LEADING TONE ALIGNMENT IN OCCITAN DISAPPROVAL STATEMENTS

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INTRODUCTION

Occitan is a Romance language that shares prosodic features:
- with southern Romance languages: it has a distinctive stress, though only in two positions (last and penultimate syllables)
- with French: pitch movements may be associated with syllables that are not metrically strong.

Huadil (2003) points out that:
- pitch rises may appear in positions adjacent to the stressed syllable in Occitan (impossible in French),
- "the falling (or low) nuclear accent of Occitan appears to differ from that of the other languages", arguing that very often he had found "a fall from a preceding syllable with a secondary accent",

NUCLEAR PITCH ACCENT OF OCCITAN DISAPPROVAL STATEMENTS

HYPOTHESIS

This study aims to demonstrate that the nuclear pitch accent of Occitan disapproval statements is tritonal and presents a COMPLEX LEADING TONE CONFIGURATION, with both a low and a high targets aligned with the pre-stressed syllable, and a low target associated with the stressed syllable. This challenges the pitch accent structures proposed until now, in which there may be at most one realized leading tone.

EXPERIMENT

4 SUBJECTS: G, J, N, P
1 female (G), 3 males (J, N, P), 70 to 80 years old, native speakers of the Limousin dialect of Occitan, minimal education level, pensioners (working class).
Born and lived their whole life in the region of Molisouan (Mussidan, Dordogne, France).

DATA

Situation survey based on the methodology applied by Prieot (2001). 5 situations, 12 final words (6 oxytones, 6 paroxytones, all CV syllables) for each situation. Some utterances were rejected because they presented intonational patterns corresponding to other meanings, such as neutral statements or statements with a narrow focus on the last word of the sentence.

ANALYSIS

WAQ files were annotated to Awgrid in Praat, and tone and F0 values were extracted at segmental boundaries and at the first low target (L1 or L2), at the maximum of F0 (H or Hi), at the beginning of the fall (H1) and at the end of the fall (H2).

RESULTS

ALIGNMENT OF THE LOW TARGET OF THE BEGINNING OF THE RISE (L1) (no initial rise)

The beginning of the rise is aligned within the onset consonant of the pre-stressed syllable.

ALIGNMENT OF THE F0 MAXIMUM

IN ABSENCE OF AN INITIAL RISE: The end of the rise (H1) is aligned with the end of V-1.

IN PRESENCE OF AN INITIAL RISE: The end of the initial rise (Hi) is aligned within V-1. L1 is undershoot.

CORRELATION BETWEEN THE DURATION OF THE PRE-STRESSED SYLLABLE AND THE DURATION OF THE RISE IN ABSENCE OF INITIAL RISE

The duration of the rise is proportional to the duration of the pre-stressed syllable in absence of initial rise. This confirms that L1 is aligned with C-1 and H1 with the end of the pre-stressed syllable.

ALIGNMENT OF THE BEGINNING OF THE FALL (H2)

Both in presence and in absence of an initial rise, the beginning of the fall is consistently aligned within the onset consonant of the stressed syllable.

SCALE DIFFERENCE BETWEEN THE F0 MAXIMUM AND H2

Very small F0 decrease from the F0 maximum to the beginning of the fall, both with and without initial rise: high plateau.

ALIGNMENT OF THE FINAL LOW TARGET (L2)

Though the focus of this study is the alignment of the leading tones of this type of pitch accents, the alignment of the final low target is presented here to justify its starredness.

The final low target is aligned within the vowel of the stressed syllable, whereas the two other targets (L1 and H) are aligned with the boundaries of the pre-stressed syllable.

CONCLUSIONS

The results of this production experiment show the presence of 3 tonal targets in the nuclear pitch accent of Occitan disapproval statements:
- a low tonal target aligned with the onset consonant of the pre-stressed syllable.
- a high tonal target aligned at the end of the pre-stressed syllable and continues until the onset consonant of the stressed syllable.
- a low target aligned within the vowel of the stressed syllable. It is a tritonal pitch accent, which has to be labeled UV*U, with a complex leading tone configuration composed of two targets (one low and one high), both aligned with the pre-stressed syllable.

DISCUSSION ON PITCH ACCENT STRUCTURE

Grice (1995b), in order to account for downstream in English, makes 2 proposals for Structure:

TWO LEVELS HIERARCHICAL STRUCTURE OF PITCH ACCENTS

- Right-headed pitch accents, left-headed nodes.

A node may be branching only when the pitch accent is not, so only monotonal (*T*) and bional (T*T*+ T*+T) pitch accents are possible.

Also reported by Frosi (1998, 2000a, 2002) for European Portuguese.

FLAT STRUCTURE OF PITCH ACCENTS

The rise tier: series of left-headed tonal root nodes that can be branching.

Primary association: Determined root nodes associate with metricaly strong syllables.

Secondary association: If a root node finds no free syllable to associate with (red line), it associates secondarily with the next stressed syllable (blue line), creating a tonic cluster.

In both models, trailing tones and starred tones are dominated by the same node and leading tones are in another root node. This predicts a different behavior for leading and trailing tones.

APPLICATION TO THE NUCLEAR PITCH ACCENT OF OCCITAN DISAPPROVAL STATEMENTS

In Grice's flat model, the surface realization of pitch accents may maximally be bional, allowing for monotonal and tritonal pitch accents. Bional: one with two non-brenching or one branching node, and tritonal in which a low tone is on the weak branch of a node and is subject to delinking.

This model can account for the structure of tritonal pitch accents if this constraint on the surface form to be bional is lifted.

STRUCTURE OF THE NUCLEAR PITCH ACCENT OF OCCITAN DISAPPROVAL STATEMENTS AND ASSOCIATION PATTERN TO THE SYLLABLES

The non-brenching root node [*L*] associates to the stressed syllable (green line), then the branching node (UH) associates to the previous syllable (red line), so the rise is aligned with the pre-stressed syllable and then pitch falls throughout the stressed syllable.

REFERENCES


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