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PRIMARY STRESS ASSIGNMENT IN ITALIAN: LINGUISTIC AND EXPERIMENTAL ISSUES

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1. INTRODUCTION

Primary stress assignment is a recurrent open issue in the literature on Italian phonology. One of the most controversial points concerns the lexical vs. regular nature of stress in this language. Both positions have advantages and drawbacks. In particular, as far as the 'lexical' hypothesis is concerned, if stress assignment is not governed by rules, it should be explained why speakers, in general, make similar choices when asked to assign stress to novel/unknown words. In this paper we observe that, while some purely phonological rules of stress assignment may be active in the language, they are not always sufficient to predict stress position. We hence propose a more global approach, in which other factors also play a role. We present the results of two experiments, an informal test of reading of pseudo-words, and an auditory word recognition experiment showing the role of non-phonological factors in stress assignment, such as identification of a form as belonging to a specific lexeme, segmental similarity with other words in the language, and neighbourhood density of a word.

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This paper is organised as follows: section 2 presents some general observations about stress assignment in Italian, and about previous treatments which have been proposed for it; in section 3 we sum up the results of some previous psycholinguistic treatments of stress, focusing in particular on Italian; in section 4 we illustrate the results of an informal reading experiment; in section 5 we present the results of a psycholinguistic word recognition experiment; finally, a general conclusion is given in section 6.

2. STRESS ASSIGNMENT IN ITALIAN: THEORETICAL ISSUES

As observed in the introduction, one of the most discussed issues in the literature about stress in Italian concerns its lexical vs. regular nature. Some authors claim that it is possible to identify phonological rules of stress assignment to Italian words (cf. Den Os and Kager 1986; Sluyters 1990; Jacobs 1994; D'Imperio and Rosenthall 1999; Morén 2001, among others), while others consider, more or less explicitly, that stress is lexically marked in Italian (cf. Burzio 1994; Bafile 1999; Marotta 1999; Krämer 2009). An argument in favour of the second hypothesis is that primary stress has a contrastive function in Italian (cf. càpito 'I happen' vs. capito 'understood' vs. capitò 'it happened'), and then, at least for a subset of the words of the language, it cannot be assigned by rule. Conversely, in favour of the assignment-by-rule hypothesis there is the fact that speakers are often able to predict stress, or at least to formulate hypotheses about it, when faced with novel/unknown words (although speakers' judgements are not always uniform, cf. Krämer 2009: 167-177).

To sum up, as the examples above show, Italian words can be stressed on one of the last three syllables. However, the oxytone pattern is limited to some inflected forms, namely borrowings or invariable words containing a, more or less transparent, suffix, like *verità* ('truth'). This pattern can thus be considered as unproductive. Moreover, it is commonly admitted that the weight of the second-to-last syllable is crucial in order to determine the stress pattern of a word. Words whose penult is heavy are almost without exception paroxytones¹ (for details on stress in the Italian lexicon see Bertinetto and Loporcaro 2002). Thus, ambiguity in stress assignment mainly

¹ In the Italian lexicon it is possible to find no more than a dozen propartoxytone words containing a heavy antepenult, like *màndorla* ('almond'), and the pattern cannot be extended to novel words.

concerns words of three or more syllables whose penult is light (open), as they can possibly exhibit either a paroxytone or a proparoxytone stress pattern. In other words, it concerns the distinction between *cugino* ('cousin') and àsino ('ass'), and the possible identification of one of these two patterns as the default. Note that the identification of a default is an issue for both the assignment-by-rule and the lexical hypotheses. For the former, the default is a fixed parameter included in the phonology of Italian, whereas for the latter it is a free parameter, possibly derived from the predominance of one specific pattern in the Italian lexicon. Purely statistic observations indicate that the paroxytone pattern is largely predominant. According to various sources, the Italian lexicon contains between 70% and 80% of paroxytone words (cf. Mancini and Vogera 1993 and Krämer 2009: 161 for an overview). In fact, the majority of proponents of the assignment-by-rule hypothesis identify this pattern as the default, and propose to consider words like àsino as lexically marked exceptions (but cf. Morén 2001 who identifies the proparoxytone as the default pattern). The same is true for the psycholinguistic studies focusing on the issue, where words of the *cugino* type are generally labelled as 'regular' (cf. Colombo 1992; Burani and Arduino 2004, and the observations below).

However, whether the paroxytone type really constitutes the default for Italian may be disputed. For instance, it has been observed (cf. Montermini 2010: 158-159) that in the history of Italian both the shift from an etymological proparoxytone to a paroxytone and from an etymological paroxytone to a proparoxytone are attested, with a slight predominance of the second, but with no significant difference between the two. Observation of novel words, such as borrowings, acronyms, etc., moreover, confirms that, when a word contains a light penult and does not display any other property that would favour the paroxytone pattern (for instance the presence of a suffix or of a pseudo-suffixal sequence), the proparoxytone one is now predominant (cf. Bertinetto 1999; Montermini 2010). Thus, we have a situation in which, in order to identify a phonological rule of stress assignment, speakers face two contradictory statistical tendencies: a global overwhelming majority of paroxytone words in the whole lexicon, and a tendency to prefer the proparoxytone pattern for new words.

Whatever pattern is taken to be the default according to phonology, however, it is important to realize that phonological principles are only one of the factors that come into play when a speaker assigns stress to a novel unknown word. Other factors, such as segmental similarity with existing words and

even identification of a sequence as a specific inflected form of a lexeme also play a role.

3. STRESS ASSIGNMENT IN ITALIAN: PSYCHOLINGUISTIC ISSUES

From a psycholinguistic point of view, several studies attempted to verify whether and how stress can mediate lexical identification (Black and Bying 1986; Connine et al. 1987; Cutler 1986; Cutler and Clifton 1984; Cutler and Norris 1989). The issue of the type of representation taken by stress may indeed be critical both for the problem of whether stress mediates word identification in auditory word recognition and for how information about stress is used in the compilation of phonological code. There is evidence from production errors that stress is lexically represented (Cutler 1980; Cutler and Isard 1980). In auditory word recognition, the speech signal is continuous and a process of segmentation into phonological units is needed in order to recognize the word. Stress could contribute to word identification in the process of segmentation (Grosjean and Gee 1987) and some studies of lexical prosody have specifically tried to find out whether information about stress might "feed back to developing segmental hypotheses" (Connine et al. 1987), so participating in the identification process. However, Cutler and her colleagues (Cutler 1986; 1989; Cutler and Norris 1989) demonstrated through several studies that, at least in English, stress is not essential in speech perception. For instance, they showed that pairs of words that differ only in their stress pattern have the same priming effect on semantically related target words, thus suggesting that they behave like homophones. On the other hand, Cutler and Clifton (1984) found that misstressing of words inhibited lexical decision and interpreted it in the sense that stress information contributes to matching between acoustic and stored representations of words, making the operation more difficult when stress patterns do not correspond. Concerning Italian, it was found that word reading was correlated with both stress regularity and word frequency, words with regular stress (i.e. the statistically most frequent pattern, see above) being read faster than those with irregular stress, but only when the words in question were lowfrequency words (Colombo 1992). The author concluded that high frequency words (with regular and irregular stress) might activate their specific lexical phonology while low-frequency words might engage mechanisms of sublexical correspondence. Burani and Arduino (2004) explored stress regularity in relation with the neighbourhood density of low frequency

words in Italian and found that words were read aloud faster and more accurately when they belonged to large stress families (varying for both number and summed frequency of friends and enemies) made up of words with similar endings, irrespective of stress regularity. However, when the number of stress friends was manipulated, the naming data showed an advantage for words with irregular stress but a high number of stress friends over those with regular stress with few friends. This effect disappeared however using a lexical decision task suggesting that this family size effect did not result from the formal characteristics of words.

Taken together, these experimental data suggest that regular stress assignment mainly depends on stress neighbourhood density (the larger in terms of N size and summed frequency being the most favouring context) and not on the surface frequency of words.

4. EXPERIMENT 1: AN INFORMAL READING TASK

We present in this section the results of a test consisting in a reading task conducted on 8 native speakers of Italian. The speakers were between 30 and 65 years old, with a medium or high level of instruction and of different geographic origin (predominantly from Northern Italy). The material consisted of pseudo-words ending with the sequence -inV. In Italian, there are fundamentally three groups of words ending with that sequence:

- 1. masculine and feminine words derived by means of two homophonous paroxytone suffixes, a diminutive (cf. *tavolo* 'table' / *tavolino* 'small table'), and a relational one (cf. *Alpi* 'Alps' / *alpino* 'Alpine');
- 2. feminine nouns containing a proparoxytone suffix, mainly -àggine (cf. stupido 'silly' / stupidàggine 'silliness');
- 3. unanalysable masculine nouns derived from Latin nouns in *-men/-minis* (cf. *crìmine* 'crime', *tèrmine* 'term').

Moreover, in the history of Italian, the majority of borrowed words containing this sequence have been assigned a paroxytone stress (cf. *giardìno* 'garden' < French *jardin*; *mandarìno* 'mandarin' < Portuguese *mandarim*). The proparoxytone pattern is thus statistically predominant for words ending with this sequence, and one might conclude that it works as a sort of default. However, as we shall see, the speakers' judgements are not always uniform,

and we may conjecture that this is due to stress not being dependent on purely phonological conditions only.

In order to verify this hypothesis, we took nouns and adjectives ending in -inV attested in the LIP², a large corpus of spoken Italian. This corpus contains 356 nouns and adjectives ending with this sequence. In Table 1 we give the total number of words for each stress pattern according to the final vowel. Moreover, since a final -e may mark either a (masculine or feminine) singular or a (feminine) plural, we give separate counts for each such class:

Table 1: distribution of stress pattern according to the final vowel of words in -inV

	paroxytone	proparoxytone
ino	193	5
ina	162	10
ini	165	30
ine	123	33
ine _{sG}	1	25
$ine_{\scriptscriptstyle \mathrm{PL}}$	122	8

As can be seen from Table 1, the paroxytone pattern functions as the default for all cases, apart from (masculine) singular nouns ending in *-ine*. For words ending with the sequence in question, the predictability of the stress pattern depends crucially on morphological factors, such as the number associated with a form, a fact that is consistent with a lexical treatment for stress assignment in Italian. Furthermore, we took into account the segment immediately preceding the sequence *-inV*. We found a predominance of proparoxytones only in two cases (*-inV* preceded by [m] and [d_]), while in another case (*-inV* preceded by [d]) the two patterns are more or less equivalent. In all other cases, the paroxytone pattern is largely prevalent, if not exclusive. Relevant figures are given in Table 2, and illustrated in Figure 1, where we highlighted the consonants most frequently encountered with paroxytones and proparoxytones, respectively:

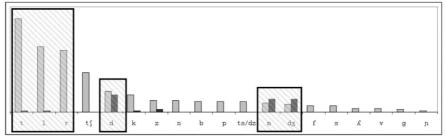
Table 2: distribution of stress pattern according to the consonant preceding the sequence -inV

	t	1	r	t_	d	k	Z	n	b	р
paroxyton	71	50	47	30	16	13	9	9	8	8
proparoxyton	1	1	_	_	13	1	2	_	_	_

² The LIP (De Mauro *et al.* 1993) contains some 15,000 types and 500,000 tokens. See Montermini (2010: 168-171) for further details on the data collected.

	ts	m	d_	f	S	_	v	_	_	
paroxyton	8	7	6	5	5	3	3	2	1	
proparoxyton	_	10	10	_	_	_	_	_	_	

Figure 1



In order to verify the incidence of segmental similarity and morphological information on stress assignment, a set of nonwords was created and submitted to the subjects for a reading task. Stimuli were nonwords ending with *ino* or *ine*, preceded by the consonants t, l, r, d, m and g (phonologically $[d_{_}]$). No subject was presented the same nonword ending both with o and e, and no indication was given as to gender and number of the stimulus. Table 3 gives the results of the test. White cells contain those stimuli for which the majority of speakers chose paroxytone stress, dark grey cells those stimuli for which the majority of speakers chose proparoxytone stress, light grey cells the stimuli for which no clear preferences emerged (empty cells correspond to redundant or phonotactically impossible sequences):

Table 3: Results of the pseudo-words reading task

prutino	prulino	prurino	prudino	prumino	prugino
prutine	pruline	prurine	prudine	prumine	prugine
croltino			croldino	crolmino	crolgino
croltine			croldine	crolmine	crolgine
afetino	afelino	aferino	afedino	afemino	afegino
afetine	afeline	aferine	afedine	afemine	afegine

The data above show, in particular, that, at least in some cases, stress assignment is the outcome of a computation that takes into account both morphological and lexical factors, such as gender and/or number of a form, its potential lexeme, and possibly the number of neighbours of that lexeme. To be more concrete, let us consider *prugine*, *crolmine* and *prurine* from the table above. Subjects did not show a uniform behaviour when prompted with

prugine, while they chose a proparoxytone pattern for *crolmine* and a paroxytone pattern for *prurine*. In Tables 4'-4'", we correlate these observations with the potential lexemes of the pseudo-words in question and with the number of neighbours (i.e. the number of lexemes presenting the same stress pattern and the same four final phonemes) that each lexeme has in the LIP.

Table 4': Potential lexemes and their neighbours for prugine

form	potential lexeme	grammatical features	neighbours
prugíne	PRUGINA	N FEM PL	3 (regina 'queen')
	PRUGINO	A-FEM PL	1 (cugino 'cousin')
prúgine	PRUGINE	N FEM SG	7 (immagine 'image')
	PRUGINA	N FEM PL	1 (pagina 'page')
	PRUGINE	N MASC SG	1 (margine 'margin')

Table 4": potential lexemes and their neighbours for crolmine

form	potential	grammatical	neighbours
	lexeme	features	
crolmíne	CROLMINA	N FEM PL	1 (vitamina 'vitamine')
	CROLMINO	A FEM PL	
crólmine	CROLMINE	N FEM SG	_
	CROLMINA	N FEM PL	4 (femmina 'woman')
	CROLMINE	N MASC SG	4 (fulmine 'flash')

Table 4": potential lexemes and their neighbours for prurine

form	potential lexeme	grammatical features	neighbours
pruríne	PRURINA	N FEM PL	11 (farina 'flour')
	PRURINO	A FEM PL	8 (carino 'nice')
prúrine	PRURINE	N FEM SG	_
	PRURINA	N FEM PL	_
	PRURINE	N MASC SG	_

As can be seen, in all three cases there is a significant correlation between the stress pattern chosen and the number of neighbours of a lexeme, thus providing an argument in favour of a lexical treatment of stress assignment.

5. EXPERIMENT 2: A WORD RECOGNITION EXPERIMENT

To further investigate the issue of primary stress in Italian, and to verify the tendencies observed in the informal test illustrated in section 4, an auditory word recognition experiment was carried on. We manipulated Italian words and nonwords on the basis of their stress type (proparoxytone vs. paroxytone). Each word was associated with a nonword, created by changing one, two or three phonemes in the original word. Overall, the materials used in the experiment included 30 words (15 paroxytons and 15 proparoxytons) and 30 nonwords. Each word and nonword was presented to the subject with both stress patterns. No subject was presented with the same word and nonword stimulus with both the expected and the unexpected stress. For nonwords, we call "expected stress" the stress pattern attested for the word from which the nonword was created (e.g. mattino 'morning' / cattino), and "unexpected stress" the other stress pattern (e.g. càttino). Examples of materials are presented in Table 5:

Table 5: Examples of the words and the nonwords used in the experiment

	paroz	xytones	propar	oxytones
	expected position	unexpected position	expected position	unexpected position
words	mattíno	máttino	términe	termíne
nonwords	cattíno	cáttino	pérmine	permíne

5.1. Procedure

The experiment was conducted on a PC computer using the DMDX software (Forster and Forster 2003). Each trial consisted of a visual event followed by the auditory presentation of the stimulus. The first event was a cross, presented for 500ms in the centre of the screen to indicate the beginning of the trial to the subject. Then, an auditory stimulus calibrated on a 1 second length was heard by the participant through a headphone. Auditory stimuli were produced by a native speaker of Italian. The intertrial interval was 1 second. Participants were requested to make lexical decisions on the auditory stimuli as quickly and as accurately as possible, by pressing the appropriate button of the keyboard. Reaction times (in milliseconds) were recorded from the stimulus onsets.

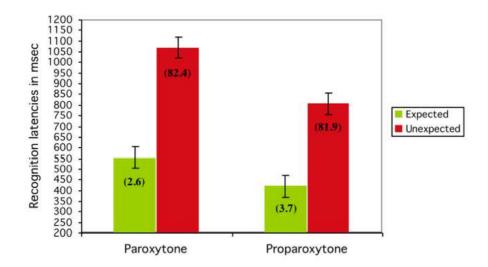
5.2. Participants

Thirty-four students of the University of Bologna, all native speakers of Italian with normal or corrected-to normal vision, served as participants.

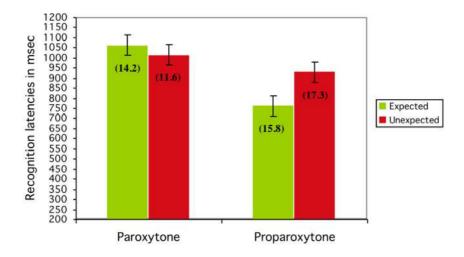
5.3. Results and discussion

The results are presented in Graphs 1 for words and 2 for nonwords.

Graph 1: Recognition latencies and percentage of errors (in parentheses) on Italian words (according to stress type (paroxytone vs. proparoxytone) and stress position (expected vs. unexpected)



Graph 2: Recognition latencies and percentage of errors on Italian nonwords (according to stress type (paroxytone vs. proparoxytone) and to stress position (expected vs. unexpected)



As expected words were recognized significantly faster that nonwords (+230 ms on average). Concerning word identification, there was a main effect of stress position, words with the expected stress position being recognized faster and producing less than 4% misidentification errors than those pronounced with the unexpected stress. Whatever the stress type, words pronounced with an unexpected stress were considered as nonwords by the participants (more than 82% of words were rejected). Globally, recognition latencies followed the same direction, while words pronounced correctly were identified in less than 500 ms (487 ms on average), it took almost 1 second to accept words with an unexpected stress (938 ms on average). The data seem to indicate that in Italian stress position is a determinant factor for word comprehension and this is true independently of the stress pattern. Thus, the hypothesis that there is no unmarked pattern for Italian stress is confirmed. In fact, according to an assignment-by-rule model, words displaying the default pattern (paroxytones) would be underspecified for stress and subject to postlexical stress assignment while for the others (proparoxytones), stress would be included in the lexical representation. Then, upon hearing màttino (unexpected stress), the lexical entry for mattino would be fully activated (the auditory input being segmentally identical to the entry). However, because the cognitive system detects that the input does not match the default stress pattern required by the fully activated – but underspecified - entry, the input is rejected as non-existing. According to this model, there should be little or no difference in RTs between accepting mattino and rejecting *màttino*. The present data, on the contrary, show that in terms of RTs, it took longer to reject *màttino* than *mattìno* (554 ms vs. 1070 ms on average). Moreover, always in agreement with such a model, the stress of proparoxytone words (e.g., *tèrmine*) would be fully coded within the lexical entry. Then, there should be no difference in RTs between words pronounced with the expected stress (*tèrmine*) and those with the unexpected stress (*termine*). The observed data suggest, nevertheless, that RTs differed, *tèrmine* (420 ms on average) being identified faster than *termìne* (807 ms on average). On the other hand, a model of fully specified lexical entries predicts a difference in RTs between words with an expected and an unexpected stress, whatever pattern they display. Indeed, *màttino* (or *termìne*) will partially activate *mattìno* (*tèrmine*) together with other segmentally similar entries (e.g. *pàttino* 'skate', *confìne* 'border', *etc*) and this will start a competition that slows down the rejection of these stimuli. The data we observed seem to be more in accordance with such a situation.

If we turn now to nonwords, the results reveal first that contrary to words, stress position did not affect their correct identification (as nonwords). Nonwords with an expected stress did not produce significantly more errors than those with an unexpected stress (respectively, 14.91% and 14.41% on average). This result indicates that stress position has no influence on the probability that a nonword is rejected, thus suggesting that stress assignment cannot be considered as a pre-lexical rule. Burani and Arduino (2004: 324) suggested that "the extraction of a relevant unit as cue to stress assignment is favoured when this unit is part of several word contexts (several or types) at least when stress neighborhood is large enough". In the present case, we manipulated auditory nonwords whose lexical context is null by definition. Even if these stimuli were created from existing words (e.g., cattino from mattino), it seems that their analogy with words did not influence their identification accuracy (in terms of % of errors). One of the possible explan ations could be that the recognition of auditory stimuli mainly results from postlexical processes. Then, because nonwords do not have any lexical representation per se (at the word level) and if, as suggested by our data, stress in Italian is included in the word representation, these stimuli cannot fully benefit from the activation of their stress family. Our results, even if they are not really comparable as our items were auditory non-words, are nevertheless consistent with those found by Burani and Arduino (1994) who manipulated low frequency words. Within a lexical decision experiment (Experiment 3), they did not observe any effect of stress regularity or any effect of stress neighbourhood. Neither decision latencies nor errors were different between regular and irregular stress words. The authors interpreted this result as evidence that the stress neighbourhood effect would be located at some level of phonological processing. We do not however share this inter-

pretation since we manipulated auditory stimuli for which some phonological processes were *de facto* engaged in order to perform the task. Rather, we suggest that in this precise context (auditory recognition), as for words, the absence of an advantage of regular over irregular nonwords reveals that there is no stress regularity effect. This could indicate that there is not a default rule operating, at least at a sub-lexical level. This conclusion reinforces then the idea that the stress is contained within the lexical representation of words. Colombo (1992) manipulated Italian nonwords also derived from words to explore the stress assignment issue. Using a naming task (i.e., word pronunciation), she found that the majority of nonwords were pronounced with dominant stress suggesting that "subjects made use of the presumably implicit knowledge about distributional properties of stress by relying on information derived by word neighbors" (p.998). However, the huge difference between this study and our study resides in the paradigm used. In the present experiment recognition required the retrieval of the stored phonological form of the stimuli in the lexicon. This implies an online mechanism based on sound correspondences between the auditory input and the lexicon. In the case of non-words there is no stored phonological form, therefore sublexical mechanisms are necessarily engaged in order to identify these items. Phonological forms (such as mattino when cattino is presented) that closely match the input are activated thanks to excitatory links between the sublexical and the lexical level of phonological processing. But because, no phonological form is sufficiently activated to reach its recognition threshold, the global lexical activation rapidly falls down and a "no" decision is made. The decision-making is then only based on the presence of a sufficient lexical activity (and maybe not on the size of the any stress family). In the case of words presented auditorily, the exact matching between the input and a phonological form coded at the word level permits to the word representation to reach its activation threshold. The stress family is also strongly activated in parallel and this is particularly true for regular stress words. The decision-making is then based on both the activation of the lexical representation of the input and the global activation of its stress family. Words with the expected stress induced a "yes" response thanks to these mechanisms, while words presented with an unexpected stress were treated as non-words (thanks to mechanisms similar to those engaged for the nonwords, i.e., cattíno).

Finally, the observed reaction times show that when nonwords were pronounced with the expected stress it took longer to give a "no" response to paroxytone nonwords (1063 ms on average) than to proparoxytone nonwords (763 ms on average). Apparently, participants found harder to reject the items whose stress type was regular than those whose stress type was ir-

regular. As mentioned below nonwords even if they have no lexical representation can nevertheless activate some phonological forms at the word level during the identification stages. All our nonwords were constructed by changing one or few letters within an existing word. Then, those pronounced with the regular stress were able to activate more accurately words forms while none of them reached it recognition threshold.

To resume our data about nonwords, stress type did not influence their identification accuracy (i.e., % of errors), while it affected their recognition latencies. This could explain why regulars (which can p otentially activate larger stress families) took longer to be rejected because of the pressure of their stress family at the word level.

6. CONCLUSION

Both the informal experiment reported in section 4 and the word recognition experiment illustrated in section 5 showed the importance of word similarity for stress assignment, thus confirming that stress is not a purely phonological phenomenon in Italian, and cannot be treated by rule. The fact that speakers are slower in rejecting paroxytone words than proparoxytone words shows, moreover, that the former pattern may be considered as dominating, but we consider that this is an effect of the larger proportion of paroxytone words found in the Italian lexicon. As we have seen, the identification one of the two stress patterns that are productive in Italian as the default on theoretical grounds is controversial. Furthermore, the experimental data we present are perfectly coherent with a lexical model of Italian stress, but would be hardly explained in an assignment-by-rule model, where the post-lexical nature of default stress would imply an advantage for non-default stress words in order to be identified as words or rejected, whereas no significant different was observed, in this respect, between paroxytones and proparoxytones.

More work would be necessary in order to better assess, for instance, the role of similarity, taking into account not only segmental, but also grammatical cues. It would be also interesting to test different stress assignment in the context of a variety of task s(stress assignment in reading, in real-life speaking activity, in word inflection, etc.). The preliminary results we presented in this paper, in fact, seem to confirm that the stress pattern of an output form is the result of a conspiracy of various factors.

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SUMMARY: L'assegnazione dell'accento primario è una questione ricorrente nella letteratura sulla fonologia dell'italiano. Uno degli aspetti più controversi concerne la natura lessicale oppure basata su regole dell'accento in tale lingua. In questo lavoro difendiamo un approccio lessicale all'accento italiano, in cui lo schema accentuale è memorizzato nella rappresentazione lessicale dei singoli lessemi. Per spiegare l'assegnazione dell'accento a parole nuove o sconosciute proponiamo che i locutori ricorrano a parametri di tipo fonologico-prosodico, ma anche a parametri di altro tipo, ad esempio grammaticali o legati alla vicinanza della parola candidata ad essere accentata con altre parole del lessico. Per verificare questa ipotesi, presentiamo i risultati di due esperimenti. Il primo è un esperimento informale che consiste nella lettura di non parole; il secondo è un esperimento di riconoscimento lessicale. I risultati dei due esperimenti confermano l'ipotesi che l'assegnazione dell'accento è un fenomeno che dipende da diversi parametri, e mostrano che nessuno dei due schemi accentuali produttivi (parossitono o proparossitono) può essere considerato come non marcato in italiano, dal momento che non emerge una differenza significativa nel riconoscimento lessicale a seconda dello schema accentuale di una parola. Tuttavia, il fatto che le non parole parossitone siano scartate meno velocemente delle parole proparossitone suggerisce che lo schema parossitono può essere considerato come una sorta di default, probabilmente a causa della forte proporzione di parole esistenti nel lessico che presentano tale accentuazione.