

The effects of focus and givenness on the realisation of Djambarrpuyŋu noun phrases

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The effects of focus and givenness on prosody and word order in noun phrases (NPs) are considered in Djambarrpuyŋu, a Pama-Nyungan language. Djambarrpuyŋu allows free word order within NPs as well as discontinuous NPs (i.e., in which semantically-related nominal elements are distributed throughout the clause) [1-3]. Recent typological work suggests that observed flexibility is highly constrained in Australian languages, and information structure is vital in determining when and how different structures occur. Further, prosody is key in distinguishing between structures and meanings [2-4]. Cross-linguistic investigations of information structure within NPs have shown that focused elements are often accented, and are realised with concomitant phonetic cues, e.g., longer duration, increased intensity, and higher fundamental frequency (henceforth f_0), while given information is acoustically less prominent and may be deaccented [see e.g., 5]. However, to date, only languages with fixed word order within NPs have been investigated. It is not known if or how word order, (dis)continuity, and prosodic prominence, are affected by information structure and status in Djambarrpuyŋu NPs.

Thirteen Djambarrpuyŋu speakers completed a game designed to elicit NPs with different information structure patterns: focus on the whole NP, the noun, or the adjective (henceforth NPF-, NF-, and AF-condition, respectively). 616 utterances were analysed (542 target adjectives, 613 target nouns). Utterances were coded as having one of three structures: i) target words contiguous (i.e., juxtaposed, $n = 418$), ii) target words discontinuous (i.e., not juxtaposed, $n = 121$), iii) only one target word ($n = 77$). The order of adjective and noun were extracted, as well as f_0 associated with the intonational pitch accent.

Focus and givenness were observed to affect word order and f_0 , though discontinuity occurred equally across focus conditions. In contiguous NPs, adjective-noun order was used in 56% of NF-, 51% of NPF-, and 85% of AF-condition utterances, while in discontinuous NPs, adjective-noun order was used in 7% of NF-, 21% of NPF-, and 69% of AF-condition utterances. Focus condition was a significant predictor (Fig. 1). The decrease in adjective-noun order was significant for the NF-condition discontinuous NPs, suggesting that a combination of discontinuity and word order distinguishes NF-condition NPs, while the AF-condition is identifiable by greater use of adjective-noun word order. This follows previous work that suggests clause-initial position has pragmatic importance or is a position of prominence in Australian languages [6]. Solo nouns also distinguished NF- and NPF- from AF-condition. In contiguous utterances, f_0 was found to be higher for adjectives than nouns in the first position of AF-condition utterances. Nouns had significantly higher f_0 in first position of NF- than AF-condition utterances, while the reverse was so for adjectives in second position (Fig. 2). In discontinuous utterances, f_0 was higher for adjectives than nouns in first position of AF-condition. It appears that downtrends are used in all conditions to encode givenness.

This is a first step to understanding how information structure is expressed in Djambarrpuyŋu NPs and how prosody, word order and (dis)continuity interact.

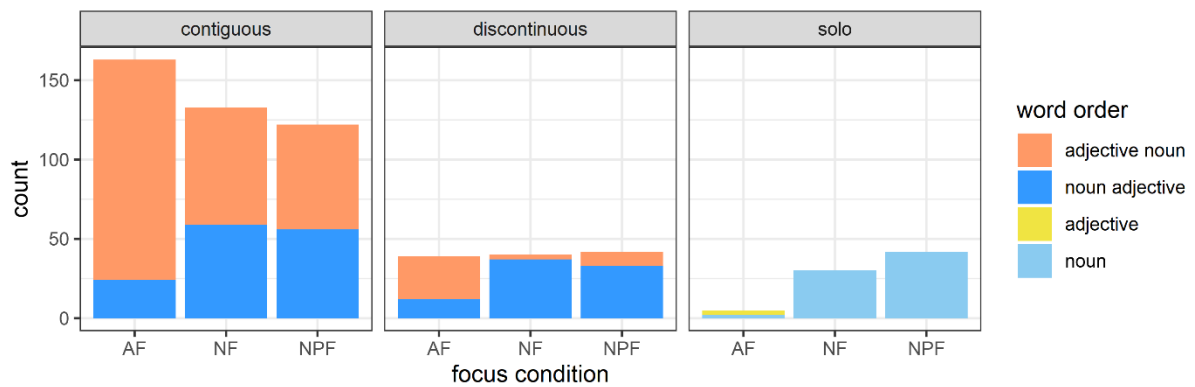


Figure 1. Count representations of word order choice in contiguous, discontinuous, and single word NPs across focus conditions.

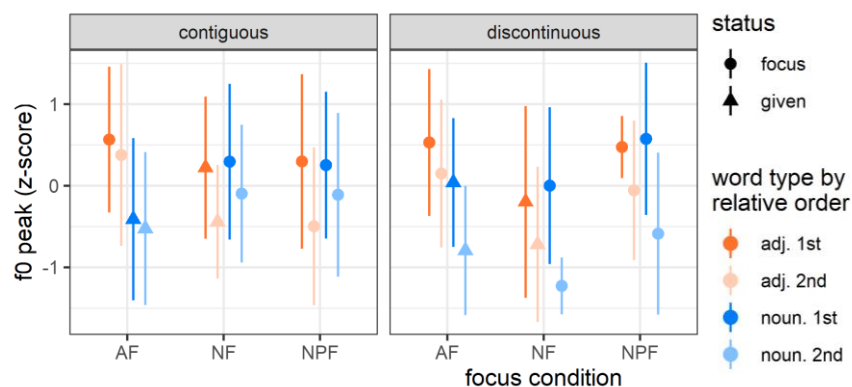


Figure 2. Mean f0 peak values (z-score, with error bars ± 1 SD) in contiguous and discontinuous NPs across focus conditions, grouped by whether they were the adjectives or nouns, whether they were first (1) or second (2) word in the NP, and whether they were in focus or were given information.

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