1. Principal Questions

I. How do the Japanese Children acquire their mother tongue?

II. Why is actual language development non-instantaneous?

E.g, Guasti (2003): early-set parameters are those that can be set on the basis of prosodic information.

Rizzi (2004): some parameters, in particular those that are relevant to the dropping of material, undergo delayed fixation due to a grammatically-driven strategy to reduce the workload of the immature production system.

Baker (2001): the dichotomy might reflect that the parameters of UG are structured hierarchically

(1) a. Ken-ga [ dare-ga sono hon-o katta ka ]
Ken-Nom who-Nom that book-Acc bought Q

siritagatteiru (koto).

want-to-know

b. * Dare-ga [ Ken-ga sono hon-o katta ka ]
who-Nom Ken-Nom that book-Acc bought Q

siritagatteiru (koto).

want-to-know

While the *wh*-phrase dare-ga is c-commanded by the Q-particle ka in (1a), it is not in the case of (1b).
(2) Child (2:2):  Papa fuusen *fukurande (Suzuki 1987:172) 
daddy balloon blow 
(Intended meaning) ‘Daddy, please blow up the balloon.’
Father: Fukurande zyanai desyo, fukuramasite desyo 
blow not isn’t it blow up isn’t it 
‘You should not say “fukurande” (blow). It should be “fukuramasite” (blow up).’
Child: *Fukurande Blow (Intended meaning) ‘Blow up (the balloon).’
Father: Fukuramasite 
blow up ‘(You should say) blow up (the balloon).
Child: *Fukurande * Fukurande 
blow blow 
‘(Intended meaning) ‘Blow up (the balloon)! Blow up (the balloon)!’

Cf.  a. Mommy, can you stay this open?  (Bowerman 1974:143)
b. Quem morreu ele? ‘Who died him?’  (die = kill) (Figueira 1984:115)

2. Early Emergence of Grammatical Properties of Japanese

2.1. Japanese-speaking children’s knowledge of a universal constraint on Wh-movement & 
Unselective Binding

(3) Naze [sono hon-o yomu maeni] John-wa okotta no ? 
why that book-Acc read before John-Top got angry Q
‘Why did John get angry before reading that book?’

(4) Dooiu riyuu de [sono hon-o yomu maeni]John-wa 
for what reason that book-Acc read before John-Top
okotta no ?
got angry Q

‘For what reason did John get angry before reading that book?’  (Acq.: Kabuto, 2007)
The sentence in (3) is “structurally ambiguous” with respect to the position of the adjunct 
wh-phrase naze ‘why’: It can be contained in the adjunct clause, or it can be located outside 
the adjunct clause and hence can be an element of the matrix clause. Yet, the former
possibility is excluded by the conflict between LF wh-movement of naze to the matrix CP specifier, and the principle of UG that bans extraction out of an adjunct clause (Huang 1982). This is why the example in (3) is interpreted as a question asking the reason of John’s anger but not as a question asking why John read that book. On the other hand, the extraction from the adjunct clause does not violate the ECP. In (4), wh-phrase dooiu riyuu de is unselectively bound by the Q operator. Hence (4) allows two interpretations. (cf. Tsai, Lectures at Nanzan, 2006)

2.2. Scrambling: A’ movement and the Reconstruction Effects

(5) a. SOV: Ahiru-ga1 usi -o [ zibun-no1 niwa-de ] oikaketa.
   duck -Nom cow-Acc self -Gen garden-at chased
   ‘The duck chased the cow at the garden of himself.’

b. OSV: Usi –o1 [ zibun-no2 niwa-de ]3 ahiru-ga2 t1 t3 oikaketa.
   cow-Acc self-Gen garden-at duck-Nom chased
   ‘The cow, at the garden of himself, the duck chased.’

   (Acq.: Murasugi and Kawamura, 2000)

In (5a), the subject-oriented anaphor zibun is c-commanded and hence is bound by the subject NP ahiru-ga. In (5b) this c-command requirement is satisfied through reconstruction: The anaphor is properly licensed in its initial position.


3.1. Mysterious “no” of Genitive Case marker: Paradox in “No” insertion Rule

(6) a. Akkun-no otya (2;6)
   Akkun-Gen tea ‘Akkun’s tea’

b. ziityan-no mikan (2;6)
   grandfather-Gen orange
   ‘Grandfather’s orange (= the orange that Grandfather gave me)’

(7) mama, dobotto (=robotto) [Ø] outa (2;6)
   mommy robot song
   ‘Mommy, (please sing) the robot’s song.’ (Murasugi and Hashimoto, 2002)
In adult English, while NP complements to nouns require *of-insertion, PP complements never trigger this operation.

(8)a. John’s destruction *(of) [NP the building]
   b. John’s claim (*of) [PP about his marriage]

Stowell (1981): the Case Resistance Principle, which states that projections of Case-assigning categories (such as P) cannot be assigned Case.

(9) a. Emi-no zyuusu
    Emi-Gen juice ‘Emi’s juice’ (Emi, 2;9)
   b. Murasaki-no ribon
    purple-Gen ribbon ‘the purple ribbon’ (Emi, 2;9)
   c. Santa san-kara purezento
    Santa -from present
    ‘a present from Santa’ (Emi, 3;0) (Murasugi, 1991)

3.2. The overgeneration of Complementizer: Structural Parameters in Relative Clauses

Overgeneration of “no” in Relative Clauses in Japanese (and Korean): children overgenerate no immediately after prenominal sentential modifiers after the morphological realization of tense is acquired.

(10) a. John-no hon -> Genitive Case marker
   b. akai no => Pronoun one
    red-is one ‘the red one’
   c. robusutaa-o tabeta no-wa Bosuton-de da => Complementizer that
    lobster-Acc ate C-Top Boston-in is
    ‘It is in Boston that (I) ate Lobster.’

In Toyama Dialect, the genitive Case is realized as no as in the Tokyo dialect, but the other two no’s (the N and the C) are realized as ga.
(11) Genitive Case Marker

a. Emi-no hon
   Emi book ‘Emi’s book’

b. heya-no okatazuke
   room cleaning-up ‘cleaning up of the room’

(12) Pronoun/Nominalizer

a. akai ga
   red-is one ‘the red one’

b. hasittoru ga
   running-is one ‘the one that is running’

(13) Complementizer

[John-ga kane-o nusunda ga]-wa [pp koko-kara] ya cha
John-Nom money-Acc stole C-Top here-from is
‘It is from here that John stole money.’

(14) a. akai *ga boosi
   red cap ‘a red cap’ (Ken, 2;11)

b. anpanman tuitoru *ga koppu
   (a character) attaching cup
   ‘a cup bearing the image of anpanman’ (Ken, 2;11) Murasugi (1991)

Relative clauses in Japanese are TPs (IPs) while those in English are CPs. Under this hypothesis, the overgeneration of no/ga can be construed as follows. Children initially take the CP value of the relative-clause parameter, and realize the C head of the relative clause by inserting an overt morpheme. Positive evidence that C can be lexically realized as no/ga is provided, for example, by cleft sentences such as Errore. L’origine riferimento non è stata trovata.). This implies that the unmarked setting for the CP/TP parameter for relative clauses is CP. The Japanese-speaking children later reset the value to TP, based on the positive evidence available and consequently retreat from the overgeneration of
no/ga in the position of C.¹

3.3. Errors in the morphological realization: Japanese as an Aggregated Language

(14) a. * hairu nai
    enter(Nonpast) Neg ‘(It) does not enter.’

b. haira nai
    enter(Irrealis) Neg

It has long been observed in the acquisition of Japanese that young children occasionally produce errors with negation (e.g. Clancy 1985). In (14), a finite verbal form is placed in front of the negation, even though the correct adult counterpart requires a nonfinite irrealis verbal form. Cf. Passives, Aspectual Verb forms, potential Verb forms, causatives, transitive/intransitive verbs etc.

(15) Passives

    Adult forms: otoosan-ni okor-are-ta
               (I) father-by scolded (I got scolded by my father)

    Early Child forms: *Ototoyan-ni okor-e
                        (I) father-by scolded

In such languages as Japanese, two or more distinct syntactic heads can be incorporated into a phonological word. Children must perform morphological analysis in order to acquire those complex lexical items.

(16) longitudinal study on the acquisition of transitive-unaccusative pairs and causatives.
     (Murasugi & Hashimoto, 2004b)

(17) Some evidence from Japanese that the child grammar projects the functional category of small v, which is responsible for the assignment of an external theta-role (Chomsky

¹ Starting at age 2;4, a Japanese child Akkun showed “red one ball” type overgeneration. Then, after the overgeneration ceased once at 2;6, it “reemerged” ‘the different type of overgeneration of “no” started at age 2;7. This coincides with the period when degree-1 embedding, tense, and nominative Case-marking started to show up in his spontaneous production.
A Japanese speaking child, Akkun, around age 2;5, quite productively ended utterances with the words *tiyu/tita/tite*, which correspond in meaning to ‘do/did/doing’ in English.

(18) a. Mama Akkun hai doozyo tiyu (2;5)
   Mommy Akkun yes please do
   ‘Akkun(/I) will give it to Mommy.’

   b. Akkun nezi kuyukuyu tite, konoko syaberu (2;9)
   Akkun screw turn around doing this one talk
   ‘When Akkun(/I) will wind this one around, it will talk.’

“*tiyu/tita/tite* (do) to describe an activity that causes a certain event or change of state”

(19) $v\text{XP}$
    \[\text{Akkun} \rightarrow v[+cause] \]
    nezi kuyukuyu tite

In (19), *tite* describes an activity that causes a screw to turn around, and *Akkun* is the agent. The complement of the small *v* is indicated not as VP but as XP because it lacks a verb. Again, *kuyukuyu* (*kurukuru*) is a mimetic word describing things turning (around), and the XP expresses the meaning of ‘the screw turns.’ In this stage, the child utilizes the *v*-VP frame, and the small *v* is phonetically realized as *tiyu/tita/tite*.

At this point, he typically used onomatopoeic or mimetic expressions in place of the actual verb. Thus, *kuyukuyu* in *Errore. L'origine riferimento non è stata trovata.*), which corresponds to *kurukuru* in adult speech, is a mimetic word that describes things turning around.

(20) Unaccusative

   Dango-ga uta pakan tite, dango-ga atta (2;9)
   dumpling-Nom lid (onomatopoeia) doing dumpling-Nom there-be
   ‘There was a dumpling (when I) opened the lid of the dumpling (box).’
Ditransitive

Kinnou Akkun akatyan toki, papa-ni koe ageta (2;10)
yesterday baby when Daddy-to this gave

‘Akkun gave this to Daddy when he was a baby yesterday (= in the past).’

Akkun showed interesting and consistent “errors” as he acquired the actual verbs.

NOTE: In English same lexical item is often used as a transitive and as an unaccusative.

Thus, we have alternations as in:

(22) a. John passed the ring to Mary.
    b. The ring passed to Mary.

If the argument structures of these sentences are realized as in (23), then \( v \) is a “zero morpheme”
without phonetic content whether it is \([+\text{cause}]\) as in the case of (22a) or \([-\text{cause}]\) as in the case of (22b).

(23) \( vP \) \( (v [+\text{cause}] + \text{PASS} = \text{pass}, v [-\text{cause}] + \text{PASS} = \text{pass}) \)

There are two verbs in the structure: The small \( v \) and the capital PASS. The higher verb, small \( v \), assigns the agent role to \textit{John}. The small \( v\)-projection expresses the CAUSE of the event, whereas the lower V-projection expresses the resulting CHANGE OF STATE. Accordingly, the ring GOES or PASSES to Mary. The lower verb, capital PASS, is raised to the small \( v \)-position, and \(<\text{the small } v + \text{capital PASS}>\) yield the lexical item \textit{pass}. The highest argument, \textit{John}, assumes the subject position of the sentence.

On the other hand, (22b), the unaccusative counterpart of (22a), has only two arguments, the theme and the goal. \textit{The ring} is the theme, and \textit{Mary} is the goal.

Since the agent argument is missing, one possibility is that the small \( v \)-projection is absent and there is only the large V-projection in this case. The highest argument, \textit{the ring}, is
 raised to the TP Spec position and becomes the subject of the sentence. **An alternative possibility, with similar effects, is that the small v is present but has the feature \([-\text{cause}\].** Unlike the small v with \([+\text{cause}\], the small v with \([-\text{cause}\] does not assign the agent role to its Spec position. In this case also, the highest argument is *the ring* because the agent is absent. Hence, *the ring* becomes the subject of the sentence. Capital PASS is raised to the \([-\text{cause}\] v and they yield the lexical item *pass*, which is identical to the ditransitive *pass* in form. **Murasugi and Hashimoto (2004)** assume the latter analysis because the \([-\text{cause}\] small v shows up overtly in some (di)transitive/unaccusative verb pairs in Japanese, e.g., *utu-s-(r)u*(photograph(trans)-Pres) / *utu-r-(r)u* (photograph (unaccusative) -Pres) verb pair.

(24) a. mi-se-ru (= show-pres.) / mi-e-ru (= see-pres.)
   
   b. *utu-s-(r)u* (= copy-pres.) / *utu-r-(r)u* (= be copied-pres.)
   
   c. todok-e-ru (= deliver-pres.) / todok-(r)u (= be delivered-pres.)
   
   d. os-ie-ru (= teach-pres.) / os-owar-(r)u (= be taught)

These examples also show that the forms of the suffixes are idiosyncratic and probably have to be learned one by one. These suffixes plausibly occupy the v position. For example, \([+\text{cause}\] v is realized as \(-s\) and \([-\text{cause}\] v as \(-r\), in the case of *Errore: L'origine riferimento non è stata trovata*.\(\text{Errore: L'origine riferimento non è stata trovata.}\))

In the process of acquiring these lexical items that stand for V-v combinations, Akkun often produced transitive sentences with unaccusative verbs.

(25) Nee, ati-o *hirogat-te* (3;7)
   
   Int legs-Acc spread(unaccusative)-Request ‘Please spread your legs.’

In (25), Akkun uses the unaccusative form of the verb in place of the transitive. What he intends in (25), for example, is *hirog-e-te* ‘spread-request’ (transitive) and not *hirog-at-te* ‘spread-request’ (unaccusative). In adult Japanese, they would mean ‘I will remain open’ and ‘let’s be delivered to that person’ respectively.

(26) Kore, *ai-toku* kara saa (4;5)
   
   this open(unaccusative)-keep as Int ‘(I will) open this and keep it open.’

(27) *Todok-ok-ka*, *ano* hito-ni *todok-oo* *todok-oo* (4;8)
   
   arrive-shall we that person-to arrive-let’s arrive-let’s
‘Shall we send (it)? Let’s send (it) to that person.

Further Descriptive Data from longitudinal corpus pf Sumihare, (Noji 1973-77) : the child sometimes used transitives for unaccusatives as well. (Murasugi, Hashimoto and Fuji, 2007)

(28) Koko-kara hi-ga das-u nze (2;6)
here-from sun-Nom take out Particle ‘The sun comes out from here.’

Causative verbal suffix, -sase, and syntactically it takes a sentential (vP) complement. Thus, the subject-oriented reflexive pronoun, zibun, can take the causer as well as the causee as its antecedent in a causative sentence.

(29) Hanako-ga Taroo-ni zibun-no heya-o katazuke-sase-ta.
Hanako-Nom Taroo-Dat self-Gen room-Acc clean-Cause-Past

‘Hanako made Taroo clean up her/his room.’

Akkun started uttering causative sentences quite productively around the age of late four. But sporadic uses of -sase were observed much earlier at age three.

(30) Akkun-ni tabe-sase-tee (3;6)
Akkun-Dat eat-Cause-Request ‘Please feed Akkun.’

(31) Name-tee, name-tee, name-sase-te. (4;9)
lick-want lick-want lick-Cause-Request
‘I want to lick (the candy). Let me lick it.’ Me as a goal

(32) Conclusion: The discussion indicates that children are equipped with the v-VP frame from the early stage of acquisition, but it requires them some time to discover the morphological make-up of the actual verbs, which are formed by combining V and v. The causative suffixal verb -sase is initially assumed to be a realization of [+cause] v and only later acquired as a full verb that takes a sentential (vP) complement. Lexical items typically correspond to syntactic heads, but they are sometimes formed by combining two or more distinct morphemes that project phrases of their own. Children must perform morphological analysis in order to acquire those complex lexical items. We would then expect this analysis
to take time in some cases, and this is exactly what we have seen in the acquisition of verbs in Japanese.

4. Concluding Remarks

(33) Japanese has various syntactic characteristics that are not observed in Germanic or Romance languages, and hence, the comparative investigation of their acquisition processes would be especially valuable for acquisition theory.

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