Toward the parameter hierarchy of embedded imperatives Hiroaki Saito (University of Connecticut, hiroaki.saito@uconn.edu)

Overview. In the literature, it has been argued that universally imperatives cannot be embedded (e.g. Han 1998). However, recently, many counterexamples have been observed (Kaufmann 2015 and references therein). In this paper, I investigate a cross-linguistic variation of embedded imperatives. I show that there are at least four types of languages regarding embedded imperatives. I also demonstrate that there is an implicational relation in embedded imperatives, and propose a parameter hierarchy to capture the state of affairs.

Complement clause of V. The term "embedded imperatives" usually refer to those in complement clauses of verbs, as in (1).

(1) Mary-ga John-ni [watasi-no hon-o yom-e] to itta Mary-Nom John-ni my book-Acc read-Imp C said

'Mary said to John that he should read my/her book.' (Kaufmann 2012: 200) In (1), the pronoun 'my' can refer to the actual speaker, which suggests that (1) involves "proper" embedding, not a direct quotation (for "proper" embedding, see e.g. Crnič & Trinh 2009, Stegovec & Kaufmann 2014). Cross-linguistically, for example, Slovenian (Stegovec and Kaufmann 2014), Ancient Greek (Medeiros 2013), Japanese (Kaufmann 2012), Korean (Pak et al.2007), Mandarin Chinese (Chen-Main 2005), English (Crnič & Trinh 2009), Old Germanic (Platzack 2007), Colloquial German (Kaufmann 2015), and Turkish allow this type of embedding. However, Italian, Russian, and Brazilian Portuguese (BP) do not.

Complement clause of N. There are languages which allow embedded imperatives in complement clauses of nouns such as *order*, *advice*, *wish*, e.g. Slovenian (Sheppard and Golden 2002), Ancient Greek (Medeiros 2013), Japanese, and Korean.

(2) John-wa [kono hon-o ka-e toiu meirei/sizi]-o musisi-ta John-Top this book-Acc buy-Imp C order/instruction-Acc ignore-Past 'John ignored the order/instruction that he should buy this book' (Japanese)

Italian, Russian, and BP, which disallow embedded imperatives in complement clauses of verbs, do not allow this type of embedding either. More, importantly, even English and Chinese, which allow embedded imperatives in complement clauses of verbs, cannot embed imperatives in complement clauses of nouns.

(3) *John followed the order/advice that read the book!

It should be noted that (2) also involves proper embedding, considering the diagnostics offered by Crnič and Trinh (2009). In (2), for example, the indexical *kono* 'this' can be accompanied by the pointing gesture by the (actual) speaker.

Relative clause. Embedded imperatives in relative clauses seem the most restricted type of embedded imperatives across languages. Even Japanese, which allows embedded imperatives in complement clauses of nouns as in (2), does not allow this type of embedded imperatives.

(5) *John-wa [[yom-e] hon]-o ka-tta.
John-Top read-Imp book-Acc buy-Past

'John bought a book we/he should read.'

Slovenian and Ancient Greek allow embedded imperatives in relative clauses.

(6) oisth' oun ho drason

know-2Sg.perfect.indicative.active then which-things do.2sg.aorist.Imp.active

'Do you know then which things you [must] do?' (Ancient Greek, Medeiros 2013: 18)

Hence, we observe the cross-linguistic pattern, as summarized in (7).

_(7)	Complement of V	Complement of N	Relative clause
Italian, Russian, BP	*	*	*
English, Chinese, Turkish	✓	*	*
Japanese (Korean)	✓	✓	*
Slovenian, Ancient Greek	✓	✓	✓

Given the above observation, there seems an implicational relation in embedded imperatives. If, for example, a language allows embedded imperatives in relative clauses, it should allow those in complement clauses of verbs and nouns as well.

Parameterizing embedded imperatives. In the literature, cross-linguistic variations of embedded imperatives have not been studied well. Medeiros (2013) proposes a syntactic parameter on embedded imperatives. Medeiros (2013: 40) proposes a parameter as below, assuming Feature Transfer (Chomsky 2008).

(8) a. C_[+phi] cannot select imperative T (English)

b. C_[+phi] can select imperative T (Ancient Greek)

However, (8) raises several problems given the observation in (7). The most serious problem

of (8) is that it cannot explain the variation in (7). The dichotomy in (8) is not sufficient to describe (at least) four patterns of embedded imperatives among languages. Moreover, it cannot explain the implicational relation of the possibility of embedded imperatives. It should be noted that English is categorized as the 'non-embedding' type. Medeiros suggests that the 'richness of morphology" ('having overt and distinct morphological imperative verb forms beyond 2nd person") determines the parametric choice in (8); the morphological property differentiates Ancient Greek and Slovenian from the English/Old Scandinavian/Korean type. Consequently, his account puts aside embedded imperatives in e.g. English and Korean. Furthermore, for Korean and English, Medeiros claims that embedded imperatives in these languages are restricted compared to those in Slovenian and Ancient Greek in that the subject of the embedded imperative must co-refer with the referent of the matrix indirect object or subset thereof if present. However, this generalization does not hold at least in Japanese. Japanese, with morphologically poor inflections like Korean, allows 'non-control' type of embedded imperatives even if the matrix indirect object is present; the embedded subject can differ from the indirect object.

(9) Mary-ga Taro-ni [John-ga ronbun-o kak-e to] i-tta Mary-Nom Taro-to John-Nom paper-Acc write-Imp C say-Past 'Mary said to Taro that John should write a paper'

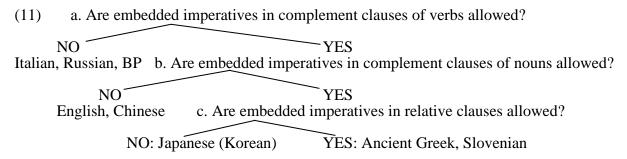
Context: Taro and John are doing some joint-work, but they are thinking that either Taro or John should write a paper as a single-authored one. Only Taro asked Mary what they should do, then Mary said 'John should write a paper (as a single author)'. After that, the speaker of (9) (neither Taro nor John) said (9) to someone, which does not have to be John.

It should be noted that (9) involves proper embedding, not a direct quotation; the diagnostics offered by Crnič & Trinh 2009, including the scope of embedded *wh*-phrase, scrambling, and embedded indexicals, differentiate (9) from (10), which involves a direct quotation, indicated by the use of the interjection *hora* 'hey'.

(10) Mary-ga/wa Taro-ni [hora, John-ga ronbun-o kak-e to] i-tta Mary-Nom/Top Taro-to hey John-Nom paper-Acc write-Imp C say-Past 'Mary said to Taro: "Hey John, write a paper!"

Hence, Medeiros's proposal in (8) is not sufficient because it cannot describe/explain (i) four patters, (ii) the implicational relation in (7), and because (iii) neither morphological richness nor the lack of obligatory control is necessary or sufficient to tell which type(s) of embedding is allowed in a given language. Furthermore, as a null hypothesis, the theory of embedded imperatives should not put aside Korean/English/Japanese type embedded imperatives.

Parameter hierarchy. I propose a parameter hierarchy in (11) to capture the four types and the implicational relation in (7) (cf. Baker 2002). This hierarchy straightforwardly captures the common pattern across languages; embedded imperatives are not allowed at all, or only those in complement clauses of verbs are allowed. Also (11) captures the observation that languages with embedded imperatives in relative clauses (e.g. Slovenian) are relatively rare.



I suggest that (11) follows from the Subset Principle (e.g. Berwick 1985), considering language acquisition together with the implicational relation in (7). Also, I claim that (11) can be more formally restated in terms of islands, i.e. Complex NP island for (11b), and wh-island for (11c).

Selected references. Crnič & Trinh. (2009). Embedding imperatives. NELS 39. Kaufmann. (2015). Embedded imperatives across languages. Talk presented at UMass. Kaufmann (2012). Interpreting Imperatives. Springer. Medeiros. (2013). Formal Approaches to the Syntax and Semantics of Imperatives. Ph. D. thesis, Michigan.