

行政院國家科學委員會專題研究計畫 成果報告

賽夏語語調研究

計畫類別：整合型計畫

計畫編號：NSC92-2411-H-002-079-

執行期間：92年08月01日至93年07月31日

執行單位：國立臺灣大學語言學研究所

計畫主持人：江文瑜

報告類型：精簡報告

處理方式：本計畫可公開查詢

中 華 民 國 93 年 12 月 27 日

The Prosodic Realization of Negation in Saisiyat and English

1. 中文摘要

本研究分析賽夏語的否定詞的韻律結構，並和英文比較。本研究亦比較賽夏語和英語中的肯定句和否定句的韻律現象。參數包括：音調最高點、音調最低點、音調的範圍、斜率、能量最高點、長度等。結果顯示不同語言使用不同的韻律方式來標示否定句。賽夏語並不像英語使用 F0 的高度來標示具有焦點作用的否定詞。我們提出賽夏語的現象比較像 pitch-accent 語言的看法。這些語言從詞彙階段到後詞彙階段對於語調的改變相對微小。而英文從肯定句到否定句相對使用大規模的韻律改變。

2. 英文摘要

This study investigates the prosodic realization of negation in Saisiyat, an endangered Austronesian language of Taiwan, and compares it to that of English. It also compares the prosodic characteristics of negative sentences in Saisiyat and English with those of affirmative sentences. Our results suggest that it is possible to achieve a maximal contrast in marking negation using different prosodic strategies. Saisiyat, for example, does not use F0 height to mark a focused negator as extensively as English does. We propose that Saisiyat behaves like a pitch-accent language in its prosodic realization of negation; these languages typically modify their intonation contours only minimally from the lexical to the post-lexical level. English, in contrast, exhibits large-scale prosodic differences between affirmative and negative sentences.

3. 內容報告

Cross-linguistically, negation can be realized by means of syntactic marking,

prosodic marking or a combination of the two, depending on the prosodic characteristics of the language in question. Syntactically, a language can use a single negator to express negation; such as *not* in English, or use various negators for different syntactic structures, such as those in Austronesian languages of Taiwan. Negation can also be marked prosodically. For example, Yaeger-Dror (2002) found that the F_0 (fundamental frequency) of English *not* and French *pas* are higher than those of surrounding words. The current literature suggests that such prosodic differences accompanying the syntactic marking of negation are relatively common; the use of only prosodic marking to realize negation, in contrast, is relatively rare (Remijsen, 2003).

The question of whether a negator is invariably acoustically more prominent than its surrounding words, however, remains unresolved. Semantically, negators bring new information to a sentence; for this reason, they assume ‘focal prominence’.

Yaeger-Dror (2002) proposes the ‘Cognitive Prominence Principle’, according to which cognitively prominent items, such as negators, should be prosodically marked.

According to this principle, acoustic prominence enhances discourse participants’ attention to focused items, which maximizes the effectiveness of communication.

Acoustic evidence for the ‘Cognitive Prominence Principle’ was found in Allen (1973). In this study, participants were required to utter a set of negative sentences. Measurement of f_0 values within those sentences determined that the pitch of negators

was usually higher than that of contiguous lexical items. However, a subsequent study by O'Shaughnessy and Allen (1983) found the pitch of negators to be raised only in isolated utterances. When negators were uttered within larger units of discourse, such as paragraphs, pitch raising was found only rarely¹.

According to Yager-Dror (1985, 2002), the unstable behavior of negators stems from the conflict between the 'Cognitive Prominence Principle' and the 'Social Agreement Principle'. On the one hand, a negator, due to its sentential prominence, must be prosodically marked in order to comply with the Cognitive Prominence Principle. On the other hand, the Social Agreement Principle discourages emphasis on any objection to a conversation partner's previous assertion, which would effectively eliminate any prosodic prominence assigned to negators. Yager-Dror's research suggests that the choice to assign prosodic prominence to negators may be sensitive to the dynamics of culture and discourse.

Whether the prosodic prominence on negators found in English negative sentences can be found across a range of language types has yet to be explored. Moreover, earlier studies have focused on the acoustic measurement of negators

¹ Bolinger (1978) provided an alternative analysis of the prosodic characteristics of negators. Although he agreed that new information is usually prosodically emphasized, he claimed that cross-linguistically, "negative sentences favor lowered pitches intonationally". Yager-Dror (1985) interpreted this observation to mean that "the pitch on negative particles is made prominent by being lowered below the speaker's basic pitch line". In the same study, however, Yager-Dror claimed pitch lowering of negators has never been found in research on English prosody. Instead, the pitch of English negators is either high or level.

exclusively, with little attention to prosodic changes in contiguous lexical items.

The current study focuses on the prosodic realization of negators in Saisiyat², an endangered aboriginal language of Taiwan, and compares its prosodic realization of negation with that of English³. Although this research focuses on measurement of the negators themselves, it also measures lexical items surrounding the negator.

Subsequently, the prosodic characteristics of negative Saisiyat sentences are compared with those of affirmative sentences. Then, differences between negative and affirmative sentences are compared between Saisiyat and English. Acoustic parameters to be measured include pitch peak, pitch valley, pitch range, slope, intensity peak and duration. These results will provide data for typological comparison of the prosodic realization of negation, as well as information on the intonational structure of Saisiyat.

The results of this study indicate that sentential subjects are the most acoustically prominent items in the Saisiyat negative sentences measured. This contrasts sharply with the English experimental sentences, in which the negator itself was the most acoustically prominent item. In addition, the presence of negators does not significantly change the prosodic parameters of contiguous words in Saisiyat. English, in contrast, exhibits large-scale prosodic differences between affirmative sentences and negative

² Saisiyat is an endangered language in Taiwan with about 7000 speakers. It belongs to the Austronesian language family and has two dialectal variations—Northern Saisiyat (Daai dialect) and Southern Saisiyat (Tunggho dialect). Northern Saisiyat is spoken in Miaoli County and Southern Saisiyat is spoken in Hsinchu County. The speaker population of these two dialects of Saisiyat lives in central Taiwan.

³ The English-speaking informant in this study is a male speaker of UK English.

sentences.

These findings suggest that Saisiyat is a pitch-accent language; thus, the presence of negators does not significantly change the prosodic parameters of surrounding words. English, in contrast, is an intonation language, so the presence of negation results in substantial prosodic modification. This suggests that the phenomenon of negation is universally prominent; however, languages with different prosodic systems will adopt different strategies for realizing prominence.

Reference

- Allen, J.: Pitch peaks on negatives. *Journal of the Acoustical Society of America* 55, S77 (Abstract) (1973)
- Bolinger, D.: Intonation across languages. *Universals of Human Language II*. In Greenberg, J. (Ed.). (Stanford University Press, Stanford 1978)
- Chiang, W.-Y.; Chiang, F.-M.: The lexicon-level pitch accent in Saisiyat. Unpublished manuscript (2004)
- Cruttenden, A.: *Intonation* (2nd ed.). (Cambridge University Press, Cambridge 1997)
- Kaufmann, A.: Negation and prosody in British English: a study based on the London-Lund Corpus. *Journal of Pragmatics* 34:1473-1494 (2002)
- O'shaughnessy, D.; Allen, J.: Linguistic modality effects on fundamental frequency in speech *Journal of the Acoustical Society of America* 74: 1155-1171 (1983)
- Remijsen (2003, April 11). Prosodic marking of negation. Message posted to <http://linguistlist.org/issues/14/14-1173.html>
- Yaeger-Dror, M.: Register and prosodic variation, a cross language comparison. *Journal of Pragmatics* 34: 1495-1536 (2002)
- Yaeger-Dror, M.: Intonational prominence on negatives in English. *Language and Speech* 28: 197-230 (1985)
- Yeh, Marie M; Lilian M. Huang; Elizabeth Zeitoun; Anna H. Chang; Joy J. Wu.: A Preliminary Study On Negative Constructions In Some Formosan Languages. *Selected Papers From The Second International Symposium On Languages In Taiwan.(ISOLIT-II)*, 81-111(1998)
- Yeh, Marie M: *sai siya yu can kau yu fa [A Reference Grammar of Saisiyat]*. (Yuan-Lio, Taipei 2000)

