## On the importance of being silent or pronounced; English *-able* and Japanese *-rare* potentials compared

Tomoko Ishizuka (Tama University) Hilda Koopman (UCLA)

Can current syntactic understanding provide any new insights into the problem that certain constructions typically distribute differently across languages? For example, in quite a few languages, such as Japanese, Russian, Hindi, Turkish, and Spanish, 'potentiality' or 'ability' is commonly expressed by the passive morpheme (see Shibatani 1985, Kazenin 2001). In other languages like English, on the other hand, it is expressed by a distinctive potential morpheme, and its distribution is much more restricted compared to that of the former type of languages. What underlies this crosslinguistic distributional differences? We pursue this question by comparing Japanese potential -(*rar*)*e* constructions with English potential -*able* constructions:

(1) Kono hon-ga yom-e-ru.

this book-NOM read-(RAR)E-PRES '*This book is readable.*' We will show how particular distributional differences fall out from the syntactic derivation, where the specific lexical properties of the atoms ('LI's) that the constructions are built out of, interacts with very general, independently motivated principles. Crucial for our demonstration are the following assumptions: (i) syntax is decompositional and strictly derivational, (ii) 'LI's-the atoms of syntactic structures-are tiny and can be phonologically silent, (iii) a first merged complement cannot remerge with the head (Kayne 2005, Abels 2003).

**The basic problem:** In addition to canonical verbal passives, Japanese passive voice *-rare* occurs in contexts like (1) and (2), where it gives rise to a modal potential reading.

(2) John-ga sasimi-o tabe-rare-ru.

John-NOM raw.fish-ACC eat-RARE-PRES 'John is able to eat raw fish.'

(1), with theme being a subject, translates into English '-*able*' passives containing a 'weak' (i.e. bound) adjective -*able*, but (2) does not (\**John is eatable (raw fish)*) with *John* the agent. Instead, the English counterpart of (2) must resort to a 'strong' adjective or a different modal (i.e. *John {is able to/can} eat (fish)*). Thus, though both -(*rar)e* and -*able* occur in the same canonical modal passives, the distribution of -(*rar)e* potentials is much wider than that of the 'weak' -*able* potentials. The question is how to understand this distributional difference. The answer we pursue is that it reduces to the different lexicalization patterns of the two languages. **Proposal:** The idea is that 'weak' potential constructions consist of two heads—one responsible for passivization and the other responsible for the modality interpretation, but not both of the heads need to be lexically realized. As evidenced by the appearance of *-rare* in canonical passives, Japanese lexicalizes the passive head Voice in the potential construction, while the modality head MOD remains silent. Conversely, English *-able* passives visibly spell out Mod, but contain a silent passive VOICE. We will show how this difference in lexicalization patterns ultimately leads to convergence of more merge configurations in Japanese than in English.

**Japanese** *-rare* **potentials:** We motivate the following uniform lexical properties of Japanese *-rare. Rare* is bound: it has an EPP[+V] feature that attracts a VP. Assuming, with Abels (2003) and Kayne (2005), that an immediate complement cannot second merge with *-rare*, the only road to convergence is to strand the *v*P and move the complement of *v* (i.e. VP), satisfying its lexical properties under second merge. This yields Collins' (2005) smuggling analysis for the canonical passive:  $[VP DP V]_i [VP DP VP_i v] rare]$ . VP movement smuggles the internal DP over the external one, bringing the internal DP closest to the nominative *-ga* position. Support for this proposal comes from the distribution of *-rare*. Namely, *-rare* cannot combine with simple unergative verbs in the passive. (Impersonal passives are impossible in Japanese.)

(3) \*John-ga (Mary-ni) {hatarak/oyog/hashi} -**rare**-ta. John-NOM Mary-DAT work/swim/run -RARE-PST Int. 'John was {worked/swum/run} (by Mary).'

Once we assume that simple unergatives combine a lexical root with v, lacking the VP shell, the distribution is exactly what we expect. The derivation fails since these verbs do not have a lower VP layer that could satisfy the EPP[+V] of *-rare*. The EPP feature of *-rare* in effect forces the presence of at least two VP shells, with the lower shell containing a verb. This also means that an unergative could combine with *-rare* as long as it is not a direct complement of Voice but embedded under another verbal layer. The prediction is borne out in potential contexts.

**Japanese Potentials contain a silent MOD:** Though a canonical passive is unavailable for simple unergatives like *hatara-ku* 'work,' *oyog-u* 'swim,' *hashir-u* 'run,' *-rare* can in fact combine with such verbs. The combination obligatorily gives rise to an ability reading, however.

(4) John-ga {hatarak/ oyog/ hashir}- (rar)e-ru.

Int. 'John is able to {work/swim/run}.' \*John is {worked/swum/run}.'

This follows immediately if the Japanese potential construction not only contains *-rare*, but also a silent modality head MOD, responsible for the ability meaning. Crucially the merge order must be [*-rare*>MOD>v] in cases like (2) or (4); MOD strands, and its complement—the vP—undergoes second merge to satisfy the EPP[+V] of *-rare*. 'John' subsequently extracts from the vP and moves to the nominative *-ga* position, resulting in agentive potentials. In contrast, potential passives like (1) must involve the merger of [MOD>rare>v>V] (as in the English 'can be read'). Therefore, *-rare* potentials in (1) and (4) show that two different merge orders are available with respect to Japanese potentials. Naturally, the unavailability of agentive potentials like (2) or (4) in English suggests the lack of merge order [Voice>Mod>v] '\*John is sleepable.' We could make this follow by encoding the requirement of a passive Voice complement into the lexical entry of bound *-able*. The important question is, however, whether this crosslinguistic difference can be derived, rather than just stipulated.

Lexicalization pattern interacting with Phase As stated earlier, Japanese potentials visibly spell out Voice (-rare) but contain a silent MOD. Conversely, English -able passives visibly spell out Mod, but contain a silent passive VOICE. We say that this difference in lexicalization patterns in the two languages is indeed responsible for the difference in merge order availability. Unlike silent MOD in Japanese, English -able is 'bound,' which we encode as EPP[+V]. The availability of [Mod>Voice>v>V] in both languages means that lexicalization of *-rare* or of -able does not matter for that merge order (The book is readable (1)). In this derivation, VP is attracted to Voice, stranding v, and subsequently to Mod, satisfying the EPP[+V] of able. On the other hand, [VOICE>able>v>V] fails to converge in English. Why? If Voice is a phase head (Collins 2005), the bound morpheme property of -able must be satisfied in the same spell-out domain as -able, i.e. complement of Voice. This will freeze the VP to the left of -able and leave the EPP [+V] property of Voice unchecked, resulting in blocking internal merge of the theme to the nominative -ga position. The syntax simply does not allow for any other derivational path. Under the current proposal, the difference between potential constructions in Japanese and English resides not in structural make-up, but in different lexicalization patterns. This illustrates a more general research program, which seeks to derive distributional differences in construction types from the barest possible ingredients: what is pronounced (and bound) and what is silent. The syntactic derivations restrict what distributions can emerge to those that converge. This view is superior to an alternative one which simply stipulates these properties in the lexical entry.

**References:** Abels, K. (2003) Successive cyclicity, anti-locality, & adposition stranding, UConn. Kayne, R. (2005) Movement & silence. OUP. Collins, C. (2005) A smuggling approach to the passive in English. Syntax 8, 81-120.