Adjunction, Phases, and Complex Predicates in Japanese

Masahiko Takahashi
University of Connecticut

Synopsis. This paper provides a unified account of the distribution of adverbs in infinitives with *-ik* 'go' (1), adverbs/adjectives in light verb constructions (2), and QPs/scope in infinitives with *wasure* 'forget' (3). I propose (i) that lexical verbs in certain syntactic contexts are phase heads, phases are thus determined contextually (cf. Bobaljik and Wurmbrand 2005), and (ii) that adjunction within *v*P/*n*P is constrained by Case.

Data. The core data are given in (1)-(3). In (1), the *v*P complement headed by *tabe* 'eat' is selected by the matrix verb *ik* 'go', which in turn is selected by the potential suffix *-(r)are* 'can'. I assume that nominative objects with *–(r)are* are an indication of 'restructuring' (Miyagawa 1987, Nomura 2005 a.o.). (1) shows that while modification of the matrix VP (*zidensha-de* 'by bike') is possible regardless of the case of the embedded object, adverbial modification of the embedded VP (*hasi-de* 'with chopsticks') is possible only with accusative objects (cf. Tsujimura 1993). For (2), I assume with Grimshaw and Mester (1988) that a verbal noun construction is a 'light verb' construction if the arguments of the verbal noun (*bosshu* 'confiscation') are not genitive-marked. While adverbial modification (*zinsoku-ni* 'quick') is allowed regardless of the case of the object *zaisan* 'property', adjectival modification (*zinsoku-na* 'quick') is impossible in the light verb construction (Kurogi 2002). Lastly, (3) shows that in an infinitival *forget* construction, the embedded PP 'only from Mary' must scope over the matrix verb *wasure* 'forget' (cf. Koizumi 1995, Saito and Hoshi 1998).

Analysis. I propose that (i) lexical verbs (Vs) are phase heads when they combine with *v*Ps/*n*Ps ((4)) and (ii) adjunction to XP is impossible if XP contains unvalued Case-features ((4)). (5) schematically represents the derivations of (1)-(3). I assume that *ik* 'go', *su* 'do', *wasure* 'forget' are all lexical Vs (Uchida and Nakayama 1993, Bobaljik and Wurmbrand 2005, Wurmbrand 2001). Given (4), the complement XP in (5) is a spell-out domain. An argument with a Case-feature thus must move out of XP before XP is transferred to the interfaces. I propose that the object moves to the edge of the matrix VP as in (5) (cf. Bošković 2007). Since XP contains an element with unvalued Case-features, adjunction to this projection is prohibited by (4). After a Case-licensing head such as *v* is merged (see (5)), the moved object is Case-valued via AGREE. Due to valuation, adjunction to the matrix VP is allowed. On the other hand, no violation of (4) arises if the object is Case-valued within XP as in (5). For (1), the relevant spell-out domain (XP) is *v*P. Thus, adverbs cannot adjoin to this projection. If the embedded object is marked accusative within the embedded *v*P, adverb insertion is allowed because the derivation does not violate (4). As for (2), I assume that the complement of *su* 'do' is *n*P headed by a verbal noun (Kuo 2009 a.o.). As this *n*P contains an argument with an unvalued Case-feature, adjective insertion is prohibited. If the argument is Case-licensed within *n*P, i.e., it appears with genitive, adjective insertion is again allowed since (4) is met. As for (3), the *v*P complement of *wasure* 'forget' contains *dake* 'only', which I assume undergoes QR to a projection of type t (Goro 2007; cf. Heim and Kratzer 1998). *Dake* cannot adjoin to the embedded *v*P due to (4). Furthermore, *dake* cannot target the matrix VP because VP is not of type t (6). The only derivation satisfying (4) and the interpretive properties of the QP *dake* is the one in (6), where the PP moves (via Spec,VP) to the matrix *v*P, resulting in obligatory wide-scope of *dake*. The analysis thus derives the anti-reconstruction effect found in restructuring constructions (see Bobaljik and Wurmbrand 2005).

Further Data. A potential alternative analysis of the modification data is to form a 'complex head' by head-movement or direct merger (7), which is pursued for the constructions discussed above (Saito and Hoshi 1998/2000 a.o.). Under this analysis, there is no projection of the embedded verb or noun, thus adjunction is predicted to be impossible (assuming that adjunction must target phrases). There are, however, data that distinguish the two analyses. When the argument of a verbal noun in a light verb construction is CP (8), which does not bear Case, adjectives are again allowed to adjoin to *n*P. Since the CP argument is not marked genitive, the sentence is a 'light verb' construction. The complex head analysis predicts, contrary to fact, no contrast between (2) with an accusative object and (8), since they are both 'light verb' constructions, and hence should have the same derivation i.e. complex-head formation. The current proposal, on the other hand, correctly predicts the contrast between (3) and (8), because only (3) violates (4). This contrast shows that adjunction is indeed constrained by Case. I will also suggest a way of deducing the constraint.

(1) Hanako-wa   zitensha-de$_{(\sqrt{NOM}/\sqrt{ACC})}$ [robusutaa-o/ga   hasi-de $_{(*NOM/\sqrt{ACC})}$ tabe-ni] ik-er-u.
    Hanako-Top   bike-by   lobster-Acc/Nom   chopsticks-with   eat-Dat   go-can-pres
    'Hanako can go eat lobsters with chopsticks by bike.'

(2) John-wa zinsoku-ni$_{(\sqrt{ACC}/\sqrt{GEN})}$ [zaisan-o$_{(??)}$/no   zinsoku-na$_{(*ACC/\sqrt{GEN})}$ bosshuu-o]   si-ta.
    John-top quickly   property-Acc/Gen quick   confiscation-Acc do-past
    '(lit) John did a quick confiscation of property. '

(3) Taro-wa   [hon-o   Mary-dake-kara   kari]-wasure-ta.
    Taro-top   book-ACC   Mary-only-from   borrow-forget-past
    'Taro forgot to borrow books only from Mary (only > forget, *forget < only)'

(4) a. Lexical verbs (Vs) are phase heads when they combine with vPs/nPs.
    b. Adjunction to XP is impossible if XP contains unvalued Case-features.

(5) a. [$_{VP}$ OBJ$_{[CASE]}$ [$_{v'}$ V [$_{XP}$ $t_{OBJ\,[CASE]}$]]] b.[$_{vP}$ Subj[$v_{[CASE]}$ [$_{VP}$ OBJ$_{[CASE]}$[$_{v'}$V [$_{XP}$ $t_{OBJ\,[CASE]}$]]]]
                MOVE   *ADJUNCTION   AGREE √ADJUNCTION

    c. [$_{v'}$ V [$_{XP}$ X [$_{YP}$ OBJ$_{[CASE]}$]]]   (X= v or n)

            AGREE   √ADJUNCTION   (adverb insertion if X = v , adjective insertion if X is n)

(6) a.[$_{VP\,<e,t>}$OBJ$_{[CASE]}$ [$_{v'}$V[$_{vP}$ $t_{OBJ\,[CASE]}$ PP $_{(only)}$]]]]
          *(type-mismatch)   *(violation of (4))

    b. [$_{vP\,<t>}$ Sub [$v_{[CASE]}$ [$_{VP}$OBJ$_{[Case]}$ PP $_{(only)}$ [$_{v'}$ V [$_{vP}$ $t_{OBJ\,[CASE]}$ t_{PP}]]]]]
                √ QR

(7) [$_{VP}$ OBJ [X V]]   (X= V or N)
        *ADJUNCTION to X

(8) a. John-wa   zinsoku-ni$_{\sqrt{}}$ [ookami-ga kuru]-to   zinsoku-na$_{\sqrt{}}$ keikoku]-o   si-ta.
       John-Top quickly   wolf-Nom   come-Comp   quick   warn-Acc   do-past
    b. John-wa   zinsoku-ni$_{\sqrt{}}$ [ookami-ga kuru]-to-no   zinsoku-na$_{\sqrt{}}$ keikoku]-o   si-ta.
       John-Top quickly   wolf-Nom   come-Comp-Gen   quick   warn-Acc   do-past
    '(lit) John made a quick warning that wolves are coming.'

Selected References [1] Bobaljik, J. D. and S. Wurmbrand. 2005. The domain of agreement. *NLLT* 23:809-865. [2] Bošković, Ž. 2007. On the locality and motivation of Move and Agree: An even more minimal theory. *LI* 38: 589-644. [3] Grimshaw, J. and R. A. Mester. 1988. Light verbs and theta-marking. *LI* 19: 205-232. [4] Koizumi, M. 1995. *Phrase structure in minimalist syntax*. Ph.D. diss, MIT. [5] Kuo, P-J. 2009. *IP Internal movement and topicalization*, Ph.D. diss, Uconn. [6] Kurogi, A. 2002. *Nihongo-keidoosi-koobun-no keitairoogoron-teki bunseki* [Morphosyntactic analysis of Japanese light verb constructions]. M.A. thesis. Tohoku University. [7] Miyagawa, Shigeru. 1987. Restructuring in Japanese. In *Issues in Japanese Linguistics*, ed. T. Iami and M. Saito, 273-300. Dordrecht: Foris Publications. [8] Nomura, M. 2005. *Nominative Case and AGREE(ment)*. Ph.D. diss, Uconn. [9] Saito, M and H. Hoshi. 1998. Control in complex predicates. Ms. Nanzan University and SOAS. [10] Saito, M and H. Hoshi. 2000. Japanese light verb construction and the Minimalist Program. In *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, ed. R. Martin, D. Michaels, and J. Uriagereka, 261-295. Cambridge, Mass.: MIT Press. [11] Tsujimura, N. 1993. Adjuncts and event argument in restructuring. *Japanese/Korean Linguistics* 3. 121-136. Stanford: CSLI. [12] Uchida, Y and M. Nakayama. 1993. Japanese verbal noun constructions. *Linguistics* 1. 623-666. [13] Wurmbrand, S. 2001. *Infinitives: Restructuring and clause structure*. Berlin: de Gruyter.