Brown and Levinson's (1987) proposed a universal model of linguistic politeness that continues to be the most influential politeness framework to date (e.g. Ruzickova 2007 on Cuban Spanish, Orozco 2010 on Mexican Spanish). Although some of Brown and Levinson's proposals have been expanded and refined in subsequent studies (e.g. research on cultural determinants in Blum-Kulka 1992; on socio-cultural appropriateness in Watts 1992, see overview in

Watts 2003; on honorifics in Matsumoto 1989 and Ide 1993), the basic propositions of their model are still valid. Very briefly, Brown and Levinson's model focuses on face-threats and how to avoid them. All members of a community know each other to have "face" and are also aware that certain speech acts such as orders and requests, but also suggestions and advice, offers and compliments, threaten this public face.

The seriousness of a face-threatening act (FTA) is determined by three contextual factors: the social distance between speaker and hearer, the power of the hearer over the speaker, and the cost of the act. Both power and social distance are defined as pan-cultural and specific to the speech act itself (Brown and Levinson 1987: 76). Social distance refers to a symmetrical relationship between the hearer and the listener which often involves an assessment of stable social attributes, in addition to an assessment of the type and frequency of interaction, and of the types of goods and services usually exchanged. Power refers to an asymmetric relation where the hearer can exert control, usually by means of economic distribution or physical force (Brown and Levinson 1987: 77). Cost refers to the extent to which the act is considered an imposition in any specific culture, and includes categories such as the transfer of goods and services. Goods, for instance, also include non-material goods such as the provision of information. Services include "free services" such as telling someone the time. For instance, a simple "free service" such as passing the salt in a restaurant would have a small cost, while a speech act involving the loan of a car, for instance, would have a high cost because of the intrinsic value of the vehicle and the risks associated to its loaning (see Brown and Levinson 1987: 77).

Overall, requests involve a much higher face-threatening risk than offers and invitations. Perhaps for this reason, requests (and refusals) have been extensively studied in the literature (from García 1993 to Félix-Brasdefer 2006 on Spanish), whereas offers and invitations have received scant attention so far (also on Spanish: Chodorowska-Pilch 2002, 2003, Ruiz de Zarobe, 2001, Barros García, 2010). However, as noted in Brown and Levinson (1987: 65-66), offers also involve a potential threat to both the speaker's and the listener's face. The speaker may see her personal freedom diminished if the offer is accepted or her public image damaged if rejected; the listener may be placed under an obligation if the offer is accepted (see Brown and Levinson 1987: 66ff; see also Haverkate 1994: 108-115).

All face-threatening acts can be mitigated by means of appropriate linguistic strategies such as the use of indirect language, the insertion of softening expressions, or intonation. Speakers choose the most appropriate linguistic strategy for each situation by assessing the degree to which the speech act poses a potential threat to the face of the interlocutors, and choosing between two different approaches: positive politeness and negative politeness (e.g. Brown and Levinson 1987: 70-73). Positive politeness implies closeness in that it assumes that the hearer belongs to the same in-group (a relative,

friend, etc.), and closeness carries an expectation of reciprocity. It also assumes that the speaker likes the hearer. Compliments, terms of endearment, in-group forms of address, among others, typically convey positive politeness. Negative politeness is oriented towards avoiding imposition and coercion. It comprises strategies such as being conventionally indirect ('Can you pass me the salt?'), hedging ('sort of', 'rather', 'technically', etc.), deference (honorifics, titles, forms of address, etc.), apologies and self-humbling (Brown and Levinson 1987: 129).

1.2. The phonological cues of politeness

One of the earliest attempts at describing the contribution of phonology to politeness is found in Brown and Levinson (1987: 267-268), who predict that the use of high pitch is associated with negative politeness and the use of creaky voice with positive politeness. More recently, the idea that high pitch can convey politeness (among other meanings) has been further theorised by Gussenhoven (the frequency code: see Gussenhoven 2005: 81-82).

Research on politeness in different languages has shown that this tends to co-occur with certain phonological cues, such as the direction of boundary tones (rising or falling) and certain combinations of pitch accents (e.g. Orozco 2008, 2010, Martín Butragueño 2011). However, so far it has not been possible to find a direct correspondence between any given set of phonological cues and a specific politeness interpretation. This is because speakers do not rely on a single politeness strategy, but rather use a combination of strategies. It still remains an empirical question whether intonational strategies are used cumulatively in addition to other types of linguistic politeness strategies. For instance, a trading relationship between morpho-syntactic resources and intonation has been observed in the case of Estonian particles (particle *kas*, Asu 2004), and questions headed by *que* in Catalan (Prieto and Rigau 2007). We can thus hypothesise the existence of a trade-off between the use of politeness strategies and intonation.

Among the few studies that have used intonational phonology methods to study the interface with politeness are Orozco (2008), which analysed a corpus of 192 sentences - 16 sentences produced by 12 speakers. The stimuli included eight requests, such as *échame una mano en la cocina, podrías apagar tu cigarro* ('give me a hand in the kitchen', 'could you put out your cigarette'). The stimuli were written without punctuation to allow for varied possible intonational patterns. Participants were requested to read the requests in two different styles, neutral and polite. Different intonational patterns were obtained and no common trend was identified, except for the tendency for women to use more questions than men. There was also a tendency (which did not reach statistical significance) for yes-no interrogatives to have a wider pitch range, especially in the case of women.

More recently Astruc et al. (2011, in press) have investigated the use of a falling versus a rising pattern (H+L* L% and L* H%; see Section 4.2 below) in Catalan yes-no questions, and have found a preference for the rising pattern in the most face-threatening situations. In Astruc et al. (2011, in press), 15 graduate students, all of them speakers of Central Catalan, responded to a discourse completion test (DCT) with 16 situations, eight of them designed to elicit an offer and eight a request. The social distance, the power balance between the interlocutors, and the cost of the FTA were varied in two steps (low and high). The results showed that two factors, cost and social distance, had statistically significant effects in the choice of intonational pattern. The rising pattern was mostly used in high-level cost offers and requests, and in high-level distance requests.

2. Motivation and research goals

The aim of this study is to compare the interaction of politeness and intonational phonology in first and second language spoken data. Mexican Spanish has been chosen as the target Spanish variety because this is the most widely spoken dialect of Spanish and also because there is a body of work on Mexican Spanish politeness to which the current study hopes to contribute. The second language learners are native speakers of British English. It is appropriate to compare the learners' data to Mexican Spanish because their instructor was Mexican and the language course they were taking teaches global Spanish, and includes the most important Latin American and Peninsular Spanish varieties. Latin American Spanish corresponds to about 30% of the spoken instructional materials.

Our goal is to examine the encoding of politeness in a corpus of offers and requests in L1 Spanish and compare these results to an L2 corpus of beginner-level Spanish. Whereas requests have been widely studied, especially from a cross-linguistic perspective (from García 1993 and Koike 1994 to Orozco 2010, among many others), offers have received scant attention in the literature, with only a few studies available in Peninsular Spanish (Chodorowska-Pilch 2002, 2003, Ruiz de Zarobe 2001, Barros García 2010), and no study so far that includes intonation. To our knowledge, there is no other work on offers in Mexican Spanish from any perspective, pragmalinguistic or intonational, and no other study of the intonation of adult beginner-level learners of Spanish. We thus ask these research questions:

1. In the L1 corpus, which sociolinguistic factors determine the choice of pragmalinguistic and intonational strategies?
2. In the L2 corpus, is there a trade-off between morpho-syntax and intonation? Do adult beginner learners rely more on intonation to compensate for the fewer pragmalinguistic strategies available to them?

In relation to the first question, we expected to find that all three sociolinguistic factors (social distance, power and cost) will have an effect on the use of politeness strategies. We also hypothesized that requests would trigger a greater use of indirect politeness strategies than offers.

In relation to the second question, we expected learners to produce a number of pragmatically appropriate requests and invitations, albeit with grammatical and phonological errors, including intonational and morpho-syntactic transfers from their first language, English. We expected learners to rely more on intonation to compensate for their lack of proficiency in Spanish. However, since learners are also acquiring the intonational phonology and phonetics of Spanish, they may need to transfer features of English intonation.

2. Methods

2.1 The native speakers' corpus (L1 corpus)

The experimental stimuli for the L1 corpus were designed as a discourse completion task with 16 situations, eight offers and eight requests, controlling for the following factors:

(a) Social distance between participants (D)

This was graded in two steps, from less social distance (sibling, - D) to more (stranger, +D).

(b) Power of the hearer over the speaker (P)

The power relationship between the hearer and the speaker was also graded in two steps: equal power (your colleague, - P) and power imbalance (your boss, + P).

(c) Cost of the face-threatening act (C?)

The cost of the FTA was similarly graded in two steps: very little cost (passing over small items, -C) and high cost (car ride, +C), and was crossed with both levels of social distance and power (See questionnaire design and examples in Appendix 1).

As is the standard practice in intonational research, we included as many sonorant sounds as possible in the stimuli (e.g. *limones*, 'lemons'), although at times we had to sacrifice segmental control for naturalness. The situations were designed to be maximally credible and, as far as possible, not too repetitive. For this reason, we slightly changed the target stimuli across scenarios (e.g. asking/offering to pass over some lemons when baking a cake with your brother/sister; asking/offering another customer in a restaurant to pass the sauces or the sugar). We also asked the research assistant who conducted the recordings to adapt the materials when necessary to enhance naturalness.

Participants were 12 speakers of Mexican Spanish with an average age of 30. The youngest participant was 13 and the oldest 54 years-old at the time of the recording. In line with methods in sociolinguistics, participants were recruited by a research assistant among her circle of family members and friends.

The procedure was as follows. Participants were interviewed at their homes in Mexico City by the research assistant. They were invited to read each situation silently taking as much time as they

required and to reply in the way they thought most appropriate to the situation. They did this three times: the first time they were asked to say everything that they would normally say, the second time they had to ask a single question, and the third time they had to imagine that the hearer was rejecting their request. In this article, we will not analyse the rejections, and we will focus on the requests and offers as these are mostly produced with an interrogative intonation. The purpose of repeating the task was twofold: one, to analyse the type of sentences (e.g. imperatives, declaratives, interrogatives) used in each situation, and two, to allow for more natural responses, as constraining the response to a single sentence would have been very unnatural in the most face-threatening situations, which usually require some degree of external modification such as explanations or promises.

2.2 The beginners' corpus (L2 corpus)

The L2 corpus is formed by 14 oral assignments recorded by students of a Spanish beginner level course (level A2 of the Council of Europe Common European Framework of Reference for Languages) as part of the continuous evaluation of their work. The learners were taking a Spanish course at an open and distance learning university in the United Kingdom. Their tutor was Mexican. The assignments were randomly selected by the tutor on the criteria of being representative of the range of marks achieved by the cohort. Five participants were male and nine were female. Their age ranged between 20 and 70 years old.

The invitations and requests collected for study were part of the third assignment in the course, which was produced after four months of instruction. The course materials explicitly covered how to make invitations and requests using an appropriate intonation. Students had to leave a telephone message for a friend telling him or her what they did last night, suggesting one thing that they could do together at the weekend, and requesting that this friend returned their call. The invitations and the requests were selected for analysis.

3. Analyses

To prepare the data for the analysis, the recordings were segmented into separate audio files using a Praat script. Each audio file was labelled with a code name for each participant, repetition, and situation. Another Praat script was used to create annotation grids (Praat textgrids) for the orthographic transcription and coding of the data. A third script was used for extracting these data onto an Excel spreadsheet which was then transferred onto SPSS. During the analysis, the codes and labels used were discussed and some were revised.

4.1. Pragmalinguistic analysis

Figure 1 shows an example of the coding system used with a sentence produced by Participant 1 in the first round (“say all what you would say”) of situation 9 (asking her sibling to pass her some limes for the cake they are baking):

- (1) *¿Te molesto si me pasas las limas, por favor?*
 ‘Do I bother you if you pass me the limes, please?’

Figure 1 Waveform, spectrogram and F0 contour of the request *Te molesto si me pasas las limas, por favor?* ‘Do I bother you if you pass me the limas, please?’. The six text tiers in Figure 1 show the orthographic transcription (Tier 1), form of address (Tier 2, 0 = ‘tú’, you-informal), verbal form (Tier 3, 1 = present indicative), intonational analysis (Tier 4), type of verb (Tier, 0 = ‘pasar’, ‘to pass’; 3 = ‘molestar’, ‘to bother’), mitigators (Tier 6, 1 = ‘por favor’, ‘please’).

The six text tiers in each annotation grid were used for the following information:

Tier 1: orthographic transcription;

Tier 2: pronominal form of address (0: *tú*, 2nd person singular, informal; 1: *usted*, 2nd person singular, formal);

Tier 3: verbal form (0: future/imperative, 1: present, 2: imperfect/conditional, 3; *Desea que/es posible que*, ‘Do you want that’/is it possible that’ 4: negative expressions, *no me pudiera/no sé si me pudiera*, ‘Could you not/I don’t know if you could’)

This tier codes indirectness in line with Félix-Brasdefer (2005) and Blum-Kulka and House (1989), who propose that indirectness is expressed by phrase-internal modification, such as the use of the conditional, imperfect, or subjunctive forms.

Tier 4: intonational analysis (transcription of the last main pitch accent, see Section 4.2 below).

Tier 5: type of verb (0: possession, e.g. *pasar* (‘to pass’), *dar* (‘to give’); 1: modality, e.g. *poder* (‘to can’); 2: influence, e.g. *querer* (‘to want’), *necesitar* (‘to need’); 3: psychological verbs, e.g. *molestar* (‘to bother’).

Tier 6: mitigators (1: *por favor*, *un favor* (‘please’, ‘a favour’, 2: interjections such as *eh*, *este*, (3: titles, endearments).

4.2 Intonational analysis

For the intonational analysis, we followed the Autosegmental Metrical framework (e.g. Beckman and Pierrehumbert, 1986; Gussenhoven, 2005; Ladd, 1996; Pierrehumbert, 1984; Silverman et al., 1992), which has been applied to a wide variety of languages. Within the Autosegmental Metrical framework intonation is analysed as a succession of high and low tonal movements that coincide with stressed syllables (e.g. “lite” in “po.lite”) and with the edges of phrases. Pitch accents are tonal movements located in the vicinity of stressed syllables, and these can be high (H*) or low (L*), or a combination of high and low (e.g. L+H*). Tonal movements near the end of phrases are called boundary tones.

The main relevant tonal sequence is that formed by a nuclear pitch accent (which is frequently the last pitch accent in the sentence), followed by a boundary tone. In this study we used the labels for nuclear accents and phrase boundaries proposed by de-la-Mota et al. 2011 for Mexican Spanish and by Grabe et al. (2005) for English. The most frequent phrase-final contours in yes-no interrogative sentences in Mexican Spanish and in British English are displayed in Tables 2 and 3.

Table 2 Phrase final interrogative contours used with yes-no questions in Mexican Spanish

Pitch diagram and name	ToBI label	Description
------------------------	------------	-------------

<p>Low rise</p>	<p>$L^* H\%$</p>	<p>Low plateau at the minimum of the speaker's range, followed by a rising movement to the sentence's maximum pitch.</p>
<p>High rise</p>	<p>$L+H^* H\%$</p>	<p>Pitch rises throughout the accented syllable and continues to the end of the sentence.</p>

Table 3 Phrase final interrogative contours used with yes-no questions in British English

Pitch diagram and name	ToBI label	Description
<p>Low rise</p>	<p>$L^* H\%$</p>	<p>Low plateau followed by a rising movement that reaches mid-level at the end of the sentence.</p>
<p>High rise</p>	<p>$L+H^* H\%$</p>	<p>Pitch rises throughout the accented syllable and continues to the end of the sentence.</p>
<p>Simple fall</p>	<p>$H^* L\%$</p>	<p>Pitch is high on the last accented syllable and then falls to the end of the sentence.</p>

H*+L H%

Pitch is high on the last accented syllable, falls throughout the following syllable and rises again at the end of the sentence.

Fall rise

The first pattern in both tables, the low rise (L* H%), is common to many varieties throughout the Romance domain. The second pattern, the high rise (L+H* H%), has also been identified (with other uses and distribution) in American English and, more rarely in British English (e.g. see Gussenhoven 2005: 298). In Mexican Spanish, Ávila (2003) found that 88 of 144 interrogative sentences in her corpus of spontaneous speech were produced with this pattern, but this may have been an effect of the labelling conventions. For instance, her examples of L+H* H% in her figures 4 and 5 could be re-analysed as L* H%.

5. Results: the native speakers' corpus

The L1 corpus is formed by 357 valid cases produced by 12 speakers in two tasks, a free response task and a “question-only” task. Of the original 384 responses, 27 could not be used for the analyses because of recording problems or because the participant responded in an indirect way (“If I were in this situation, I would have asked/offered X”). Thus these responses had to be discarded.

The free response task elicited about 83% interrogatives, 6% imperatives, 10% declaratives, and 0.53% exhortative sentences. The question-only task, elicited interrogative sentences as expected, but it also elicited a very small percentage of other sentence types (1.6% imperatives, 0.5% exhortatives).

5.1 Politeness strategies used with offers and requests

To answer the first research question, we will first examine the distribution of sentence types with offers and requests in the free response task and then we will investigate the use of different politeness strategies.

5.1.1 Sentence types used with offers and requests. The results of the frequency analyses showed statistically significant differences in the distribution of the sentence types used with offers and requests, *chi-square* (3) = 9.522, *p* = .023.

Figure 2 Types of sentences used with offers and requests

Figure 2 shows that participants used about the same number of questions with offers and with requests (83% and 81% respectively), but they used double the number of declaratives with offers (about 14%) than with requests (about 7%). They used fewer imperatives with offers than they did with requests (3.5% vs. 10.4%). Finally, exhortatives only made up about 1% of the total of the types used with requests, and they were not used at all with offers.

5.1.2 Use of politeness strategies with offers and requests. We have transcribed and analysed four linguistic strategies for expressing politeness following the method shown in Figure 1: choice of verbal form (tense, aspect, and mood; see Tier 3 in Figure 1), the pronominal form (*tú* vs. *usted*, see Tier 2), use of hedging (e.g. question tags, see Tier 5), and choice of lexical verb (e.g. possession verb, see Tier 6). For reasons of space, in this article, we focus on the use of verbal and pronominal forms.

Table 2 Verbal forms

		Distance		Power		Cost	
		Low	High	Low	High	Low	High
Offers	future/imperative	4 (8.9%)	0 (0.0%)	0 (0.0%)	2 (4.7%)	2 (2.5%)	4 (4.4%)
	present indic.	38 (84.4%)	36 (85.7%)	33 (80.5%)	34 (79.1%)	70 (86.4%)	71 (78.9%)
	imperfect/conditional	0 (0.0%)	2 (4.8%)	3 (7.3%)	0 (0.0%)	2 (2.5%)	3 (3.3%)
	subjunctive	2 (4.4%)	3 (7.1%)	5 (12.2%)	6 (14.0%)	6 (7.4%)	10 (11.1%)
	negative expressions	1	1	0	1	1	2

		(2.2%)	(2.4%)	(0.0%)	(2.3%)	(1.2%)	(2.2%)
	Total	45	42	41	43	81	90
Requests	future/imperative	16*	4*	1	0	11	10
		(34.0%)	(5.7%)	(2.2%)	(0.0%)	(12.0%)	(10.6%)
	present indic.	27	32	22	4	50	35
		(57.4%)	(45.7%)	(47.8%)	(17.4%)	(54.3%)	(37.2%)
	imperfect/conditional	4	30	20	17	29	42
		(8.5%)	(42.9%)	(43.5%)	(73.9%)	(31.5%)	(44.7%)
	subjunctive	0	3	3	1	1	6
		(0.0%)	(4.3%)	(6.5%)	(4.3%)	(1.1%)	(6.4%)
	negative expressions	0	1	0	1	1	1
		(0.0%)	(1.4%)	(0.0%)	(4.3%)	(1.1%)	(1.1%)
	Total	47	70	46	23	92	94

We observe robust effects of Distance, Power, and Cost, but only for requests. High-level distance requests were more frequently phrased using an imperfect or conditional verb than low-level distance requests, while low distance requests were phrased with a future or imperative more often (5.75% against 34%), and this difference is statistically significant, *chi-square* = 28.069 (4), $p < .001$. Low Power and low Cost requests tended to be phrased using the present tense, but this tendency just approaches statistical significance (Power: *chi-square* = 9.043 (4), $p = .60$; Cost: *chi-square* = 8.626 (4), $p = 0.71$).

Table 3 Form of address

		Distance		Power		Cost	
		Low	High	Low	High	Low	High
Offers	tú	38	19	17	20	35	59
		(90.5%)	(45.2%)	(44.7%)	(48.8%)	(44.9%)	(69.4%)
	usted	4	23	21	21	43	26
		(9.5%)	(54.8%)	(55.3%)	(51.2%)	(55.1%)	(30.6%)
	Total	42	42	38	41	78	85

Requests	tú	44	29	18	9	40	60
		(93.6%)	(42.6%)	(40.0%)	(39.1%)	(43.5%)	(65.9%)
	usted	3	39	27	14	52	31
		(6.4%)	(57.4%)	(60.0%)	(60.9%)	(56.5%)	(34.1%)
Total		47	68	45	23	92	91

Both for offers and requests, Distance and Cost show statistically significant differences, while Power does not. Distance is statistically significant for offers (*chi-square* (1) = 19.704, $p < .001$) and requests (*chi-square* (1) = 31.143, $p < .001$). With high distance offers, participants used the deferent form of address *usted* 54.8% against just 4% when the distance is low.

With Cost, we observe a tendency to use *tú* more often than *usted* with high cost offers (*chi-square* (1) = 10.034, $p = .001$) and high cost requests (*chi-square* (1) = 9.308, $p = .002$). The effects of Cost are contrary to our expectations.

5.2 Distribution of the different interrogative intonational patterns

A total of 332 responses, 86% of the total, contained an interrogative sentence. Of those, 23 cases were discarded because of pitch track errors. The corpus of interrogatives is thus formed by 309 valid cases. There was no statistically significant differences in the distribution of the interrogative patterns in the free response and the question only task both for offers and requests, *chi-square* (3) = 1.362, $p = .715$. For this reason, the results were pooled in all subsequent analyses.

An overview of the different interrogative intonational patterns found in the corpus will be presented next, followed by an analysis of their frequency of use in each experimental situation.

There were two intonational patterns attested in the data. Table 4 presents for each of them the ToBI label and the frequency of occurrence in the corpus.

Table 4 Distribution of the different interrogative patterns with offers and requests

Contour	ToBI label	Frequency Offers	Requests	Total
Low rise	L* H%	94 (61%)	114 (74%)	208 (67.8%)

High rise	L+H* H%	56 (36%)	38 (25%)	94 (30%)
-----------	---------	----------	----------	----------

Table 4 shows a clear prevalence of low rises (nearly 68%), but also a very high occurrence of high rises (30%), which was not expected from previous descriptions of the intonation of Mexican Spanish in the literature.

Figure 3 illustrates the low rise nuclear pattern, that is, a low accent L* aligned with the syllable *li-* (*limas*) followed by a high H- edge tone, whereas Figure 4 exemplifies the high rise nuclear pitch accent, a rising L+H* on the accented syllable *-ta-* (*botana*) and a rising boundary tone. The basic difference between these two forms lies in the pitch valley at the minimum of the speaker's range, which is located on the accented syllable in the L* H% pattern (Figure 3, showing H- instead of H%) but on the pre-accentual syllable in the L+H* H% pattern (Figure 4).

Figure 3 Waveform and fundamental frequency contour of the request *Ay, ¿te molesto si me pasas las limas, por favor?* 'Do I bother you if you pass me the limes, please?'. The intonation pattern is L* H-.

Figure 4 Waveform and fundamental frequency contour of the offer *¿Le paso la botana?* ‘Shall I pass you the *botana* (snack)?’.

The high rise occurs more frequently with offers (56 occurrences, 36%) than with requests (38 occurrences, 25 %) whereas the low rise is more frequent with requests (114 occurrences, 74%) than with offers (94 occurrences 61%), and these differences are statistically significant, *chi-square* (1) = 5.357, $p = .025$.

The results also showed inter-speaker differences, which were statistically significant both for offers, *chi-square* (33) = 96.793, $p = .000$, and for requests, *chi-square* (33) = 72.868, $p = .000$. Participants 1 and 2 did not use the high rise at all, and Participants 4, 5, and 6 had a strong preference for the low rise in all cases. The other seven participants alternated between the low and the high rise.

5.3 *Effects of Social Distance, Power and Cost on the intonational pattern used.*

We have analysed the results of the seven participants who used both interrogative patterns.

Table 5 Distribution of the two main interrogative patterns with offers and requests according to Distance, Power, and Cost.

Distance		Power		Cost	
familiar	stranger	colleague	boss	low	high

Offer	Low rise	9 (60%)	12 (60%)	12 (57%)	12 (60%)	29* (73%)	16 (44%)
	High rise	6 (40%)	8 (40%)	9 (43%)	8 (40%)	11 (23%)	20* (65%)
Request	Low rise	11 (69%)	16 (59%)	12 (57%)	6 (55%)	25 (64%)	20 (56%)
	High rise	5 (31%)	11 (41%)	9 (43%)	5 (46%)	14 (36%)	16 (44%)

Note: * $p < .05$

We observe that the high rise is used about one third of the time, both with offers and with requests across the two levels of Distance and Power. Only the factor Cost has any statistically significant effects and these are with offers: low cost offers tend to be realised with a low rise (29 occurrences, 73%) and high cost offers with a high rise (20 occurrences, 65%), *chi-square* (1) = 6.175, $p = .019$).

6. Results: the learners' corpus

The L2 corpus is formed by 28 speech acts, 14 invitations and 14 requests produced by 14 learners of beginner-level Spanish. The data were transcribed orthographically and intonation was analysed using ToBI and annotated on Praat textgrids following the method in Figure 1 (see orthographic and tonal transcriptions for the target sentences in Appendix 2).

The stimuli elicited a range of responses. Especially interesting were the responses that relied on the linguistic formulae presented in the instructional materials. The invitation and request in (2) were produced by the same female speaker and exemplify the range of answers obtained with this task. The intonation patterns are displayed in the pitch traces below (Figures 5 and 6).

(2) a. Invitation

[[Ahora Elena]ip [¿te apetece ir]ip [a tomar un café]ip [pasado mañana?]ip]IP
 Now Elena you-2p.inf want go to have a coffee past tomorrow
 'Now Elena, do you fancy going for a coffee the day after tomorrow?'

b. Request:

[[¿Quiere llamar]ip [más tarde]ip [y dígame si puedes hacerlo?]ip]IP
 Want-2p.form call more late and tell-imp-2p.form if can-2p.inf do-it
 'Do you want to call later and let me know if you can do it?'

Figure 4 Waveform and fundamental frequency contour of the request *Ahora, Elena, ¿te apetece ir a tomar un café, pasado mañana?* 'Now Elena, do you fancy going for a coffee the day after tomorrow?'.

Figure 5 Waveform and fundamental frequency contour of the request *¿Quiere llamar más tarde y dígame si puede hacerlo?* 'Do you want to call later and let me know if you can do it?'.

The invitation in (2.a) is linguistically correct and its intonation is very similar to that of L1 Spanish, while the request contains an incorrect mixture of *usted* and *tú* and the intonation reveals a strong influence from English in the use of H* L%.

6.1 Pragmalinguistic analysis

Overall, 12 of the 14 invitations (86%) were realised with an interrogative sentence. Of the remaining two (14%) , one was realised with an indirect question (*‘Qui(si)era s(a)ber si [...]’*, ‘I’d like to know if [...]’), which was possibly a transfer from English, and the other with a declarative sentence, also in an indirect way (*‘Si te apetece, no me importa volver al restaurante’*, ‘If you fancy it, I don’t mind going back to the restaurant...’). With requests, very few interrogatives were used (4 occurrences, 29 %), and learners preferred declaratives (5, 36 %), imperatives (3, 21 %), and exhortatives (2, 14 %).

The range of lexical and morpho-syntactic structures used with both invitations and requests is very limited in comparison to the range of native speakers. Invitations were realised with *te/le apetece* (‘do you fancy’), *te/le gustaría* (‘would you like’), and *quiere/s* (‘do you want’). These are the linguistic formulae taught in the instructional materials that the students were expected to use. Requests were realised with a wider range of expressions, including the imperative *llámame* (‘call me’), the interrogative *me puedes llamar* (‘can you call me’) and the declarative *puedes llamar* (‘can you call’).

6.2 Intonational analysis

We will present first an overall analysis which includes all the tonal accents produced in the inviting and requesting questions. Where questions were phrased into different intonational units, all interrogative accents have been included in the overall count (see all the data produced in Appendix 2).

There were five main interrogative patterns in the L2 data, two types of rise and three types of fall. The rises were the low rise (L* H%) and the high rise (L+H* H%). The falls were the high fall (H*+L), the simple fall (H* L%), and the fall rise (H*+L H%).

Table 6 Distribution of the interrogative patterns with invitations and requests in the L2 corpus. Power, Distance, and Cost are low.

Tonal accents	Invitations		Requests	
	N	Percentage	N	Percentage
Low rise	11	(46 %)	0	(0 %)
High rise	6	(25 %)	2	(29 %)

Simple fall	4	(17 %)	2	(29 %)
High fall	2	(8 %)	0	(0 %)
Fall rise	1	(4 %)	3	(43 %)
Total	24	(100 %)	7	(100 %)

The most frequent patterns in the corpus were the low rise (only with invitations), the high rise (similarly distributed with invitations and requests), the simple fall (mostly with requests), and finally, the fall rise (only used with requests). The most frequently used tonal accent with invitations is the low rise and with requests is the fall rise. The high fall is fairly rare and only occurs with invitations

7 Discussion and conclusion

This study has explored the acquisition of politeness and intonation, examining the intonational cues of politeness in offering and requesting questions used by native speakers and by adult learners of Spanish. Very little is known about the development of politeness, and even less is known about the development of both politeness and intonation. Previous work on formulaic language (especially in first language acquisition) has shown some evidence that lexical formulae are learned together with their prosodic form. This pairing of lexical form and prosodic form may be especially relevant for adult beginner-level learners, and frequently instructional materials present complex speech acts such as offers and requests as linguistic formulae. However, there is still scant evidence about how learners learn the intonational and the pragmalinguistic strategies associated with politeness.

In this study we set out to investigate the use of politeness strategies and the choice of intonational pattern in the first and the second language, focusing specifically on the intonation of yes-no interrogative sentences. Although there is some work on linguistic politeness in the first language, very few studies to date have used empirical methods, and there are still many unanswered questions in the field. For instance, little is known about the range of pragmalinguistic and intonational strategies used with offers and invitations, two speech acts which have been neglected in the literature so far. Similarly, the use and distribution of intonational patterns remains an open question.

In relation to the choice of pragmalinguistic and intonational strategies in the first language, our hypothesis was that, because they are more face-threatening, requests would elicit a greater use of indirect politeness strategies than offers. We found a greater use of indirect verbal forms (negative phrasing, subjunctive, conditional or imperfect) with requests than with offers, which is in line with

previous studies (e.g. Félix-Brasdefer 2005 on Mexican Spanish requests). However, our data also showed a tendency to use a similar number of interrogative sentences with offers and requests, which seems to diverge from the tendency in other Romance languages to use more declaratives and imperatives with offers (e.g. Astruc et al. in press, on Catalan). The choice of pronoun (*tú* or *usted*) was also investigated as it contributes to the tenor of the speech act (*usted* conveys deference or respect, *tú* conveys familiarity). We found a preference for *tú* overall, but a clear preference for *usted* with requests.

In relation to the choice of intonational pattern, we found two patterns in our data, the low rise (L* H%) and the high rise (L+H* H%). Our results show statistically significant differences in the distribution of these patterns: the high rise occurs more frequently with offers and the low rise with requests. The high rise was very abundant in our corpus, with about 30% of occurrences (but less frequent than in Avila's data).

With regard to the three sociolinguistic factors, we expected to find that all three factors, including cost, would have an effect on the choice of intonational pattern. Although previous work on politeness (with the exception of Orozco 2008, 2010) has tended to ignore cost, it was decided to include cost in the experimental design because of previous claims (Payrató 2002, Prieto and Rigau 2007) that cost has an effect on the choice of intonational pattern. We have found indeed that cost is the only factor with statistically significant effects on the choice of intonational pattern: low cost offers tend to be realised with a low rise and high cost offers with a high rise. Distance appears to have strong effects on the choice of morpho-syntactic politeness strategies but not on the choice of intonational pattern. Cost seems to have strong effects on the choice of intonational pattern, but only very weak effects on the use of morpho-syntactic politeness strategies. We can thus hypothesise the existence of a trade-off between the use of morpho-syntactic and intonational strategies. This trade-off has been observed, for instance, in the case of Estonian particles (particle *kas*, Asu 2004), and questions headed by *que* in Catalan (Prieto and Rigau 2007).

The extremely weak effects of cost on the use of morpho-syntactic strategies were expected from the literature, but the lack of effects of power was a surprise. We hypothesise that this has happened because of changing conditions in the workplace. Some participants confirmed this impression: they commented in their interviews on the new tendency in the private sector to treat everybody as an equal ("no rank: we are a team"). In the public sector, differences in rank are felt to be more marked and people address each other using titles such as *licenciado* or *ingeniero* ('graduate' and 'engineer' respectively).

Our second area of enquiry concerned the extent to which beginners' politeness strategies resemble those of native speakers. Learners seem to successfully apply their sociopragmatic knowledge and

formulate pragmatically appropriate speech acts. We also found, however, that their range of lexical and morpho-syntactic structures was very limited and followed the input in the teaching materials very closely. Their intonation showed traces of transfer from English, with more frequent use of falling intonation patterns, which is a feature of English but not of any variety of Spanish (in the context of yes-no questions at least).

The distribution of tonal accents is very different from the L1 corpus; the main differences between Spanish and English lie in the distribution and frequency of use of each tonal accent, and also in the phonetic realisation of some pitch accents. High rises occur much more frequently in the L2 corpus. Unlike in the L1 corpus, there is a relatively high number of falls ($H^* L\%$ and $H^*+L L\%$, and also $H^*+L H\%$), which are likely a transfer from English (see Grabe et al. 2005). We also observed phonetic differences in the realisation of the tonal accents. In general, tonal accents in English are known to have a wider pitch range than in Spanish. This difference is especially salient in the case of the low rise in Spanish, which receives a much steeper final rise than in English. We also observed differences in the pragmalinguistic and intonational realisation of requests and invitations (invitations were more often on target and with less variability), which may correspond to the difference in the number of examples in the instructional materials (21 examples of invitations and two call back requests). These results are in line with current theories of language acquisition that propose that children learn words by storing them in the lexicon with all rich phonetic and phonological detail (e.g. Pierrehumbert 2003). The same principle is proposed by current theories of second language, although these lay emphasis on learning sequences of words rather than individual words (lexical chunks: see overview in Adinolfi 2011).

One of the limitations of the study is that a corpus of beginner-level Spanish learners can only partially answer this question as the range of politeness strategies available to beginners is necessarily constrained by the grammar and vocabulary available to them. Further studies will need to collect data from learners of different proficiency levels, ideally longitudinally, to gain a better understanding of how learners acquire the pragmalinguistic politeness strategies and the intonational patterns of Spanish. Further studies should also aim at collecting fully comparable data in the first and second language.

References

- Adinolfi, Lina. 2011. The teaching and learning of lexical chunks in an online language classroom. Doctoral dissertation. The University of Southampton.
- Allen, George. D. & Sarah. Hawkins (1980). Phonological rhythm: definition and development. In Grace. Yeni-Komishan, James S. Kavanagh, & Charles A. Ferguson (eds.), *Child phonology*: Vol. 1. *Production* (pp. 227-256). New York, NY: Academic Press.

Astruc, Lluïsa & Lina Adinolfi 2015. An exploration of the phonology of lexical chunks in L2 speech. Festschrift for Jim Coleman, *Innovation in Language Learning and Teaching*, 9(1):10-21.

Asu, Eva-Liina. 2004. The phonetics and phonology of Estonian intonation. The University of Cambridge dissertation.

Astruc, Lluïsa; Payne, Elinor, Post, Brechtje; Vanrell, Maria del Mar, & Pilar Prieto. 2013. Tonal Targets in Early Child English, Spanish, and Catalan. *Language and Speech* 56(2), 229-253.

Astruc, Lluïsa, Vanrell, Maria del Mar & Pilar Prieto. 2011. The intonation of offers in Catalan. Paper presented at Phonetics and Phonology in Iberia, University of Tarragona, June 21-22.

Astruc, Lluïsa, Vanrell, Maria del Mar & Pilar Prieto. In press. Cost of the action and social distance affect the selection of question intonation in Catalan. In Meghan Armstrong, Nicholas C. Henriksen & Maria del Mar Vanrell (eds) *Interdisciplinary approaches to intonational grammar in Ibero-Romance intonation*. Amsterdam: John Benjamins.

Ávila, Sylvia. 2003. La entonación del enunciado interrogativo en el español de la ciudad de México. In Esther Herrera & Pedro Martín Butragueño (eds), *La tonía: dimensiones fonéticas y fonológicas*, 331-355. México: El Colegio de México.

Bardovi-Harlig, Katheleen, 1999. Exploring the interlanguage of interlanguage pragmatics: A research agenda for acquisitional pragmatics. *Language Learning* 49(4). 677-713.

Barros García, María Jesús. 2010. Actos de habla y cortesía valorizadora: las invitaciones. *Tonos. Revista Electrónica de Estudios filológicos*, 19. <http://www.um.es/tonosdigital/znum19/secciones/estudios-4bis.htm> (accessed 12 July 2013).

Beckman, Mary E. & Janet B. Pierrehumbert. 1986. *Intonational structure in English and Japanese*. *Phonology Yearbook* 3. 255-310.

Blum-Kulka, Shoshana & Juliane House. 1989. Cross-cultural and situational variation in requesting behavior. In Shoshana Blum-Kulka, Juliane House & Gabriele Kasper (eds.), *Cross-cultural pragmatics: requests and apologies*, 123-153. Norwood: Ablex

Blum-Kulka, Shoshana. 1992. The metapragmatics of politeness in Israeli society. In Richard James Watts, Sachiko Ide & Konrad Ehlich (eds.), *Politeness in language: Studies in its history, theory and practice*, 255-280. Berlin: Mouton de Gruyter.

Brown, Penelope & Stephen Levinson. 1987. *Politeness*. Cambridge: Cambridge University Press.

Chodorowska-Pilch, Marianna. 2002. Las ofertas y la cortesía en español peninsular. In María E. Placencia & Diana (eds), *Actos de habla y cortesía en español*, 21-36. Munich: Lincom Europa.

Chodorowska-Pilch, Marianna. 2003. Las ofertas corteses en el español peninsular. In Bravo, Diana (ed.). *Actas del Primer Coloquio EDICE. La perspectiva no etnocentrista de la cortesía: identidad sociocultural de las comunidades hispanohablantes*, 306-314. Universidad de Estocolmo: Libro-e.

de-la-Mota, Carme, Martín Butragueño, Pedro & Pilar Prieto. 2011. Mexican Spanish intonation. In Pilar Prieto & Paolo Roseano (eds), *Transcription of intonation of the Spanish Language*, 319-350. Muenchen: Lincom Europa.

Félix-Brasdefer, J. César. 2005. Indirectness and politeness in Mexican Requests. In David Eddington (ed.), *Selected Proceedings of the 7th Hispanic Linguistic Symposium*, 66-78. Somerville, MA: Cascadilla Press. <http://www.lingref.com/cpp/hls/7/> (accessed 12 July 2013).

Félix-Brasdefer, J. César. 2006. Linguistic politeness in Mexico: Refusal strategies among male speakers of Mexican Spanish. *Journal of Pragmatics* 38(12). 2158-2187.

García, Carmen. 1993. Making a request and responding to it: a case study of Peruvian Spanish speakers. *Journal of Pragmatics* 19. 127-152.

Grabe, Esther, Kochansky, Greg & John Coleman. (2005). The Intonation of native accent varieties in the British Isles: potential for miscommunication? In Katarzyna Dziubalska-Kolaczyk & Joanna Przedkacka (eds). *English pronunciation models: a changing scene*. Linguistics Insights: Studies in Language and Communication. Bern: Peter Lang. Pp. 311-338.

Gussenhoven, Carlos. 2005. *The phonology of tone and intonation*. Cambridge: CUP.

Haverkate, Henk. 1994. La cortesía verbal. Estudio pragmalingüístico. Madrid: Gredos.

Ide, Sachiko. 1993. The search for integrated universals of linguistic politeness. *Multilingua* 12 (1). 7-11.

Koike, Dale April. 1994. Negation in Spanish and English suggestions and requests: Mitigating effects? *Journal of Pragmatics* 21.513-526.

Koike, Dale April. 1986. Negation in Spanish and English suggestions and requests: mitigation effects? *Journal of Pragmatics* 21. 513-526. 481-501.

Koike, Dale April. 1989. Pragmatic competence and adult L2 acquisition: speech acts and interlanguage. *Modern Language Journal* 73 (3), 279-289.

Koike, Dale April, Pearson, Lynn. 2005. The effect of instruction and feedback in the development of pragmatic competence. *System* 33. 481-501.

Ladd, Robert D. 1996. *Intonational phonology*. Cambridge: CUP.

Martín Butragueño, Pedro. 2011. Estratificación sociolingüística de la entonación circunfleja mexicana. In Pedro Martín Butragueño (ed.), *Realismo en el análisis de corpus orales: primer Coloquio de Cambio y Variación Lingüística*, 93-121. México, D.F.: El Colegio de México, Centro de Estudios Lingüísticos y Literarios.

Matsumoto, Yoshiko. 1989. Politeness and conversation universals - observations from Japanese. *Multilingua* 8(2/3). 207-221.

Orozco, Leonor. 2008. Peticiones corteses y factores prosódicos. In Pedro Martín Butragueño and Esther Herrera (eds), *Fonología instrumental: patrones fónicos y variación*, 335-356. México DF: El Colegio de México.

Orozco, Leonor. 2010. Estudio sociolingüístico de la cortesía en tratamientos y peticiones. Datos de Guadalajara. El Colegio de México dissertation.

Payne, Elinor, Post, Brechtje, Astruc, Lluïsa, Prieto, Pilar, & Maria del Mar Vanrell. 2012. Measuring child rhythm. *Language and Speech* 55(2), 202-228.

Payrató, Lluís. 2002. L'enunciació i la modalitat oracional. In Joan Solà, Maria-Rosa Lloret, Joan Mascaró & Manel Pérez Saldanya (eds.), *Gramàtica del català contemporani*, 1151-1222. Barcelona: Empúries.

Pierrehumbert, Janet B. 2003. Phonetic diversity, statistical learning and acquisition of phonology. *Language and Speech*, 46, 115-154.

Prieto, Pilar & Gemma Rigau 2007. The syntax-prosody interface: Catalan interrogative sentences headed by *que*. *Journal of Portuguese Linguistics* 6-2. 29-59.

Ruiz de Zarobe, Leyre. 2001. Estrategias de invitación en español e imagen social de los hablantes: Un estudio empírico. *Pragmalingüística* 8(9). 261-278.

Ruzickova, Elena. 2007. Strong and mild requestive hints and positive-face redress in Cuban Spanish. *Journal of Pragmatics* 39. 1170-1202.

Silverman, Kim, Beckman, Mary. E., Pitrelli, John., Osterndorf, Mari, Wightman, Colin, Price, Patti, Pierrehumbert, Janet., & Julia Hirschberg. 1992. ToBI: a standard for labelling English prosody. In Proceedings of ICSLP92, volume 2, 867-870.

Snow, David. 1994. Phrase-final syllable lengthening and intonation in early child speech. *Journal of Speech and Hearing Research*, 37, 831-840.

Snow, David. 2006. Regression and reorganization of intonation between 6 and 23 months. *Child Development*, 77, 281-296.

Ueyama, Motoko & Sun-Ah Jun. 1998. Focus realization in Japanese English and Korean English intonation. In Noriko Akatsuka (ed.) *Japanese and Korean Linguistics*, vol. 7: 629-645, CSLI. Cambridge University Press.

Watts, Richard 1992. Linguistic politeness and politeness verbal behavior: Reconsidering claims for universality. In Richard Watts, Sachiko Ide & Konrad Ehlich (eds.), *Politeness in language*, 43-69. Berlin: Mouton de Gruyter.

Watts, Richard. 2003. *Politeness*. Cambridge: Cambridge University Press.

Design of the Discourse Completion Test (DCT) and one example.

Design of the DCT

Offers	Requests
1 [-D, -C] sibling & low cost	9 [-D, -C] sibling & low cost
2 [+D, -C] foreigner & low cost	10 [+D, -C] foreigner & low cost
3 [+P, -C] your boss & low cost	11 [+P, -C] your boss & low cost
4 [- P, -C] your colleague & low cost	12 [- P, -C] your colleague & low cost
5 [-D, +C] sibling & high cost	13 [-D, +C] sibling & high cost
6 [+D, +C] foreigner & high cost	14 [+D, +C] foreigner & high cost
7 [+P, +C] your boss & high cost	15 [+P, +C] your boss & high cost
8 [- P, +C] your colleague & high cost	16 [- P, +C] your colleague & high cost

Situation 1 Offer [-D, -C] sibling & low cost

Imagínate que es el cumpleaños de tu sobrino y que ayudas a tu hermano/a a preparar una cena familiar. Empezáis a preparar la comida sin prisa, tenéis todavía mucho tiempo. Tu hermano/a prepara el postre, un pie de limón. Estáis en la cocina, tu hermano/a y tú, y te das cuenta de que tu hermano/a busca las limas. Tú las tienes al lado y no te importaría pasárselas si es que él las necesita.

¿Cómo se lo dirías?

Imagine that today is your nephew's birthday and that you are helping your brother/sister to prepare a family dinner. You are starting to prepare the food with plenty of time. Your brother/sister is preparing the dessert, a lemon pie. Your brother/sister and yourself are in the kitchen, and you realise that your brother/sister is looking for the limes. You have right by your side and you wouldn't mind passing them over if he needs them.

How would you say this?

APPENDIX 2

The table shows the all the invitations and requests produced by the 14 learners. The orthographic transcription (column 4) shows their actual pronunciation.

Participant	Age	Gender	Invitation (I) and request (R)	Nuclear configuration
1	20-30	male	I: Si te apetece, no me importa volver al restaurante otra vez el fin de semana... porque yo sé que te da envidia. R: Llámame y dimi lo que piensas.	Declarative Declarative
2	30-40	female	I: [¿Te apetece er ir a...]ip al cine al cine el fin de semana?]ip]IP R: Llámame.	H+L* L- L* H% Declarative
3	20-30	female	I: (Quiero ir al cine el sábado.) [[¿Te gustaría...]ip [ir...]ip [conmigo?]ip]ip R: Me llamas más tarde a confirmar.	L* H- L* H- L* H% Declarative
4	30-40	female	I: [[¿Ti apeceto ir el espectáculo jardín el fin de semana,]ip [sábado u domingo?]ip]IP R: [[¿Puedes lamarme?]ip]IP (¡Saludos! Carol.)	L* H- L* H% (= Spanish, steep rise in both) H*+L L%
5	60-70	female	I: [[Ahora Elena]ip, [¿te apetece i]ip [a tomar un café]ip [pasado mañana?]ip]IP R: [[¿Quiere llamar más tarde]ip y [dígame si puedes hacerlo?]ip]IP	L* H- L* H- L* H-L* H% (= Spanish, steep rise in all cases). H* H* H* H* L% (= English)
6	60-70	male	I: [[¿Te gustaría ir ver una obra en la fine de semana?]ip [¿Quieres]ip[ir de la Teatro Regal a la sábado a las nueve de la noche?]ip]IP R: [[¡Por favor lamar!]ip]IP (Hasta luego).	L* H- L* H- L* H% Exhortative (H*+L H%).

7	60-70	female	<p>I: [[¿Le gustaría]ip [ir]ip [a tomar por merienda]ip [el sábado prójimo?]ip]IP</p> <p>R: [[¿Me puedes llamar si]ip [te apetece ir?]ip]IP</p>	<p>L*H-}H*... H* H* L% (= English)</p> <p>L* H- H* L%</p>
8	40-50	male	<p>I: [[¿Te apetece]ip [ir al cine]ip [el sábado?]ip]IP</p> <p>R: [[Estoy trabajando pero mi teléfono con una respuesta]ip]IP</p>	<p>H* L- ¡H* L- L* H%</p> <p>Declarative (= Spanish, wide tonal range).</p>
9	20-30	female	<p>I: María, ¿quieres ir al cine [el sábado a las seis y media?]ip]IP</p> <p>R: [[¡Llamáme pronto!]ip [¡Adiós!]ip]IP</p>	<p>[...] L* H% (= Spanish, steep rise).</p> <p>Exhortative (H* L%-H* L%).</p>
10	60-70	male	<p>I: (Yo tengo dos boletos para el fuego del fútbol el sábado.) [[¿Quieres venir conmigo?]ip]IP</p> <p>R: [[¿Puedes llamarme después de... escucha(r) este mensaje]ip [y así ponernos de acuerdo]ip [con los detalles?]ip]IP (¡Adiós, hasta pronto!)</p>	<p>H*+L H% (= English, steep prenuclear rise, small final rise).</p> <p>H*+L H- H*+L H- L* H% (= English)</p>
11	20-30	female	<p>I: [[¿Te apetece ir al <u>c</u>ine para el fin de semana?]ip]IP</p> <p>R: Llamas más tarde con su respuesta. ¡Hasta pronto!</p>	<p>H*+L ¡H*+L... ¡H*+L... L% (= English, steep prenuclear rises and small final rise).</p> <p>Imperative (stylised friendly intonation “¡hasta pronto!”).</p>
12	20-35	female	<p>I: [[¿Quieres ir a]ip [una película romántica el sábado a las siete de la tarde?]ip]IP</p> <p>R: Avísame qué opinas, ¡vale! ¡Ah! Yo invito. (¡Llámame, hasta luego adiós!)</p>	<p>H* L- H* H* !H* L% (= English, wide tonal range).</p> <p>Imperative (but with friendly intonation).</p>
13	18-25	female	<p>I: [[¿Te apetece ir a un concierto de música]ip [en el fin de semana?]ip]IP</p> <p>R: Llámame y dime. (¡Adiós!).</p>	<p>L* H-L* H% (wide tonal range in prenuclear accents, = English).</p> <p>Imperative (stylised friendly intonation on “adiós”).</p>

14	30-40	male	<p>I: Quieiria seiber si te gustearia ir a la cine el fin de semana on metro.</p> <p>R: Por favor, llámame e hazme saber si se puede hacer. (¡Gracias, hasta pronto!)</p>	<p>Indirect question.</p> <p>Declarative (stylized friendly intonation on “Gracias,...”).</p>
----	-------	------	---	---