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The development of Japanese as a second language

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1. Introduction

Japanese has an important role to play for testing and developing PT's hypotheses because of its typological characteristics. With regard to the configurationality spectrum which has languages like English and Warlpiri at opposite ends (cf. § 2.2, ch. 1, this volume), Japanese is located far from configurational English and closer towards nonconfigurational Warlpiri. Morphologically, Japanese is rich in verbal inflections, but unlike Italian its morphological organisation is agglutinating rather than fusional, and also unlike Italian its grammatical relations are marked on nominal constituents rather than on the verb, which makes Japanese a dependent-marking language. In this latter sense it is similar to Russian and Serbian (cf. chh. 5 and 6 respectively). Syntactically, Japanese is an SOV, head-last language which allows great freedom in the ordering of nominal constituents, as long as V is sentence-final. For a fuller description of the Japanese language, written in English, readers are referred to Kuno (1973) and Shibatani (1990). For a shorter survey, see Shibatani (2011).

This chapter represents a new development in the studies on L2 Japanese in so far as, first, it updates the schedules for morphological and syntactic development outlined in earlier work according to the changes to PT proposed by Bettoni & Di Biase in chapter 1 of this volume, and, second, in doing so, it explores the boundaries of PT-based hypotheses on the acquisition of Japanese syntax. Work on the acquisition of Japanese nominal and verbal morphology in the PT framework began with Doi & Yoshioka (1987, 1990), Huter (1996), Kawaguchi (2000, 2002), and Di Biase & Kawaguchi (2002). Then, Japanese L2 studies contributed substantially to the extended scope of PT. For example, Kawaguchi's (2005) longitudinal study was the first to test the two new hypotheses known as "Extended PT" (i.e., the Topic Hypothesis and the Lexical Mapping Hypothesis proposed in Pienemann, Di Biase & Kawaguchi 2005). Furthermore, Kawaguchi (2007) reports on the acquisition of structures involving nonbasic V forms such as passives, causatives and benefactives, as well as exceptional Vs such as unaccusatives, all of which lexically require nondefault mapping – I use here Pinker's

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(1984) expressions 'nonbasic' for V forms and 'exceptional' for V types introduced in ch. 1, § 4.2.2, this volume. Further, Kawaguchi's (2009a) cross-sectional study involving 24 intermediate-advanced university learners presents a detailed analysis of the acquisition of causative constructions in relation to the Lexical Mapping Hypothesis. So far, this hypothesis has been applied also to other languages such as English (Kawaguchi 2013; Keatinge & Keßler 2009; Wang 2009) and Italian (Bettoni & Fratter 2013; Nuzzo 2012), but Japanese remains the only one for which it has been shown how to treat causative constructions within the PT framework. Kawaguchi's series of studies deal with Japanese as a foreign language in an instructional setting involving university students in Australia, but her results find support in other contexts, such as those on child L2 acquisition of Japanese in a naturalistic environment (Iwasaki 2008), adult language acquisition of L2 Japanese in an intensive course (Iwasaki 2013), and significantly bilingual L1 acquisition in Japanese-English (Itani-Adams 2007, 2008, 2009, 2011, 2013). The current state of PT as applied to L2 Japanese involves in particular the development of syntax and a reanalysis of the data from Kawaguchi (2010) with regard to the Prominence Hypothesis, and Kawaguchi (2005) with regards to the Lexical Mapping Hypothesis. About the latter hypothesis, Japanese as an L2 is the only language besides English (cf. § 3.2, ch. 2, this volume) that tests empirically the intermediate stage of default mapping plus additional arguments, formally introduced by Bettoni & Di Biase in chapter 1, § 4.2.2.

In the following sections each developmental schedule is preceded by a sketch of the main characteristics of its respective Japanese target structures, and followed by the pertinent empirical data.

2. Morphological development

Japanese is an agglutinating language, characterised as predominantly suffixing rather than prefixing in its inflectional morphology (Dryer 2013). With regard to verbal morphology, various affixes added to the stem of a V provide meanings such as tense, aspect, mood, politeness, and polarity. In English a notion similar to agglutinative morphology is the addition of a morpheme (e.g., past *–ed*, progressive *–ing*) to the lexical V, of a separate AUX (e.g., *can*, *may*, *must*), or a separate main V (e.g., *cause*, *want* and *seem* for causative, desiderative and evidential constructions respectively). In Japanese these morphemes are attached immediately after the V stem. When more than two suffixes are sequenced, their relative order is generally fixed. For example, the passive suffix must precede the tense suffix, as in (1a), which is grammatical, whereas (1b) is ungrammatical.

(1) a. tabe-rare-ta
eat-PASSIVE-PAST
[(it) was eaten]

b. *tabe-ta-rare
[eat-PAST-PASSIVE]

Because Japanese morphology is agglutinating it is relatively easier to segment for the learner than Italian fusional morphology. This can be seen in the example (1a) above where the verb stem (*tabe-* 'eat'), the passive auxiliary verb (*–rare*), and the verbal morphological inflection expressing past tense (*–ta*) are all uniquely identifiable. On the other hand, complex morphophonological processes are involved in affixation. The basic Japanese syllable structure is CV whereby phonological rules intervene to avoid consonant clusters and vowel clusters in the affixation process. For example, the initial consonant of the suffix is elided when a consonant-initial verbal morpheme, such as the present tense suffix *–ru*, is added to the consonant-final stem as in (2a). Similarly the initial vowel of the suffix is elided when a vowel initial suffix, such as the negative suffix *–anai*, is added to the vowel-final verb stem as in (2b) (Shibatani 1987). However, these morphophonological processes lie outside the current scope of PT, so they will not be mentioned further here.

(2) a. kak-u
write-PRES
[write]

b. mi-nai
see-NEG
[do/does not see]

With regard to nominal morphology, Japanese displays both structural and semantic case markers. Consistently with the characteristics of a head-last language, these are all postpositional particles. There are four structural markers: *–ga* for nominative case, *–o* for accusative case, *–ni* for dative case, and *–no* for genitive case, as shown in (3).

(3) Harumi-ga imooto-no tegami-o Taro-ni age-ta
Harumi-NOM sister-GEN letter-ACC Taro-DAT give-PAST
[Harumi gave (her) sister's letter to Taro]

Then there are several semantic case markers, such as *–de* and *–kara*.

(4) a. Taro-ga pen-de tegami-o kai-ta
Taro-NOM pen-INSTR letter-ACC wrote-PAST
[Taro wrote the letter with a pen]

b. Harumi-ga Tokyo-kara ki-ta
Harumi-NOM Tokyo-ABL came-PAST
[Harumi came from Tokyo]

Other Japanese nominal morphemes include numeral classifiers, which are common in many East Asian languages such as Chinese and Korean. In Japanese, classifiers always follow numeral modifiers, and are chosen according to what type of object is being counted. So, counting animals, or books, requires different classifiers, as (5a-b) show.[1]

(5) a. ni-hiki-no inu
two-CL-GEN dog
[two dogs]

b. ni-satsu-no hon
two-CL-GEN book
[two books]

A further, and highly characteristic, morpheme of Japanese nominals is the discourse marker *–wa* indicating primarily the sentence TOP, as in (6), but also the sentence FOC. We will discuss this marker in § 3 below when dealing with syntax.

(6) sensei-wa kohii-o nomi-masu
teacher-TOP coffee-acc drink-pol
[teacher drinks coffee]

Finally, just as Japanese Vs do not mark SUBJ information regarding NUM, so Ns do not mark NUM or GEN distinctions – although there are the plural N suffixes *–tachi* and *–ra*, as in *kodomo-tachi* (child-PL, "children") and *boku-ra* (1.PL, "we"), but these are not productively used and can only be attached to a limited number of lexical items. Likewise, just as there is no SUBJ V agreement, so there is no agreement between adjectives or numerals and nouns.

1 Japanese nominal classifiers have not been investigated in PT studies – a good area to explore.

The developmental hypotheses for Japanese verbal morphology proposed in Di Biase & Kawaguchi (2002) are shown in (7). Nominal morphology is not dealt with in this chapter, except when it is deployed in syntax for marking GFs (cf. § 3).

(7) Developmental stages hypothesised for L2 Japanese morphology (after Di Biase & Kawaguchi 2002)

PROCEDURE	MORPHOLOGICAL OUTCOME/STAGE	STRUCTURE	EXAMPLE
S-BAR PROCEDURE	INTERCLAUSAL MORPHOLOGY	GEN on SUBJ in N-modifying clause	*Kumiko-no sotugyosita daigaku-ga setagaya-ni arimasu* *[the university Kumiko graduated from is in Setagaya]*
S-PROCEDURE	INTERPHRASAL MORPHOLOGY	nondefault case marking in constructions such as passive, causative, benefactive	*sakana-ga neko-ni tabe-rare-masita* *[the fish was eaten by the cat]*
PHRASAL PROCEDURE	PHRASAL MORPHOLOGY	N-GEN N	*inu-no namae* *[dog's name]*
		V-*te*-V (V-COMP V)	*hanasi-te mimasu* *[I try speaking (to them)]* *mi-te imasu* *[I am watching]*
CATEGORY PROCEDURE	LEXICAL MORPHOLOGY	case marking on N: e.g., NOM-ACC alternation	*sensei-ga / sensei-o* *[teacher]*
		V inflection: e.g., present-past alternation	*tabe-masu / tabe-masita* *[eat / ate]*
LEMMA ACCESS	INVARIANT FORMS	single words forrmulas	*oisii [delicious]* *arigatoo [thank you]*

The developmental stages which can be hypothesised for Japanese verbal morphology using the framework of PT are described below. At the very beginning, like learners of any other language, learners of Japanese also cannot activate any language-specific procedure, and are thus able to produce only invariant words such as *oishii* ('delicious'), or fixed expressions such as *arigatoo* ('thank you').

As soon as learners are able to activate the category procedure, lexical variation results in some V inflection. In L2 Japanese the most common alternation is between present tense and past tense, as in (8a-b). Furthermore – although, as noted above, Japanese Vs do not inflect for person or number of SUBJ – other

Vstem–affix combinations can indicate the acquisition of lexical operations. Among them, we find Vstem-NEG, as in (8c).

(8) a. tabe-masu
eat-POL
[(I/you/he/she, etc.) eat]

b. tabe-masi-ta
eat-POL-PAST
[(I/you/he/she, etc.) ate]

c. iki-mas-en
go-POL-NEG
[(I/you/he/she, etc.) do/does not go]

Nominal morphology can also be activated at the stage of categorial procedure, and post-nominal particles start to appear. However, the categorial procedure does not permit the recognition of grammatical functions of NP in a sentence. Therefore, the learner identifies nominal morpheme *–ga* (NOM) to mark agent-like NP, and *–o* (ACC) to mark patient- or theme-like NP, which are likely associated with the initial and pre-verbal position respectively. These markers will be taken up again in § 3.2 when dealing with the Lexical Mapping Hypothesis.

Phrasal morphology emerges at the next stage. A Japanese V can combine with another V. In such case, the first needs to be a gerund (*–te*) (Kageyama 1999), where *–te* functions as complementiser (COMP). V-*te* V is an example of phrasal procedure because information exchange is required between two Vs in terms of the 'combinatoric TYPE' feature whereby the main lexical V (head element in VP) takes gerundive form in order to combine with the auxiliary V (Sells 1995; 1999). Sells explains that the lexical feature TYPE holds crucial information for verbal projection (i.e., phrasal syntax). In V-*te* V construction, TYPE of V-*te* is V-sis(ter). This means that V-*te* has to take another V as its sister. Thus, the construction V-*te* V requires information unification between two Vs in terms of TYPE, which means that its production requires the phrasal procedure. The Vstem-complementiser V construction (V-*te* V) is one of the ways in which two Vs can combine to add progressive aspect (V-*te imasu*, "be V-ing"), as in (9a), trial (V-*te mimasu*, "try V-ing"), as in (9b), and request (V-*te kudasai*, "please V"), as in (9c).

(9) a. hasit-te i-masu
run-COMP PROG-POL
[(I/you/he/she, etc.) is running]

b. hasit-te mi-masu
run-COMP try-POL
[(I/you/he/she, etc.) try running]

c. hasit-te kudasai
run-COMP REQUEST
[please run]

At the next stage, Japanese requires the activation of the S-procedure for marking GFs of NPs in sentences involving nondefault mapping between a-structure and f-structure, such as passive, causative and benefactive constructions. Thus, the morphological operations at the S-procedure stage will be discussed in § 3.2, which illustrates syntactic development at the level of the sentence, where nondefault case marking of Ns interacts with the predicate of the sentence.

At the S-BAR procedure stage, PT hypothesises one operation in Japanese morphology, which is the marking of the GEN case on SUBJ in a N-modifying clause. SUBJ in Japanese is usually marked as NOM, but in a relative clause it can be marked as NOM or GEN, as exemplified in (10) – a phenomenon termed Ga/No Conversion by Harada (1971). This requires the learner to be able to distinguish between the subordinate clause and main clause.

(10) Kumiko-ga/no osie-ta gakusei-o mi-masi-ta
Kumiko-NOM/GEN teach-PAST student-ACC see-POL-PAST
[(I) saw a student who Kumiko taught]

Evidence in support of the morphological schedule outlined in (6) comes mainly from two longitudinal studies and two cross-sectional studies involving 28 adult learners of Japanese as an L2. Further details of these four studies can be found in Kawaguchi (2010). The data in (11) illustrates the results of one of these studies – a three year longitudinal study of a learner codenamed Lou – used here to exemplify the morphological development observed over the fuller data set. Lou is a young woman, native speaker of English studying L2 Japanese at an Australian university. Her data was collected at 12 points in time over her three years as an undergraduate, that is, twice a semester over six semesters, yielding a total of about 3,200 token words and 1,345 type words.

Note that the data in (11) includes Lou's development for verbal morphology up to the VP procedure stage. In fact, as we have just mentioned, structures requiring the S-procedure involve nondefault mapping and they will be discussed in § 3.2. Further up, the hypothesised Japanese L2 morphology at the S-BAR stage has yet to be empirically tested, just as is the case of L2 English and L2 Italian.

(11) Lou's morphological development (after Kawaguchi 2010)

STAGE	STRUCTURE	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12
VP PROCED.	V-*TE* V												
	V-*te* plus other V									+1		+3	+1
	V-*te* REQ					+2				+1			
	V-*te* BEN					+2			+1	+1	+1		+5
	V-*te* ASP				+8	+8	+2	-1	+1	+4	+2	+4	+2
CATEGORY PROCED.	VERBAL INFLECTION												
	Vstem-PLAIN-PRES/PAST-NEG											+1	+1
	Vstem-POL-PAST-NEG								+2	+4		+1	+5
	Vstem-POL-PRES-NEG				+2	+1	+1	+1	+1	+2	+4	+3	+3
	Vstem-PLAIN-PAST					+2	+1		+4	+2	+4	+7	+9
	Vstem-POL-PAST			+12	+13	+21	+14	+1	+11	+30	+8	+21	+16
	Vstem-POL-PRES-Q	+2			+2								
	Vstem-PLAIN-PRES	+1				+1	+1	+1		+1	+2	+5	+6
	Vstem-POL-PRES	+7	+19		+8	+1	+5	+5	+24	+12	+13	+15	+14

+ = supplied in obligatory context; - = not supplied in obligatory context; empty cell = no context

S U M M A R Y

VP PROCED.	V-*TE* V	-	-	-	+	+	+	+	+	+	+	+	+
CATEGORY PROCED.	VERBAL INFLECTION	+	+	+	+	+	+	+	+	+	+	+	+

+ = emerged; - = not emerged

As (11) shows, at t1 Lou already produces several inflectional forms of V: the POL form 7 times, the POL-Q form twice, and the PRES form once. In this session, she produces the POL inflectional form with three different Vs. Furthermore, the Vs *hanasu* ('talk') and *iru* ('exist') are realised in two different inflectional forms, namely, *hanasi-masu* (talk-POL) and *hanas-u* (talk-PRES), as well as *i-masu* (exist-POL) and *i-masu ka* (exist-POL Q) respectively. Thus, at t1, with both lexical and formal variation, the emergence criterion is satisfied. Thereafter Lou continuously shows V inflection throughout the 3-year longitudinal study.

The phrasal procedure stage is reached at t4, when Lou produces the V-*te* V structure 8 times, as in (12), where *–de* is an allomorph of *–te*; thereafter she uses this form consistently with a variety of lexical items.

(12) t4 futari kodomo-ga ason-de i-masu
two children-NOM play-COMP PROG-POL
[two children are playing]

Thus Lou's developmental sequence for verbal morphology shows an implicational pattern, indicating that the hypothesised hierarchy is supported with 1.0 scalability. This same pattern is confirmed for child L2 Japanese JSL (Iwasaki 2008) and for adult L2 Japanese (Iwasaki 2013), as well as for English-Japanese bilingual L1 acquisition (Itani-Adams 2013).

3. Syntactic development

As mentioned in § 1, Japanese is an SOV, head-last language allowing great freedom in the order of nominal constituents as long as V is sentence-final. Moreover, Japanese is interesting to PT for its rich range of V structures (such as passives, benefactives, causatives) requiring nondefault mapping of a-structure onto f-structure. Accordingly, after the very first stage of single words and formulas, PT organises the learning constraints for syntax around the two hypotheses sketched out first universally in chapter 1, § 4.2 in this volume, and then for L2 English and L2 Italian in chapters 2 and 3 respectively. In fact, unlike Pienemann, Di Biase & Kawaguchi in 2005, I now believe with Bettoni & Di Biase that it is crucial to separate word order issues from mapping issues at the initial stage of L2 syntactic development. For this reason, I will now illustrate the Prominence Hypothesis in § 3.1 and then the Lexical Mapping Hypothesis in § 3.2 for L2 Japanese including their respective initial states, thus making Pienemann, Di Biase & Kawaguchi's (2005) Unmarked Alignment Hypothesis redundant.

3.1. The Prominence Hypothesis

As a dependent-marking language, Japanese deploys case markers on Ns to indicate their grammatical relations with V (i.e., GFs). The marker *–wa* indicates discourse relations (i.e., DFs) of topic, focus and contrast within the sentence (cf. § 2.2, ch. 1, in this volume).

With regard to GFs, by default the NOM case marker *–ga* is associated with the GF SUBJ, the ACC marker *–o* with OBJ, and the DAT marker *–ni* with $OBL_{RECIPIENT/GOAL}$. Being thus marked by case particles, GFs may be placed variably in c-structure – a phenomenon called 'scrambling' in Japanese. The examples below show scrambling in contrast to canonical order, where (13a) exhibits canonical order – SOV in Japanese –and (13b) a scrambled order in which OBJ is linked to the prominent initial position.

(13) a. Harumi-ga Taro-ni tegami-o yon-de age-ta
Harumi-NOM.SUBJ Taro-$OBL_{RECIPIENT}$ letter-ACC.OBJ read-COMP BEN-PAST
[Harumi read a/the letter to Taro]

b. tegami-o Harumi-ga Taro-ni yon-de age-ta
letter-ACC.OBJ Harumi-NOM.SUBJ Taro-OBL$_{RECIPIENT}$ read-COMP BEN-PAST
[Harumi read **a/the letter** to Taro]

In theory, more permutations in c-structure are possible in Japanese as long as V is in final position. Scrambling brings a semantic effect of mild emphasis on the fronted constituent among other effects such as aiding interpretation of antecedent-pronoun relationship (Shibatani 1990: 261). When speakers wish to add prominence to their GFs, they use the discourse marker *–wa* in preference to position (Tsujimura 1996).

So, with regard to the DFs, Japanese (like Korean and a few other languages) has a special marker (*–wa*) for NPs to mark discourse prominence relations within the sentence. Most often *–wa* indicates TOP as it "singles out an accompanying noun as the topic of the sentence" (Tsujimura 1996: 135), but *–wa* marked phrases should not be defined just as 'topic' because this marker may also indicate focus and contrast (Vermeulen 2009). Notice here, importantly, that such morphological marking of DFs does not require that the *–wa* marked function be in sentence initial position, as shown in (18) and discussed below. Topic, Focus and Contrast are notions of information structure that interact with syntax (e.g., Frey 2004), and it has been recently argued that contrastive focus should be analysed as a composition of the notions [focus] and [contrast] (Vermeulen 2009: 335). This issue is clearly beyond the scope of this chapter, but see chapter 1, § 4.2.1, this volume where information structure features such as [±Prominent] and [±New] from Choi (2001) are used to constrain the TOP-FOC and their relative prominence. In this connection it may be worth noticing that, interestingly, *–wa* is called a 'TOP marker' in English, whereas in Japanese it is called *toritate jyoshi*, which can be translated as 'bringing up into prominence' – surely a more suitable descriptor given the use PT makes of it in this volume (cf. the Prominence Hypothesis proposed in (34)-(35), ch. 1, § 4.2.1.).

Since every DF must be linked to a GF, *–wa* can overlay a range of GFs. For example, *–wa* can bring into prominence the core GFs, namely SUBJ[2] or OBJ, as in (14) and (15) respectively, a nonargument GF, namely ADJ, as in (16), just as it can mark prominence on any other argument function.

2 The reader may recall from § 2.2, ch. 1, this volume, that most languages do not distinguish explicitly TOP from SUBJ, which leads to an interpretation of SUBJ as TOP by default.

(14) watasi-wa kinoo kono tegami-o kai-ta
I-TOP$_{SUBJ}$ yesterday-ADJ this letter-ACC.OBJ write-PAST
[I wrote this letter yesterday]

(15) kono tegami-wa kinoo watasi-ga kai-ta
this letter-TOP$_{OBJ}$ yesterday-ADJ I-NOM write-PAST
[this letter yesterday I wrote]

(16) kinoo-wa watasi-ga kono tegami-o kai-ta
yesterday-TOP$_{ADJ}$ I-NOM.SUBJ this letter-ACC.OBJ write-PAST
[yesterday I wrote this letter]

Notice also that when TOP marks the core arguments SUBJ or OBJ, *–wa* replaces the NOM or ACC case markers altogether, which supports LFG's differentiation of core from noncore GFs. In fact, in noncore GFs the prominence marker *–wa* is added to the case-marked nominals, as the grammaticality of (17) can attest, in which a noncore DAT OBL already marked with *–ni* is attributed prominence in the sentence by the addition of the *–wa* marker.

(17) Harumi-ni-wa kinoo watasi-ga kono tegami-o kai-ta
Harumi-DAT.OBL-TOP yesterday-ADJ I-NOM.SUBJ this letter-ACC.OBJ write-PAST
[to Harumi I wrote this letter yesterday]

What is the difference, then, between the sentences in (15) through to (17) and their possible equivalent without the *–wa* marker? That is, with *kinoo-wa* simply as *kinoo* in (14) or *watasi-wa* replaced by *watasi-ga* in (15), *tegami-wa* by *tegami-o* in (16), and *Harumi-ni-wa* simply by *Harumi-ni* in (17)? The answer involves prominence. Let us consider (14): the sentence with *watasi-wa* would answer the question 'what did you do?', where the topic-comment structure indicates that TOP$_{SUBJ}$ has been established previously. On the other hand, the equivalent sentence with *watasi-ga* would answer the question 'what happened?', where the SUBJ-predicate structure is 'event-reporting' and the whole sentence is 'new information'. Hence, when speakers do express TOP$_{SUBJ}$ they mean to identify it unambiguously. Likewise, the sentence with *tegami-wa* would answer a question about the letter, and its equivalent with *tegami-o* a more general one about the whole event. With these examples we can see clearly that, although there is a universal preference for TOP to be encoded, as Levelt (1989: 260) says, in a "syntactically prominent position",[3]

3 Levelt goes on to explain that "syntactically prominent […] can mean that the topic is encoded as a grammatical subject […]. It can, alternatively, mean that the topic will be encoded early in the sentence, whether or not in the role of subject."

position in c-structure is not the only defining criterion in Japanese. Indeed, on the one hand, morphology may support prominence assigned by sentence-initial position, as confirmed by the grammaticality of (17), where the OBJ_{DAT} *Harumi-ni* is marked as TOP with *–wa,* so that we know that topical prominence is assigned to this participant; such topicalised NPs usually does occupy a clause initial position in Japanese. On the other hand, in the competition between syntactic position and morphological marking of TOP, it is the morphology that wins out in establishing topicality, as (18) shows. In this example, TOP is not the initial ADJ *san-nen mae-ni* ('three years ago'), but, unambiguously in Japanese, the NP *watasi-wa* (I-TOP). So the morphologically *–wa* marked GF, and not the initial GF, win out as the topic of the sentence.

(18) san-nen mae-ni watasi-wa nihon-ni iki-masi-ta
three-year ago-at-ADJ I-TOP Japan-OBL_{LOC} go-POL-PAST
[three years ago I went to Japan]

As mentioned above, *–wa* may mark FOC, as well as TOP, which explains why the Japanese expression for it (*toritate jyoshi*, 'bringing up into prominence') is more appropriate than the English gloss, which conflates the two into TOP. In fact in Japanese it is quite possible to mark more than one NP with *–wa*. In this case, the initial *–wa* is TOP and the other is commonly assumed to be FOC (Kuno 1973: 30ff), as in (19). In this example we can see again how morphology and syntax interact in marking GFs, and how position becomes relevant (first TOP, then FOC – as confirmed by Peter Sell, personal communication, 2005) because morphology is opaque, in so far as both TOP and FOC are marked with *–wa*.

(19) watasi-no e-wa onnanoko-wa akai doresu-o ki-te i-masu
I-GEN picture-TOP_{ADJ} girl-FOC_{SUBJ} red dress-ACC wear-COMP PROG-POL
[in my picture it is the girl who is wearing a red dress]

Significantly, in discussing the Japanese *–wa* phrase, Shibatani (1990: 277) highlights a difference between forms that "do represent a true experiential judgement structure", such as the *–wa* marked SUBJ and OBJ in (14) and (15), and those that do not, such as the *–wa* marked postpositional phrases and adverbials in (16) through to (19). The latter are not true experiential judgement topics, but in his view they exploit the highlighting function of the *–wa* marker of true topics to set themselves apart from the rest of the sentence. Hence Shibatani (1990: 277) concludes that "(t)he adverbial topic, including a postpositional one, is basically a stylistic topic." This view would have definitely caused problems with the original Topic Hypothesis (Pienemann, Di Biase & Kawaguchi 2005), but it is compatible with the current Prominence Hypothesis (cf. ch. 1 § 4.2.1, this volume), which

embraces both TOP and FOC with their information structure features [±Prominent] and [±New] (Choi 2001) to ensure a clear demarcation between DFs and prominence assignment.

This brief discussion of the –wa particle does not do justice to the complexities of its uses in Japanese native speakers' speech. As a matter of fact, the whole issue of the topicality vs focality of –wa is still controversial – involving as it does such areas as topic continuity, nominal ellipsis and noncanonical case-marking. A parallel case can be made for the function of 'scrambling' in word order to which, controversially, is also attributed no obvious function (Hayashi, Tomlin & Yokota 2002), or in any case an "inconclusive" one (Kuno 1973), or, alternatively, one of "mild emphasis" (Shibatani 1990).

Given these complexities, it is not surprising that learners will only gradually acquire the means of expressing GFs and assigning prominence to the NPs in their Japanese sentences. Here I will first illustrate in (20) how learners of L2 Japanese are hypothesised to acquire the encoding of TOP in declaratives, and then report in (21) the results with respect to declaratives using the same longitudinal study that provides the data for morphological development in § 2 (cf. Kawaguchi 2010). In (21), all the sentences involving lexical verbs with at least one argument are analysed. Exceptions are copula and presentational verbs such as *naru* ('become') and *aru/iru* ('there is~") and verbs taking XCOMP such as *omou* ('think') and *iu* ('say'), which is consistent with the analysis in English and Italian respectively in chapters 2 and 3, this volume. Further evidence supporting the hypothesised schedule in (20) comes from two other studies: Kawaguchi (2005) and Itani-Adams (2009).

(20) Developmental stages hypothesised for L2 Japanese syntax based on the Prominence Hypothesis: declaratives (after Kawaguchi 2005)

STAGE	STRUCTURE	EXAMPLE
NONCANONICAL WORD ORDER	TOP_{OBJ} SUBJ V	*kono tegami-wa Tanaka-san-ga kaita* *[this letter Mr Tanaka wrote]*
XP_{TOP} CANONICAL WORD ORDER	TOP_{ADJ} SOV	*kinoo-wa Tanaka-san-ga kono tegami-o kaita* *[yesterday Mr Tanaka wrote this letter]*
CANONICAL WORD ORDER	TOP_{SUBJ} OV	*Kaori-san-wa sukaato-o kaimasita* *[(Miss) Kaori bought a skirt]*
LEMMA ACCESS	single words formulas	*oisii [delicious]* *arigatoo [thank you]*

(21) Lou's syntactic development based on the Prominence Hypothesis: declaratives (re-analysis of Kawaguchi 2010)

STAGE	STRUCTURE	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12
NONCANONICITY IN MARKING NOMINALS	$SUBJ_{TOP\text{-}WA}$ $OBJ_{FOC\text{-}WA}$ V										1		1
	$OBJ_{TOP\text{-}WA}$ (S)V				1								
XP_{TOP} CANONICAL WORD ORDER	$ADJ_{TOP\text{-}WA}$ S(O)V/(S)OV			2*	3				1		2	5	2
	ADJ S(O)V		5*		3	3	2	1	1	4	6	6	7
CANONICAL WORD ORDER	$SUBJ_{TOP\text{-}WA}$ (O)V			3	5	7	3		7	9	7	2	9
	S(O)V / (S)OV	1*	4*	7	5	8	9	5	10	22	11	26	12

*SUBJ is not expressed

The Prominence Hypothesis predicts that, after the initial stage of single words and formulas, the learner can produce canonical word order, which cognitively speaking represents the most harmonious linking between c-structure and f-structure. In Japanese, canonical word order yields the sequence SOV or TOP_{SUBJ} OV as in (22). Because Japanese allows nominal ellipsis, canonical word order also includes V-last structures with at least one core argument, either SUBJ or OBJ, as in (22a) and (22b) respectively.

(22) sensei-wa koohii-o nomi-masu
teacher-TOP_{SUBJ} coffee-ACC.OBJ drink-POL
[teacher drinks coffee]

(23) a. sensei-wa nomi-masu
teacher-TOP_{SUBJ} drink-POL
[teacher drinks (it)]

b. koohii-o nomi-masu
coffee-ACC.OBJ drink-POL
[(she) drinks coffee]

In Lou's data, SUBJ is initially elipted in t1 and t2. Thus she uses only one argument (i.e., OBJ) when required in these two sessions. SUBJ marking with *–wa* emerges at t3 and is then consistently produced throughout the longitudinal study.

The next stage, the XP_{DF} canonical word order stage, is characterised by the learner's ability to place ADJ in sentence-initial position, so as to express contextual information (time, place of the event, etc.). This operation, which does not disturb canonical order, triggers however a disengagement of SUBJ from its canoni-

cal first position in the clause. ADJ may then be TOP – conceding that it may be a stylistic TOP, in Shibatani's (1990: 277) term – and we can clearly see whether learners are able to disentangle the TOP marker *–wa* from its initial exclusive association with SUBJ. So, in addition to being able to add a constituent to canonical order, the learner can now assign to it the TOP function by marking it with *–wa*, as in (19) above.

In Lou's data, ADJ_{TOP} marked with *–wa* first appears twice in t3. However, both sentences do not express SUBJ overtly, so that she starts producing the ADJ_{TOP} S(O)V structure with an overt distinction between SUBJ and TOP only at t4, as shown in (24). Marking thus either TOP or SUBJ by *–wa*, Lou now knows that the sentence initial element can be ADJ_{TOP}, that is, a GF other than SUBJ.

(24) watasi-no e-wa onnanoko-wa akai fuku-o ki-te i-masu
I-GEN picture-TOP_{ADJ} girl-FOC_{SUBJ} red dress-ACC.OBJ wear-COMP PROG-POL
[as for my picture, the girl is wearing a red dress]

At the next stage, the hypothesis predicts that learners can also assign prominence to nonSUBJ constituents internal to SOV such as OBJ, as in (15) above. In order to do this they need to disentangle the canonical association between the position of OBJ and its case marker, which is ACC in pragmatically unmarked sentences. In other words, OBJ marking with *–wa* as an alternative to *–o*, the ACC marker, requires full functional assignment, namely, the ability to assign a GF or DF to each constituent of the canonical word order independently of position.

In Lou's data, *–wa* marked OBJ emerges at t4, with further uses at t10 and t12. One example is shown in (25), where she first marks OBJ with *–o* (ACC) but then corrects to *–wa* (TOP). This example clearly shows that Lou knows that *–wa* may topicalise OBJ. Here we can see that, in assigning prominence to OBJ, the canonical word order is not retained.

(25) um saakasu-no kippu-o um.. -wa ryoosin-ni morai-masi-ta
circus-GEN ticket-ACC-TOP_{OBJ} parents-from receive-POL-PAST
[the circus ticket, I received (it) from my parents]

In sum, Lou's data, however limited, supports the hypothesised schedule for the Prominence Hypothesis in so far as she can assign prominence to constituents by the use of *–wa* in an implicational sequence: first *–wa* marks SUBJ, the default association between a DF and a nonDF, then ADJ, a nonargument GF, and finally OBJ, a core GF other than SUBJ. Here, clearly, only the surface has been scratched, and much further work needs to be done, both in the description of Japanese native speaker's case and prominence assignment, as well as in that of learners' development.

3.2. The Lexical Mapping Hypothesis

The Lexical Mapping Hypothesis is particularly important in L2 Japanese, because many Japanese verbs and verbal constructions, including frequently used ones, require nondefault mapping of thematic roles onto GFs – represented in LFG as a-structure to f-structure mapping. Nondefault mapping may add a variety of attributions to the event such as prominence, affectedness, causality, speaker perspective, or speaker affective participation. These attributions are expressed by the speaker's choice of V – which may itself require nondefault mapping of arguments onto GFs (i.e., exceptional Vs) –, or of the V form that most closely conveys his/her intention (i.e., nonbasic V forms, such as passives, causatives and benefactives). This (lexical) mapping grammatical mechanism must not be confused with the mechanism involved in the Prominence Hypothesis, presented in the previous section, which achieves prominence by alternative linear precedence relations on the alignment of arguments – represented in LFG as c-structure to f-structure mapping.

As mentioned in chapter 1, § 2.2, this volume, default mapping, which is assumed to require least processing effort, associates agent with SUBJ and patient with OBJ. However, for discourse or pragmatic reasons, or given particular lexical choices, the speaker may highlight a thematic role other than the agent by mapping it onto the highest-ranking GF, i.e., SUBJ (Keenan & Comrie 1977). When nonagentive roles are mapped onto SUBJ, the default association of agent with SUBJ is disrupted. According to Pinker (1984) such nondefault mapping results from at least two sources: (i) intrinsically "exceptional" Vs such as *receive* in English and *morau* ('receive') in Japanese; and (ii) nonbasic V forms such as passives and causatives.

Thus, exceptional Vs involve language-specific V features determined by the specific lexical V selected by the speaker. Given their intrinsically language-specificity and particular behaviour, there is no systematic way of identifying them *a priori*, and learners must learn their argument specifications and mapping requirements one V at a time. Kawaguchi (2013) begins to examine the acquisition of such Vs, but further investigation is required. On the other hand, the study of the acquisition of nonbasic V forms is quite advanced for Japanese (cf., e.g., Kawaguchi 2005, 2007, 2009a, 2009b, 2010) and may open the way to their exploration in other L2s. As mentioned in chapter 1, § 4.2.2, this volume, the difference between Pinker's intrinsically exceptional Vs and nonbasic V forms is that, in the case of exceptional Vs, alternative forms, if available, are not morphologically related (e.g., *ageru/morau*, 'give/receive'), whereas in the case of nonbasic forms, they may be morphologically derived from a more basic form which exhibits default mapping (e.g., *sikar/sikar-are*, 'scold/be scolded'). In any case, whether or not alternative forms are lexically derived, current LFG consid-

ers them as separate lexical entries which select their own set of arguments. Thus, in (26) the passive V *sikar-are* ('be scolded') only selects the SUBJ *kodomo-ga* ('the child'), as can be seen by the grammaticality of (26a). The agent-specifying clause *sensei-ni* ('by the teacher') in (26b) turns out to complete the information and is also grammatical, but it is the speaker's choice to express it or not, because grammatically it is not essential. On the other hand, in (26c) the active V lexical entry *sikaru* ('scold') selects <SUBJ, OBJ> for its f-structure; hence *sensei-ga* ('the teacher'/agent/SUBJ) is required, as much as the other participant *kodomo-o* ('the child'/patient/OBJ) is. Of course in Japanese either may be dropped and represented by zero anaphora, but this depends on the discursive context and not on the V itself.

(26) a. kodomo-ga sikar-are-ta
child-NOM.SUBJ scold-PASS-PAST
[the child was scolded]

b. kodomo-ga sensei-ni sikar-are-ta
child-NOM.SUBJ teacher-ADJ scold-PASS-PAST
[the child was scolded by the teacher]

c. sensei-ga kodomo-o sikat-ta
teacher-NOM.SUBJ child-ACC.OBJ scold-HON-PAST
[the teacher scolded the child]

Passives can thus be counted among lexically productive alternative V forms, that is, like other languages such as English and Italian (cf. ch. 2, § 3.2, and ch. 3, § 3.2, this volume, respectively), Japanese typically exhibits passive constructions which, among other things (such as revealing the speaker's own stance on the event or his/her affective engagement), may promote the patient role by mapping it to SUBJ (cf. the formal illustration of the nondefault mapping of a-structure onto f-structure of an English passive sentence in (26), ch. 1, this volume) and demoting the agent by mapping it onto an ADJ, as in (26b). However, the attribution of prominence is not the only function of passives. In fact there is no prominence involved at all in (26a): because there is only one argument (the theme, realised as SUBJ), there is no competition. In such cases, then, the communicative function of the passive construction is not prominence, but something else. The speaker, for instance, may want to limit the scope of the eventuality exclusively to the theme, because the agent is unknown or irrelevant. The choice of a passive construction, then, is not at all parallel to, nor to be confused with, topicalization, which realises agents as SUBJ and theme/patients as OBJ regardless of the eventual order adopted, and whose function is limited to the attribution of prominence for contrast or specification purposes.

To round up the LMH section here, I will present two other types of Japanese nondefault mapping where prominence is not directly involved, that is, benefactives and causatives. Constructions involving the AUXs 'give' and 'receive', are collectively called 'benefactives'. Backhouse (1993: 124-125) translates three types of benefactive Vs as follows: (i) V-*te ageru* "(I/we, etc. do something for someone)"; (ii) V-*te kureru* "(someone does something as a favour to me/us)" and; (iii) V-*te morau* "(I/we, etc. receive the favour of someone doing something for us)". Examples of these three types are shown in (27). As we can see, in benefactive constructions the lexical V precedes the benefactive AUX that contributes the benefactive role, and we notice that all three constructions here exhibit the typical SUBJ-OBL-OBJ Japanese word order for three-argument Vs.

(27) a. *give*-schema (*age-*)
Mariko-ga kodomo-ni hon-o yon-de age-ta
Mariko-NOM child-DAT book-ACC read-COMP give-PAST
[Mariko read a book to the child]

b. *give*-schema (*kure-*)
Mariko-ga watasi-ni hon-o yon-de kure-ta
Mariko-NOM I-DAT book-ACC read-COMP give-PAST
[Mariko read a book for me]

c. *receive*-schema (*mora-*)
kodomo-ga Mariko-ni hon-o yon-de morat-ta
child-NOM Mariko-DAT book-ACC read-COMP receive-PAST
[the child received the favour of Mariko reading a book]

In his LFG analysis, Ishikawa (1985) considers Japanese benefactive constructions as functionally biclausal. Later work by Matsumoto (1996) and Shibatani (1994) also support Ishikawa's analysis. Following Ishikawa (1985: 152) and Matsumoto (1996: 48) for the representation of the lexical entry and f-structure respectively, the example of the benefactive construction in (27a) is represented in (28). As can be seen, the benefactive predicate with *ageru* ('give') maps in a nondefult way the benefactor and beneficiary roles onto SUBJ and OBJ respectively, and additionally the beneficial event role on XCOPM. In the f-structure SUBJ in XCOMP is linked to the same GF (i.e., SUBJ) as in the matrix clause, as indicated by the joining line.

Benefactive constructions thus display nondefault mapping because they involve a complex predicate where the f-structure of SUBJ in XCOMP can be identified by reference to the value of an argument function in a higher matrix. Without going into further detail here, also the benefactive constructions with the *morau* ('receive') schema present nondefault mapping, but in the opposite direction, that is, the beneficiary role is mapped onto SUBJ, the benefactive role

(28) lexical entry
ageru 'give': V
(↑PRED) = '*ageru* < benefactor, beneficiary, beneficial event >
(SUBJ) (OBJ_{GOAL}) (XCOMP)

f-structure

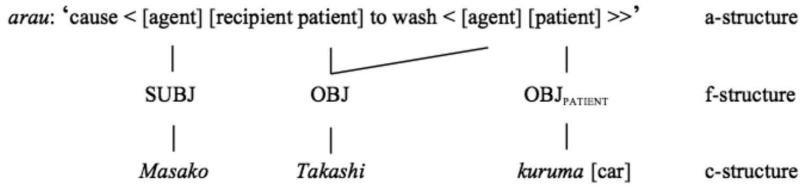
PRED	'give < SUBJ, OBJgoal, XCOMP>'	
SUBJ	PRED	'Mariko'
OBJ_{GOAL}	PRED	'kodomo (child)'
XCOMP	PRED	'read <SUBJ, OBJ>'
	SUBJ	
	OBJ	[PRED 'book']

onto OBL, and so on. Given such mapping arrangements, and the complexity of structures generated by them, PT predicts that learners will produce them only once they have reached the S-procedure stage, which gives them the morphological resources to mark GFs unequivocally.

Causative constructions, similarly to benefactive ones, display a complex form-meaning relationship whereby the form expresses the meaning of 'causing X to do something or to be in some state' (Shibatani 1990: 307; cf. also Noda, Sakota, Shibuya & Kobayashi 2001). According to Matsumoto (1996), Japanese causatives involve a causer controlled sub-event where the logical SUBJ of the embedded clause is fused to the patient of the matrix clause. So, they involve non-default mapping because one participant actually receives two thematic roles. Alsina (1996: 86) assumes that "the causative verb and the base verb undergo predicate composition yielding one, single, complex, a-structure". An example of a Japanese causative construction is given in (29), more formally illustrated in (30). Here *Takashi* plays a double role in the eventuality described in the sentence: he is the patient of the causative V (*Masako made Takashi…*) and, at the same time, the agent of the lexical V *arau* (*… Takashi wash the car*).

(29) Masako-ga Takasi-ni kuruma-o araw-ase-ta
Masako-NOM Takashi-DAT car-ACC wash-CAUSE-PAST
[Masako made Takashi wash the car]

(30) Mapping of a-structure onto f-structure for the transitive causative sentence Masako-ga Takashi-ni kuruma-o araw-ase-masita *('Masako made Takashi wash the car')*



The syntactic hierarchy based on PT's Lexical Mapping Hypothesis for L2 Japanese is illustrated in (31), following the general proposal by Bettoni & Di Biase in chapter 1, § 4.22, (42)-(43), and similar to the language-specific hierarchies for L2 English in chapter 2, § 3.2, and for L2 Italian in chapter 3, § 3.2. In (32), Lou's data again provides the empirical evidence for the hypothesised hierarchy. Also here, like for the Prominence Hypothesis in the previous section, copula and presentational Vs are excluded from the analysis.

(31) Developmental stages hypothesised for L2 Japanese syntax based on the Lexical Mapping Hypothesis (after Kawaguchi 2005)

STAGE	STRUCTURE	EXAMPLE
NONDEFAULT MAPPING	causatives	*sensei-wa gakusei-ni takusan repooto-o kak-ase-masu* *[teacher makes students write lots of reports]*
	passives	*watasi-wa haha-ni sika-rare-masita* *[I was scolded by my mother]*
	benefactives	*tomodachi-ga kono hon-o kasite-kure-masita* *[my friend gave me a favour of lending me this book]*
DEFAULT MAPPING AND ADDITONAL ARGUMENTS	agent/experiencer on SUBJ, patient/theme on OBJ, and other arguments on OBL	*watasi-wa kaban-ni keetai-o iremasu* *[I put my mobile phone in my bag]*
DEFAULT MAPPING	agent/experiencer on SUBJ and patient/theme on OBJ	*sensei-ga kohii-o nomimasu* *[teacher drinks caffe]*
LEMMA ACCESS	single words formulas	*oisii [delitious]* *arigatoo [thank you]*

(32) Lou's syntactic development based on the Lexical Mapping Hypothesis (updated analysis of Kawaguchi 2005, 2009b, 2010)

STAGE	STRUCTURE	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12
NONDEFAULT MAPPING	causative										4		
	passive									1	-1	3	
	benefactive					1 -1			1	1	1		2 -3
	intrinsic. nondefault						6		2 -1		-1		1
DEFAULT MAPPING AND ADDITONAL ARGUMENT	S OBL OBJ V			-1	1	1		1	4	4	1	5	3
	S OBL V		-1	4	4	6	1 -1	-1		10	4 -1	9	5
DEFAULT MAPPING	O V / S O V		5	4	6	7	1	4	9 -1	10 -1	10	18	16
	S V	1	3	2	5	2	5		1	7 -1	4	4	1

- indicates wrong case marking

Lou reaches the default mapping stage with one occurrence at t1, and thereafter she shows robust numbers of positive figures with rare errors in case marking, which are indicated with a minus sign in (32). Examples of, respectively, positive and negative occurrences at t8 are shown in (33) and (34).

(33) watasi-no okaasan-wa uhm razania-o tukuri-masi-ta
I-GEN mother-TOP lasagna-ACC cook-POL-PAST
[my mother cooked lasagna]

(34) haha-wa.... inu-o tabe-ta
mother-TOP dog-ACC eat-PAST
[literally: my mother ate the dog; intended: my mother (thinks) the dog ate (it)]

At the next stage (i.e., the default mapping and additional argument stage), the propositional content is still expressed in a pragmatically neutral, default way. This stage is reached when learners begin producing constructions consisting of default mapping together with additional arguments which are differentiated from SUBJ and OBJ, that is, when in Japanese they start using OBL arguments with case markers other than NOM and ACC. Typically, as in Lou's examples shown in (35) and (36), they are able to map the nonSUBJ argument of an intransitive V onto OBL_{LOC}, and the third argument of a transitive V onto $OBL_{RECIPIENT}$.

(35) san-nen mae-ni watasi-wa nihon-ni iki-masi-ta
three-years before-when I-TOP Japan-OBL_{LOC} go-POL-PAST
[three years ago I went to Japan]

(36) watasi-ni Tomu-san ah hana-o kure-masi-ta
I-$OBL_{RECIPIENT}$ Tom-Mr flower-ACC give-POL-PAST
[to me Tom gave flowers]

Lou reaches this intermediate stage at t3 with four occurrences of the S OBL V structure and soon thereafter, like at the previous stage, her figures are quite consistenly positive. An example of her correct case marking is shown is (37).

(37) er fooku to naihu-o er (long pause) teeburu-ni... narabe-masi-ta
fork and knife-ACC table-on arrange-POL-PAST
[(I) arranged forks and knives on the table]

Finally, at the nondefault stage, learners will acquire the means to respond to pragmatic motivations that require nondefault mapping choices. At this stage, they may be able to produce benefactives, passives, and causatives. An example

of Lou's successful deployment of each nondefault mapping construction is shown in (38a-c), and one example of unsuccessful mapping of a passive construction is shown in (39).

(38) a. *benefactive construction at t9*
Jon-san-ni aisukuriimu-o kat-te ... age-masi-ta
John-Mr-DAT ice cream-ACC buy-COMP give-POL-PAST
[(I) bought an ice cream for John]

b. *passive construction at t9*
densya-ni not-ta toki doroboo-ni saifu-o tor-are-masi-ta
train-on ride-PAST when robber-DAT wallet-ACC steal-PASS-POL-PAST
[when (she) got on the train, (she) had her wallet stolen by a thief]

c. *causative construction at t10*
uh bosu-wa watasi-ni itumo kopii-o sase-masu
boss-TOP I-DAT always photocopy-ACC CAUSE-POL
[my boss always asks me to make photocopy]

(39) *passive construction at t9*
inu-wa .. watasi-ni... kami-rare-masi-ta
dog-TOP I-DAT bite-PASS-POL-PAST
[literally: a dog was bitten by me; intended: I was bitten by a dog]

In Lou's data the benefactive construction is the first to emerge at this last stage. The emergence of benefactives before passives is also confirmed by other Japanese L2 researchers (e.g., Tanaka 2001). Benefactive constructions had been taught in class just before their emergence at t5, so it is possible that teaching had an immediate if not lasting effect, because its use becomes more continuous only from t8 onwards. Lou's benefactives are in any case all *give*-schema except one, when she attempts, but fails, the V-*te morau*, *receive*-schema at t5, just after its introduction in class. Why is the *receive*-schema produced less frequently compared to the *give*-schema? Is its processing more costly? The reason may lie in the higher degree of nondefaultness with the *receive*-schema, which involves XCOMP's SUBJ linked to the OBJ source in the matrix clause, an operation that adds to the cost of online speech production. So we have here an instance of a soft barrier in the sense mentioned in chapter 1, § 4.4, this volume, and chapters 2 and 3, §§ 2.2, for L2 English and L2 Italian respectively. Within this same nondefault mapping stage, exceptional Vs emerge next in Lou's data. However, being lexically idiosyncratic and learned individually, there is no soft barrier marked in the table. On the other hand, also passives and causatives are nondefault structurally, so a soft barrier in marked in each case, respectively at t9 and t10.

In sum, naturally enough the dominant use of default mapping structures is observed throughout Lou's longitudinal study. In the first two interviews, that is in the first three months of learning Japanese for her university degree, this learner produces only default mapping structures. Then, after a further three months, besides agent/experiencer and themes mapped respectively onto SUBJ and OBJ, she is able to map additional arguments onto OBL. Finally, she attempts constructions with nondefault mapping at t5, in her second year, and uses two benefactive constructions, one of which successfully. Passive and causative constructions emerge at t9 and t10 respectively, that is, in her third year of studying Japanese for her university degree.

4. Conclusion

Japanese is one of the languages that have been most explored in PT and whose typological characteristics have contributed significantly to our understanding of the cross-linguistic plausibility of the theory, and particularly the testing of the early Topic Hypothesis and Lexical Mapping Hypothesis, as well as the current Prominence Hypothesis and the critical updating of the Lexical Mapping Hypothesis. As a matter of fact, L2 Japanese was one of two languages to provide the earliest empirical evidence for a formal typological validation of PT's morphological development – the other language being L2 Italian (cf. Di Biase & Kawaguchi 2002). Furthermore, Japanese was not only the first language to test the Lexical Mapping Hypothesis (Kawaguchi 2005), but also to do so most extensively (Kawaguchi 2010, 2013). Whereas other languages have so far provided evidence only for the development of passive structures, L2 Japanese has provided it also for benefactives and causatives, further advancing their analysis in this chapter.

This chapter presented the developmental stages in learning Japanese incorporating the latest proposals in PT, with an updated analysis of a three year longitudinal study. In particular, the Prominence Hypothesis is explored by including morphological prominence, which is characteristic of Japanese. As for the Lexical Mapping Hypothesis, it is further clarified and differentiated from the Prominence Hypothesis, and an intermediate stage is added, with relevant empirical analysis.

Broad areas within a PT framework, of course, still need attention in L2 Japanese, as well as in other L2s. These include the development of nominal morphology, interrogative sentences within the Prominence Hypothesis (a priority area to be explored in L2 Japanese), and subordination, both in morphology and syntax, as well as the syntax-pragmatics interface. In this latter area, issues such as topic continuity, nominal ellipsis and noncanonical case-marking are well worth investi-

gating from the learner's point of view. Within the Lexical Mapping Hypothesis, the acquisition of exceptional Vs requiring both nondefault mapping and non-canonical word order also needs to be addressed.