The Syntax and Semantics of Adverb Placement in Cantonese

Introduction: There are 2 kinds of VP-level AdvPs in Cantonese, (Matthews and Yip, 1994):

(1) a. ngo5 sik6 **dak1** **hou2** **hoi1sam1**
I eat ADV DEG happy '*I'm eating happily.*'

b. ngo5 **hou2** **hoi1sam1** **gam2** sik6 je5
I DEG happy ADV eat stuff '*I'm eating happily.*'

In (1)a, the adverbial marker *dak1* precedes the adjective and the *dak*-construction follows the verb. In (1)b, the adverbial marker *gam2* follows the adjective and the *gam*-construction precedes the verb. The two forms are synonymous. There are some differences, however, between these two constructions. First, the *dak*-construction obviates the need for a cognate object (*je5*) with unergatives, while the *gam*-construction does not. Also, the *gam*-construction does not support comparatives or superlatives (see data in (2) - (3)).

(2) a. keoi5 sik6 dak1 hoi1sam1 gwo3 ngo5
3.SG eat ADV happy COMP 1.SG '*He's eating more happily than I.*'

b.* keoi5 hoi1sam1 gwo3 ngo5 gam2 sik6 je5
3.SG happy comp 1.SG ADV eat stuff

(3) a. keoi5 sik6 dak1 zeoi1 hoi1sam1
3.SG eat ADV SUPER happy '*He eats the most happily.*'

b.* keoi5zeoi1 hoi1sam1 gam2 sik6 je5
3.SG SUPER happy ADV eat stuff

Finally, the adverbs in the *gam*-construction can have a VP-level reading, (4)a, or a subject-oriented reading (with the marker *zau6*, (4)b), while the adverbs in the *dak*-construction can only have the VP-level reading, (5)a. The subject-oriented reading is unavailable, (5)b.

(4) a. keoi5 hou2 faai3 gam2 heoi3 do1leon4do1
he DEG fast ADV go Toronto
'*He is going to Toronto quickly.*'

b. keoi5 hou2 faai3 gam2 zau6 heoi3-zo2 do1leon4do1.
he DEG fast ADV PRT go-PERF Toronto
'*Quickly, he went to Toronto.*'

(5) a. zek3 gwai1 paa4 gwo3 heoi3 di1 sik6mat6 dou6 paa4 dak1 hou2 faai3.
CL turtle crawl pass go CL food there crawl ADV DEG fast
'*The turtle is crawling quickly towards the food.*'

b.* zek3 gwai1 paa4 gwo3 heoi3 di1 sik6mat6 dou6 paa4 dak1 hou2 faai3 zau6.
CL turtle crawl pass go CL food there crawl ADV DEG fast PRT

Proposal: It has been argued by several authors that adverbs are not adjoined but are simply merged into the clause (Alexiadou, 1997, Cinque, 1999, Larson, 1988, Larson, 2004). Larson argues that adverbials are merged into VP argument positions within the VP shell. Cinque, on the other hand, argues that adverbials are merged into the specifiers of distinct functional projections. Alexdiadou argues here that both options are available in Greek. We argue here that both are also instantiated in Cantonese on the basis of syntactic and semantic differences.

Cantonese has a strong transitivity requirement requiring unergatives to appear with cognate objects (object *pro*-drop notwithstanding).

(6) paau3 *(bou6) sik6 *(je5) faan3 *(gaau3)
run (path) '*to run*' eat (stuff) '*to eat*' sleep (sleep) '*to sleep*'

Recall that when a *dak*-adverbial is present, no cognate object is required. Furthermore, verb doubling is required when a normal DP object is present.

(7) a. paau3 dak1 hou2 faai3
run ADV DEG fast
'*to run quickly*'

b. ?*paau3 bou6 paau3 dak1 hou2 faai3
run path run ADV DEG fast

sik6 ping4gwo2 sik6 dak1 hou2 faai3
eat apple eat ADV DEG fast
'*to eat apples quickly*'

We propose the following structures for adverb placement.

(8) a. [$_{vP}$ subject v^0 [$_{VP}$ object V^0 [$_{VP}$ V^0 ***dak*-adverb**]]]
b. [$_{XP}$ ***gam*-adverb** [$_{vP}$ subject v^0 [$_{VP}$ V^0 object]]]

Specifically, we propose that *dak1* is an Adv^0 that takes a full adjectival complement and turns a property-modifying phrase (AdjP) into an event-modifying phrase (AdvP), which is selected by a verbal predicate. We also propose that the adverbial marker *gam2* takes a bare DegP as a complement. The *gam*-AdvP does not modify an event variable, but rather can only modify the degree of its host X^0. FP represents higher functional projections where superlatives and comparatives are encoded (Corver, 1997) and XP represents the Cinquean functional projections that host AdvPs.

(9) [$_{AdvP}$ *dak1* [$_{FP}$ F^0 [$_{DegP}$ Deg^0 [$_{AdjP}$ Adj^0]]]]]
(10) [$_{XP}$ [$_{AdvP}$ *gam2* [$_{DegP}$ Deg^0 [$_{AdjP}$ Adj^0]]] X^0 [$_{vP}$ v^0 [$_{VP}$ V^0]]]

Discussion: In (8)a, the transitivity requirement of an unergative is satisfied directly by the *dak*-adverb in argument position (contra Rubin, 2003, who argues that Mandarin 'de' is an adjunct marker), while in (8)b, the *gam*-adverb appears in a higher functional projection. Furthermore, the appearance of the *dak*-adverb in the VP-shell forces a VP-level manner reading on the adverbial. By contrast, following Cinque's analysis of adverbs, the *gam*-adverb can appear in the specifier of a high or low functional projection, giving rise to a VP-level manner reading (in low position) or a subject-oriented reading (high position, with PRT *zau6*). The interaction between adverb placement and argument structure inside the VP-shell, along with the relatively strict ordering of adverbs argues against a traditional analysis in which adverbs are adjuncts (Ernst, 2002, Rubin, 2003).

Conclusion: We have argued for two patterns of adverb placement in Cantonese. Specifically, we have shown that *dak*-adverbs appear in argument position inside the VP-shell, while *gam*-adverbs appear in the specifier of a higher functional projection. This analysis accounts for the following asymmetries: First, the *dak*-adverbs can only have a VP-level reading while the *gam*-adverbs can have either a VP-level or subject-oriented reading. Second, the *dak*-adverb satisfies the transitivity requirement in unergatives, obviating the need for a cognate object, while *gam*-adverbs do not have this property. Finally, the asymmetry with respect to superlatives and comparatives was accounted for by positing that the adverbial markers take differently sized adjectival complements as a result of their different semantic requirements. Namely, the VP selects an event-modifying AdvP, which can contain comparatives and superlatives, while the Cinquean X^0 must select a degree-modifying AdvP.

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