

On the nature of adjectival modification: A case study in Javanese

A small group of languages (Slave, Ika, Edo (Baker 2003, Dixon 2004)) have been claimed to only have indirect adjectival modification, i.e. where adjective modifiers always have a relative clause-like structure. In a case study on adjectival modification in Javanese, it is at first tempting to place this Western-Malayo Polynesian (Austronesian) language among this small group. Using the Degree Phrase (DegP) as a diagnostic to probe into the structure of adjectival modifiers, I show that scope island effects in attributive comparatives strongly suggest that adjectives are always indirect modifiers in Javanese. However, further investigation on bare adjectives shows that direct modification, i.e. true attributive modification, is in fact available in Javanese. I argue that in Javanese, complex adjectives (i.e. comparatives, intensified adjectives, adjectives with complements) are always indirect modifiers, while bare adjectives may be either direct or indirect modifiers. This case study then calls into question the existence of languages that are claimed to only have indirect adjectival modification.

Javanese presents an interesting case to study because it is not clear at the outset what type of structure adjectival modifiers have due to the apparent optionality of the relative marker *sing*, as in (1).

- (1) **Kayu (sing) télès kuwi** ora isa di-sulèt gèni
wood REL wet the not can PASS-light.up fire
'The damp firewood cannot be burned.'

Without an overt relative marker, the structure could be an instance of direct modification, (2), or equally an instance of indirect modification, (3), where the relative clause structure is syntactically present, but the relative marker *sing* is not phonologically overt.

- (2) [Kayu [_{AP} télès]] kuwi DIRECT MODIFICATION
(3) [Kayu₁ [_{CP} *sing* [_{e1} télès]]] kuwi INDIRECT MODIFICATION

This paper discusses a number of tests in order to better understand the structure of adjectival modifiers in Javanese. The first test involves the scope of the DegP in attributive comparatives and the nature of the modifier. On one hand, direct modifiers will allow the DegP to scope beyond the modified noun, as no higher functional projections are blocking movement. Indirect modifiers, on the other hand, will not allow the DegP to extract out of the adjectival modifier because as having a relative clause structure, they are islands. (Note that this test is valid only for languages in which relative clauses are islands). In other words, under a movement analysis of comparatives (Heim 1981, 2001) where different interpretations are associated with different scope heights of the DegP, direct modifiers will allow for ambiguity while indirect modifiers will not. Now consider the lack of ambiguity in Javanese attributive comparatives in examples like (4):

- (4) Tomo nulis makala (sing) luwih dawa tinimbang Aminah
Tomo write paper REL more long than Aminah
'Tomo wrote a paper that is longer than Aminah.' READING (i)
#Tomo wrote a longer paper than Aminah did.' READING (ii)

I argue that this lack of ambiguity can be straightforwardly explained if the adjectival modifier *luwih dawa...* 'more long...' is an indirect modifier (Diagram 1). That is, the relative clause structure of the indirect modifier, as an island (also shown independently of comparative constructions), blocks the DegP from extracting. The adjectival modifier cannot be a direct modifier, as it would allow the unavailable reading (ii) (Diagram 2). To express reading (ii) in Javanese, it must be spelled out in the complement of the *tinimbang*-phrase: ...*tinimbang (makala) sing ditulis Aminah* "...than the paper that was written by Aminah". Crucially, the scope island effect is equally obtained when the relative marker *sing* is not phonologically overt, strongly suggesting that adjective modifiers are always indirect in Javanese.

On the nature of adjectival modification: A case study in Javanese

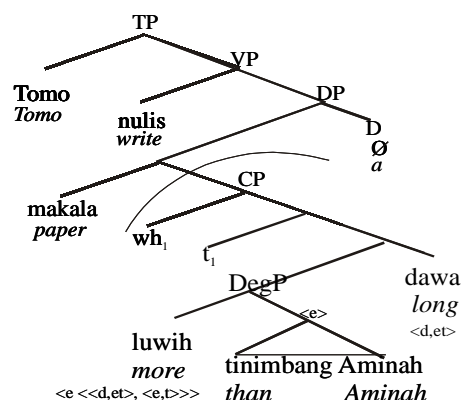


Diagram 1. Reading (i)

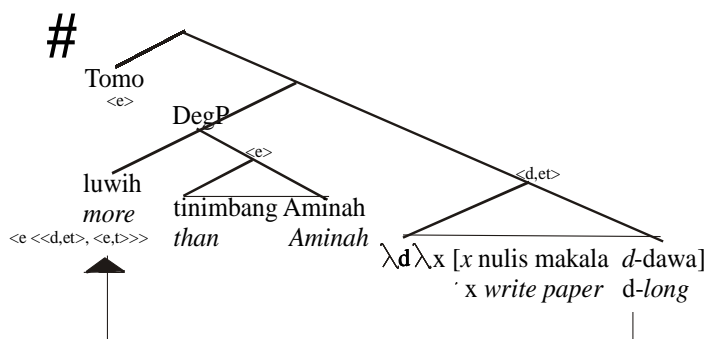


Diagram 2. Unavailable reading (ii)

(I assume a Direct Analysis of phrasal comparatives (Heim 1985, Bhatt & Takahashi 2007,2008, a.o.) for Javanese, as *tinimbang* ‘than’ only takes DP or PP complements.)

Furthermore, there appears to be a lack of non-intersective modifiers as adjectives in Javanese. The idea is that if all adjectival modifiers are indirect modifiers (i.e. having a relative clause structure), and as relative clauses are understood to be intersective modifiers, non-intersective modifiers should not be able to occur as adjectives (i.e. as shown in tests for Korean (Kim 2002), Japanese (Yamakido 2000)). Indeed, privative adjectives such as *biyen*, *manten* ‘former’ appear to occur as adverbs, and ambiguous adjectives between a subsective vs. intersective reading in English such as *beautiful* can only have the intersective reading as a NP modifier in Javanese. Moreover, to express privative *fake*, *phony* in English, a different construction is used, which involves total reduplication of the noun plus the suffix *-an*. In light of an indirect-only hypothesis for Javanese, this gap of non-intersective modifiers seems non-accidental.

However, looking closer at the behavior of bare adjectives, it appears that direct adjectival modification is in fact available in Javanese. Evidence for this stems from adjectival ordering restrictions and, based on a language internal phenomenon, what is permitted to occur in the ‘pre-possessor position’. First, according to Sproat & Shih (1991), adjectival ordering restrictions are correlated with direct modification, whereas there is no ordering restriction for indirect modifiers. Adjectives in Javanese follow this restriction when adjectives are not introduced by the relative marker *sing*, (5). With *sing*, either order is accepted. These results suggest that direct modification is available in Javanese, assuming the correlation by Sproat & Shih (1991) is correct.

- (5) aku nemu kertas kothak tuwa // *...kertas tuwa kothak
 1SG find box square old box old square
 ‘I found a square old box.’

Further support that direct modification is available in Javanese is that, bare adjectives may occur in between the noun and the possessive marker *-(n)é*, but not intensified adjectives or adjectives introduced by an overt relative marker *sing*, as discussed in Davies & Dresser (2005), Ishizuka (*under review*) and supported by my fieldwork. Thus these tests demonstrate that bare adjectives have different behavior than complex ones. This case study on Javanese underlines the importance of in-depth research revealed in recent studies on Japanese (Shimoyama, *to appear*, Yamakido 2000), where direct modification is shown to exist in a language which has previously been argued to be part of the ‘indirect-only’ language group.

Selected References: Baker, M. 2003. *Lexical Categories: Verbs, Nouns, and Adjectives*. Cambridge: Cambridge University Press. Heim, I. 2001. Degree Operators and Scope. In: *Audiatu Vox Sapientiae* eds. C. Féry & W. Sternefeld. Berlin: Akademie-Verlag. Sproat, R. & Shih, C. 1991. The Cross-Linguistic Distribution to Adjective Ordering Restrictions. In: *Interdisciplinary approaches to language: Essays in Honor of S.-Y. Kuroda*, eds. C. Georgopoulos & R. Ishihara, 565-593. Dordrecht: Kluwer.