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DESCRIPTIVE ADEQUACY VS. PSYCHOLOGICAL REALITY: THE CASE OF TWO RESTRICTIONS ON SPANISH STRESS PLACEMENT*

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This paper examines two supposed restrictions on Spanish stress placement: 1) the heavy penult condition, which prohibits stress leftward of the penultimate syllable if the penultimate syllable is heavy, and 2) the three-syllable window condition, which prohibits stress other than on one of the final three syllables of a word. While these two conditions are clearly descriptively adequate generalizations about the lexicon, this study sets out to determine whether they are psychologically real restrictions, serving as constraints that prohibit words that violate them. The results of a perception study indicate that neither of these conditions is a psychologically real restriction on Spanish stress placement. While the present study adds another type of evidence to recent claims that Spanish is not quantity sensitive, it goes a step further with respect to the heavy penult condition by claiming that words that violate this condition are not disallowed by Spanish at all. With respect to the three-syllable window condition, this study is the first to claim that this exceptionless generalization about Spanish stress is nothing more than a generalization over words in the lexicon, and is not a true restriction on Spanish stress placement.

1. Introduction

In the quest to explain the Spanish stress system, at least two major restrictions on Spanish stress placement have been taken for granted by many investigators: 1) the heavy penult condition, and 2) the three-syllable window condition. The heavy penult condition states that Spanish does not allow words with stress on the antepenultimate syllable if the penultimate syllable is heavy (i.e., * 'CVC.CVC.CV). While the heavy penult condition is often tied to the role of quantity sensitivity in Spanish stress assignment, which has been a topic of debate over the last several years (e.g., Alvord 2003; Bárkányi 2002; Face 2000, 2004; Harris 1983; Lipski 1997; Roca 1990), the heavy penult condition itself has almost always been considered a productive restriction on Spanish stress placement, whether explained by quantity sensitivity or in another way.[1] The evidence in

* We would like to thank an anonymous reviewer as well as the audience at the 7th Hispanic Linguistics Symposium (Albuquerque, 16-18 October 2003) for useful comments and suggestions on an earlier version of this paper.

[1] We want to be clear in our distinction here. The term *quantity sensitivity* is often used in Spanish to refer to the lack of stress leftward of a heavy penultimate syllable. However, quantity sensitivity is merely an

support of the heavy penult condition is that, with the exception of a few toponyms and borrowings, Spanish has no words in violation of this condition. The three-syllable window condition has also been taken as an indisputable restriction on Spanish stress placement. The evidence for the three-syllable window condition is that there exist no Spanish words where stress falls outside of the last three syllables (e.g., * 'CV.CV.CV.CV). Apparent exceptions to this in the orthographical system are the result of one or more enclitic pronouns being attached to the lexical word in orthography (e.g., díga*melo* 'tell *me it*'). But no lexical word violates the three-syllable window condition.

While these apparent restrictions on Spanish stress placement are descriptively true, not all descriptively true statements about a language are representative of the psychological reality of the speakers of that language. Kiparsky (1982) puts it quite clearly in discussing Hale's (1973) findings for passive formation in Maori (further discussed in Hualde 2000), that the simplest analysis of the data do not represent the behavior of speakers in cases of borrowings, change in progress, etc. The relevant data are shown in (1).

(1)

verb	*passive*	*verb*	*passive*
awhi	awhitia 'to embrace'	mau	mauria 'to carry'
hopu	hopukia 'to catch'	wero	werohia 'to stab'
aru	arumia 'to follow'	patu	patua 'to strike, kill'
tohu	tohuŋia 'to point out'	kite	kitea 'to see, find'

Kiparsky (1982:68) states that:

> If we wanted an 'A' on our exam, we would, of course, say that the underlying forms are /awhit/, /hopuk/, /maur/, etc., and that the suffix is /ia/....If someone were to say that the underlying forms are /awhi/, /hopu/, /mau/, etc., he'd flunk. What Hale shows is that Maori children learning their language flunk this 'exam'....There is strong evidence that the 'clever' analysis is not psychologically correct. The psychologically correct grammar of Maori has /tia/ as the basic ending and /kia/, /ria/ etc., as a set of allomorphs used in verbs that have to be lexically marked as taking them.

The Maori data are just one example of cases where descriptively true statements do not correspond to psychological realities. This has been discussed by many linguists, including a growing number of studies on Spanish (Morin 2002 for coronal and velar softening, Aske 1990 and Face 2003 for stress rules, Bárkányi 2002 and Alvord 2003 for quantity sensitivity, Bybee & Pardo 1981 for diphthongization, Pensado 1997 for nasal and lateral depalatalization, Eddington 2001 for epenthesis, and others). These cases highlight the necessity of pursuing

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explanation for why stress does not exist leftward of a heavy penultimate syllable. That is to say, quantity sensitivity may (attempt to) explain the heavy penult condition, but it is not itself the heavy penult condition. We take the heavy penult condition as the apparent restriction on stress leftward of a heavy penultimate syllable, regardless of what explanation (quantity sensitivity or otherwise) may be given for its existence.

not only descriptive adequacy in formulating phonological statements, but in assuring that these statements reflect psychological reality. As Hualde (2000:175) puts it,

> Our task, thus, is to discover which generalizations have reality for the speakers of a language, as reflected by their linguistic behavior, without being misled by preconceived notions of simplicity.

In the current paper, then, the task is to determine whether the heavy penult condition and the three-syllable window condition are psychologically real in addition to being descriptively adequate, or whether they are descriptively adequate but lack reality for speakers of Spanish. In order for these two conditions to be considered psychologically real, they must not only describe the data accurately, which they clearly do, but they must be shown to serve as constraints prohibiting words that violate them.

The current paper presents the results of a perception experiment testing the psychological reality of the heavy penult condition and the three-syllable window condition in Spanish. Previous research on the heavy penult condition and the three-syllable window condition is discussed in Section 2. Section 3 presents experimental methodology. The results are presented and discussed in Section 4. And finally, Section 5 contains the conclusions drawn from the present study.

2. Previous research

2.1. Heavy penult condition

Attempts to explain the synchronic processes that native Spanish speakers use to assign stress to words have sometimes used diachronic evidence gleaned from the Spanish language's development from Latin (e.g., Saltarelli 1997). The major stress-related phenomenon that has been taken from Latin and applied to Spanish is quantity sensitivity, which its proponents use to explain the lack of words violating the heavy penult condition.

Quantity sensitivity is a term used to describe the stress patterns in languages whose syllable structure, particularly the phonological "weight" of the syllable, directly affects how stress is assigned. Stress assignment in Spanish has traditionally been traced to the classical accentuation system of Latin, which has been one of the basic examples of quantity sensitive languages. Latin accentuation has been accepted to be entirely predictable. The rule for Latin stress, in words with at least three syllables, calls for stress on the penultimate syllable if it is heavy, and on the antepenultimate syllable if the penultimate syllable is light. A syllable's weight depends on the phonetic makeup of its rime. Latin syllables are heavy if they contain either a long vowel or a coda consonant; the rime of a light syllable contains only a short vowel. The Latin stress rule indicates that a heavy penultimate syllable will "attract" stress, preventing it from falling on the antepenultimate syllable. Quantity sensitivity is just that: stress is sensitive to syllable weight, and therefore a heavy syllable will attract stress.

The many attempts in generative phonology to formalize stress placement in Spanish non-verbs have disagreed on whether quantity sensitivity actually plays a role in the synchronic process. In one of the most notable works on Spanish stress, Harris (1983) uses quantity sensitivity as one of the conditions for his stress assignment algorithm, as he does in later work as well (Harris 1992). He notes that, as in Latin, no Spanish words with antepenultimate stress have a heavy penult (e.g., * 'CVC.CVC.CV), citing the unacceptability of nonce words such as **teléfosno* and **átasca*. Roca (1990), on the other hand, rejects Spanish quantity sensitivity, as did Larramendi (1729) more than two centuries earlier, and proposes an alternate analysis to explain the lack of words violating the heavy penult condition. He argues that the existence of loan words with heavy penultimate syllables and antepenultimate stress (e.g., *Wáshington*, *Mánchester*, *rémington* 'type of rifle') contradicts the presence of quantity sensitivity in Spanish. He argues that Spanish speakers who produce these loan words with the foreign stress pattern have no knowledge of the source language. Anecdotally, it has been noted, however, that native Spanish speakers with extensive contact with English can change the stress patterns of these loan words to fit a more Spanish-like pronunciation (e.g., *Washingtón*, *Manchestér*) (Núñez Cedeño, personal communication).

In a view somewhere in between those of Harris (1983, 1992) and Roca (1990, 1999), Lipski (1997) claims that it is possible that Spanish is losing its quantity sensitivity and that in the future it may become completely quantity insensitive. He points out the importance of one difference between Latin and Spanish: Spanish has no distinction between long and short vowels or between geminate and non-geminate consonants. In its evolution from Latin, Spanish lost the distinction of vowel and consonant length. The fact that Spanish does not distinguish between short and long vowels or consonants 'inherently weakens the system of quantity sensitivity' (Lipski 1997:577).

More recently a different approach in the attempt to find evidence for or against the existence of quantity sensitivity in Spanish has emerged. A variety of experimental studies have examined the role of quantity sensitivity in the assignment of Spanish stress. Face (2000, 2004a) performed perception experiments on Spanish stress placement. Both studies were performed using synthesized nonce words where the acoustic correlates to stress were neutralized. In the first study, Face (2000:8) found that 'syllable weight has a very real cognitive effect: A heavy syllable is far more likely to be perceived as stressed... than is a light syllable'. It was found later, however, that the nonce words used in this first study were not completely neutralized and in fact contained durational cues to stress. The duration of vowels, but not of syllables, was neutralized, and therefore the coda consonant of heavy syllables added duration in addition to phonological weight. After correcting this 'error of experimental design (Face 2004a) by neutralizing syllable durations as opposed to vowel durations, the

previous study was replicated with completely neutralized nonce words.[2] Results from this study were found to contradict the previous findings. Face (2004) concluded that Spanish is not quantity sensitive. Similar conclusions have been reached by researchers using different types of experimental data.

Bárkányi (2002) used a paper and pencil test with nonce words in which she asked informants to mark orthographically where they would stress each nonce word. The unmarked stress pattern (i.e., stress the last syllable if the word ends in a consonant or the penultimate syllable if the word ends in a vowel) emerged the most often in her data, as expected. However, a considerable number of words with heavy penultimate syllables were assigned antepenultimate stress, and this number was nearly as high as in cases with a light penultimate syllable. This led Bárkányi to conclude that quantity sensitivity is not an active process for native Spanish speakers and that stress is most likely assigned using analogy to known words in the lexicon, which in this case are borrowing such as *bádminton* 'badminton' and *rémington* 'type of rifle'.

In a similar study, Alvord (2003) presented Spanish-speaking subjects with a written list of nonce words with orthographic accents written in. Participants were asked to judge each word as either possible or impossible in Spanish. Nonce words that were presented with antepenultimate stress and heavy penults (e.g., támpunlo) were overwhelmingly accepted as possible Spanish words (94%). Alvord (2003) not only concluded that Spanish is not quantity sensitive, but also questioned whether the oft-cited restrictions on antepenultimate stress in words with a heavy penultimate syllable might not be productive restrictions at all, but rather the results of historical developments, as also argued in Roca (1990). While the quantity sensitivity explanation for the heavy penult condition has been a matter of debate, Alvord goes beyond rejecting quantity sensitivity as the reason for the heavy penult condition, as he questions whether the heavy penult condition is even a restriction on Spanish stress placement at all. The conclusion that there is no restriction on having stress on the antepenultimate syllable when the penultimate syllable is heavy is of significant interest, and merits further investigation using other experimental designs.

2.2. Three-syllable window condition

There is not much to report by way of research into the three-syllable window condition. The primary evidence cited for the existence of this condition in Spanish is the simple absence of words that have stress in any syllable other than the last three. The most interesting evidence that can be found is the pluralization of singular words with antepenultimate stress that also end in a consonant (Hualde 2000, Morales-Front 1999). Generally, when singular words in Spanish are pluralized, the same syllable is stressed in the plural as in the singular. Examples of this can be seen in (2a). However, in cases where the singular has

[2] José Ignacio Hualde pointed out that neither neutralizing vowel duration or syllable duration is truly representative of natural speech, as in heavy syllables the rime is longer than in light syllables, though the vowel itself is shorter. For the purpose of controlling factors in the perception studies, however, this type of neutralization is necessary.

antepenultimate stress and a final consonant, stress shifts so that it remains within the three-syllable window, although the location of stress in the plural varies. Examples of this shift can be seen in (2b).

(2) a. péra~péras 'pear~pears'
tabú~tabúes 'taboo~taboos'
camión~camiónes 'truck~trucks'

b. régimen~regímenes 'diet~diets'
ómicron~omicrónes 'omicron~omicrons'

The three-syllable window condition is clearly descriptively true and its productivity has never been questioned. However, since descriptively adequate statements about language do not always represent psychologically real restrictions on the language, and especially in light of Alvord's (2003) claim that the heavy penult condition may not be psychologically real, all apparent restrictions on Spanish stress placement, including the three-syllable window condition need to be re-examined.

3. Methodology

The experiment carried out for the present study was designed to further test the claim in Alvord (2003) that the heavy penult condition is not a psychologically real and productive restriction on Spanish stress, and also to experimentally test whether the three-syllable window condition is a psychologically real and productive restriction or the artifact of other factors. The experiment seeks to investigate these issues through a perception test in which subjects were asked to judge the acceptability of synthesized nonce words.

In order to test the psychological reality of these two descriptively adequate potential restrictions on Spanish stress placement, a perception test was designed that looks closely at both of the environments described above. Since the evidence cited for the heavy penult condition is the absence of Spanish words with antepenultimate stress and a heavy penultimate syllable, nonce words with these characteristics (i.e., 'CVC.CVC.CV) were included. Similarly, the evidence for the existence of the three-syllable window condition is the absence of Spanish words with stress earlier in the word than the final three syllables, and therefore nonce words with stress on the fourth-to-last syllable (i.e., 'CV.CV.CV.CV) were included in the perception test.

In all, 100 nonce words were created (see Appendix) and synthesized using the MBROLI speech synthesizer. Since stress is the main focus of the study, special care was taken in the synthesis process to encode stress. The fundamental frequency (F0) and the duration of segments were manipulated in order to synthesize the acoustic presence of stress. While the MBROLI speech synthesizer allows for manipulation of the F0 and duration, it does not allow for the manipulation of intensity. However, experimental studies investigating the acoustic correlates of stress from both the production and perception perspectives have found that F0 and duration are by far the most important acoustic correlates

of Spanish stress, with intensity having a minimal role, if any, in communicating Spanish stress (e.g., Enríquez, Casado, & Santos 1989; Llisterri et al. 2003, 2004; Quilis 1971).[3]

All words were designed not only to fit the target structures for syllables and stress, but also to follow Hochberg's (1988) guidelines for segmental composition to avoid close similarity to real Spanish words. This was done to avoid the existence of a similar real word influencing the acceptability judgments on the experimental words through the association of existing words and their stress patterns (cf. Face 2004a). In order to ensure that the nonce words were indeed not too similar to existing words, the list of nonce words was checked by a native Spanish speaker, and any words that were found to resemble actual words too closely were subsequently changed.

The 100 synthesized nonce words consist of four different groups of words, with each group having a different function in the experiment. There were two experimental groups and two control groups. The first experimental group (N=20), was created in order to test the psychological reality of the heavy penult condition. This group consists of nonce words, following the phonotactic patterns of Spanish, with heavy penultimate syllables which were synthesized to carry antepenultimate stress (e.g., *gántirpo*). As explained above, this type of word has been claimed not to be possible in Spanish, existing only in a few toponyms and borrowings. This claim, however, has been brought into question by Alvord (2003). Acceptance of the words in the heavy penult group would support Alvord's claim that the heavy penult condition is not a psychologically real restriction on Spanish stress placement. Rejection of these nonce words would support the traditional view that there is a restriction on this type of word in Spanish.

The second experimental group (N=20) was designed to test the psychological reality of the three-syllable window condition. This group consists of nonce words with four syllables and stress falling on the first (e.g., *tópuneta*). In order to test the psychological reality of the three-syllable window condition, it is important that the nonce words be analyzable only as whole lexical words and not combinations of a lexical word plus enclitic pronoun, since at least orthographically these cases appear to violate the three-syllable window condition. Because of this, care was taken in designing the nonce words so that the last syllable would not be interpretable as a clitic pronoun (e.g., *te*, *me*, *se*, *lo*, *la*, *le*). Acceptance of the nonce words in the three-syllable window group would call into question the psychological reality of the three-syllable window condition as a productive restriction on Spanish stress placement. The rejection of these nonce words would indicate that the lack of words violating the three-syllable window condition in Spanish is indeed due to this condition being a productive restriction on stress placement.

[3] This same view had been maintained for English, but Beckman (1986) shows that intensity actually provides a strong cue for stress when correctly evaluated (i.e., when integrated with duration).

The other two groups of nonce words were included as a measure of control. The first control group (N=30) consisting of only obviously possible Spanish words, with each containing phonotactic and stress patterns that actually exist in real Spanish words. The second control group (N=30), on the other hand, contained nonce words that were designed to be obviously impossible Spanish words, going against Spanish phonotactic patterns, generally by containing consonant clusters disallowed in Spanish. These two groups of words served as a measure of control to ensure that the subjects could differentiate between possible and impossible Spanish words, since this ability is essential if the results for the experimental groups are to be meaningful. At least 80% accuracy on the control groups was required for the data of potential subjects to be counted in the analysis of the experimental groups.

The 100 nonce words were randomized and recorded as individual .CDA files onto a compact disc with 3 seconds of silence between each word. The CD was played on a Panasonic SL-S262 portable CD player and listened to via Panasonic stereo headphones. Before beginning the official test, a practice set of five words was presented to the subjects so that they could adjust their ear to the synthesized voice and the rhythm of the presentation. Subjects were allowed to listen to the practice session as many times as they wanted to in order to feel comfortable in completing the task. After the subjects listened to the practice section, the test words were presented, and no repetition was permitted. The subjects recorded their judgments on a sheet of paper numbered from 1 to 100 with the words *sí* and *no* written next to each number. For each word heard, subjects were asked to circle the appropriate answer according to whether or not the word they heard was a possible Spanish word. The notion of "possible Spanish word" was explained to subjects by telling them that while none of the words they would hear were real Spanish words, the question they needed to answer was whether each word could be a Spanish word if a new word was needed for a concept not communicated by any existing Spanish word.

Since any claim in the present study about the psychological reality of the heavy penult condition and the three-syllable window condition as restrictions on Spanish stress placement hinges on the acceptance or rejection of nonce words based on their acoustically marked stress, it is imperative that the subjects be able to identify the acoustically stressed syllable in these synthesized nonce words. As an additional measure of control, a post-test was administered to the subjects in which 20 of the synthesized words from the "possible" group were re-presented and the subjects were asked to indicate which syllable they heard as stressed. Subjects recorded their answers on a sheet of paper numbered from 1 to 20, with each number followed by the numbers 1, 2, and 3. Subjects circled the number of the syllable perceived to be stressed. This post-test was administered immediately following the completion of the main experiment, and this ordering was chosen to avoid directing the subjects' attention to stress as the main interest of the study before completing the acceptability judgments. Subjects were required to perceive stress with at least 75% accuracy to have their results included in the study. The

average score on the post-test was 85%, indicating that the subjects were very accurate in identifying the acoustically stressed syllable of the synthesized nonce words.

Subjects were 10 native speakers of Spanish attending graduate school in the United States who were naïve with respect to the purposes of the study. All grew up monolingual speakers of Spanish and none had lived in the U.S. prior to attending graduate school. While the subjects speak different varieties of Spanish, this mixture of Spanish dialects does not pose any problem for the present study since the apparent restrictions on stress patterns being tested are consistent across Spanish.

4. Results and discussion

Table 1 shows the results of the perception test. Nonce words in the two control groups were accepted or rejected as would be expected. Nonce words in the "possible" group were accepted at a rate of 81% and the words from the "impossible" group were rejected at a rate of 89%. More interesting are the results for the two experimental groups. Subjects accepted nonce words in the heavy penult group at a rate of 67% (133 of 200) and those in the three-syllable window group at a rate of 62% (123 of 200).

Table 1. Acceptability judgments by nonce word group

	Yes		No		
	#	%	#	%	Totals
Heavy Penult	133	67%	67	34%	200
3 Syllable Window	123	62%	77	39%	200
Possible	244	81%	56	19%	300
Impossible	32	11%	268	89%	300
Totals	532	53%	468	47%	1000

The result in Table 1, as well as in Figure 1, that stands out is that both experimental groups were accepted more often than they were rejected, and far more often than the impossible group. While the experimental groups were not accepted as often as the possible group, it is clear that their rate of acceptance is more similar to that of the possible group than to that of the impossible group. Overall, nonce words in both experimental groups are accepted as possible Spanish words.

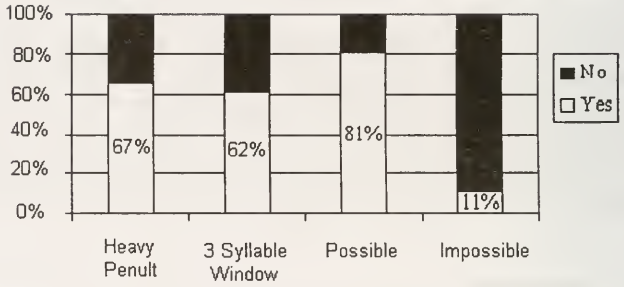

Figure 1. Acceptability judgments by nonce word group.

In order to see how the acceptability of each group compares to the other groups, a chi-squared analysis was performed. A chi-squared test comparing all four groups shows that the distribution of acceptance across groups is statistically significant ($p<0.0001$). This result is to be expected, however, given the presence of the control groups, where the impossible group was required to be rejected and the possible group was required to be accepted. In order to see if the acceptability of the experimental groups differs significantly from the control groups, subsequent chi-squared analyses are needed. These analyses indicate that the rate of acceptance of each of the two experimental groups differs significantly from that of each of the two control groups ($p<0.001$). Furthermore, another chi-squared analysis indicates that the two experimental groups do not differ significantly from each other in their rate of acceptance ($p=0.27$). We can interpret these results as meaning that the words in the heavy penult and three-syllable window groups were placed into their own group by subjects in terms of rate of acceptability. We end up, thus, with three groups: 1) the possible group, accepted as possible Spanish words at a very high rate, 2) the experimental groups, accepted more often than not, but less than the possible group, and 3) the impossible group, rarely accepted as possible Spanish words.

The overall acceptability of the heavy penult group lends support to recent experimental studies that claim that Spanish is not quantity sensitive (Alvord 2003, Bárkányi 2002, Face 2004a). In addition, it provides support for Alvord's claim that the heavy penult condition is not a psychologically real and productive restriction on Spanish stress placement.

The acceptability of the three-syllable window group is perhaps more interesting. The descriptive adequacy of the three-syllable window condition cannot be refuted, as Spanish has no words with stress outside of the final three syllables of the word. The results of the present study, however, bring into question the psychological reality of the three-syllable window condition as a true restriction on Spanish stress placement. Hualde (2000:175), while arguing for an analogical model for Spanish stress, explains that Spanish speakers make

generalizations based on patterns in the lexicon. He uses the three-syllable window condition as an example, stating that 'Spanish-speakers know that the plural of *régimen*, *ómicron*, *Júpiter*, whatever it is, cannot be *régimenes*, *ómicrones*, *Júpiteres*'. This generalization on the part of Spanish speakers makes perfect sense given the categorical presence of stress on only the last three syllables of Spanish words. Given the seeming strength of this generalization, it may seem odd that words violating the three-syllable window condition would be judged to be possible Spanish words. If this condition were a psychologically real restriction on Spanish stress placement, one would expect the words in violation to be rejected at a rate similar to the high rate of rejection of the impossible group. Clearly, however, this is not the case.

While the nonce words of the experimental groups were not rejected at a rate similar to the nonce words of the impossible group, and while they were accepted overall, the question of why they were not accepted as often as the nonce words of the possible group must be addressed. This is where the lack of existing words having these patterns comes into play. While the nonce words of the experimental groups are accepted overall, numerous recent studies have shown that an individual's language experience and the frequency of occurrence of words and patterns is an important part of their competence (e.g., Bybee 2001, Bybee & Hopper 2001, and references therein). The fact that Spanish speakers have never heard words with these patterns makes them seem less "Spanish-like" than words that follow familiar patterns. Therefore, while they are not completely rejected in the way that the words in the impossible group are, the relative degree of unfamiliarity of their stress patterns in comparison with those of the nonce words in the possible group results in a somewhat lower rate of acceptance.

One possible explanation is that segmental factors are more salient to listeners than is stress placement in determining whether a nonce word is a possible Spanish word. If this explanation is accurate, the nonce words violating the heavy penult condition and the three-syllable window condition may have sounded "more Spanish-like" than the nonce words whose segmental combinations made them unacceptable (i.e., the impossible group). While this explanation is possible, the huge difference in how the two experimental groups and the impossible group were accepted, along with the overall acceptance of the experimental group, makes this explanation seem unlikely.

The other possibility, indicated by the current results, is that the heavy penult condition and the three-syllable window condition, while descriptively adequate, are not psychologically real restrictions on Spanish stress placement. The concept of descriptive truths not necessarily corresponding with psychological reality is not a new one. In fact, much recent evidence that has been brought forth in favor of such an idea has come from experimental work on Spanish stress (e.g., Aske 1990; Eddington 2000, 2004; Face 2003, 2004a; Hualde 2000; Waltermire 2004).

5. Conclusion

The present study has presented results from a perception experiment examining the psychological reality of two apparent restrictions on Spanish stress placement. The first apparent restriction examined is the apparent prohibition against words with antepenultimate stress that have a heavy penultimate syllable (i.e., the heavy penult condition). The results of the experiment showed that nonce words in violation of this restriction were accepted overall as possible Spanish words. This finding lends support to the growing number of experimental studies that have found that Spanish is not quantity sensitive (e.g., Alvord 2003, Bárkányi 2002, Face 2004), presenting another type of evidence, but also supports the suggestion in Alvord (2003) that the heavy penult condition is not a psychologically real restriction on Spanish stress placement.

The second apparent restriction examined is the apparent prohibition against words with stress outside of the final three syllables (i.e., the three-syllable window condition). The overall acceptance of nonce words stressed on the fourth to last syllable calls into question the psychological reality of the three-syllable window restriction on Spanish stress. As this is the first experimental study to investigate the three-syllable window condition, further examination is certainly required before sweeping conclusions can be drawn. However, the results of the present study indicate that the three-syllable window condition is not a psychologically real restriction on Spanish stress placement.

In the cases of the heavy penult condition and the three-syllable window condition in Spanish, clearly it is true that, with the exception of a few toponyms and borrowings in the case of the heavy penult condition, the Spanish lexicon consists only of words that follow these conditions. There is no question, then, that they are descriptively adequate generalizations about stress placement in Spanish. But it is one thing to formulate a descriptive generalization over the lexicon and another thing altogether to say that this descriptive generalization functions as a constraint disallowing words that violate it. If a descriptive generalization about the lexicon were indeed shown to be used by speakers of the language as a constraint prohibiting words that violate the generalization, then it would be possible to say that there exists a psychologically real restriction on the language. In the case of the two apparent restrictions on Spanish stress considered in this paper, however, this is clearly not the case. The heavy penult condition and the three-syllable window condition are descriptive generalizations over the Spanish lexicon, but they do not serve as a constraint that prohibits words that go against these generalizations, and therefore they cannot be considered psychologically real restrictions on Spanish stress placement.

An issue deserving of comment is the fact that there are exceptions to the heavy penult condition in borrowings and foreign names (e.g., *Frómista*, *Mánchester*, *rémington* 'type of rifle'), but no exceptions to the three-syllable window condition, despite the fact that there are foreign place names such as Slovak *Brátislava*, which when pronounced in Spanish becomes *Bratisláva*. This is especially interesting since in the present study no significant difference was

found between the status of the nonce words violating the heavy penult condition and those violating the three-syllable window condition. Unfortunately, we have no great insight into why exceptions exist to only the heavy penult condition. One possibility mentioned by an anonymous reviewer is that Spanish has been in contact with Germanic languages, which are the source of the exceptions mentioned above, but not with languages, such as Hungarian, Finnish or Czech, where stress four or more syllables from the end is possible. There are, for example, very few Slovak-Spanish bilinguals who could serve as a model for the correct pronunciation of *Bratislava.* This is a possible explanation for the distribution of exceptions to the two conditions in question, but leaves other questions unanswered. For example, Spanish speakers have a much more difficult time forming the plural of *Júpiter* 'Jupiter' than they do forming the plural of *Saturno* 'Saturn'. Stress is almost always on the same syllable in plurals as in singulars, and this poses no problem in forming *Saturnos* 'Saturns'. However in forming the plural of *Júpiter*, an additional syllable must be added, resulting in the segmental sequence *Jupiteres.* In this case, if stress is left in the same place as in singulars, it falls on the fourth syllable from the end. Yet Spanish speakers do not produce stress on that syllable, but generally struggle in deciding between stressing the penultimate or the antepenultimate syllable. The likely explanation for this difficulty is the lack of model singular~plural pairs, which exist (e.g., *régimen~regímenes* 'diet~diets') but are extremely rare. Of course, there are no examples of words with stress outside of the final three syllables of the word, and this may make speakers even more likely to shift stress in the plural of *Júpiter*, even though the results of the present study indicate that there is no real restriction against a word such as *Júpiteres.* But while the explanation of contact with Germanic languages and not with languages such as Hungarian, Finnish and Czech may explain the existence of exceptions to the heavy penult condition and not the three-syllable window condition, there is no way at this point to determine whether or not this is the correct explanation

In addition to presenting specific results with respect to the heavy penult condition and the three-syllable window condition in Spanish, the present study adds to the growing body of research that questions the connection between descriptive truths and psychological reality in linguistics. While many descriptively adequate statements are likely to also represent psychological reality for speakers of a language, the results of the present study emphasize that this is not always the case. Care must be taken in linguistic analysis to verify that statements based on descriptive facts about a language are not over-generalized to represent the psychological reality of speakers of that language without proper empirical investigation.

APPENDIX

Heavy Penult Group:

férelpa, támpunlo, pínquensa, cándolde, lárdanta, víntento, péntoslo, tímpelto, dínpurna, ránlinta, gántirpo, zéntolpa, párdungo, mínpurco, rínlambo, nódulta, lúmponto, zélsimpa, pómpurta, númpatro

Three-syllable Window Group:

gítulopa, pásirenu, bétranuca, tópuneta, dáfulona, bílinalis, vólutaso, nólumoda, étrapolo, rátepano, lópirena, líteslope, ónlapenu, dásecopo, télucape, cíderoti, cáfunoli, cábilato, nápulatra, múlofane

Impossible Group:

nequíclprta, skrilzareio, chticnarp, sñólprt, ercbatris, jtcapruts, datbánct, zogpinrp, chagtjtup, gkimzin, txcopné, llesdtard, sirrímkbi, lopsuvkbi, lopntlist, rénctop, awsilnpt, kpouell, ivumgtra, ustgbro, wíoasdpi, vinctzico, ñresnizcp, tnvaói, btascát, dlpacstp, bcapintrrow, urrachpza, spoiñbt, sanstkípt

Possible Group:

tínaro, quitravo, tablumo, nafraño, dótene, estrínato, pañilpa, módora, cotrona, cubosta, jarplista, calpemo, gilbresa, mufrismo, sortrinista, tuluván, licuspa, nolema, lojarra, distropa, lotranó, viteno, pocudín, gatrisa, sílzira, atranda, cíblaca, pulatra, pónlita, blisín

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ACCENTUAL VARIATION AND CONVERGENCE IN NORTHEASTERN BIZKAIAN BASQUE

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In this paper we systematically compare the accentual systems employed in the local Basque dialects of a small area of northeastern Bizkaia. We show that although lexical accents were historically regularized on different syllables in the varieties of Ondarroa and Markina (penultimate vs. antepenultimate syllable), later shared processes of syllable contraction have tended to restore agreement between the two varieties in the surface patterns of accentuation of nominals. In the accentuation of verbal forms, on the other hand, important differences and even opposite patterns are found. Here we offer some details of the variation found in this respect, considering also the competitions of variants in the variety of Berriatura, a rural area geographically located between Markina and Ondarroa.

1. Introduction

In this paper we consider aspects of accentual variation in the Basque varieties of the Markina-Ondarroa region, in the northeastern corner of the province of Bizkaia. The area under study includes the coastal town of Ondarroa, the town of Markina, some 11 km inland from Ondarroa, and the smaller township of Berriatua, four kilometers from Ondarroa and seven from Markina. Whereas both Ondarroa and Markina are relatively large towns (Ondarroa has 9761 inhabitants and Markina, 4770), Berriatua is a rural zone which has 1083 inhabitants, almost all of them Basque speakers, spread over a wide municipal area.[1]

Traditionally, the variety of Markina has enjoyed considerable prestige, since it was used in writing by some of the first authors to write in Bizkaian dialect (the Markina school of the 18th and 19th centuries). It was also the object of one of the first monographs on a Basque dialect, W. Rollo's (1925) *The Basque Dialect of Marquina*. On its part, the variety of Ondarroa is widely perceived as highly innovative and idiosyncratic and commands strong local loyalty. Among Ondarroa speakers there does not seem to be any widespread opinion that the variety of Markina is more worthy of imitation.

If we see Markina and Ondarroa as two different linguistic foci, it is interesting to consider the linguistic behavior of speakers from Berriatua, who are

[1] Mancomunidad de Lea-Artibai (2004).

exposed to both local norms. In this paper we concentrate on facts of accentuation. The accentual system of Ondarroa Basque has been described and analyzed in Rotaetxe (1978a, 1978b), Hualde (1995, 1996) and Arregi (2002, 2004). An analysis of the accentual system of Markina is found in Hualde (2000) (Rollo 1925 does not include any information on accentuation). Aramaio (2003), in a preliminary study of the Berriatua accentual system, found that, generally speaking, Berriatua agrees with Markina in the accentuation of words and phrases, although young speakers tend to prefer Ondarroa forms in some specific cases, particularly in verbal forms.

The area under study is at the boundary of the Northern Bizkaian accentual type. Two defining characteristics of the Northern Bizkaian accentual type are (a) the existence of a lexical contrast between accented and unaccented words and (b) the presence of tonal plateaux, where the tone rises from the first to the second syllable of the phrase and stays high up to the first accented syllable, which is associated with a falling contour (HL) (see Azkue 1923, 1931-32; Jacobsen 1972; Hualde 1993a, 1999; Elordieta 1997; Hualde, Elordieta, Gaminde, & Smiljanic 2002).

The variety spoken in the next town going east along the coast, Mutriku, already in Gipuzkoa, has property (b) but appears to completely lack the class of lexically accented word (i.e., there are no accentual contrasts, see Gaminde 1998: 140-1). Further east, in Deba we already find an accentual system of the rather different Central type, with regular accentual prominence on the second syllable (see Txillardegi 1984; Hualde 1991). South of Markina, the Mallabia accentual system is transitional towards the Central type (see Hualde, Mugarza, & Zuazo 2002).

In the next two sections, the accentual patterns of lexically unaccented and accented words will be considered separately. Both types of words have undergone a number of changes in the Markina-Ondarroa region as a result of which their patterns are rather different from those of more conservative varieties found further west. Although in some important cases (in lexically accented words) the varieties of Markina and Ondarroa have adopted different solutions, in general we find a high degree of convergence throughout the area, even in some very unusual developments. Divergent accentual patterns have nevertheless arisen in certain verbal forms. In this particular case, we find that corresponding forms in Markina and Ondarroa have ended up with opposite accentual patterns and there is also a considerable amount of variation in the speech of speakers from Berriatua and Markina. These verbal forms are considered in the last section.

2. Lexically unaccented words

2.1. General case

As mentioned, an essential feature of all northern Bizkaian varieties is the existence of a contrast between lexically accented and unaccented words. Lexically unaccented words are subject to a rule of sentential accent (SA) if final

in a phrase pronounced in isolation or in immediately preverbal position. Otherwise they do not have accentual prominence on any syllable. The SA rule is very simple in the rest of the Northern Bizkaian area: SA is assigned to the last syllable of the phrase. In the Markina-Ondarroa region, however, facts are somewhat more complicated, with a morphologically and lexically-conditioned alternation between final and penultimate accent. These complications in the assignment of SA have arisen from two distinct developments.

First of all, as in other areas to the east and south, the sentential accent was historically retracted from the final syllable to the penultimate syllable of the phrase.[2] Compare the Ondarroa and Markina examples in Table 1[3] with those for Lekeitio, a coastal town to the west of Ondarroa, where SA is uniformly phrase final, as in the rest of the Northern Bizkaian area (leftmost column):[4]

Table 1. Lexically unaccented words: Sentential accent rule

Lekeitio	*Ondarroa*	*Markina/Berriatua*	*Gloss*
gixoná	gixóna	gisóna	'the man'
gixona rá	gixoná ra	gisoná da	'(it) is the man'
gixon andidxa rá	gixon andixé ra	gison andixé da	'(it) is the big man'
gixona datór	gixona dátor	gisona dátor	'the man is coming'

This situation has been made more complex in the Markina-Ondarroa region by a rule of vowel deletion. In Markina there is variable deletion of final /e/ in hiatus. This deletion rule, which is becoming more frequent in the speech of the younger generations, produces phrase final accent again, since it is not accompanied by accent retraction. In Ondarroa, this deletion process became obligatory some decades ago and there is no variation in this respect:

Table 2. Deletion of /-e/: e > 0 / V__

Markina	*Ondarroa*	*Gloss*
gure alabí(e)	gure alabí	'our daughter'
eskú(e)	eskú	'the hand'

The consequence of this process of vowel deletion is that SA is now phrase-final in some cases and phrase-penultimate in other cases: when the last word of the phrase is lexically unaccented, there is final accent in inflected singular phrases ending in a high vowel. Otherwise SA is penultimate. This has created an accentual contrast between uninflected and inflected singular phrases:

[2] This development also took place in southern Bizkaia (Arratia and Zeberio, see Etxebarria 1991; Hualde 1992) and in Gipuzkoa (see Hualde 1993b, 1999).

[3] Basque orthography: *x* is a voiceless prepalatal fricative and *tx* is a voiceless prepalatal affricate. *dx* is a voiced prepalatal segment with both fricative and affricate realizations (found in Lekeitio, but not in the varieties of the Ondarroa-Markina area). In this paper *j* represents a voiceless (post-)velar fricative.

[4] On Lekeitio accentuation and intonation see Azkue (1931-32), Hualde, Elordieta, & Elordieta (1993, 1994), Hualde (1997:193-201), Elordieta (1997, 2003), and Elordieta & Hualde (2003).

Table 3. Ondarroa: Accentual alternations arising from historical vowel deletion

Uninflected		*Absolutive sg.*	
lau séme	'four sons'	gure semí	'our son'
lau béso	'four arms'	nire besú	'my arm'

It is interesting to note, in this respect, that the relationship between uninflected and inflected forms is quite different from what we find in standard Basque or in Literary Bizkaian, a conservative dialect that in all likelihood represents a stage in the historical evolution of Markina and Ondarroa Basque. In Table 4 we give examples of uninflected nouns ending in a consonant and in all five vowels and their corresponding absolutive singular forms in Literary Bizkaian and in the Lekeitio variety.[5] It is obvious that the absolutive singular can be straightforwardly derived from the uninflected stem by addition of *-a* and the application of a few phonological rules (in Literary Bizkaian only in the case of stems ending in *-a*). These forms are to be compared with their cognates in Markina and Ondarroa given in Table 5. Clearly the correspondences between uninflected and inflected forms are less straightforward.

All examples are lexically unaccented. The accent marks show the accentual pattern of these words in phrase-final position (that is, in the environment for SA).

Table 4. Uninflected and absolutive sg. forms in conservative dialects

Literary Bizkaian		*Lekeitio*		*Gloss*
Uninflected	*Abs. sg.*	*Uninflected*	*Abs. sg.*	
gizon	gizona	gixón	gixoná	'man'
lagun	laguna	lagún	laguná	'friend'
alaba	alabea	alabá	alabiá	'daughter'
seme	semea	semé	semiá	'son'
mendi	mendia	mendí	mendidxá	'mountain'
beso	besoa	besó	besuá	'arm'
esku	eskua	eskú	eskuá	'hand'

Table 5. Uninflected and absolutive sg. forms in Markina and Ondarroa

Markina		*Ondarroa*		*Gloss*
Uninflected	*Abs. sg.*	*Uninflected*	*Abs. sg.*	
gíson	gisóna	gíxon	gixóna	'man'
lágun	lagúne	lágun	lagúne	'friend'
alába	alabí(e)	alába	alabí	'daughter'
séme	semí(e)	séme	semí	'son'
méndi	mendíxe	méndi	mendíxe	'mountain'
béso	besú(e)	béso	besú	'arm'
ésko	eskú(e)	ésko	eskú	'hand'

[5] For variation among Basque dialects in this respect, see Hualde & Gaminde (1998).

In Ondarroa, where deletion is obligatory, thus, the rule of SA assignment is now the following: SA IS ASSIGNED TO THE FINAL SYLLABLE IF THE LAST WORD IN THE PHRASE IS A LEXICALLY UNACCENTED SINGULAR WORD ENDING IN A HIGH VOWEL, AND TO THE PENULTIMATE SYLLABLE OF THE PHRASE OTHERWISE. Notice, incidentally, that the historical contrast between the final back vowels /-o/ and /-u/ has been neutralized: all words that etymologically ended in /-u/ in their uninflected form now end in /-o/ and have absolutive singular forms in /-u/ (with the exception of monosyllabic *su* 'fire').

Since the shift of SA to the penultimate took place both in Ondarroa and Markina and the process of vowel deletion is becoming obligatory in Markina as well, in the case of unaccented phrases we find the same accentual patterns in the whole Markina-Ondarroa area.

2.2. Special cases

2.2.1. In addition to phrase-final SA which has its origin in the deletion of /e/ in hiatus, we also find final accent in two cases where an intervocalic tap *-r-* has been deleted. One of these cases is in the dative, where *-ari* > *-ai* [aj]. In this case the sequence of rising sonority has become a diphthong, as shown in Table 6 (a). Arguably, since there is no contrast between bisyllabic [a.i] and monosyllabic [aj], forms ending in a final diphthong can be considered to represent PHONOLOGICAL penultimate accent assignment. We find the same pattern in other instances of final sequences of falling sonority, both resulting from the deletion of *-r-*, as in Table 6 (b), and from other origins, as in Table 6 (c):

Table 6. Final sentential accent in words ending in a diphthong

a. lagunari > O/M lagunái	'to the friend (dat.sg.)'
b. lau pelotari > O lau pelotái	'four ball players'
c. *patrone > patrói	'boss'

2.2.2. Regarding the example in Table 6 (c), in Markina, and optionally in Berriatua, the falling diphthong [oj] is simplified by deletion of the glide. This results in another set of vowel-final nominals with final accent in their uninflected form:

Table 7. Markina & Berriatua: oi > o

patrói > patró	'boss'	cf. patroié da	'(it) is the boss'
melokotói > melokotó	'peach'	cf. melokotoié da	'(it) is the peach'

Notice that this results in two different uninflected/sg. correspondences for nominals ending in /o/, predictable from the position of the accent in the uninflected form. Compare, for instance, the examples in Table 8, where both (a) and (b) are lexically accented nouns and (c) has lexical accent:

Table 8. Markina & Berriatua: Accentual patterns of nominals ending in *-o* in their uninflected form

	Uninflected	*sg., phrase-final*	*sg., non-phrase-final*
a.	báso bat 'a forest'	basú 'the forest'	basú de '(it) is the forest'
b.	patró bat 'a boss'	patróie 'the boss'	patroié da '(it) is the boss'
c.	báso bat 'a glass' (lexical accent)	básu 'the glass'	básu de '(it) is the glass'

2.2.3. There is also final accent in the allative where the *-r-* of the suffix has been lost after a nonhigh vowel. Surprisingly, in Ondarroa we find final accent not only with stems ending in a low vowel, where the original sequence *-ara* has become *-a*, but also with stems ending in a mid vowel, where the deletion of *-r-* does not create a diphthong. In Ondarroa the evolution has been as illustrated in Table 9:

Table 9. Ondarroa: Allative sg.

eliza-ra	>	elixá	'to the church'
etxe-ra	>	etxeá	'to the house'
mendi-ra	>	mendíre	'to the mountain'
beso-ra	>	besoá ~ besúre	'to the arm'
esku-ra	>	eskúre ~ eskoá	'to the hand'

Whereas in the case of /a/-final stems, final accent can be explained as a result of historical contraction (*elixára* > *elixáa* > *elixá*), final accent in forms like *etxeá* and *besoá* is more difficult to explain, since the resulting sequences are heterosyllabic (*e.txe.á*). Notice also that the deletion of the intervocalic *-r-* and the shift of the accent to the last vowel of the word occur together. A consequence of the collapse of the historical contrasts between /o/-final and /u/-final stems, is that words from both etymological classes vary between *-oá* and *-úre* in their allative form. Some speakers use both forms in what appears to be free variation and other speakers use only one of the two, regardless of etymological class. As shown, the variant without the *-r-* also has final accent. In Markina only the forms in *-úre* are used (*besúre, eskúre*), but with stems in /e/ the sequence is further contracted: *etxéra* > M *etxá*.

In Berriatua for /e/ stems there is variation between full forms that maintain the etymological intervocalic *-r-* and contracted forms like in Markina. Again, the contracted forms have final accent. With /o/-stems there is no deletion. Whereas nouns belonging to the etymological /u/-final class form their allative in *-ure*, with etymologically /o/-final stems there is synchronic variation between *-ora* and *-ure*, without contraction:

Table 10. Berriatua: Allative sg.

Uninflected	*Allative sg.*	*Gloss*
elíxa	elixá	'to the church'
kale	kaléra ~ kalá	'to the street'
étxe	etxéra ~ etxá	'to the house'
bérde	berdéra ~ berdá	'to the green one'
méndi	mendíre	'to the mountain'
báso	basóra ~ basúre	'to the forest'
ésko	eskúre	'to the hand'

Perhaps the position of the accent in Ondarroa forms like *etxeá* is to be explained as a case of interdialectal influence.

To conclude this section, in the assignment of SA we don't find any important differences among the varieties of Markina, Berriatua and Ondarroa. Certain developments have resulted in SA being phrase-penultimate in some cases and phrase-final in other cases, but these developments have been common throughout this geographical area.

3. Lexically accented words

3.1. General rule

In the position of the accent in lexically accented words we do find some significant differences between the dialects of Ondarroa, on the one hand, and Markina and Berriatua on the other.

Lexically accented words always surface with an accent on a given syllable, regardless of their syntactic position. The contrast is evident in non-phrase final position, as in the examples for Ondarroa in Table 11. The words *léko* 'place' and plural *lagúnan* 'of the friends' bear a lexical accent, whereas *esko* 'hand', *lagunan* 'of the friend' and the rest of the words in the examples are lexically unaccented:

Table 11. Ondarroa: Accented vs. unaccented contrast phrase-medially

esko andixé ra	'it is a big hand'
léko andixé ra	'it is a big place'
lagunan etxí re	'it is the house of the friend'
lagúnan etxí re	'it is the house of the friends'

In most Northern Bizkaian varieties, lexically accented words may carry an accent on any non-final syllable. Thus, for instance, within a couple of randomly selected pages of Gilisasti's (2003) dictionary of the northwestern variety of Urduliz, we find examples with initial accent like *éuskera* 'Basque language', *éskonteko* 'about to get married', *éskupeko* 'hidden tip'; with accent on the second syllable, examples like *eskóle* 'school', *eskóbaki* 'type of bush', *eskóndute* 'the act of getting married', *eskúbere* 'rake'; and on the third syllable, *eskillére* 'staircase',

eskondúparri 'newly wed'.[6] From these examples we can also see that there is no uniformity regarding the position of the accent if we count from the end of the word either.

Importantly, plural and some other suffixes place an accent on the immediately preceding syllable (they are preaccenting suffixes), but if the stem is accented, the accent of the stem prevails. For instance, in *eskú-ek* 'the hands' and *etxé-tik* 'from the house' the accent occurs immediately before the accented suffix, but with a lexically accented stem we have *léku-ek* 'the places' and *léku-tik* 'from the place'. In the varieties of Markina and Ondarroa, as well as in neighboring Lekeitio, most of these contrasts in the position of lexical accents have been neutralized, with generalization of one of the patterns, as shown in Table 12. In Lekeitio and Ondarroa almost all lexical accents surface on the penultimate syllable of the word. In Markina and Berriatua, on the other hand, there has been historically regularization of lexical accents on the antepenultimate syllable (without contraction):

Table 12. Distribution of lexical accents

Gernika	*Lekeitio*	*Ondarroa*	*Markina & Berriatua*	*Gloss*
eskúek	eskúek	éskuk	ésku(e)k	'the hands'
etxétik	etxétik	etxétik	étxetik	'from the house'
lékuek	lekúek	lékuk	léku(e)k	'the places'
lékutik	lekútik	lekútik	lékutik	'from the place'
mendídxek	mendídxak	mendíxak	méndixek	'the mountains'
mendídxetatik	mendidxetátik	mendixetátik	mendixétatik	'from the mountains'
lékuetatik	lekuetátik	lekutátik	lekuétatik ~ lekútatik	'from the places'

What is common to the varieties of the Markina-Ondarroa area, as well as neighboring Lekeitio, is that they have fewer contrasts regarding the position of lexical accents than the varieties of the Gernika-Getxo area. In the Gernika-Getxo system the position of lexical accents is free, since it is determined by the position of the leftmost lexically (pre-)accented morpheme. In Lekeitio, Ondarroa, Markina and Berriatua, on the other hand, lexical accents are assigned to a given syllable counting from the end of the word. The syllable that attracts the accent is the penultimate in Lekeitio and Ondarroa but the antepenultimate in Markina and Berriatua.

[6] For the rules governing accent assignment in the varieties of this area, see Hualde (1989), Hualde & Bilbao (1992, 1993).

Table 13. Generalizations regarding lexical accent

I. Gernika-Getxo	A lexical accent may occur on any nonfinal syllable. In morphologically complex words, the leftmost accented morpheme determines the position of the accent.
II. Lekeitio and Ondarroa	Words containing one or more lexically accented morphemes surface with an accent on the penultimate syllable.
III. Markina and Berriatua	Words containing one or more lexically accented morphemes surface with an accent on the antepenultimate syllable (before optional vowel deletion).

We may note in Table 12 above that, even though in Ondarroa and Lekeitio we have penultimate accent, in Ondarroa lexical accents do not fall on the same vowel as in Lekeitio in cases where there has been contraction. On the other hand, in cases where a vowel in the last syllable has been lost, Ondarroa and Markina have the accent on the same syllable. That is, whereas the antepenultimate accent rule of Markina and Berriatua applies to noncontracted forms, in Ondarroa, where accent is penultimate, the penultimate accent rule applies to (obligatorily) contracted forms.

More examples illustrating the contexts where Ondarroa and Markina words have the same and different accentuation are given in Table 14 for the absolutive/ergative plural:

Table 14. Abs./erg. pl. (a): accent on different syllable in O & M, (b): accent on same syllable

	Ondarroa	*Markina & Berriatua*	*Gloss*
a.	gixónak	gísonak	'men'
	lagúnak	lágunek	'friends'
	mendíxak	méndixek	'mountains'
b.	étxik	étxi(e)k	'houses'
	búruk	búru(e)k	'heads'
	pelotáixek	pelotárixek	'ball players'
	melokótoik	melokótoiek	'peaches'

It is probably the case that historically in Ondarroa the deletion of vowels in hiatus became obligatory before the penultimate lexical accent rule was adopted. In Markina, instead, vowel deletion is a more recent phenomenon, which postdates the adoption of the antepenultimate generalization.

The application of the rules of penultimate accent in Lekeitio and Ondarroa vs. antepenultimate accent in Markina is further illustrated in Table 15, which shows accent displacement as longer suffixes are added in plural forms.

Table 15. Shift of lexical accent to penultimate syllable in L & O and to the antepenultimate in M (& B)

Gernika	*Lekeitio*	*Ondarroa*	*Markina*	*Gloss*
lagúnek	lagúnek	lagúnak	lágunek	'the friends'
lagúnena	lagunéna	lagunána	lagúnena	'the one of the friends'
lagúnentzat	lagunéntzat	lagunántzat	lagúnentzat	'for the friends'
lagúnentzako	lagunentzáko	lagunantzáko	lagunéntzako	'for the friends'
lagúnentzakoa	lagunentzakúa	lagunentzáku	lagunentzáku(e)	'the one for the friends'

The shift of all lexical accents to the penultimate, as in Lekeitio and Ondarroa can be understood as a strengthening of the strongest pattern, since in most cases penultimate accent would be the most common pattern before the change. The Markina shift has a less obvious origin. As argued in Hualde (2000), the generalization of antepenultimate accentuation with lexically accented words in Markina can be seen as a sort of reaction to the retraction of the accent to the penultimate of the phrase in lexically unaccented phrases. That is, the (phonetically-motivated) shift in the singular *laguné* > *lagúne* 'the friend' may have triggered the "compensatory" shift *lagúnek* > *lágunek* 'the friends'.

It is to be noted that in Ondarroa, where (like in Markina) the SA rule targets the penultimate of the phrase (in cases without contraction), and lexical accents have been shifted to the penultimate of the word (like in Lekeitio), the contrast between lexically unaccented and accented words is lost in the specific case where word and phrasal domains coincide. As we see in Table 16, singular and plural forms of lexically unaccented stems are always accented on different syllables in both Lekeitio and Markina. In Ondarroa, on the other hand, the sg./pl. accentual difference is neutralized in case the word is phrase-final.

Table 16. Lexically unaccented and accented words

	Lekeitio	*Ondarroa*	*Markina*	*Gloss*
a.	gixoná	gixóna	gisóna	'the man'
	gixona rá	gixoná ra	gisoná da	'(he) is the man'
b.	gixónak	gixónak	gísonak	'the men'
	gixónak dis	gixónak dis	gísonak di	'(they) are the men'

In the Ondarroa example in (a) in Table 16 both singular noun and clitic verb are lexically unaccented and SA falls on the penultimate syllable of the phrase. In (b) the plural genitive suffix introduces a lexical accent in the noun, which surfaces on the penultimate OF THE WORD. In Lekeitio there is phrase-final accent in (a) vs. word-penultimate in (b). In Markina the contrast is between phrase-penultimate in (a) and word-antepenultimate in (b). It is thus clear that the Ondarroa accentual system is more opaque than both that of Lekeitio and that of Markina, since a contrast that is made phrase-medially is neutralized when the word is in phrase-final position (Hualde 1995).

Another illustration is given in Table 17. Notice that in Ondarroa the contrast betweeen (a) and (b) is neutralized in (a') and (b'), which are identical, since word and phrase coincide in this case (for further exemplification see Hualde 1995). This neutralization does not obtain in Markina, since lexical accents have been generalized to the antepenultimate of the word instead.

Table 17. Neutralization of accentual contrast phrase-finally in Ondarroa vs. preservation of contrast in Markina & Berriatua

	Ondarroa	*Markina & Berriatua*	*Gloss*
a.	lagunaná ra	lagunaná da	'it is the one of the friend'
a'.	lagunána	lagunána	'the one of the friend'
b.	lagunána ra	lagúnena da	'it is the one of the friends'
b'.	lagunána	lagúnena	'the one of the friends'

It is thus possible to see a functional motivation in the shift of lexical accents to the antepenultimate syllable in Markina and Berriatua. In this way, the broader generalization that with unaccented stems the accent falls earlier in the plural than in the singular is preserved in all sentential contexts.

In lexically accented words it would thus appear that Markina and Ondarroa have substantially different patterns: word-antepenultimate vs. word-penultimate. However, as already mentioned above, vowel deletion in Markina creates convergence between both dialects in all cases where a vowel in the final syllable is lost. The rules in Table 13 above are rephrased in Table 18, with exemplification in Table 19.

Table 18. Rules of lexical accent

I. Ondarroa	Lexically accented words have penultimate accent.
II. Markina & Berriatua	Lexically accented words have antepenultimate accent, except that there is penultimate accent when the last vowel is deleted.

Although, after vowel deletion, the accentual generalization is now more complex in Markina, the spread of this process in the same contexts where historically it took place in Ondarroa is making the two dialects more alike in surface patterns.

Table 19. Examples without and with vowel deletion

Ondarroa		*Markina & Berriatua*	
sg.	*pl.*	*sg.*	*pl.*
mendíxe 'mountain'	mendíxak	mendíxe	méndixek
mendixé ra	mendíxak dis	mendixé da	méndixek di
basú 'forest'	básuk	basúe ~ basú	básuek ~ básuk
basú re	básuk dis	basué da ~ basú da	básuek ~ básuk di

3.2. Special cases

Besides arising from the optional process of deletion of /-e/ after another vowel, in Markina penultimate lexical accent is found in a few other more specific cases,

where an earlier historical process reduced a sequence of two syllables to a single one. The result is, again, that the degree to which the two varieties of Markina and Ondarroa differ from each other in accentual matters is actually more limited than one might be led to conclude from the basic rules.

3.2.1. An older process of contraction is found in the absolutive plural (and other plural cases) of /a/-final stems. These have penultimate accent in Markina, just like in Ondarroa; e.g., *alábak* 'the daughters', *elíxak* 'the churches' (vs. e.g., *ságarrak* 'the apples', from *sagar*). Since historically these forms had a long vowel /aa/, it is reasonable to assume that contraction of this long vowel took place after generalization of antepenultimate accent: **alábaak* > *alábak*.

3.2.2. In addition, in a couple of morphological cases there is penultimate accent in Markina with all stems. Consider, to begin with, the local plural cases illustrated in Table 20:

Table 20. Local plural cases

Ondarroa	*Markina*	*Gloss*
mendixétan	mendíxetan	'in the mountains', ines. pl.
mendixéta	mendixéta	'to the mountains', allat. pl.
mendixetátik	mendixétatik	'from the mountains', abl. pl.

In the Ondarroa examples the accent is uniformly on the penultimate, as expected. In Markina, the inesive and ablative plural forms follow the regular antepenultimate pattern of the dialect. The allative plural, on the other hand, irregularly shows penultimate accent. Historically the allative plural (like the allative singular, see Table 9 above) has undergone contraction, after deletion of intervocalic *-r-*. In Markina contraction must have taken place after the generalization of the antepenultimate accent rule: **mendixétara* > **mendixétaa* > *mendixéta*. In Ondarroa, on the other hand, contraction in this case (like in other cases) must have preceded penultimate accent, since otherwise we would find final accent.

3.2.3. In the commitative singular as well we find the same accentuation in both varieties. In this case contraction has followed deletion of intervocalic *-g-*.

Table 21. Commitative sg. in Markina, Berriatua & Ondarroa

lagúnas	'with the friend'	< lagunagaz
lekúas	'with the place'	
arbolías	'with the tree'	

3.2.4. Just as we saw for the dative singular in Table 6, in the dative plural as well we find the same pattern in both varieties, with the accent one syllable further to the left than in the singular. Strictly, then, the dative plural has penultimate accent in Markina and Berriatua (**lagúneri* > *lagúnei*).

Table 22. Dative sg. & pl.

	Ondarroa	*Markina & Berriatua*
dat. sg.	lagunái	lagunái
dat. pl.	lagúnai	lagúnei

3.2.5. Lexically accented words may owe their accentedness to the fact that they bear an accented suffix, or the stem itself maybe lexically accented. As noted in Hualde (2000:114) unaccented stems in their bare form have penultimate accent in Markina, instead of the expected antepenultimate accent. In Berriatua, on the other hand, there is variation between penultimate and antepenultimate accent in this case, even in the speech of the same speaker:[7]

Table 23. Uninflected stems with lexical accent

Ondarroa	*Markina*	*Berriatua*	*Gloss*
lengúso bat	lengóso bat	lengúso ~ lénguso bat	'a cousin'
belárri bat	belárri bat	belárri ~ bélarri bat	'an ear'
arbóla bat	arbóla bat	arbóla ~ árbola bat	'a tree'

3.2.6. Finally, there is another case where convergence between Ondarroa and Markina/Berriatua is due to the fact that in Ondarroa we irregularly find antepenultimate accent. This is in the allative singular of lexically accented stems. As was shown in Table 9 for unaccented stems, the sequences /oa/ and /ea/ that have resulted from the deletion of intervocalic *-r-* in the allative somewhat unexpectedly count as a single syllable. In Table 24 lexically accented and unaccented stems are compared.

Table 24. Allative sg. forms with historical deletion of *-r-*

Lexically unaccented			*Lexically accented*		
Ondarroa	*Markina*	*Gloss*	*Ondarroa*	*Markina*	*Gloss*
etxeá	etxá	'to the house'	Bílboa	Bílbora	'to Bilbao'
besoá	besúre	'to the arm'	lékoa	lékure	'to the place'
(~besúre)			(~ lekúre)		

To summarize this section, at some historical point both Ondarroa and Markina regularized the position of lexical accents by shifting most of them to a syllable counting from the end of the word. Each of these varieties, however, adopted a different rule. In Ondarroa there was regularization of lexical accents on the penultimate syllable of the word. In Markina and Berriatua, on the other hand, lexical accents were shifted to the antepenultimate syllable, thus avoiding the neutralization between lexically accented and unaccented words in phrase-final position that obtains in Ondarroa. The extent to which Ondarroa and

[7] The two variants do not seem to have the same sociolinguistic consideration in Berriatua. Some Barriatua speakers believe that forms like *lengúso, belárri*, etc., are the proper Berriatua forms, whereas *lénguso, bélarri*, etc., are said to be due to influence from other dialects, even if many Berriatua speakers use them. The truth may be that the latter patterns is actually older.

Markina/Berriatua differ in actual accentual patterns is, however, not as great as one might expect from these divergent developments, since other, more recent, developments have produced a change from antepenultimate to penultimate accent in Markina (and Berriatua) in a number of contexts. The unusual accentual behavior of the final sequences /oa/ and /ea/ in Ondarroa allative forms also results in convergence in accentual patterns within this geographical area in this morphological context.

4. Verbs

The most striking examples of accentual variation in the Markina-Ondarroa region are found with some inflected verbal forms. In some paradigms we find completely opposite patterns in Markina and Ondarroa, as shown in Table 25.

Table 25

Ondarroa	*Markina & Berriatua*	*Gloss*
libúru ekárri ban	libúru ekarri bán	's/he brought the book'
libúru ekarri bén	libúru ekárri ben	'they brought the book'

In both Ondarroa and Markina, a number of inflected forms have final accent (although not always the same forms, as can be seen in Table 25). Since in nominals (phrase-)penultimate accent is general and final accent only occurs as a result of contraction, these verbal forms require special explanations.

4.1. Some cases of phrase-final accent with inflected monosyllabic verbal forms are transparently the product of contraction:

Table 26. Phrase-final accent with contracted monosyllabic verbs

	Ondarroa	*Markina*		*Gloss*
a.	argala rá	argala dá	< dago	's/he is looks thin' (Sp. está)
b.	argalá ra	argalá da	< da	's/he is thin' (Sp. es)
c.	mendire rú	mendire dóie	< doa	's/he is going to the mountain'

The contrast between (a) and (b) in Table 26 (pointed out in Hualde 1995, 2000) obtains because the verb in (a) is etymologically bisyllabic. In the example in (c) there has been contraction in Ondarroa, but the epenthesis of an intervocalic glide (like in Lekeitio, etc.) has prevented contraction in Markina (and Berriatua).

4.2. Generally in the northern Bizkaian area, forms carrying the pluralizer *-e* are lexically accented. In Lekeitio, for instance, 2nd and 3rd person singular forms bearing the pluralizer *-e* have marked penultimate accent. In Ondarroa as well, these forms are special in their accentuation, but we find the mirror-image pattern: forms bearing the plural *-e* have final accent, against the general penultimate rule of the dialect. Compare the following paradigms:

Table 27

Lekeitio	*Markina*	*Ondarroa*	*Gloss*
dot	dot	dot	'I have it'
dosú	dósu	dósu	'you have it'
dau	dau	dau	's/he has it'
dogú	dógu	dógu	'we have it'
dosúe	dosúe	dosué	'you-pl. have it'
dábe	dábe	dabé	'they have it'
natór	nátor	nátor	'I am coming'
satós	sátos	sátos	'you are coming'
datór	dátor	dátor	's/he is coming'
gatós	gátos	gátos	'we are coming'
satóse	satóse/satosé	satosé	'you-pl. are coming'
datós	dátos	dátos	'they are coming'

Notice that the forms that are accentually different from the rest of the paradigm are the same in both dialects: those bearing final *-e*. The accentual patterns are, however, the opposite. The Lekeitio forms are essentially the same forms that we find elsewhere within the Northern Bizkaian area: the plural suffix *-e* is preaccenting. That is, plural *-e* has the same behavior as plural suffixes in nominal inflection. In this connection, we may point out that in Lekeitio the auxiliary forms corresponding to the two examples in Table 25 are, respectively *ebán* (unaccented) 's/he Ved it' and *ében* 'they Ved it'. What needs to be explained is the Ondarroa pattern. Why does plural *-e* trigger final accent in Ondarroa?

We have seen that when we have final accent in Ondarroa it is generally the case that an earlier bisyllabic sequence has been contracted. Now, in the writings of 19th century authors from the Markina area we find forms with a final double vowel like *dabee* 'they have it'. This being the case, we may assume that in Ondarroa, in this case as well, originally there was penultimate accent and contraction has produced final accent: **dabée* > *dabé*. We may further assume that, once it arose in this form, the final accent pattern was then spread by analogy to other forms with the same plural suffix.

The potential paradigm also provides evidence that final accented *-é* has resulted from contraction followed by analogical generalization. Potential forms bear the suffix /-ke/, after which plural /-e/ is added in the second and third person plural. In Markina, potential forms have penultimate accent, except that final accent may occur in the second and third person plural when the sequence /-kée/ is contracted (Another possibility in Markina is dissimilation: *-kée* > *-kíe*). We may surmise that contraction became obligatory in Ondarroa, after which final accent spread to the rest of the paradigm, since all these forms would appear to have the same ending. That is, *leikée* > *leiké* 'they can' and hence, by analogy, *léike* > *leiké* 's/he can' and *néike* > *neiké* 'I can', etc., see Table 28.

Table 28. Potential

	Ondarroa	*Markina*
1 sg.	neiké	néike
2 sg.	seinké	séinke
3 sg.	leiké	léike
1 pl.	geinké	géinke
2 pl.	seinké	seinkíe ~ seinkée ~ seinké
3 pl.	leiké	leikíe ~ leikée ~ leikée

Consider now the paradigm of *eroan* 'to carry, take'. This verb, being an old causative, is etymologically accented in all its forms (see Hualde 1993a). This is what we find in Lekeitio, where with this verb all forms are lexically accented and have penultimate accent. Just like in nouns with accented stems, there is no accentual contrast between singular and plural: with this verb the forms with final *-e* (2nd and 3rd plural) are not different from the rest. In Ondarroa, on the other hand, these two forms have final accent. It is thus clear that final accent in Ondarroa in many verb forms with plural *-e* is the product of analogical extension and reinterpretation. In Table 29 we give also the forms used in Berriatua, for comparison. As can be seen, in Berriatua, forms with antepenultimate accent compete with Ondarroa-style forms (variants listed first are more frequent):

Table 29. *eroan* 'to carry, take', present

Lekeitio	*Ondarroa*	*Berriatua*	
daróiat	dárut	dároiet	1 sg.
daroiásu	darúsu	daróiesu	2 sg.
daróia	dáru	dároie	3 sg.
daroiágu	daruágu	daróiegu ~ dárogu	1 pl.
daroiasúe	darusué	daroiésue ~ daroiesué	2 pl.
daróie	darué	dároie ~ daroié	3 pl.

4.3. Forms including a dative argument (both intransitive and transitive) are special in their accentuation. The present tense intransitive forms for a dative argument (e.g., 'it is to me, to you', etc.) are shown in Table 30 for Lekeitio, Ondarroa, Berriatua and Ondarroa.

Table 30. Bivalent intransitive auxiliary (present tense)

Lekeitio	*Ondarroa*	*Berriatua*	*Markina*	
dxát	gáta	(j)até ~ (j)áte ~ áste	jaté ~ jatá	1 sg.
dxatzú	gátzu	(j)atzú ~ (j)átzu	játzu	2 sg.
dxakó	gáko	(j)akó ~ (j)áko	jáko	3 sg.
dxakú	gaskú	(j)akú ~ askú	jakú	1 pl.
dxatzúe	gatzué	(j)atzué ~ (j)atzúe	jatzúe	2 pl.
dxáke	gakoé	(j)akué ~ (j)akúe	jakúe ~ jákue	3 pl.

In Lekeitio, the forms for a 2nd and 3rd person plural indirect object, which have the accented suffix /-e/, predictably have penultimate accent, whereas the

other forms have regular final accent. In Ondarroa, the three forms for a plural indirect have final accent. That is, it appears that the pattern of the two forms ending in *-é* has been extended to the remaining form for a plural dative. In Berriatua and Markina final accentuation has been extended to all forms of the paradigm for some speakers, but most forms optionally or variably may have penultimate accent as well. In general, younger speakers favor final accent.

We find exactly the same situation with trivalent transitive forms, as shown in Table 31 for Ondarroa, Berriatua and Markina.

Table 31. Trivalent transitive auxiliary (present tense)

Ondarroa	*Berriatua*	*Markina*	*Gloss*
emósta	emosté ~ emóste	emóste ~ emosté	's/he gave it to me'
emótzu	emotzú ~ emótzu	emótzu ~ emotzú	's/he gave it to you'
emótza	emotzá ~ emótza	emótze ~ emotzé	's/he gave it to him/her'
emoskú	emoskú	emoskú	's/he gave it to us'
emotzué	emotzué ~ emotzúe	emotzúe ~ emotzué	's/he gave it to you-pl.'
emotzé	emotzé ~ emotzié ~ emótze	emotzíe ~ emotzié	's/he gave it to them'

As shown in the table, the only form for which final accent appears to be obligatory for all speakers is *emoskú* 's/he gave it to us'. In Berriatua forms for a plural argument of the type *emótze* 's/he gave it to them' and *kendútze ~ kéndutze* 'they took it from them' are preferred by older speakers, whereas younger speakers employ *emotzé* and *kendutzé*. Tracing the historical steps that gave rise to the present situation in Berriatua and Markina would require a very detailed sociolinguistic study.

4.4. There is also considerable variation in contexts where a complementizer is attached to a verbal form.

It is to be noted that there is segmental neutralization between several pairs of singular and plural forms when a complementizer is attached to the verb. In Ondarroa, the complementizer *-ela* 'that' leaves the accent on the same syllable that would have it in the bare form of the verb (although there appears to be some interspeaker variation). This allows, for instance, for a contrast between segmentally identical forms such as *sátosela* 'that you-sg. are coming', from *sátos*, and *satoséla* 'that you-pl. are coming', from *satosé*. With the complementizers *-elako* 'because' and *-enín* 'when', on the other hand, the contrast is neutralized.

Table 32. Ondarroa: Verbs with complementizers

a. -ela	you-sg. vs. you-pl. bixar sátosela esasté 'they've told me that you-sg. are coming tomorrow' vs. bixar satoséla esasté 'they've told me that you-pl. are coming tomorrow' etórri sásela esasté 'they've told me that you-sg. have come' vs. etórri saséla esasté 'they've told me that you-pl. have come'
b. -eláko sg. = pl.	you-sg. = you-pl. bixar satoseláko (aserratu re) '(s/he has become angry) because you-sg./you-pl. are coming tomorrow'
c. -enín	you-sg. = you-pl. satosenín 'when you-sg./you-pl. come' etorri sasenín 'when you-sg./you-pl. arrived'

In Markina, on the other hand, the complementizer *-ela* triggers final accent when attached to an unaccented verbal form (*satos*, *sas*), but leaves the accent on a syllable of the stem of lexically accented forms, such as those bearing plural /-e/ (*satosíe*, *saríe*), see Table 33. Verbal forms bearing the complementizer *-elako*, have the accent on the same syllable as the corresponding forms with *-ela*. That is, for accentual purposes the syllable *-ko* of this complementizer is invisible.

Table 33. Markina: Verbs with complementizers

a. -ela	you-sg. vs. you-pl. bixer satoselá esastíe 'they've told me that you-sg. are coming tomorrow' vs. bixer satosíela ~ satósela esastíe 'they've told me that you-pl. are coming tomorrow' etórri saselá ~ sarillé esastíe 'they've told me that you have-sg. come' vs. etórri saríela esastíe 'they've told me that you-pl. have come'
b. -elako	you-sg. vs. you-pl. bixer satoseláko (aserretu de) '(s/he has become angry) because you-sg. are coming tomorrow' vs. bixer satosélako (aserretu de) '(s/he has become angry) because you-pl. are coming tomorrow' etorri saseláko ~ sarilléko 'because you-sg. have come' vs. etorri sariélako 'because you-pl. have come'

Nevertheless, the Ondarroa option of leaving the accent on the same syllable as in the bare form can also be used in Markina in certain cases, such as the bivalent intransitive forms given in Table 34.

Table 34. Bivalent intransitive forms with the complementizer *-(e)la*

	Ondarroa	*Gloss*
a.	pentzáten dot es gákola gustáten	'I think s/he doesn't like it'
b.	pentzáten dot es gakoéla gustáten	'I think they don't like it'
c.	pentzáten dot es gátzule gustáten	'I think you-sg. don't like it'
d.	pentzáten dot es gatzuéla gustáten	'I think you-pl. don't like it'
	Markina & Berriatua	*Gloss*
a.	péntzetot es jákola gústetan	'I think s/he doesn't like it'
b.	péntzetot es jakúela gústetan	'I think they don't like it'
c.	péntzetot es játzule ~ jatzúle gústetan	'I think you-sg. don't like it'
d.	péntzetot es jatzúela gústetan	'I think you-pl. don't like it'

5. Conclusion

In this paper we have compared the accentual systems found in the region of Ondarroa, Berriatua and Markina, focusing on aspects of variation. In the accentuation of nominals we find a high degree of agreement across these three varieties. Lexical accents were historically shifted to different syllables in Ondarroa and Markina/Berriatua, but the way this shift has interacted with different processes of syllable contraction has tended to eliminate accentual differences between the dialects. In essence (skipping many important details), regularization of lexical accents to the penultimate syllable in Ondarroa took place after several processes of vowel deletion, whereas in Markina/Berriatua regularization to the antepenultimate syllable predates these processes, some of which are still optional. In both Markina/Berriatua and Ondarroa vowel deletion postdates the shift from phrase-final to phrase-penultimate accent in lexically unaccented phrases and produces final accent.

In verbal forms, on the other hand, we find much greater differences and sometimes even opposite patterns. The accentual behavior of the different verb forms and complementizers and the nature of both intra-speaker and cross-dialectal variation, which we have only started to examine here, clearly requires more detailed investigation.

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KISWAHILI NAMING OF DAYS OF THE WEEK IN A WIDER CONTEXT OF DAY NAME BORROWINGS*

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The days of the week in Kiswahili are a combination of words of Bantu and Arabic origin. In standard Kiswahili, Saturday through Wednesday are expressed as a combination of the Arabic loan word *juma*, literally 'week' but here used as 'day', and a number.[1] After Wednesday, Kiswahili uses the Arabic words *Alhamisi* and *Ijumaa* for 'Thursday' and 'Friday', respectively, as shown in (1).

(1) Kiswahili words for the days of the week

Word of Bantu origin[2]	*Gloss*	*Adaptation of Arabic borrowing*	*Gloss*	*English*
Juma.mosi	'day.one'			Saturday
Juma.pili	'day.two'			Sunday
Juma.tatu	'day.three'			Monday
Juma.nne	'day.four'			Tuesday
Juma.tano	'day.five'			Wednesday
[missing: *Juma.tundatu* or *Juma.sita*]		Alhamisi	'the fifth day'[3]	Thursday
[missing: *Juma.fungate* or *Juma.saba*]		Ijumaa	'the day of congregation'	Friday

For Kihore (1997), the borrowing of *Alhamisi* 'Thursday' into Kiswahili from Arabic is an anomaly, given that there is no particular importance of this

* I would like to thank UIUC student Charles LaWarre and one anonymous referee for suggestions on this squib. All mistakes are, of course, my own.

[1] This pattern is common in other East African Bantu languages, with the exception that a Bantu word is generally used, rather than *juma*. One such example is Shinzwani, a language classified in Guthrie's (1967-71) classification of African languages as a Bantu G40 language, like Kiswahili. Shinzwani uses the word *mfumo* 'week' plus the numbers 'one' through 'five' to form the words for Saturday through Wednesday (Ahmed-Chamanga 1997). In both Kiswahili and Shinzwani, this pattern holds for days one through five, with day one being the day following Friday, which is the day of prayer in Islam.

[2] The word *juma* is borrowed from Arabic. (Its Arabic meaning is 'week'.) However, in Arabic, there is no use of *juma* plus a number to make the names for days of the week.

[3] Translations for *Alhamisi* and *Ijumaa* are borrowed from Kihore (1997). The Middle Eastern week calendar system is numeric, with the exception of *Aj-Jumaa* 'Friday' ('the day of congregation'). Arabic *Al-Khamiis* 'Thursday' literally means 'the fifth day', whereas in the Kiswahili calendar, it is actually day six (Kihore 1997). The result is that Kiswahili literally has two day fives.

day in the Muslim week. However, this borrowing might be better understood in the broader context of borrowing with respect to seven-day calendar week systems. Brown (1989) studied words for days of the week in 145 languages in cultures that have a seven-day week, mostly through diffusion by Christian groups. For this reason, there is a focus on Sunday as the day of worship, rather than Friday. Brown found that languages were most likely to borrow the word for Sunday, followed by Saturday, then Friday and Monday, and then the other days of the week. Brown cites frequencies of words for the days of the week in six European languages, whose speakers have traditionally been Christian, in which Sunday was the most salient (i.e., frequently referred to) day, followed closely by Saturday.[4]

In Shaba Kiswahili (spoken in the Democratic Republic of Congo), whose speakers are mainly Christian, we see the salience of Saturday and Sunday in the fact that they do not follow the pattern exhibited by the other days of the week, as demonstrated in (2). In Shaba, Saturday and Sunday are days six and seven, respectively, in contrast to days six and seven being Thursday and Friday in the standard Kiswahili week.

(2) Days of the week in Shaba Kiswahili[5]

Shaba Kiswahili	*Gloss*	*English*
Shiku ya mposho	'day of weekly ration'	Saturday
Shiku ya mungu/yenga	'day of God'	Sunday
Kaži moya	'work one'	Monday
Kaži mbiri	'work two'	Tuesday
Kaži tatu	'work three'	Wednesday
Kaži ine	'work four'	Thursday
Kaži tano	'work five'	Friday

Brown's (1989) work on seven-day week systems demonstrates the tendency of languages spoken in areas where Christianity is the predominant religion to set apart not only Sunday, but also Saturday, from the other days. In this context, we should not be surprised by the special salience of both Thursday and Friday in standard Kiswahili, which is based on the Kiswahili spoken on the predominantly Muslim island of Zanzibar. Nor should we be surprised by the resulting adoption of *Ijumaa* 'Friday' and *Alhamisi* 'Thursday' by Kiswahili. Thursday would share in the cultural salience of Friday in the

[4] The special salience of Saturday is probably increased in European countries by the fact that most people's work week does not include Saturday, although this is a relatively recent phenomenon, as pointed out by an anonymous referee. This may be a contributing factor in the languages that Brown (1989) studies as well, but this is not discussed. The facts of Shaba Kiswahili would seem to support this notion. Unfortunately, it is difficult to tease apart the religious importance of Sunday and the salience it lends to Saturday from the fact that these two days are also not included in the standard work week in many places, even if this is a relatively recent phenomenon.

[5] These are the names for the days of the week given in Kapanga (1991:321). The word *kaži* is the word for 'work', indicating that these are the workdays. *Siku* or *shiku* is the word for 'day', distinguishing Saturday and Sunday from the workdays. Kaji (1985:321-2) gives *siku* where Kapanga lists *kaži* in the words for 'Monday' through 'Friday', although it is indicated that *siku ya kaži* 'day of work' is another option.

same way that Saturday draws from the cultural importance of Sunday in predominantly Christian cultures.

Indeed, we can look to Shinzwani (Ahmed-Chamanga 1997), for evidence of the salience of Thursday in a Bantu language. Shinzwani, a Bantu language spoken on the predominantly Muslim island of Nzwani (or Anjouan) in the Comoro Islands, uses *Djumwa* or *Djimwa* for Friday, borrowed from Arabic. However, the native Shinzwani word used for Thursday, *Yahoa*, is derived from the verb *-hoa*, meaning 'wash up'. The implication is that the day before Friday is important because it is the day that one washes up in preparation for the day of prayer. The special salience of Thursday and Friday are demonstrated in the fact that they break from the pattern that holds for the other days of the week, namely the use of *mfumo* 'week' plus a number (see footnote 2).

Within this context of the salience of both the day of prayer and the day before, both in Christian cultures and Muslim cultures, we can better understand why Kiswahili borrowed both *Ijumaa* 'Friday' and *Alhamisi* 'Thursday' from Arabic. In the seven-day week, both days six and seven take on special importance.

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ENGLISH/SPANISH LANGUAGE CONTACT ON THE INTERNET: LINGUISTIC BORROWING OF MANY STRIPES

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Spanish/English contact on the Internet is not a traditional situation of geographical language contact, but the resulting language change can be analyzed within the framework of a traditional analysis of linguistic borrowing. While English lexical items are entering Spanish Internet language at an unprecedented rate, there is an increasing tendency for Spanish to find or create, in a number of different ways, expressions that conform to Spanish linguistic patterns, rather than continuing to simply use English terminology. The observable results of Spanish/English language contact on the Internet are examined here and classified as loanwords, borrowings, loan translations, semantic calques, and loan blends.

1. Introduction

Language contact has generally been thought of as the geographical 'impinging of linguistic groups upon the territory of other linguistic groups' (Macaulay 1982:203). Indeed, a great number of studies have considered Spanish/English contact in the United States (e.g., Timm 1975, Sobin 1982, Daiuta 1984, Otheguy, García & Fernández 1989, Silva-Corvalán 1994, Toribio 2002), French and English in francophone areas of Canada (Poplack, Sankoff & Miller, 1988; Palmer & Harris 1990, Grant-Russell 1999), or Gaelic and English in Scotland (Macaulay 1982). However, Macaulay (1982) reminds us that 'some situations of contact are of a different kind altogether' (1982:204). Martin (1998), for example, examines French/English language mixing as it appears in written French advertising, focusing on code-mixing and code-switching in written material. The case of Spanish/English language contact on the Internet is another situation that differs altogether from the traditional idea of geographically motivated language contact and change. Soler (1997:61), in discussing the role of the Spanish language on the Internet writes:

> La territorialidad ya no es el único factor vinculado a la creación de espacios culturales y de comunicación. Éstos empiezan a ser independientes de los territorios físicos.
> 'Territoriality is no longer the only factor linked to the creation of cultural and communicative spaces. These are beginning to be

independent of physical territories.'

Spanish/English contact on the Internet, and the resulting language change, defy easy classification for a number of reasons. First, this is not a traditional geographical situation of language contact, and it is not at all clear that we are dealing with a traditional bilingual speech community. In addition, English lexical items are entering Spanish Internet language at an unprecedented rate, but in different ways. For example, *Internet*, *ratón* 'mouse', and *salvapantallas* 'screen saver' are all lexical items that are commonly used in Spanish to talk about computers and the Internet, but each is a borrowing of a different type. Finally, while some borrowings are clearly already undergoing integration into the Spanish language, even appearing in Spanish language dictionaries, others are still very clearly flagged as foreign items. Such flagging can be carried out through the maintenance of source language orthography or accentuation, the use of quotation marks or italics, or some kind of metalinguistic commentary (Grant-Russell 1999).

2. Language in cyberspace

There is nascent interest in what Timofeeva (2001:199) calls 'the linguistic issue [of] *language in cyberspace....*', accompanied by a still small body of research on different aspects of the subject. Soler (1997) laments what he sees as a patrimonial reticence with respect to the diffusion of Spanish and Hispanic language and culture on the Internet. He points to the fact that 85% of Latino content servers were in the United States at the time of writing, and that a large part of the Spanish language presence on the Web is due to private rather than corporate or institutional initiatives. In a more optimistic vein, Piñol (1999) analyzes some recent lexical innovations in Spanish Internet language, and points out that there is an increasing tendency for Spanish to find or create expressions that conform to Spanish linguistic patterns, rather than continuing to simply use English terminology. Piñol (2000) explores the usefulness of Spanish language e-mail, discussion lists and web sites for the Spanish FL classroom. Timofeeva (2001) examines Russian Internet language and details many linguistic innovations that are leading to the establishing of a new cyber- or hybridized Web language. She argues that the influence of a global network with its computer terminology in English, and Web-texts standards based on new units and models of language has created a new Web language in Russian that lies somewhere between 'classical literary language', on the one hand, and 'plain or street language', on the other.

Many of the innovations Timofeeva identifies in Russian Internet language can also be found in Spanish Internet language. Such innovations include a lack of traditional punctuation, or special web usage of traditional punctuation. Some examples in Spanish can be found at http://www.nazcanet.com/e-jobs/, where the advertising banner with the message *Ya no es .complicado* 'It's not so .complicated anymore' incorporates the dot com (.com) extension as part of the word *complicado*, or at http://www.enel.net/rumbodiario/, where the name of the site is *enelpunt●net*, and *punto* appears only as a period (dot) in the URL.

Another characteristic of Russian Internet language is a greater linguistic freedom in spelling, such as a specialized use of capital letters. An example of this in Spanish is found at http://www.tuGUeb.com, described as the portal or website for *Gaceta Universitaria*, a web publication directed at a young public in general, and at university students in particular. In addition to the graphic manipulation of capital letters that connects the web address to the name of the publication, this particular URL disregards Spanish spelling conventions. The graphemic combinations <gue> and <gui> in Spanish are pronounced /ge/ and /gi/. They are pronounced /gŭe/ and /gŭi/ only when spelled with the umlaut as in *vergüenza* 'shame' or *lingüista* 'linguist', but there is no doubt that this web site is called /tu-gŭéb/ 'your Web', a pronunciation that reflects a common allophonic variation of /w/ (e.g., *hueso* 'bone' can be pronounced [wé-so] or [gŭé-so], where [w] is the voiced bilabial split-fricative consonant, often allophonically strengthened to [g], and [ŭ] is a high back glide). In the area of lexis, some innovations in Russian Internet language include the use of current keywords as a basis for word formation (e.g., Интернет 'Internet'> Интернетизация 'Internetization'), compounding (e.g., Интернет-культура 'Internet culture'), blendings such as Сетикет 'netiquette', based on Сеть 'net' + Этикет 'etiquette', and semantic neologisms, whereby an existing word acquires a new web meaning that differs from its standard meaning. In Spanish Internet language, in addition to the widespread use of blendings based on international (English) Internet vocabulary found in Russian Internet language, there are certain loan blends that are specific to Spanish language web sites, such as those found on the Ecuadorian server http://www4.ecua.net.ec/, which makes abundant use of links such as *ecuapaging, ecuaforos, ecuachat*, and *ecuacards*. Other blends are strictly Spanish, such as *publitotal* from *publicidad* 'advertising'+ *total*, part of the name of a Uruguayan server (UruguayTotal.com).

3. Language contact in cyberspace: A case of code-switching?

One language contact phenomenon that has been explored in great detail is code-switching, described by Timm (1975:473) as:

> that preëminently bilingual mode of communication characterized by frequent shifts from one language to the other, (typically without phonological interference) throughout the flow of natural conversation.

While many language contact situations can be analyzed in terms of code-switching vs. borrowing, I would argue that such is not the case for Spanish/English contact on the Internet. One reason is that the motivations for code-switching are largely extralinguistic, and that code-switching serves as a device for indicating personal feelings, as a response to the speaker's assessment of his or her interlocutor on various levels, or as a reflection of ethnic identity (Timm 1975, Toribio 2002). The use of English in Spanish language Internet texts, on the other hand, answers to a much narrower necessity, and can more fruitfully be considered a case of transfer, that serves as 'a means of correcting the inadequacies of a lexicon' (Weinreich 1967:31). A further consideration is that

code-switching is traditionally found and analyzed in spoken language (cf. Martin 1998). Poplack, Sankoff & Miller (1988) use a complex set of criteria to argue that it is possible to distinguish between single-word switches and single-word borrowings in the speech of bilinguals, while Otheguy, García & Fernández (1989) make this distinction based solely on phonological integration of single-word items: single word switches in the speech of the Cuban Americans participating in their study preserve English phonology, while single-word borrowings are phonologically integrated into Spanish. While the phonological aspect of language contact is central to virtually all existing research on both code-switching and other contact phenomena (cf. Grant-Russell 1999), communication on the Internet is accomplished primarily through written means (even in chat rooms and through instant messaging), so it is extremely difficult to establish the level of phonological integration of English items, single- or multiple-word, that appear in Spanish Internet language. Even so, it seems safe to assume that, as in other cases of linguistic borrowing, phonological integration of English terms used in Spanish language Internet texts becomes more complete as the social integration of the loanword proceeds, and that phonological integration is in part a function of the bilingual ability of the speaker (Haugen 1950; Poplack, Sankoff & Miller 1988). Monolingual Spanish speakers or those with low proficiency in English most likely show a strong tendency to assimilate Internet language borrowings into Spanish phonology while more proficient English speakers tend to assimilate less to Spanish phonological patterns. A final consideration is that Spanish Internet language is global by its very nature, and cannot be analyzed as the mode of communication of any specific language community. Therefore, as implied above, producers and consumers of Spanish Internet language probably include English/Spanish bilinguals as well as monolingual Spanish speakers. Code-switching by definition is a linguistic behavior found among bilingual speakers. On the other hand, in the case of linguistic borrowing, it is a bilingual speaker who introduces a new loanword, but once the loanword gains a certain currency in the host language it will be picked up and used even by the monolingual speaker as the borrowed item loses its status as a foreign word (Haugen 1950). Myers Scotton (1990), following Gibbons (1987:70) points out that borrowing typically requires only a monolingual competence. The observed results of Spanish/English contact on the Internet can be more accurately described in terms of linguistic borrowings of various kinds, rather than as a situation of code-switching.

4. Contact phenomena: linguistic borrowings of many stripes

According to Weinreich (1967) the most common form of borrowing is the outright transfer of single-word items or unanalyzed compounds from one language to another, resulting in a loanword. The term *loanword* is used in this sense in much of the research on language contact. For Daiuta (1984) loanwords result when speakers transfer both form and content from the source language to the recipient language, with concomitant phonological and morphological adaptation (e.g., Spanish *lonchar* from 'to have lunch'; *troca* or *troque* from 'truck'). Otheguy, García & Fernández (1989) call these simply single-word

borrowings (as opposed to single-word switches), and in Silva-Corvalán's (1994) terminology, they are single-word loans. Poplack, Sankoff & Miller (1988:52) make a distinction between lexical borrowing on the one hand, and loanwords on the other:

> Lexical borrowing involves the incorporation of individual L2 words (or compounds functioning as single words) into discourse of L1, the host or recipient language, usually phonologically and morphologically adapted to conform with the patterns of that language, and occupying a sentence slot dictated by its syntax. The status "loanword", however, is traditionally conferred only on words which, in addition, recur relatively frequently, are widely used in the speech community, and have achieved a certain level of recognition or acceptance, if not normative approval...

Palmer and Harris appear to make the same distinction, and refer to integration, or 'the acceptance of a word or phrase originating in another language by a language community as part of its language' (1990:81).

The loanword is not only the most common form of linguistic borrowing. It is also the only observed result of borrowing that can be defined more or less straightforwardly based on the existing literature. Otheguy, García & Fernández (1989:43) summarize the problem:

> The study of modeling, which Weinreich defined as the use of the influenced language's own elements in a manner that replicates, or models, features of the influencing language, is beset with terminological and conceptual difficulties. The terms calque, semantic loan, semantic extension, loan shift, and loan translation have all been in circulation for many decades, all referring essentially to the same modeling phenomenon.

The problem is actually more complicated, since these terms appear to describe the same thing, when really, they do not. Both *loan translation* and *calque* are generally defined as the transferring of meaning without forms, or as 'the transfer of language X content alone, using the forms of language Y to render the content' (Daiuta 1984:72). However, an important distinction is missing. If we look at the examples in Haugen (1950) and Weinreich (1967), it becomes apparent that a loan translation creates a new lexical item in the recipient language to refer to a previously unnamed item or concept, for example, when Spanish uses the words *rasca+cielos* to render the same meaning as the English forms 'sky'+'scraper'. Weinrich (1967:50) considers the loan translation to be a 'reproduction in terms of equivalent native words', where the model can be reproduced exactly (Spanish *rascacielos* from English 'skyscraper'), or less exactly (a loan rendition such as German *Wolkenkratzer* 'cloud scraper' from English 'skyscraper'), or where a new coinage is created based on a stimulus in the model language (a loan creation, for example, Yiddish *mitkind* (literally 'fellow child'), based on English 'sibling'). The use of the label 'calque' in Otheguy, García & Fernández (1989), and Silva-Corvalán (1994) captures the

difference between a calque and a loan translation. Silva-Corvalán defines single-word calques as:

> the transferring of meanings into an already existing lexical item (e.g., *parientes* 'relatives' extends its meaning to incorporate the meaning of English *parents*...) (1994: 171)

Silva-Corvalán gives other examples such as *aplicación* 'application' in the sense of making a request (Spanish *solicitud*), *grados*, for school 'grades' (Spanish *notas*), and *carpeta* for 'carpet' (Spanish *alfombra* or *moqueta)*. These examples clearly point out the difference between a loan translation and a calque. A loan translation creates a new lexical item, whereas a calque transfers a foreign meaning onto an already existing lexical item. This use of the term *calque* appears to coincide with Haugen's (1950) *semantic loan*, in which no formal structural elements are transferred, only meaning, and the new meaning is the only visible evidence of borrowing.

The last term that is of import here is *loan blend*, described by Haugen (1950:214) as a word where 'only part of the phonemic shape of the word has been imported, while a native portion has been substituted for the rest'. Haugen gives the example of Pennsylvania German [blaumәpaɪ], based on American English 'plum pie'. Here the speaker analyzed the compound into its constituent morphemes, and made a partial substitution.

5. The current study

To compile the lists of lexical items analyzed in this study, I consulted a large number of Spanish language servers, online newspapers and dictionaries. See Appendix A for a complete listing of servers and websites consulted. The home pages, navigating and clicking words, privacy policies, legal notices, terms of service, FAQ's, and e-mail and chat registration forms from servers based in Spain and nine Spanish-speaking countries in Latin America yielded many examples of linguistic borrowing. I repeatedly consulted thirty online newspapers from Spain and countries in Latin America, most of which are also published in print, and found that many have sections dedicated to science, technology, and the Internet, which also make use of many borrowed lexical items. However, some Internet-related lexical items are undergoing a certain degree of integration and diffusion beyond the Internet, and have achieved word list status. In addition, such lexical items are not relegated only to special technology sections, but are finding their way into front page news items, as seen in the following examples:

(1) a. *El vertiginoso ascenso del precandidato demócrata Howard Dean es un buen ejemplo de cómo hacer "ruido" en Internet.*
'The meteoric rise of the democratic candidate Howard Dean is a good example of how to make "noise" on the Internet'.
(http://www.clarin.com/diario/2003/07/11/t-587348.htm)

b. *En los últimos años, Google.com se ha convertido en el buscador de Internet más popular en el mundo, y es que regularmente da excelentes resultados si sabes buscar bien.*

Pues bien, Google fue hackeada....
'In recent years, Google.com has become the most popular Internet search engine in the world, and it regularly gives excellent results if you know how to do a good search. Well, Google was hacked...'
(http://www.cnienlinea.com.mx/notas/61_4707.html)

c. *Sin embargo, en este caso pocos son los que se atreven a recurrir a las autoridades federales ya que, como señaló uno de los "webmasters" a la revista "Wired"...*
'However, in these cases few dare to go to the federal authorities, as was pointed out by one of the webmasters for the magazine *Wired*...'
(http://www.abc.es).

In what follows, the observable results of Spanish/English language contact on the Internet will be examined and classified using the following terms, defined in the preceding section: loanwords, borrowing, loan translation, semantic calque, and loan blend.

5.1. Loanwords

If following Poplack, Sankoff & Miller (1988) we use dictionary attestations as one gauge of acceptance of a linguistic borrowing, a number of forms can already be classified as loanwords. Technically, only accepted borrowings are loanwords, but a number of loan translations and semantic calques have also recently achieved word list status. A comparison of the twenty-first print edition of the *Diccionario de la Lengua Española* (Real Academia Española 1992) and the twenty-second edition (2001) that appears online gives an idea of how rapidly some Internet terminology is becoming integrated into the Spanish language as a whole. The online version, which like all previous print editions has been compiled with the collaboration of sister *Academias* in Latin America, North America and the Philippines, has added 10,000 new lexical items, more than 24,000 new acceptations, and more than 3,000 phrases and expressions. Only two of the forms (*ratón* 'mouse' and *disco duro* 'hard drive') that appear in the twenty-second edition online appear in the print edition from 1992. This means that most of the items that have attained word list status have done so roughly in the last ten years. The terms that appear in the twenty-second edition of the *Diccionario de la Lengua Española* follow:

(2) a. Fully accepted borrowings: *ciberespacio, hardware, software, clic, hypertexto, web, módem, píxel*;

b. Loan translations: *buzón electrónico* 'electronic mailbox', *correo electrónico* 'e-mail', *disco duro* 'hard drive', *página web* 'web page';

c. Semantic calques: *(anti)virus*, *ventana* 'window', *navegar* 'browse', *aplicación* '(web) application', *ratón* 'mouse'.

The terms *(anti)virus, ciberespacio, hardware, software, modem, pixel,*

correo electrónico, disco duro, and *ventana* also appear in the *Diccionario General de la Lengua Española VOX* online (Spes Editorial 2000). Some loanwords show clear (but inconsistent) signs of integration into Spanish through regular morphological processes, or through phonological and orthographic assimilation to Spanish. The definitions of *hardware* and *software* in the *Diccionario General de la Lengua Española VOX* online also include the information 'Se pronuncia *járduer*', and 'Se pronuncia *softuer*', giving us some idea of the phonological adaptation that the terms are undergoing. In this dictionary, the words *modem* and *pixel* appear with no written accent, but they appear as *módem* and *píxel* in the online *Diccionario de la Lengua Española* (Real Academia Española 2001), and on a regular basis, as *módem, píxel,* and *píxeles*, also with a written accent and with a plural form that conforms to Spanish patterns of plural word formation (*-s* if the word ends in a vowel, *-es* if it ends in a consonant) in the advertising section of the print edition of the Spanish newspaper *El País*. On many websites we find the word *click*, which appears as *haz click*, *haga click* or *hacé click*, depending on the dialectal variation involved, with the English spelling, or as *clic*, with a simplification of the English <ck> orthographic cluster. In still other cases, the command forms *clique aquí* 'click here' or *cliquea aquí* (http://www.ahijuna.com.ar/info/herramientas/) are attested, with standard Spanish orthography even though there is no verb form *clicar* or *cliquear* in the 1992 print edition of the *Diccionario de la Lengua Española,* the 2001 online edition, or the 2000 *Diccionario General de la Lengua Española VOX* online.

5.2. Unintegrated borrowing

Borrowing, as we have seen, is the outright transfer of both form and content of single-word items or unanalyzed compounds. In Spanish Internet language, though not in Spanish in general, this definition must be extended to include the use of abbreviation by initials. Piñol (1999) points out that normally in Spanish, abbreviation by initials will reflect Spanish word order, for example, IMF (International Monetary Fund) in English, but FMI (*Fondo Monetario Internacional*) in Spanish. However, this does not happen in Spanish Internet language, where English word order is maintained in abbreviation by initials. Piñol offers many examples of this, including:

(3) a. FTP not PTF (*Protocolo de Transferencia de Ficheros*)

b. HTML not LMHT (*Lenguaje de Marcado de HiperTexto*)

c. URL not LUR (*Localizador Universal de Recursos*)

Piñol also includes a listing of blendings such as *ciberespacio* which are phonologically adapted to Spanish, but maintain English word order. These must also be considered borrowings, since it appears that the blending takes place in English, and then the unanalyzed blended form is transferred to Spanish in both form and content. This would explain why English word order is maintained. Some of these include:

(4) a. ciberespacio 'cyberspace' from '**cyber**netic **space**'

b. e-mail from '**e**lectronic **mail**'

c. emoticón 'emoticon' from '**emoti**onal **icon**'

Some of the more common borrowings that appear on Spanish language servers and web sites are listed below. None of these appear in the *Diccionario de la Lengua Española* 1992 print edition, the 2001 online edition, or the 2000 *Diccionario General de la Lengua Española VOX* online. For a more complete listing, see Appendix B.

(5) banners
cookies
chat
click/clic (doble clic
hacker/hacking
home/home-page
(la) Internet
links
login
messenger
online
spam/spamming/anti-spam
World Wide Web

It is curious to note that the word *Internet*, which appears even in scholarly publications in Spanish (Soler 1997, Piñol 1999, 2000), is not listed in the dictionary.

The borrowings that appear here are used on any number of web sites, but very often they are flagged as foreign terms in some way. This appears to be, at times a function of the website, and at others, a function of the word. For example, the Spanish print newspaper *ABC* is known to be politically conservative, and to use a quite formal style of language. In the legal notice of the online edition (http://www.abc.es), many borrowed terms are flagged as foreign, and some doubly so through the use of quotation marks as well as metalinguistic commentary (e.g., *mediante la técnica denominada "framing"* 'through the technique called "framing"', *mediante la técnica denominada "in line linking"* 'through the technique called "in line linking"'). In other cases, it appears that it is the term itself that leads to flagging. Some terms such as 'cookies' are so unassimilated that they even lead to some confusion in the assignment of gender. For example, in their privacy policies, many websites such as http://www.bacan.com refer to *una cookie* and *las cookies* (fem.), but http://www.univision.com refers to the feminine *una "cookie" o galleta*, and in the same paragraph, to masculine plural *estos "cookies"*. The privacy policy of *Clarín*, an Argentinean print and online newspaper (http://www.clarin.com), informs readers that:

> *Los Cookies* [masc.] *son pequeñas piezas de información transferidas por el sitio Web* 'cookies are small pieces of information transferred by the Website...'

Poplack, Sankoff & Miller (1988) found that gender assignment is made very consistently quite early in the process of integration, so we can assume that terms like 'cookies' have been borrowed into Spanish Internet language, but are nowhere near being considered as part of the lexical stock of the majority of Spanish speakers.

In many cases borrowed items are used along with Spanish terms that denote the same thing. For example, on the home page for http://www.ozu.es, the message is 'Estás en: Home', but on other pages the link to return to the home page is Ozú página de inicio. At http://www.mexicoglobal.com/pagina_inicio/ the following message appears:

> *Si utiliza otro browser elija el navegador (browser) que está utilizando actualmente para recibir instrucciones.* 'If you use another browser choose the browser that you currently use to receive instructions.'

Likewise, the term *correo electrónico* and 'e-mail' are used interchangeably on many web sites. On http://www.ozu.es, the user is directed to *chequear tu correo* 'check your mail' or follow the command *accede a tu correo* 'access your mail', but if the user does not have an account, in order to create a user profile it is necessary to provide an alternate e-mail address or *mail alternativo*, where one can be notified upon receiving a message:

> *Selecciona "Activa Notificación" si deseas recibir un aviso en tu mail alternativo cada vez que recibas un e-mail.* 'Choose "Activate Notification" if you want to receive notification through your alternate e-mail address every time you receive an e-mail.'

While many borrowings are still marked as foreign, others are already showing signs of integration into Spanish through regular morphological processes. The borrowing *chat*, for example, exists as a related noun form, *chateo*, and as a verb, *chatear*. The borrowed form *hacker* habitually appears even in news items, and has a number of related forms, including related nouns and conjugated verbs, as seen in the following examples:

(6) a. *Detienen a un hacker...*
'a hacker was arrested...'
(http://www.clarin.com/diario/hoy/um/m-587829.htm)

b. *Un hombre de 31 años hackeó...*
'A 31 year old man hacked...'
(http://www.clarin.com/diario/hoy/um/m-587829.htm)

c. *Una hackeadita a Google*
'a little hacking at Google'
(http://www.cnienlinea.com.mx/notas/61_4707.html)

d. *Google fue hackeada...*
'Google was hacked...'
(http://www.cnienlinea.com.mx/notas/61_4707.html)

e. *El hackeo fue hecho por un inglés...*
'the hacking was done by an Englishman...'
(http://www.cnienlinea.com.mx/notas/61_4707.html)

f. *Además de esta búsqueda hackeada, existe otra...*
'In addition to this hacked search, there is another...'
(http://www.cnienlinea.com.mx/notas/61_4707.html).

To summarize, what is clear is that among these borrowings, there are degrees of integration. On one end of the scale, the borrowed form *Internet* does not appear in the dictionary, but it does regularly appear in news items and in scholarly writing (Soler 1997, Piñol 1999, 2000), and is very seldom flagged as foreign. In addition, it is always feminine (*la Internet*) when it is assigned gender. This consistency in gender assignment indicates that it already has a certain currency in the word stock of many Spanish speakers. In the middle are expressions like *chat* and *hacker* that have undergone morphological innovations. And at the other extreme are the many expressions like *cookies* that are still considered quite foreign and are habitually flagged as such through orthography, the use of quotation marks or italics, or some kind of metalinguistic commentary, alone or in combination.

5.3. Loan translations

As explained above, a loan translation here means the use of Spanish forms to render the content of English, thereby creating a new lexical item in Spanish. All the items that appear here were created to name Internet related things and concepts that were previously unnamed in Spanish. A fuller listing can be found in Appendix B, but a representative sample appears below:

(7) archivos adjuntos 'attachments'
barra de herramientas 'tool bar'
correo electrónico 'e-mail'
corrector ortográfico 'spell check'
disco duro 'hard drive'
espacio cibernético 'cyberspace'
hipervínculos 'hyperlinks'
mapa del sitio 'sitemap'
mensaje/mensajería instantáneo/a 'instant message/messaging'
pancartas publicitarias 'banners'
periódico electrónico 'online newspaper'
pirata informático 'hacker'
programación de terceros 'branded programming'
salvapantallas 'screen saver'

As indicated above, *buzón electrónico*, *correo electrónico, disco duro,* and *página web* already appear in the 2001 online edition of the *Diccionario de la Lengua Española* (Real Academia Española), *disco duro* appears in the 1992 print edition, and *correo electrónico* and *disco duro,* appear in the 2000 *Diccionario General de la Lengua Española VOX* online.

5.4. Semantic calques

Recall that a semantic calque involves the transfer only of meaning, and the new meaning is the only visible evidence of borrowing (Haugen 1950). So in all the examples that follow, no new lexical items are created, but lexical items that already existed in Spanish have acquired a new meaning, copied or calqued from English lexical items. In the case of those that already appear in the dictionary, it is easy to see that existing words have taken on new meaning. For example, in the 1992 print edition of the *Diccionario de la lengua española*, the word *ventana* 'window' is defined as 'the elevated opening left in a wall for ventilation and light; the pieces of wood and glass used to close such an opening; each opening in the nose'. None of its related figurative expressions refers to information technology. In the 2001 online edition of the dictionary, *ventana* has the same definitions as before, in addition to a new meaning:

> *Espacio delimitado en la pantalla de un ordenador, cuyo contenido puede manejarse independientemente del resto de la pantalla* 'A delimited area on a computer screen, whose content can be manipulated independently of the rest of the screen'.

Likewise, *navegar* 'navigate' has the meanings:

> 'to travel by water on a ship or vessel; to make the ship or vessel move forward; by analogy, to travel by air in a balloon, airplane or other vehicle',

in addition to figurative meanings that have no relation to information technology. In the 2001 online edition of the *Diccionario de la lengua española*, the word *navegar* has the new meaning: *Desplazarse a través de una red informática* 'to move from one place to another through an information network', i.e., to browse. The following are representative examples of semantic calques found in Spanish Internet language. A more complete listing appears in Appendix B:

(8) buscador 'search engine'
cargar 'upload'
descargar 'to download'/descargas 'downloads'
dominio 'domain'
navegar 'to browse'/navegador 'browser'/navegación 'browsing'
página 'page'
ratón 'mouse'
ventana 'window'
servidor 'server'

In Spanish Internet language, there are also examples of existing Spanish words that appear to be calques but are not, for example, *búsqueda* 'search'. Such words do not take on new meanings, but rather extend their traditional meanings to a new area. The *Diccionario de la Lengua Española* (Real Academia Española 1992) lists *búsqueda* with the definition

busca, acción de buscar. Ú. con frecuencia en los archivos y escribanías

'search, action of searching. Frequently used in archives and court clerks' offices'.

On the Internet, the meaning of *búsqueda* remains the same, but it is extended to include electronic archives. It is not a calque, an already existing item with a new meaning, but rather a semantic extension, a lexical item whose traditional meaning is extended to cover more ground. Other words that might be included in this group are *clave* 'password', *charlas* 'chat', *contraseña* 'password', *foro* 'forum', *membresía* 'membership', and *pláticas* 'chat'. *Membresía* is attested in the Spanish of Ecuador, El Salvador, Guatemala, Honduras, Mexico and Panama. Interestingly, it does not appear in the 1992 print edition of the *Diccionario de la Lengua Española*, but it does appear in the 2001 online edition.

5.5. Loan blends

In a loan blend, part of the phonemic shape of the word is imported, while a native portion has been substituted for the rest, that is, a compound is analyzed into its constituent morphemes, and a partial substitution is made. There are few in Spanish Internet language, and most appear to use proper names in Spanish as the native portion of the blend, as shown by the following examples:

(9) ecuanet (Ecuadorian server)
ecuapaging (paging services on Ecuadorian Server)
ecuaforos (forums on Ecuadorian server)
ecuachat (chat rooms on Ecuadorian server)
ecuacards (online greeting cards on Ecuadorian server)
clarinmail (e-mail associated with Argentinean online newspaper *Clarín*)
Ambitoweb (website for Ambito Financiero)

6. Conclusions

Spanish/English contact on the Internet is far from what we traditionally consider a language contact situation. Nonetheless, it is possible to look at this virtual language contact situation, and use traditional tools to analyze the recurrent borrowing phenomena that are found across a large number of Spanish language servers and web pages. Just as in traditional language contact, loanwords and borrowing are the most common phenomena, but there are also examples of loan translations, semantic calques and loan blends. In addition, Internet language borrowings undergo integration in much the same way as borrowings in traditional contact situations, by consistently occupying the correct syntactic slot in a sentence, by receiving consistent gender assignment, by adapting to phonological and morphological patterns of the recipient language, by conforming to the orthographic patterns of the recipient language, and by appearing in written texts without any of the flagging devices that indicate awareness of the foreign status of a lexical item.

The study of Spanish/English contact on the Internet provides a rich field

for future research. First, this study examines only written texts, without delving into the level and rate of phonological integration of foreign lexical items for bilingual and monolingual speakers. In addition it does not consider whether items from Spanish Internet language that have achieved a certain level of integration have done so across the board, or if age, education, sex, social class, and familiarity with English have an effect on the willingness or ability of Spanish speakers to use such borrowed lexical items. Finally, it has been shown above that the rate of integration of borrowed lexical terms is inconsistent. Some lexical items have acquired word list status very rapidly, appearing in scholarly publications, Spanish language dictionaries, and online and print newspapers, with morphological, phonological and orthographic adaptations, while others are still quite far from being considered in any way Spanish. Except in the case of *clic* or *cliquea*, *módem* and *píxel*, even in the case of borrowed lexical items that appear in the dictionary, or that already have a number of related forms, the orthography is still very much foreign, even though the phonology is showing signs of conforming to Spanish sound patterns (recall the spelling pronunciations of 'hardware' (*járduer*) and 'software' (*softuer*) offered by the VOX online dictionary), and word families are being created through conventional Spanish derivation. Since language change is occurring very rapidly in this situation it may be possible in a very short time to document the adaptation to Spanish patterns of orthography, morphology and phonology of English language Internet lexis. The study of Spanish/English contact on the Internet will provide us with as fertile a field for observing and documenting language change as has the geographical contact that has resulted in so much research on traditional Spanish/English contact situations.

APPENDIX A

SPANISH LANGUAGE SERVERS AND WEBSITES CONSULTED

(1) Servers and portals
http://bacan.com (Ecuador)
http://www1.ecua.net.ec (Ecuador)
http://www.tuGueb.com (portal for Gaceta Universitaria - Spain)
http://www.ozu.es (Spain)
http://www.terra.es (Spain and International)
http://cnienlinea.com (Mexico)
http://www.univision.com (Mexico)
http://www.esmas.com/televisahome (Mexico)
http://www.rcp.net.pe (Peru)
http://www.terra.com.ar (Argentina)
http://www.yagua.com (Paraguay)
http://www.chilebusca.cl (Chile)
http://www.buscaniguas.com.sv (El Salvador)
http://us.uruguaytotal.com (Uruguay)
http://www.auyantepui.com (Venezuela)
http://espanol.yahoo.com (Yahoo U.S. in Spanish)
http://ar.yahoo.com (Yahoo Argentina)
http://mx.yahoo.com (Yahoo Mexico)

(2) Online newspapers
http://marca.com (Spain)
http://www.abc.es (Spain)
http://www.5dias.com (Spain)
http://www.as.com (Spain)
http://www.expansion.com (Spain)
http://www.ole.clarin.com (Argentina)
http://www.lanacion.com.ar (Argentina)
http://www.larazon.com.ar (Argentina)
http://www.clarin.com (Argentina)
http://www.elindependiente.com.ar (Argentina)
http://www.enel.net/rumbodiario (Dominican Republic)
http://www.hoy.com.do (Dominican Republic)
http://www.prensalibre.com/pls/prensa/index2.jsp (Guatemala)
http://www.eldiario.net (Bolivia)
http://eltiempo.com (Columbia)
http://www.nacion.co.cr (Costa Rica)
http://www.nuevaprensa.org/scripts/index.html (Cuba)
http://chile.primerapagina.com (Chile)
http://www.elcomercio.com (Ecuador)
http://www.laprensagrafica.com/portada/default.asp (El Salvador)
http://www.lahora.com.gt (Guatemala)
http://www.laprensahn.com (Honduras)
http://www.laprensa.com.ni (Nicaragua)

http://www.prensa.com/hoy/portada.shtml (Panama)
http://www.diarionoticias.com.py/20030718/index.php (Paraguay)
http://www.estrelladepr.com (Puerto Rico)
http://www.elpais.com.uy/03/07/18 (Uruguay)
http://www.el-nacional.com (Venezuela)

(3) Dictionaries
http://www.rae.es (Real Academia Española, 2001)
http://www.elmundo.es/diccionarios
http://www.diccionarios.com/index.phtml (*Diccionario General de la Lengua Española VOX* online)

(4) Assorted
http://www.periodistadigital.com (has links to many Spanish language newspapers)
http://www.cibercentro.com (links to Spanish language newspapers, servers and search engines)
http://www.trinity.edu/mstroud/spanish/spanlink.html (has links to newspapers, servers, and cultural sites)
http://www.novomedia.es/web/medios/internet.htm (Spanish website linked to a number of newspapers)

APPENDIX B

ADDITIONAL EXAMPLES OF LINGUISTIC BORROWINGS

1) Additional Unintegrated Borrowings

cibercampaña 'cyber campaign'
(sitio) cobrandeados 'co branders'
encriptar
firewall
newsletters
password
splitter
weblog/webloggers
webmail
webmaster
webcam
website

2) Additional Loan Translations

buzón electrónico 'electronic mailbox'
cámara web 'webcam'
carpeta C 'C drive'
código de cliente 'login'
correos basura 'junk mail'
en línea 'online'
hiperenlaces 'hyperlinks'

página de entrada 'homepage'
página de inicio 'homepage'
pirata cibernético 'hacker'
protección antivirus 'virus protection'
recorrido gráfico 'virtual tour'
salas de chat 'chatrooms'
sitio(s) web 'website(s)'
teletrabajo 'telecommuting'
ventanas interactivas 'interactive windows'

3) Additional Semantic Calques

ambientes 'IMVironments' (Instant Messaging Environments)
bajar 'download' (¡bajátelo ya! from http://ar.messenger.yahoo.com)
bajado 'downloaded'
controladores 'drivers'
entornos 'IMVironments' (Instant Messaging Environments)
gusano 'worm, virus'
portal 'website'
virus 'computer virus'

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TWO TYPES OF NEGATION *NOT* AND SCOPE AMBIGUITIES

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Dynamic Montague Grammar (DMG) presented by Groenendijk & Stokhof (1990) assumes that negation *not* is always interpreted as sentence negation and normally treated in a static way. Under this analysis, all anaphoric relations between terms occurring in a negated sentence and anaphora outside the sentence are impossible. However, this runs against our intuitions on the sequence of sentences *A man does not walk in. He stays outside.* In addition, the current DMG analysis fails to capture the ambiguities of a negated sentence with quantified noun phrases correctly. This paper proposes that negation *not* is an expression of two types, which can be adjoined to two different expressions: a verb phrase (i.e., an expression of an intransitive verb type) and a sentence. Negation is applied according to two rules: (i) negation *not* cannot be raised after Quantifier raising and (ii) quantified noun phrases cannot be raised outside of the scope of negation when they are in subject position. This approach correctly predicts that not every sentence with negation and quantified noun phrases exhibits scope ambiguities or prohibits anaphoric relations to pronouns outside the sentence.

1. Introduction

Dynamic Montague Grammar (DMG) presented by Groenendijk & Stokhof (1990) assumes that negation is always adjoined to a whole sentence and is normally treated in a static way. Under this approach, if a sentence is negated, all anaphoric relations between terms occurring in the sentence and anaphora outside the sentence are impossible. However, this runs against our intuitions on the sequence of sentences in (1). The indefinite noun *a man* occurring in the negated sentence is anaphorically linked to the pronoun in (1).

(1) A man does not walk in. He stays outside.

Moreover, the current approach fails to capture the ambiguities of a negated sentence with quantified noun phrases correctly. Consider the sentences in (2).

(2) a. Not every man walks in.
b. Every man does not walk in

Sentences (2a) and (2b) differ by virtue of the position of negation on the surface representation, and this results in different interpretations: sentence (2b) is ambiguous whereas sentence (2a) is not. Sentence (2a) has only one reading that

there are some men who do not walk in. In addition to this reading, sentence (2b) has the reading that no man walks in. However, the current DMG approach predicts that sentence (2a) would be interpreted exactly the same as (2b).

This paper proposes an alternative analysis for interpreting negation *not* on the grounds that not every sentence with negation and quantified noun phrases exhibits scope ambiguities or prohibits anaphoric relations to pronouns outside the sentence. Negation is an expression of two types, which can be adjoined to two different expressions: a verb phrase (i.e., an expression of an intransitive verb type) and a sentence. The ambiguities of a negated sentence with quantified noun phrases can be captured by two application rules: (i) Negation raising should be applied before Quantifier raising, and (ii) a term in subject position is not raised.

This paper is organized as follows. Section 2 presents the problem in dealing with negation *not* using Dynamic Montague Grammar in detail. Section 3 deals with scope ambiguity analysis and its problems. In Section 4, I will propose an alternative analysis for negation *not* and present how this analysis captures the ambiguities of a negated sentence with quantified noun phrases as well as anaphoric relations involving negation. Section 5 summarizes the conclusions of this paper.

2. Previous analysis: Dynamic Montague Grammar

Groenendijk & Stokhof (1990) propose Dynamic Montague Grammar (DMG), where they use a system of dynamic intensional logic as the semantic component of a Montague-style grammar. I assume familiarity with the dynamic intensional logic system (Groenendijk & Stokhof 1991) as well as the type theory of Montague (1974).

The basic expressions I will use in this paper are adopted from Groenendijk & Stokhof (1991). They are translated in (3), where x is a variable of type e, P and Q of type <s, <e, <<s, t>, t>>>, and $\wp$ of type <s, <<s, <e, <<s, t>, t>>>, <<s, t>, t>>>; j is a constant of type e, 'man' and 'walk' are constants of type <e, t>, and 'see' of type <e, <e, t>>; the d_i is a discourse marker.

(3) Definition 1 (Translations of basic expressions)
   a. man $\rightarrow \lambda x \uparrow \text{man}(x)$
   b. walk $\rightarrow \lambda x \uparrow \text{walk}(x)$
   c. see $\rightarrow \lambda \wp \lambda x [^{\vee} \wp (^{\wedge} \lambda y \uparrow \text{see}(y)(x))]$
   d. $a_i \rightarrow \lambda P \lambda \underline{\exists} d_i [\ ^{\vee}P(d_i); {}^{\vee}Q\ (d_i)]$
   e. $\text{every}_i \rightarrow \lambda P \lambda Q \underline{\forall} d_i [\ ^{\vee}P(d_i) \Rightarrow {}^{\vee}Q\ (d_i)]$
   f. $\text{he}_i \rightarrow \lambda Q [\ ^{\vee}Q\ (d_i)]$
   g. $\text{John}_i \underline{\exists} \lambda Q [\{j/d_i\}\ ^{\vee}Q\ (d_i)]$

DMG assumes that negation is adjoined to a whole sentence and interpreted as *it is not the case that*. Under this approach, negation is normally treated in a static way, although there are two kinds of negation, dynamic negation and static negation, as defined in (4):

(4) Definition 2 (Negation)
Static negation $\sim\Phi = \uparrow\neg\downarrow\Phi$
Dynamic negation $\sim\Phi = \lambda p\neg(\Phi(p))$

Due to the definition of static negation, dynamic effects of expressions inside the scope of negation are blocked. That is to say, if a sentence is negated, all anaphoric relations between terms occurring in the sentence and anaphora outside the sentence are not possible. This analysis gives the right prediction for the examples in (5) and (6). The pronoun in the second sentence cannot be interpreted as being anaphorically linked to the quantified noun phrases in the first sentence, which is translated in (7).

(5) It is not the case that a man walks in the park. *He whistles.

(6) No man walks in the park. *He whistles.

(7) $\lambda p[\neg\exists x[\text{man}(x) \wedge \text{walk-in}(x)] \wedge {}^{\vee}p]$

However, consider the direct natural language counterpart sentence instead of the usual indirect translation using the expression *it is not the case that*.

(8) A man does not walk in. He stays outside.

The DMG approach assumes that the sequence of sentences in (8) is interpreted exactly the same as *It is not the case that a man walks in. *He stays outside.* In other words, the first sentence in (8) is translated as in (7), and it is predicted that the pronoun in the second sentence cannot be anaphoric to the indefinite noun *a man* occurring in the first sentence. However, this runs against our intuitions on sentence (8). Negation *not* in (8) cannot be translated as dynamic negation in order to allow the anaphoric relation. Dynamic negation and other functional application produce the following translation of the first sentence in (8).

(9) $\lambda p\neg\exists x[\text{man}(x) \wedge \text{walk-in}(x) \wedge \{x/d_1\} {}^{\vee}p]$

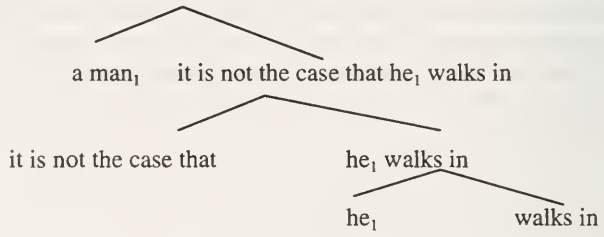
This translation is not what we want. In a situation where a man walks in and he does not stay outside, (8) is false. But if the first sentence in (8) is interpreted as (9), (8) will be true in the same situation. Moreover, if we translate sentence negation as dynamic negation, the negation in the sentence extends to the sentences that follow it in the discourse. In order to prevent this, we should close off the negated sentence using static negation. Therefore, the current DMG approach seems to fail to capture the anaphoric relation involving sentences with negation.

3. Problems with scope ambiguity analysis

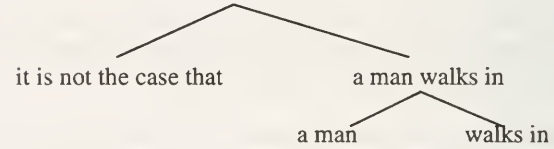
In the preceding section, we have seen that DMG raises a problem concerning the analysis of anaphoric relations involving negation. It fails to account for anaphoric relations between terms occurring in a negated sentence and pronouns, as in sentence (8). One attempt to solve this problem is to assume that scope ambiguities are involved in sentence (8). Although Groenendijk & Stokhof (1990) do not discuss scope ambiguities, we can say that negation interacts with

quantified noun phrases and gives rise to scope ambiguities following traditional Montague Grammar. Sentence (8) can have the following two syntactic structures, represented in (10a) and (10b), and it has two meanings due to scope ambiguities: (i) there is a man who does not walk in, and (ii) there is no man who walks in.

(10) a. It is not the case that a man walks in.



b. It is not the case that a man walks in.



We have already seen that (10b) does not allow *a man* to link to anaphora outside the sentence. On the other hand, functional application and some standard reduction produce the following translation of (10a):

(11) $\lambda p \exists x[man(x) \wedge [\neg\, walk(x) \wedge \{x/d_1\}\, ^{\vee} p]]$

Negation has a narrow scope over the predicate and *a man* can be anaphoric to a pronoun in the following sentence. Therefore the current DMG can capture the anaphoric relation in sentence (8) using scope ambiguities.

However, this approach brings out problems. First, it predicts that every sentence with negation and quantifier noun phrases will be ambiguous since negation *not* interacts with quantified NPs and gives rise to scope ambiguities. Consider the sentences in (12).

(12) a. Not every man walks in.
b. Every man does not walk in.

If we follow the current approach, (12a) is predicted to have the exactly same interpretations as (12b). But (12a) is not ambiguous, whereas (12b) is. Sentence (12a) has only one reading, namely one in which *every man* is under the scope of negation: there are some men who do not walk in. In addition to this reading, (12b) has the reading where *every man* is raised outside of the scope of negation: no man walks in. Sentences (12a) and (12b) differ by virtue of the position of negation, and this results in different interpretations. However, the scope ambiguity approach cannot capture the difference between (12a) and (12b).

Furthermore, the different position of negation affects the interpretation of anaphoric relations. For example, the anaphoric relation in the sequence of

sentences *A man does not walk in. He stays outside* is different from the one in *It is not the case that a man walks in. *He stays outside.* However, the scope ambiguity approach predicts that they have the same readings and that the anaphoric relation in *It is not the case that a man walks in. *He stays outside* should be possible. Therefore, the scope ambiguity approach does not capture the fact that the different positions of negation in a sentence result in different interpretations.

There is another problem with the assumption that negation *not* is adjoined to a sentence, as pointed out by Chierchia & McConnell-Ginet (2000). Consider the following sentence, in which two verb phrases are conjoined.

(13) Every student is tired and isn't enjoying the show.
(Chierchia & McConnell-Ginet 2000:415)

If *not* is only combined with a sentence and it can be raised, we may expect that wide scope readings for negation are possible in conjoined verb phrases. But the only possible reading for (13) is one in which negation has scope over the second conjunct but not over the first conjunct. In other words, negation is combined with the second verb phrase, not with the whole sentence. However, the current DMG, where negation is only combined with an expression of type <<s, t>, t>, i.e., a sentence, cannot deal with conjoined verb phrases in (13) properly.

One might argue that sentence (13) is derived from conjoined sentences via conjunction reduction. Thus, (13) can convert to (14), with negation having narrow scope over the second conjunct in (13).

(14) Every student is tired and every student isn't enjoying the show.

However, this approach raises another problem. We cannot assign the correct truth value for (13) by evaluating each conjunct in (14). Sentence (13) requires that not a single student is enjoying the show: for every student *x, x* is not enjoying the show. In a situation where every student is tired and only some of them are enjoying the show, (13) is false, but (14) can be true.

In summary, the scope ambiguity analysis for anaphoric relations cannot capture two important points as follows:

(i) Available readings are different depending on the position of negation: not every sentence with negation and quantified noun phrases exhibits scope ambiguities or allows anaphoric relations to pronouns outside the sentence.
(ii) Negation can be adjoined to phrases other than a sentence.

4. Translation rules for negation *not*

We have already seen that negation can be combined with an expression of the category of intransitive verb phrases (IV) to yield an IV in the case of conjoined verb phrases. It is claimed that negation can be combined with noun phrases and adverbs as well as verb phrases and sentences (Gamut 1991). In other words, negation is combined with the noun phrase *every man* in the sentence *Not every*

man walked in. But this claim does not seem to be strong. If *not* can negate terms such as *every man* and *a (single) man*, we should expect the following sentences to be acceptable as well.

(15) a. *John likes not every man.
b. *John likes not a (single) man.

However, (15a) and (15b) are not acceptable to most native English speakers. Negation *not* immediately preceding a term is acceptable only when the term is in subject position, but not in object position. This contrast suggests that negation is adjoined not to a term, but rather to a whole sentence. Therefore, I assume that in sentence *Not every man walked in*, negation is combined with the whole sentence *every man walked in* and that traditionally so-called external negation of a quantifier is sentence negation.

Consider the following sentence (16), which can have the interpretation that the adverb *always* is negated, that is, John sometimes smiles.

(16) John does not **always** smile.

Predicate adverbs like *always* in (16) are expressions that yield an IV when applied to an IV. Assuming that negation can be adjoined to an IV, we do not need to stipulate any additional negation rule to capture that *not* is attached to the predicate adverb in (16) since negation will be adjoined to the IV *always smile*.

Therefore, I propose that negation *not* is an expression of two types: SENTENCE NEGATION and IV NEGATION. They are defined as in (17) where x is a variable of type e, P of type <s, <e, <<s, t>, t>>>, and Φ of type <s, <<s, t>, t>>.

(17) RULES OF NEGATION *NOT*

- Translation rules for negation *not*

a. SENTENCE NEGATION *NOT* not $\rightarrow \lambda\Phi\,[\sim^{\vee}\Phi]$
b. IV NEGATION *NOT* not $\rightarrow \lambda P \lambda x\,[\sim^{\vee}P\,(x)]$

- Rules for application

c. NEGATION RAISING
Negation *not* can be raised, but it cannot be lowered.
d. QUANTIFIER RAISING BLOCKING
A term α cannot be raised outside of the scope of negation.

The application rules (17c) and (17d) capture the fact that available readings are different depending on where negation occurs. According to the negation rules in (17), *Not every man walked in* will have only one interpretation, that is, negation *not* is adjoined to the sentence *Every man walked in*. We cannot get the interpretation as that for every man *x, x* did not walk in, since rule (17d) blocks the NP from raising outside of the scope of negation. On the other hand, the sentence *Every man did not walk in* will have two interpretations because the negation adjoined to an IV expression can be raised and negate a whole sentence. That is,

negation *not* can be adjoined to either the IV *walk in* or the sentence *Every man walked in.*

This alternative analysis also gives the right prediction that the different position of negation affects the interpretation of anaphoric relations. Sentence (18) has the following two syntactic structures represented by (18a) and (18b). In other words, negation can be interpreted as either IV negation or sentence negation and hence sentence (18) has two possible readings, (19a) and (19b), which correspond to (18a) and (18b) respectively.

(18) A man didn't walk in.
  a. $[_{IP}$ a man [NOT $[_{VP}$ walk in]]]
  b. [NOT $[_{IP}$ a man[___ $[_{VP}$ walk in]]]]

(19) a. $\lambda p \exists x[man(x) \wedge \neg walk(x) \wedge \{x/d_1\}\ ^{\vee}p]$
  b. $\lambda p[\ \neg \exists x[man(x) \wedge walk(x)\ ] \wedge\ ^{\vee}p]$

When negation is interpreted as IV negation as in (19a), the indefinite noun phrase *a man* is outside of the scope of negation and can be linked anaphorically to a pronoun occurring outside the sentence. However, any anaphoric link to a pronoun outside the sentence is blocked when negation is raised, and the sentence is interpreted as (19b). Therefore, this analysis gives the right prediction that a pronoun outside sentence (18) can be anaphoric to *a man* when it is interpreted as in (19a).

However, a problem arises when we deal with examples of scope ambiguity with two quantified NPs and negation. Consider the sentence in (20).

(20) Every man did not see a stop sign.

This sentence is predicted to have six different readings, schematically represented in (21), if we assume that traditional scope ambiguities are involved (SS stands for 'stop sign').

(21) a. $\neg\forall x[man(x) \rightarrow \exists y[SS(y) \wedge see(x,y)]]$
  b. $\forall x\ [man(x) \rightarrow \neg\ \exists y[SS(y) \wedge see(x,y)]]$
  c. $\forall x\ [man(x) \rightarrow \exists y[SS(y) \wedge \neg see(x,y)]]$
  d. $\neg\exists y\ [SS(y) \wedge \forall x[man(x) \rightarrow see(x,y)]]$
  e. $\exists y\ [SS(y) \wedge \neg\forall x[man(x) \rightarrow see(x,y)]]$
  f. $\exists y\ [SS(y) \wedge \forall x[man(x) \rightarrow \neg see(x,y)]]$

Traditional scope ambiguities derive the undesirable readings (21c) and (21d) as well. (21c) has the interpretation that for every man there was a stop sign which he did not see, and (21d) means that there was no stop sign such that every man saw it. Assume that there are three men {Bill, Tom, John} and three stop signs {A, B, C}. If everyone saw only two stop signs and Bill, Tom and John did not see the different stop sign A, B, and C respectively, (21c) and (21d) will be true. However, this runs against English native speakers' intuitions for sentence (20).

On the other hand, my analysis predicts that (21a) and (21b) are the only possible readings for sentence (20). In order to get two other possible readings, namely (21e) and (21f), the noun phrase *a stop sign* needs to be raised outside the scope of negation. But the noun phrase *every man* must not be raised outside the scope of negation in order to prevent the undesirable reading (21c). In other words, the Quantifier Raising Blocking (QRB) should be restricted to a term in subject position as in (22d'). We also need the rule restricting the order of raising as in (22c'): Negation raising should take place before Quantified NP raising.

(22) Rules for application (revised)

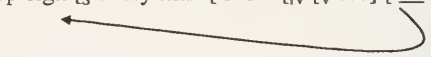
c'. NEGATION RAISING
Negation *not* cannot be raised after Quantifier raising

d'. QUANTIFIER RAISING BLOCKING
A term α cannot be raised if α is in [Spec, IP] (i.e., if $\alpha \in P_{t/tv}$)[1]

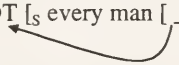
Applying the rules (22c') and (22d'), sentence (20) will have four different readings, which are represented schematically as follows:

(23) a. $[_S$ every man [NOT $[_{IV}$ $[_V$ see] [a stop sign]]]]

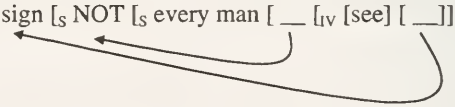
b. $[_S$ a stop sign $[_S$ every man [NOT $[_{IV}$ $[_V$ see] [__]]]]]



c. $[_S$ NOT $[_S$ every man [__ $[_{IV}$ $[_V$ see] [a stop sign]]]]]



d. $[_S$ a stop sign $[_S$ NOT $[_S$ every man [__ $[_{IV}$ [see] [__]]]]]]



This approach also accounts for different anaphoric relations between an indefinite noun in subject position and one in object position when negation is attached to a verb phrase. Consider the sequences of sentences in (24) and (25).

(24) A man does not have a cat. *It is under the tree/ He has a dog.

---

[1] We can still deal with examples of scope ambiguity with two quantifiers in (i) or de dicto/de re ambiguity in (ii) using the QRB rule in (22d').

(i) Every man saw a stop sign.

(ii) A man seeks a unicorn.

Sentence (i) will have two readings depending on whether the object NP is raised or not. Even if *every man* in subject position is raised after raising *a stop sign* in object position in (i), we will get the same result as when there is no quantifier raising. In (ii), the ambiguity of de dicto/de re reading is due to the scope of the intensional verb *seek* and the object NP *a unicorn*. Therefore, we can account for the ambiguities of (i) and (ii) without raising a noun phrase in subject position.

However, the QRB rule seems to need to be modified in order to deal with the de dicto/de re ambiguity that sentences with intensional verbs give rise to:

(iii) John believes that a unicorn walked in.

In order to get a de re reading, the NP *a unicorn* in subject position should be raised: *a unicorn* has wide scope over the intensional verb *believe*. This problem might be solved by allowing NP raising when the NP is in the subject position of the embedded clause.

(25) A man did not see a cat. It is under the table/ He saw a dog.

Both (24) and (25) allow *a man* to link anaphorically to a pronoun outside the negated sentence. In other words, an indefinite noun in subject position can have anaphoric relations with pronouns occurring outside the negated sentence, when it precedes negation and there is no presupposition that the entity referred to by the subject NP does not exist. But this is not true for an indefinite noun in object position. The object *a cat* in (24) cannot have anaphoric relations with pronouns outside the negated sentence. The first sentences in (24) and (25) differ in terms of verb type, and this results in differences with respect to anaphoric relations with pronouns outside the first sentences.

Our analysis predicts that when negation is adjoined to IV, a term in object position should be raised in order to link to pronouns outside the negated sentence, whereas a term in subject position can have anaphoric relations with pronouns outside the sentence without such a process. Assuming that existential quantifier raising can be blocked depending on the type of a given verb, we can capture the difference between (24) and (25). That is to say, the raising of the indefinite NP in object position outside the scope of IV negation is blocked by the verb *have* in the first sentence in (24) and hence cannot have an anaphoric relation with the pronoun in the following sentence. However, an indefinite noun in subject position is outside the scope of IV negation, and it can link anaphorically to pronouns outside the negated sentence regardless of the type of a given verb.[2]

5. Conclusion

If negation is always interpreted as sentence negation and anaphoric relations are dealt with by ambiguities in the scope of the antecedent, we fail to capture the fact that available readings are different depending on the position of negation. In this paper, I have proposed that negation *not* is an expression of two types and can be adjoined to IV and S. The ambiguities of a negated sentence with quantified noun phrases are accounted for by two rules: (i) negation *not* cannot be raised after Quantifier raising and (ii) quantified noun phrases cannot be raised outside of the scope of negation when they are in [Spec, IP]. This predicts that not every sentence with negation and quantified noun phrases will exhibit ambiguity. Moreover, we can predict that the number of available readings is different

[2] However there are cases where anaphoric links between indefinite noun phrases occurring in the object position of the state verb *have* and pronouns outside the sentence are not blocked, as in (i). In order to account for this anaphoric relation, Groenendijk and Stokhof (1990) treat example (i) using dynamic negation and dynamic disjunction as illustrated in (ii). It is obvious that further research is necessary to clarify when the dynamic versions of the operators should be used.

(i) Either Morris Hall does not have a bathroom or it is in a funny place.

(ii) Either~$\exists d_2$[$\uparrow$bathroom(d_2);$\uparrow$have(MH, d_2)]or [$\uparrow$in-a-funny-place(d_2)]
$\exists d_2$[$\uparrow$bathroom(d_2);$\uparrow$have(MH, d_2)]$\Rightarrow$ $\uparrow$in-a-funny-place(d_2)
$\forall d_2$ [[$\uparrow$bathroom(d_2);$\uparrow$have(MH, d_2)]$\Rightarrow$ $\uparrow$in-a-funny-place(d_2)]

depending on where negation occurs, even if two sentences with negation have the same number of quantified noun phrases.

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ON INFORMATION PACKAGING AND HEARER ENGAGEMENT IN KASHMIRI NARRATIVE

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The objective of this paper is to describe a feature of the information packaging in Kashmiri oral narrative, and to suggest that it is designed specifically to serve the oral mode of narration. Recurring segments in Kashmiri oral narrative are constructed out of strings of sentences containing propositions that are informationally highly given. When narrative incrementations utilize more, rather than less, hearer-given information, they effect greater hearer engagement by setting the hearer up as a more informed participant in the narration. The informed hearer is inevitably engaged because s/he becomes a potentially active contributor to the narrative. I will suggest that it is possible 1) to identify two main types of highly given proposition in Kashmiri oral narrative, and 2) to demonstrate that they are able to effect hearer engagement in somewhat distinct ways.

1. Introduction

My objective in this paper is to describe a feature of the information packaging in Kashmiri oral narrative, and to suggest that it is designed specifically to serve the oral mode of narration. Recurring segments in Kashmiri oral narrative are constructed out of strings of sentences containing propositions that are informationally highly given (cf. for example, the sentences marked verb initial (VS) and preposed (P) in the Kashmiri narrative extract, in the Appendix). To my knowledge, this is not the norm for written narrative, or, in fact, for other genres of written discourse, either in Kashmiri or in other languages. The majority of sentences out of which written discourse is constructed appear to contain new propositions, that is, propositions that are only sufficiently given to be coherent. This is understandable, since the principal objective of every incrementation in any developing text must be to introduce new information. Yet, Kashmiri oral narrative builds a significant number of narrative segments out of sentential propositions which are more given than is needed to merely meet the coherency constraint, containing, hence, only a relatively small new component. One has to wonder about the motivation for this type of information distribution, and about the impact it has on the way in which the message is communicated.

We can perceive this information-packaging feature as an attempt to frame the sentential new contribution in terms of what is largely known to the hearer. But we must, then, also acknowledge that framing the new in terms of the given is

something that is more generally effected by merely implementing the coherency constraint, by simply introducing the new after the given — an organization of information which serves to facilitate more effective communication, by easing the task of information processing and comprehension. Further, the coherency constraint and the given-before-new distribution of information, which it effects, allow for a proposition that is merely given enough to be accessible, a proposition, that is, which is largely new. The appearance of a highly given proposition, carrying a relatively small new component, therefore, appears to be a specialized manifestation of the general communicative strategy of fashioning the new out of the given. As such, it seems to me that it is also likely to come with a specialized associated communicative function, beyond the general effect of easing information processing and comprehension. I would like to suggest that there is a way in which this packaging of information serves to engage an otherwise passive interlocutor in the essentially monologic communicative act of narration.

When narrative incrementations utilize more, rather than less, hearer-given information, they effect greater hearer engagement by setting the hearer up as a more informed participant in the narration. The informed hearer is inevitably engaged because s/he becomes a potentially active contributor to the narrative. I will suggest that it is possible 1) to identify two main types of highly given proposition in Kashmiri oral narrative, and 2) to demonstrate that they are able to effect hearer engagement in somewhat distinct ways.

In what follows, I will briefly describe each of these two distinct types of given sentential propositions, and the word order pattern characteristically used to mark each one. I will then try to suggest the communicative end served by the use of each propositional type, by speaking about the distinct type of hearer engagement brought about by the combination of sentence-level pragmatic effects and broader discourse effects produced by their use. Insightful discussion of the first type of given proposition (marked by means of the preposed construction) calls for a much more lengthy description than is needed for the second type (marked by means of the verb-initial clause); that is, the need for clarity makes the apparent imbalance in the treatments of the two given propositions unavoidable.

Some of the most significant findings of this study are derived from the analysis of a sample of Kashmiri oral narrative. Six half-hour recordings of oral narratives, by two adult native speakers of Kashmiri, were transcribed and analyzed for this study; a randomly selected extract from one of these is included in the Appendix.

2. The preposed construction and the given proposition

One of the two highly given propositions used for text incrementation in Kashmiri oral narrative is marked by the use of the preposed construction. In this section, I will describe the givenness of the Kashmiri preposed construction and the constraints, therefore, on how new information is introduced by means of this type of sentential incrementation.

It is relevant to begin by pointing out that preposing in Kashmiri (and also in Hindi and English) marks an atemporal incrementation to the text. (cf. 2b & 3b. In these, and all following examples, '\' is the symbol used to mark the focused sentential element.) (In this respect, it differs from fronting by scrambling in languages such as Hindi, which accommodate both preposing and fronting by scrambling, since in Hindi, a direct object can be fronted by scrambling in the environment of a preceding temporal adverb (cf.1b).)

(1) a. shiila ne bohothsa khana pakaya
Sheila by a-lot-of food cooked
'Sheila cooked a lot of food.'

b. aur fir wo khana usne gariib loogu(n) me(n) baanta
and then that food she poor people amongst distributed
'Then she distributed that food amongst the poor.'

(2) a. kuc bhi nahi khata?
nothing not eats
'Doesn't he eat anything?'

b. \eek buund pani bhi wo nahi pita (#fir)
one drop of water even he not drinks (#then)
'He doesn't even drink a drop of water.'
(examples taken from Hindi)

(3) a. They had a baby boy.

b. \Tom they called him (#after that).

Additionally, the comparative assessment of Kashmiri and the better-studied English preposing (cf. Tickoo 1992) suggests that while English preposing is constrained to be *salient given* (defined by Prince as information 'the speaker assumes the hearer has or could appropriately have ... in his/her consciousness at the time of hearing the utterance' (Prince 1981a:230)), Kashmiri preposing is constrained to be minimally only *shared knowledge given* (defined by Prince as information 'the speaker assumes the hearer knows or can infer ... (but is not necessarily thinking about)' (Prince 1981a:230)). Hence, while (2b) and (3b) are both atemporally sequenced clauses, (2b) is shared knowledge given, while (3b) is salient given. In consequence, (2b) is not a felicitous English preposing (cf. 4b).

(4) a. He kept a strict fast.

b. # \A drop of water he didn't even have.
He didn't even have \a drop of water.

When we speak of salient given or shared knowledge given, we are speaking, as suggested above, of the ways in which the incrementation is assumed by the speaker to be given to the hearer. A more complete representation of givenness/newness would, at the same time, indicate whether the incrementation is given or new to the discourse. The salient proposition makes an incrementation that MAY OR MAY NOT BE NEW TO THE DISCOURSE, but is, in every case, ATTENDED TO by the hearer at the time of the utterance. The shared knowledge proposition, on the other hand, makes an incrementation that is NEW TO THE DISCOURSE, but is KNOWN as possible, though it is NOT ATTENDED TO by the hearer, at the time of the

utterance. Both of these, of course, differ from the third possibility, the standard proposition of the clause in canonical order, which, by contrast, IS NEW TO THE DISCOURSE and NEW TO THE HEARER (that is, neither attended to, nor known) at the time of the utterance. It is also relevant to mention that while the information represented by means of the preposed construction, whether shared knowledge or salient, could also be conveyed by means of the clause in canonical order, represented in the preposed construction, it comes with an overt signal of its hearer-given status.

2.1. Saliency and scalarity

The saliency constraint on English preposing comes with a number of other defining features, which are useful to this discussion both because they accurately account for the corresponding salient subset of Kashmiri preposing, and because they help locate the differences in the identifying features of the broader class of shared knowledge preposings.

First, the salient proposition of English preposing is distributed into two separate constituents — 1) the preposed constituent and 2) the open proposition (obtained by substituting a variable for the focal constituent, OP for future reference). Each of these constituents is independently salient given (cf. 5b & 6b) (Prince 1981b, 1984; Ward 1985). (English preposing is, hence, not merely a topic-creating device, as suggested in earlier literature (cf. Halliday 1967; Gundel 1974; Langacker 1974; Rodman 1974; Crieder 1979; Bland 1980; Reinhart 1981; Davison 1984).)

(5) Focus Movement:
  a. The contras devised a new strategy.
  b. \Guerilla Warfare, they called it.
  (Ward 1985:290)

In (5b), the salient OP (obtained by substituting a variable for the focal constituent) is 'They called it x (x: an element of the set of names of strategies)', and the salient preposed constituent *Guerilla Warfare* is an instantiation of the variable x.

(6) Topicalization:
  a. I made two minor mistakes.
  b. One, apparently \everyone in the class made.

Likewise, in (6b) the salient OP is 'x made some-number-of-mistakes, where x is on the scale members-of-the-class', and the salient preposed constituent 'one' is an instantiation of the nonfocal variable 'some-number-of-mistakes'.

It is important for our purposes to recognize that the relationship of salience, which the preposed constituent (and also the focus, in Topicalization, in which the focus is not the preposed constituent) bears to the preceding discourse, is 'scalar'(cf. Ward 1985). Understanding the relationship of scalarity, as it appears in English preposing, is useful to our appreciation of the way scalarity is realized in Kashmiri preposing. When the salient relationship to the preceding discourse of the preposed constituent (or focus in Topicalization) is represented as scalar, it is

being characterized as one of the following possible types of relationships: *part to whole*, *subset to set*, *greater than*, *less than*, *attribute to entity*, or *the relationship of equality*. (I include *the relationships of equality* and *attribute to* as scalar relationships, because they have been so categorized in earlier work on preposing and scalarity (cf. Ward 1985). One recognizes intuitively, however, that they differ in significant ways from the more standard scalar relationships.) This means, for example, that at the time of the utterance of (5b), the speaker assumes that the interlocutor is attending both to the strategy and the conception of it as possessing certain types of attributes; the preposed constituent *Guerilla Warfare*, then, is an instance of the salient scalar relationship of attribution. Likewise, at the time of the utterance of (7b), the speaker assumes that the interlocutor is attending to the entity *all nuts* of (7a) and the perception of it as a set comprising elements; the preposed constituent *peanuts* of (7b), then, is an instance of the scalar salient relationship of element of set.

(7) a. I like all nuts.
b. Peanuts, I 'love.

Tickoo (1992) also characterizes the salience of the OP in terms of scalar relationships. Three types of scalar salient OP relationships — *attribution*, as in (8), *prerequisite to*, as in (9), and *alternative to*, as in (10) — are illustrated below:

(8) a. At bottom, things just are the way they are, a heterogeneous reality. Yet parts of this reality have the capacity for perception, for acquiring information from other parts, and an accompanying capacity for acting on still others.
b. **Those parts having the capacity for perception and action we call organism.** (Ward 1985:279)
OP: We call (a part of reality) y (y: names of such parts)

(9) a. G: So, how did it (prelims) go?
S: The historical question, I had some problems with, but I think it's ok.
b. S: The descriptive, I just wrote a lot. We'll see. (Ward 1985:280)
OP: I did (a section of the exam) in y manner (y: a way of performing the exam)

(10) N: Don't you feel anything?
M: What I feel I control. (Ward 1985:290)
OP: I y (y: feel or control) (some part of what can potentially be felt)

In (8), the OP, obtained by substituting a variable for the focal constituent of (8b) — 'we call (a part of reality) y (y: names of such parts)' — relates attributively to (8a). The relationship of naming is not salient as a result of being previously mentioned, but because the act of naming is presupposed by the existence of certain types of entities, phenomena or acts.

In (9), the OP, obtained by substituting a variable for the focal constituent of (9b), 'I did (a section of the exam) in y manner (y: a way of performing the exam) — is prerequisite to taking the exam, i.e., performing the exam (or some part

thereof in some way) is implicit in the taking of the exam. For this reason, it is infelicitous to state the presupposition of (11b) in the context of (11a):

(11) a. G: How did it (preliminary exams) go?
S: I had some problems with the historical question, but I think it is okay.
b. **# I performed some part of the exam in a certain way.**

In (10), the OP, obtained by substituting a variable for the focal constituent of (10M), 'I y (y: feel or control) (some part of what can be felt)' — implies that the potential for the existence of the alternative states of feeling or controlling is presupposed by (10N). This is demonstrated by the fact that it is infelicitous to state this presupposition in the context of (10N), as is shown in (12):

(12) A: Don't you feel anything?
B: # Either I feel something or I don't feel anything.

The final significant constraint on felicitous English preposing is that there must be consonance between the scalar salient relationships of preposed constituent and accompanying proposition (Tickoo 1992), exemplified in (13) through (16), below:

(13) a. I like all candy.
b. Other food, I \just eat.

(14) a. I like food.
b. # Candy, I \just eat.

(15) a. I like all candy.
b. # Food, I \adore.

(16) a. I like all food.
b. Candy, I \adore.

In (13b), the OP bears the *less than* relationship to the proposition of the preceding clause, and its accompanying preposed constituent relates as the less palatable, and merely essential whole set, to the more palatable and desirable element of this set, of the preceding clause. There is consonance between the relationship of whole set, of less palatable but essential, of the preposed constituent, and the *less than* relationship of its accompanying OP, and therefore preposing of (13b) is felicitous in the context of (13a). The reverse is not true. That is, given that I like the whole set, it cannot be salient that I merely tolerate an element of it, and this is illustrated in (14). Similarly, (15) and (16) illustrate that element of set to whole set can accommodate the *greater than* relationship (cf. 16b), and that the reserve is not the case (cf. 15b).

To summarize, English preposing is salient given with functional distribution into preposed constituent and OP. Further, there is consonance between the scalar salient relationships of these constituents.

2.2. Shared knowledge scalarity

When preposing in Kashmiri is salient, it is also, like English preposing, functionally distributed into preposed constituent (PC) and OP, with consonance between the functions of these constituents (cf. 17).

(17) me vuch shili ti sarla amirakadal pakan
I saw Sheila and Sarla Amirakadal walking
'I saw Sheila and Sarla walking at Amirakadal.'

Shili (PC) vuchim \godi
Sheila saw-I first
'I saw Sheila first,'

ti pati vichim sarli
and then saw-I Sarla
'and then I saw Sarla.'

However, in the identifying, more encompassing, set of shared knowledge preposing it is NOT always possible to identify the separate scalar relationships of preposed constituent and OP. This identifying set of shared knowledge preposing realizes the less given, shared knowledge counterparts of salient scalar relationships which constrain felicitous English preposing (cf. 18, 19 & 20).

(18) Shared knowledge attribution:
totaa'n ees thiik so
until-then was all right she
'Until then she was all right.'

\kath (PC) ees karaan
talk was doing
'She was talking.'

\baath (PC) ees karaan
talk was doing
'She was talking.'

\cai eesin ceemits
tea had drunk
'She had had her tea.'

\dod (PC) oosun coomut
milk had drunk
'She had had her milk.'

(19) Shared knowledge alternation:
tem pati chi palav
that after are clothes
'Then come the clothes.'

n'av palav chi suvnaavaan
new clothes are getting-made
'They are getting new clothes made.'

preen palav (PC) \chini tsinaan
old clothes are-not wearing
'They don't wear the old clothes.'

(20) Shared knowledge prerequisite act:
Tse anthi na'v palav khaandari kheetri
You did-you-buy new clothes wedding for
'Did you buy new clothes for the wedding?'

anha, magar pee(n)si (PC) gatsnam aasin
would-buy-them, but money must have
'I would buy them, but I don't have the money.'

agar nookri miijim tootaa'n
if job will-get by-then
'I get a job by then,'

teli ani
then will-get
'then I will get them.'

The shared knowledge status of these preposings is evident in the fact that their OPs can be felicitously stated and denied in the context of the discourse to which they are bonded. This is illustrated in (21), using the example of (18):

(21) Until then she was fine.
Statement of shared knowledge: She was doing the things that people do when they are well.
Denial of shared knowledge: But she wasn't doing the things that people generally do when they are well.

It is not possible to state or deny salient OPs. The statement of the presupposed OP, obtained by substituting a variable for the focal constituent of the preposing of 22b, in the context of (22a), is redundant and the denial is so contrary to expectation that it describes very odd behavior:

(22) a. They had a baby.
b. \Tom they called him.
Statement of presupposition: They gave him a name.
Denial of presupposition: But they did not give him a name.

The difference between the two ways to the realization of the scalar relationships of *attribution*, *alternation*, and *prerequisite to* is the fundamental difference between shared knowledge and salient given, that salient given is an instance of what is already assumed to be in association with the proposition to which it is salient, while shared knowledge is an instance of what is merely common knowledge as possible. So, shared knowledge attribution is only recognized as possible, while its salient manifestation is an instance of an inherent attribute. In (18), chatting away when one is well is probable or likely but not inevitable, whereas the attributive act of naming is inevitable in contexts such as (22a), where naming is inevitably connected to the event of having a baby.

We can demonstrate the greater distance of the shared knowledge proposition from its preceding proposition as compared to the salient proposition and its preceding proposition by juxtaposing the two environments in which a single clause instantiates the shared knowledge and salient versions of the above-referred to propositional relationships: *attribution*, *alternation*, and *prerequisite to*.

Shared knowledge attribution, which is not felicitous in preposed version in English (cf. 23), can be made salient by altering the preceding discourse (cf. 24).

(23) Until then she was all right.
\'Tea she had had./ She had had tea.

(24) She did not want tea.
But tea she had \'had.

Juxtaposing the two attributive relationships of (23) and (24) gives us 1) having had tea to being all right, and 2) having had tea to not wanting tea, and clearly demonstrates the greater distance of shared knowledge attribution from preceding proposition, as compared to the relationship between salient attribution and its preceding proposition.

Infelicitous too in preposed version in English is shared knowledge alternation (cf. 25). To make this alternation salient and, therefore, felicitous in preposed form, the preceding context is modified as in (26).

(25) After that come the clothes.
They get new clothes made.
The old clothes they \'don't wear./ They \'don't wear the old clothes.

(26) After that come the clothes.
Everyone buys new clothes.
The old ones they simple \'throw away.

Again, simply juxtaposing 1) not wearing old clothes to buying new ones, and 2) throwing away old clothes to buying new ones is suggestive of the greater distance between the shared knowledge alternation and its proposition, as compared to the salient alternation and its proposition.

Like the attributive and alternative relationships, the shared knowledge relationship of *prerequisite to* is infelicitous in English preposing (cf. 27). To make it a felicitous preposing, the preceding context must be modified as in (28):

(27) Will you buy new clothes for the wedding?
I would, but the money I \'don't have.

(28) To go on vacations you must have time and money.
Money, I \'don't have.

Again, simply juxtaposing the two versions of the relationship of *prerequisite to* is suggestive of the greater distance of the shared knowledge relationship and preceding proposition compared to the salient relationship and preceding proposition: 1) having money to buying new clothes, and 2) having money to needing money.

The above examples were constructed so that the same clause would relate back with a single relationship, but with two levels of givenness, repeated below:

Attribution:
shared knowledge: having had tea to the state of being well
salient: having had tea to not wanting it
Alternation:
shared knowledge: not wearing old clothes to buying new ones
salient: throwing away old clothes to buying new ones
Prerequisite to:
shared knowledge: having money to buying new clothes
salient: having money to needing money

It can be said of salient preposing, with its highly constrained relationship to the preceding proposition, that it marks a special pragmatic effect. But precisely because of its high degree of relatedness to its preceding proposition, it is not used repeatedly in successive incrementations for the purpose of effecting text building. Because Kashmiri allows for shared knowledge preposings, and scalar relationships can, therefore, be realized by means of a much wider range of information, its repeated use in successive incrementations can be exploited for text building.

2.3. Shared knowledge scalarity and text building

To appreciate how successive preposings are used to effect a well-defined type of text development, it is important to acknowledge two basic facts: 1) that an incrementation bearing a given relationship to the preceding proposition does not introduce a new propositional point, but rather sustains the preceding proposition, merely building on it in a way made evident by the scalar relationship it instantiates, and 2) that successive preposings, building one segment of discourse, instantiate the same scalar relationship to a single sustained preceding proposition. This is illustrated in (29), (30) and (31), below. In (29), the repeated use of preposed constructions, bearing the scalar relationship of alternation, serves to elaborate on only one propositional point — that certain predictable actions are taken to address the clothes one wears, on the festive occasion being described. More specifically, the two successive preposings state 1) that new clothes are made and 2) that old clothes are not worn. In (30), successive preposings are instantiations of the scalar relationship of attribution to one propositional point — that the queen has been left penniless. More specifically, they state that 1) the palace was taken away from her, 2) in fact, everything was taken away from her, and 3) that she became extremely poor. Similarly, in (31), successive preposings, once more, instantiate the scalar relationship of attribution to one propositional point — that certain wrong doings are punished with a term of imprisonment in the well. They specify that these wrong doings are 1) committing theft, 2) killing someone, and 3) other things of this nature. In general, hence, the use of a succession of such incrementations, realizing the same scalar relationship, sustains a major propositional point, while allowing the narrator to revise it, in each incrementation, to amplify, or perhaps alter, or rephrase it.

(29) tem pati chi palav
that after are clothes
'Then come the clothes.'

n'av palav chi suvnaavaan
new clothes are-they getting-made
'They get new clothes made.'

preen palav (PC) \chini tsinaan
old clothes are-not wearing
'They don't wear the old clothes.'

(30) amis gay wyan vari kath itaykin
to-her went now a year about in this way
'She passed a year in this way.'

palas (PC) ti nyuk
palace also took-they-from-them
'They also took from them the palace.'

prath kah chiis (PC) nyuk
each one thing took-they-from-them
'They took everything from them.'

bilkul gariib (PC) tayaar gay yi bicha'r
absolutely poor (PC) became this poor-thing
'This poor thing became very poor.'

(31) ath manz a's tsinaan timan insaanan yiman aasihe kosor kormuth
that in used to put-they those people who had criminal-act done
'In that they used to put those people who had committed some crime.'

tsuur ka'rmits
theft done
'Committed theft.'

kah mormuk
someone killed
'Killed someone.'

ithii chiiz
this-kind-of thing
'This kind of thing'

At each such incrementation, the hearer knows not only the sustained proposition, but also the scalar relationship that is being used to amplify it. This also means s/he knows of the set of possible realizations of the scalar relationship from which the narrator must choose in order to properly introduce the new sentential component, at each incrementation. When such a means to text building is adopted, the role of the interlocutor is somewhat different from his/her standard function as information processor and receiver. His/her knowledge not only of the given proposition, but also of the well-defined and constrained way in which the narrator can add new information makes him/her qualify better as an informed,

rather than uninformed, participant in the communicative act of narration. Recent literature on oral narrative has suggested that narration between informed participants has, as one might expect, the potential to be a more cooperative, collective and therefore dialogic process (cf. Goodwin 1987; Mandelbaum 1987; Nofsinger 1999). Manipulating information presentation in successive incrementations to set up the interlocutor as informed, and to maintain this informed state of being, puts in place what is needed to facilitate dialogic narration, and creates the illusion, at least, of making the interlocutor an active participant in the process of narration. It seems to me that this is a strategy devised to draw and hold the attention of an otherwise passive interlocutor in what is essentially a monologic process of communication.

3. The verb-initial clause and the given proposition

In the second type of highly given proposition, what the hearer has knowledge of, at the time of the utterance, is that one of a very small set of clausal events that can appear in the context of the preceding event will do so. (This is true, for example, of each of the clauses of 32b-h.)

(32) a. ati vichin gurne hinz led
there saw-she horse of manure
'There, she saw horse manure.'

b. ti tujin yi
and picked up this
'and she picked it up'
emi manz kadin
from-it in took-out
'From it she took out'

c. kadin emi manzan mishki
took-out from-it in barley
'From it she took out some barley.'

d. ka'rin safaa yina yi
did clean-then this-one this
'She cleaned it.'
pyaanis manz chajin
water in cleaned-them
'She washed it in water'
ti pati gay gretas pet
and then went mill on
'and then she went to the mill'

e. ti annin pihith
and got-them ground
'and had it ground.'

f. bonoovun thooda oot
made a-little flour...
'She made a little flour'

g. ti biit akis jayi kulis tal

and sat one place tree under
'and she sat somewhere, under a tree'

h. ti bona'vin yim zi rootiha'n
and made these two flat-breads
'and made two pieces of flat bread.'

This creates anticipation of the new selection from the known set. In other words, we can say that, at the time of the utterance, the hearer KNOWS THE PROPOSITION IN TERMS OF ITS TYPE, and s/he anticipates the specific token of this type. Such a given proposition is formally marked by the use of a verb-initial clause (that is, a clause with tensed verb in initial position, cf. 32). (In preposing, by contrast, the HEARER KNOWS THE PROPOSITION — BOTH THE TYPE AND THE TOKEN — and the new component is an amplification of a dimension of it.) A string of sentential incrementations in VS order, hence, serves to create, and fulfill, a succession of expectations about the narrative event sequence.

In the text preceding the extract of (32), the reader is informed that the protagonist of the story — a former queen, who has been reduced to a state of dire need — is in search of ways of making *root*, the special bread that is made and distributed to people on the festive occasion being described in the story. The clause preceding the string of VS clauses informs us that she comes upon some horse manure. Then in successive VS clauses, we have the following events, each anticipated by the interlocutor, at the time of its utterance, as one of a very finite set of events that the hearer knows must occur in the context of its preceding discourse: she picked it up, she took out some barley from it, she cleaned it, she got it ground, she made a little flour, she sat somewhere under a tree, and she made two *roots* (pieces of bread).

(33) a. tem dop yakdam anuyn haspital
he said at once bring-him hospital
'He said bring him to the hospital straight away.'

b. bas ga'y a's wa'n ekdam
went we now at-once
'So we left at once.'

c. ba'gaash ti bi ga'y
Bhagash and I went
'Bhagash and I left.'

d. va't a's vaapass myon gari
arrived back my home
'We arrived at my home.'

e. von timan ithka'n chi daliil
said to-them this-way is problem
'We told them this is what the problem is.'

f. tul su
picked up him
'We picked him up.'

g. tov tangas pet
put-him horse-driven carriage on

'We put him in a horse-driven carriage.'
h. ti gay a's vaapas haspital
and went we back hospital
'And we went back to the hospital.'

In the extract of (33), the narrator is told by the doctor that the protagonist of the story (who has suddenly taken ill) must be brought to the hospital. This is reported in (33a). Then in successive VS clauses, the following events are presented: we left immediately, we arrived at my home, we told them what the problem was, we picked him (the patient) up, we put him in a horse-driven carriage, and we returned to the hospital. Each one of these events is anticipated by the hearer, at the time of its utterance as one, of a very finite set of events, that must occur in the context of the preceding discourse. We saw earlier that in a succession of preposings, the sustained thread of discourse — that is, the sustained given component — is a major propositional point. The sustained thread of discourse effected by the use of a succession of VS clauses is a string of propositional types; and hence the anticipation in succession of the (new) realization of each of these known types.

Here, the device quite transparently effects greater hearer engagement, by manipulating information presentation in successive incrementations so that the use of hearer-given information enables and encourages the hearer to make predictions about the forthcoming new information. As in preposing, by being made a more, rather than less, informed participant, the hearer is able to feel more actively involved in the process of narration. The standard interlocutor role as information processor and receiver is added to by his/her function as predictor and anticipator of the next sequenced event.

4. Conclusion

The disproportionately large number of segments of Kashmiri oral narrative that are built out of one or the other of these two types of highly given sentential propositions suggests that information in Kashmiri oral narrative is strategically packaged to increase hearer engagement, specifically because this is a challenge in an essentially monologic communicative process. It is also true that this information packaging, along with its formal marking, is only found in the context of oral narration. It is not produced, for example, in a simple translation exercise, from English to Kashmiri.

APENDIX: Randomly selected extract from a recording of a Kashmiri oral narrative

akis mulkas manz oos yi baadshaa
one-to country in was this king

temisinz zanaan aa's prath vari pan divaan
his wife used to every year carry out certain ritual practices on a particular festive occasion

...

ti em kor sooriy tayaar
and she did everything ready

karin yim root thayaar VS
did these breads ready

korun pati puuza VS
did after that puja

ti puuza karith karin kath vath VS
and puja having-done did talk

ti pathi dyutin yi navvid sarini
and then gave this blessed-food everyone-to

godnethan gay emis panis riinis, yus mahraj oos, pathsha oos
first went to him her husband, who king was, king was

temis gay naviid heth
to-him went blessed-food with P

ti su oos ni zyaadi karaan pats vats keh ti yiman chiizan manz
and he was not a lot doing belief at all these things in

...

eym tul yi naviid
he picked up this blessed-food

ti dyutun buutan pet barith VS
and threw shoes on dropped

...

bus retshenaa gay
as one might expect a little while passed

ti apayri aav aalaan
and from-there came announcement

donduur vool aav
town crier came

ti tem ditsi kraki ki baadsha hasa nin ratith
and he gave a cry that king will-take captured

ti tsinas sihaajihas manz VS
and will-put-him well in

ti bas retsihenaa gay
and as one might expect a little time passed

ti aay yim VS
and came these guards

ti niyuk yi badshaa retith VS
and took this king captured

ti tsinuk yi sihajaahas VS
and put him well in
...
ath manz aa's tsinan timan insaanan yiman aasihe kosur kormuth
that in were putting those people who had crime done

tsuur karmitsan P
theft done

kah mormuk P
someone killed

ithiy chiiz
such things

yi tsunuk raji ti ath manz P
this-one put king also that in

ti yi zanaan aa's ...
and this wife was ...

yi gay pareshaan
she became very worried
...
saari paa'si vaasi gay katham
all money became finished

niyak paa'si vaa'si VS
took-way money

gay bikaar tayaar VS
became beggar

yi gay vati vati
she went street street

vati vati ees feeraan P
street street was wondering

beechan ti kevaan
begging and eating

ti seta ees vadaan P
and a lot was crying

ti veets akis gara manz VS
and arrived one house in

amis gay wyan vari kath ithaykin dharbidhar
to-her became now year about like-this vagabond-like

palas ti nyuuk P
palace also took-from-them

prath kah chiiz nyuuk P
everything took-from-them

bilkul garib tayaar gay yi bichaar P
absolutely poor became this poor-thing

ti pati aa's pakaan
and then was walking

yi aa's sakith tachmits
she was very tired

ti beyi aa's yina yi...
and also was you know ...

tresh aa'sis lajmits P
thirst was-to-her felt

bochi lajmits P
hunger felt-to-her

vaathan, vaathan, vaa'ts akis garas nishan
getting-there, getting-there arrived one house near

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REVIEW*

Jeffrey C. King: *Complex Demonstratives: A Quantificational Account*. Cambridge, Mass.: MIT Press, 2001. Pp. xiii+207. Price: (cloth) $50.00, ISBN 0-262-11263-9; (paper) $20.00, ISBN 0-262-61169-4.

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David Kaplan's classic paper 'Demonstratives', published in 1989 after more than a decade of circulation in manuscript, seemed to establish demonstratives as perhaps the clearest and least controversial example of 'directly referring' terms: contributing an individual — but no further descriptive material — to the semantic content of sentences in which they occur, modally rigid, and non-quantificational. Kaplan's original formalism modeled only 'simple' demonstratives, consisting of *this* or *that* with no accompanying common noun; but one might naturally expect 'complex' demonstratives such as *this book* or *that man wearing the yellow shirt* to be semantically similar, and indeed analyses such as those in Braun (1994) or Borg (2000) defend exactly this view, allowing the descriptive material of such expressions to play a role in the *character*, but not the *content*, of sentences in which they appear. King's book challenges this view on all counts, presenting a detailed defense of the view that complex demonstratives are quantificational expressions rather than singular terms, with non-rigid uses in which their descriptive material forms part of the content of the larger sentence.

The heart of King's case is the existence of certain uses of complex demonstratives which seem difficult or impossible to account for in a direct reference analysis. Prominent among these is the 'no demonstration no speaker reference' use, illustrated in examples like (1), uttered by a speaker who does not know who scored one hundred on the exam, but only that exactly one student did so:

(1) That student who scored one hundred on the exam is a genius.

The demonstrative here seems entirely natural, but the speaker would not seem to have any particular individual in mind as the referent of the phrase. Through a complex but careful series of arguments, King shows that various strategies for dealing with such examples in a direct reference approach lead to significant problems. Additional problems for direct reference analyses come from 'quantification in' examples, in which the demonstrative contains a variable bound

* Thanks to Gary Ebbs, Lenny Clapp and the other members of Illinois Program for Research in the Humanities reading group on 'Demonstratives and Concepts' for many interesting discussions of King's book, and to Jeffrey King, for his helpful presentation to the reading group.

by a quantifier outside the demonstrative, as in (2), and from Bach-Peters examples such as (3):

(2) Most avid snow skiers remember that first black diamond run they attempted to ski.

(3) Every friend of yours who studied for it passed that math exam she was dreading.

Alongside these semantic arguments, King suggests that complex demonstratives behave syntactically like quantificational, rather than referential, noun phrases: they allow antecedent-contained deletion, as in (4):

(4) Tiger birdied that hole that Michael did.

They also show weak crossover effects, so that (5) cannot be interpreted with *his* anaphoric to *that man with the goatee*:

(5) His mother loves that man with the goatee.

King suggests that these patterns show that complex demonstratives undergo quantifier raising at LF.

King shows considerably more sophistication about natural language syntax than much of the philosophical literature on demonstratives, but these arguments are not unassailable. Analyses of antecedent-contained deletion are available which do not depend on quantifier raising (Baltin 1987). In addition, some constructions that do not clearly involve quantification still show weak crossover effects: for example, intonational focus (Chomsky 1976). Example (6), with focus on *loves*, allows a reading where *his* is anaphoric to *John*, but (7), with focus on *John*, does not:

(6) His mother LOVES John.

(7) His mother loves JOHN.

My own intuition is that (5) improves considerably if focus is placed on the verb, so the crossover effect in this example may have less to do with the quantificational status of complex demonstratives than with the syntax of focus marking.

Having presented arguments against a direct reference account and in favor of a quantificational account of complex demonstratives, King proceeds to develop a detailed quantificational analysis. Starting from a relatively simple view, he introduces complications by stages, eventually arriving at the claim that the determiner *that* denotes a four-place relation *__ and __ are uniquely __ in an object x and x is __*. The first argument place is for the property denoted by the common noun phrase with which *that* combines; the final argument place is for the property denoted by the scope. The second and third argument places are filled pragmatically according to the intentions of the speaker; different ways of filling them give rise to different readings for the complex demonstrative.

If the speaker utters the complex demonstrative with a 'perceptual intention' — that is, if the speaker perceives a particular individual *b* in his or her physical

environment and, in using the demonstrative, intends to talk about *b* — then the second argument place of *that* is filled with the property *is identical to b*. This allows the complex demonstrative to mimic specific reference to *b*, despite its quantificational semantics. It should be noticed here that although the choice of *b* depends on the perceptions of the speaker, the property *is identical to b* involves *b* itself, not perceptions of *b*, so the demonstrative retains a kind of direct correspondence to *b* despite King's rejection of the direct reference approach. Opponents of the whole idea of directness of reference will therefore probably not find King to be as clear an ally as they might have hoped.

A more 'indirect' reading is obtained if the speaker utters the demonstrative with a 'descriptive intention' — that is, if he or she believes that there is some individual that uniquely possesses a certain property *P*, and intends to talk about that individual, as in the 'no demonstration no speaker reference' use described above. In this case, the second argument place of *that* is filled with *P*. Typically (though not always), *P* will be the property denoted by the common noun phrase with which *that* combines; in other words, the very same property which fills the first argument place. This renders the second argument completely redundant, standing idly by but doing no semantic work — a somewhat odd feature of the analysis, but one which seems necessary if a completely unified treatment of *that* is to be maintained.

The third argument place in the semantics of *that* may be filled either with *are jointly instantiated*, or with *are jointly instantiated in w, t*, where *w*, *t* are the world and time of the context of use. The latter choice effectively renders the content of the common noun argument of *that* irrelevant to modal evaluation of the sentence in which it occurs. For example, sentence (8) may be interpreted as in (9):

(8) That guy driving the red Blazer is smart.

(9) *Guy driving the red Blazer* and *is identical to b* are uniquely jointly instantiated in *w*, *t* in an object *x* and *x* is smart.

On this reading, the sentence will require that *b*, the object of the speaker's perceptual intention, be a guy driving the red Blazer in the world and time of the utterance, but the sentence will be true in all those worlds in which *b* is smart, regardless of whether *b* is a guy driving the red Blazer in those worlds. This part of the analysis is surprisingly reminiscent of those analyses which allow the descriptive material of the complex demonstrative to contribute to character but not content, though of course this terminology is not used. Here again, opponents of the whole idea of direct reference may find themselves disappointed.

If the third argument place of *that* is filled simply with *are jointly instantiated*, and if the sentence is uttered with a descriptive intention, then we obtain a modally non-rigid interpretation, in which the descriptive material of the complex demonstrative must be satisfied in every world in which the sentence is true. For example, (10) may be interpreted as (11):

(10) That student who scored one hundred on the exam is a genius.

(11) *Student who scored one hundred on the exam* and *student who scored one hundred on the exam* are uniquely jointly instantiated in an object *x* and *x* is a genius.

On this reading, the sentence will be true at those times and worlds in which there is a unique student who scored one hundred on the exam — potentially a different student in different worlds — and that student is a genius.

With this analysis in place, King proceeds to explore the interaction of demonstratives with modals, negation, and verbs of prepositional attitude; to defend his analysis against an alternative which would claim that complex demonstratives are ambiguous between directly referring and quantificational uses; and to address various details and 'loose ends' of his account. The book concludes with a brief formal fragment illustrating the analysis.

Proponents of direct reference theories will no doubt find ways to poke holes in many of King's semantic arguments, just as LF syntacticians may poke holes in some of his syntactic arguments. That having been said, I think no one will deny that this book provides a major contribution to the study of demonstratives, and has advanced the level of the discussion considerably. King examines a much broader range of data than previous treatments, argues his case closely and carefully, develops his analysis at an unusual level of detail, and works through the consequences thoroughly. I think it is fair to say that this book will set the standard for subsequent treatments.

Beyond its importance in the study of demonstratives, this book provides a model for work at the interface of linguistics and philosophy — an area which is currently undergoing a kind of renaissance. It deserves a wide readership, not just among specialists in the semantics of demonstratives, but among philosophically-oriented linguists and linguistically-oriented philosophers more generally.

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REVIEW

Saran Kaur Gill: ***English Language Challenges for Malaysia: International Communication.*** **Serdang: Universiti Putra Malaysia Press, 2002. Pp. 132. Price: $24.00, ISBN 9832373522.**

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Gill's main argument is to propose Standard Malaysian English to meet the needs for national identity and international intelligibility. Gill remarks that Malaysians' average English skills have been relapsing since Malay promoted Bahasa Malaysia as the main medium of instruction in schools in 1969 and later at the university level in 1983 (p. 38). Specifically, she points out that after the colonial era, the number of acrolectal English speakers has decreased considerably. By contrast, the number of mesolectal and basilectal English speakers has increased greatly in Malaysia (p. 52). Accordingly, she proposes to improve Malaysians' English skills to enhance national competitiveness in technological advancement and global markets.

However, she found that it is inadequate to continue to adopt Standard British English as the pedagogical norm. This inadequacy is due to the following reasons. First, it is almost linguistically impossible for adult learners of English to attain native-like accents. She argues that it is practical to adopt the local educated variety of English as a teaching model. Furthermore, Malaysian inhabitants cannot identify themselves with exonormative discourse practices and sociocultural values associated with the UK. Since Malaysia became independent of the UK on 31 August 1957, there have been strong feelings of antagonism against English, and the government has taken measures to disestablish it (p. 25). Most crucially, talk practices are part of culture, embodying national identities. Accordingly, Gill asserts that it is more appropriate to adopt the local educated variety of English as a teaching model for Malaysians.

In fact, the findings of Gill's questionnaire demonstrate that her fellow nationals prefer their educated English variety to Standard British English for their pedagogical norm. Gill found that 85% of her Malaysian informants approve of Standard Malaysian English as the most suitable pedagogical model of English in Malaysia. British English with a Received Pronunciation (RP) accent, by comparison, is perceived by 73% of the respondents to be the second suitable model. Apparently, a local standard variety of English is emerging in Malaysia as many people realize that their local standard variety of English represents part of their national identities and cultures.

What, then, is Standard Malaysian English? What is the difference between Standard Malaysian English and Standard British English? Gill defines (p. 29) Standard Malaysian English as a variety of English, where as far as phonology is concerned, there is slight variation tolerated so long as it is internationally intelligible; in terms of syntax, no deviation is tolerated at all, and with regard to lexis, variation is acceptable only for words which have no sociocultural equivalents in English.

Gill also examines the use of English in Malaysia. She found that Standard Malaysian English or acrolectal English is used at formal presentations on behalf of companies (p. 78). In addition, Standard Malaysian English is employed in radio advertisements to give a brief announcement of an advertised product. Local basilectal and acro-mesolectal varieties of English are, by contrast, often used by advertisers to capture listeners' attention because most Malaysians speak those varieties in daily conversations. Accordingly, advertisers draw on popular colloquial varieties of English to create the images of friendliness, reminding the audience that their products are designed for everyday use. Put simply, each local variety of English is linked with different language ideologies, and advertisement agencies employ different local English varieties as strategies to create desired impressions and promote their products and services.

Finally, Gill proposes Standard Malaysian English as the medium of instruction for higher education to attain the three goals, set by Datuk Seri Dr. Mahathir Mohamad, the Prime Minister of Malaysia (p. 111):

1) For Malaysia to remain competitive at the international level
2) To enhance Malaysians' efficiency and capability associated with English skills
3) To keep up the pace of translation with the generation of knowledge and information in the field of science and technology

However, in my opinion, some realities need careful consideration before a local acrolectal variety of English is adopted as the medium of instruction for higher education in countries where English is taught as a second and/or foreign language. First, many teachers, except for English teachers, might not be competent to speak local acrolectal English fluently and might not well explain complex and abstract ideas in English to their students. Second, while teachers might use and speak acrolectal English, many students might not have developed necessary skills in listening comprehension. In addition, students might not have developed appropriate speaking skills to ask questions in English. It is very likely that students will spend more time on the learning of English and less time on the studies of their own fields. Accordingly, the students may lose interests in their original studies and change their research fields into the study of English language acquisition. Consequently, there will be more English majors and fewer professionals in other important fields, such as engineering, technology and medicine, as in the case of numerous African countries (Bocamba 1995). Third, the assumption that the use of local acrolectal English for higher education can improve students' English skills is doubtful. While teachers' use of English in

class can provide their students with more input, the question is to what extent students can digest the input into their intake and apply them in actual communication. Finally, when English teachers focus on the goal of helping their students achieve the highest possible level of English proficiency, they also need to consider the real-world use of English in international communication (Vande Berg 1997). Crosling and Ward (2002) report that competence in formal presentation alone is inadequate for the workplace because most verbal communication in international companies is informal in nature. They found that informal English expressions are the most frequently used forms in work-related discussions among workmates in the same company department. Therefore, in the case of teaching English for international communication, there is a need to consider not only linguistic competence but also sociolinguistic competence in the realistic use of English in intercultural exchanges and international business.

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