Mimetics as the Argument-Structure Sprouts in Child Japanese

Keiko Murasugi

Nanzan University and University of Connecticut

1. **Introduction**

(1) a. First Language Acquisition of Mimetics

   b. Syntactic Analysis of Child (and Adult) Mimetics

   c. The Structure of Mimetic Verbs: A Study of Syntax, Learnability and Acquisition

(2) Very Early Parameter-Setting (Wexler 1998:25)

Basic parameters are set correctly at the earliest observable stages, that is, at least from the time that the child enters the two-word stage, around 18 months of age. According to Wexler (1998:29), 'basic parameters' include at least the following:

   a. Word order, e.g. VO versus OV (e.g. Swedish versus German)

   b. V to I or not (e.g. French versus English)

   c   V2 or not (e.g. German versus French or English)

   d. Null subject or not (e.g. Italian versus English or French)

   e. <Why are mimetics often found in the production of very young children?>

2. **Mimetics in Child Language**

(3) a. It <u>ows</u> (=hurts, "ow")   (2;08)

   b.   It <u>grrs </u>when your tummy gets hungry. (3;04)   (Clark, 2002)

(4) a. Mother: Liza, chto brat   delaet?

                  Liza, what brother-Nom do-IPFV.3S

                  (Lit. What is your brother doing?)

      Liza: <u>Fuu</u> (1;07)   [Context: Her brother is blowing the ball.] (Gargarina, 2003)

(5) Stages found in the Acquisition of Mimetic "verbs" in Japanese (Murasugi and Fuji 2007, Murasugi & Nakatani 2011, among others)

   Stage I: the bare Mimetic (=MIM) form

   Stage II: MIM–*ta* (Non-Present form) and MIM–*na* (Sentence Final Particle)

                    (See also Tsujimura 2005 in BLS31; Akita 2009 in JK16)

(Stage III: MIM-*tyoodai* (give-me))

Stage IV: MIM-*suru* (present tensed form), MIM-*tyoo* (propositives),

MIM-*tyee* (imperatives)

←Verbal Conjugations, Case (Tense-related items)

(6)   Stage I: the bare Mimetic form   (Noji Corpus)

a. **poi**   (1;01) [throwing something]

b. **toon** (1;03) [throwing a seed of plum to the ground.]

(7)   Stage II: MIM–*ta* (Non-Present form) and MIM–*na* (SFP)

a. **poo shushupopo** ta (1;08)

MIM   non-past   'The steam locomotive puffs along.'

b.   rajio **tintinpuu**   ta(1;09)

radio MIM   non-past   'I heard the time whistle in the radio.'

(8)   Stage IV: MIM-suru (do)   (Noji Corpus)

a.   mata **ton** sita yo (2;00)

again MIM did SFP '(It) hit (the box) again.'

b.   Kei-tyan   **anan** sita (2;02)

-DEM MIM did 'Ms. Kei cried.'

(9)   Post-Stage IV V: Erroneous Transitive/Intransitive Verbs   (Noji Corpus)

a. <u>Nu-i-ta</u>   koko. (2;01)

pull-non-Presnt   here

Literal meaning: 'I pulled (this) here.'

Intended meaning:'(This) is out from here.'

b. SUM: <u>Ak-en</u>   <u>ak-en</u>.   (2;01)   (transitive)

open-not   open-not

Literal meaning: '(I) don't open it. (I) don't open it.'

Intended meaning:'(It) doesn't open. (It) doesn't open.'

FAT (to MOT): **Ak-an**   tte osiete   yari   nasai. (unaccusative)

opened-not QUOtell   give   Imperative

'Tell him that it should be "akan".'

SUM: Ak-an. (unaccusative)

open-not   '(It) doesn't open.'

SUM: <u>Ak-en</u> <u>ak-en</u>   <u>ak-en</u> wa   <u>ak-en</u>   ga. (transitive)

open-not open-not open-not TOP   open-not Int

Literal meaning: '(I) don't open it. (I) don't open. (I) don't open it.'

Intended meaning:'(It) doesn't open. (It) doesn't open. (It) doesn't

open.'

FAT: **Ak-anai**   yo. (unaccusative)

         open-not   Int.

         'It doesn't open.'

SUM: <u>**Ak-en yo**</u>. (transitive)

         Literal meaning: '(I) don't open it.'

         Intended meaning: '(It) doesn't open.' (Murasugi, 2016)

(10)   VP-shell analysis of the erroneous transitive/intransitive verbs in child Japanese
(Murasugi and Hashimoto 2004, Murasugi 2016)(Cf. Larson 1988)

(11)   a.Hanako-ga   hon -o   Taroo-ni   todok-*e*-ru (ditransitive)

          -Nom   book-Acc   -Dat   deliver-e-Pres

     'Hanako delivers a book to Taroo.'

    b. Hon-ga   Taroo-ni todok-*φ*-(r)u (unaccusative)

     book-Nom   -Dat   be delivered-Pres

     'A book is delivered to Taroo.'

(12)   a.
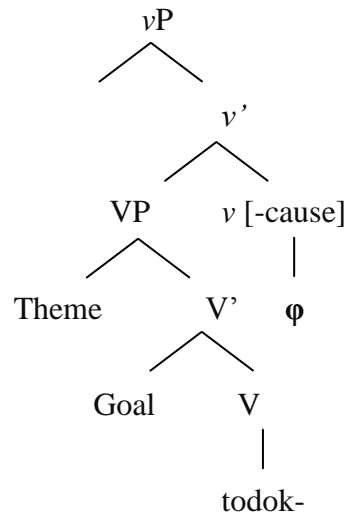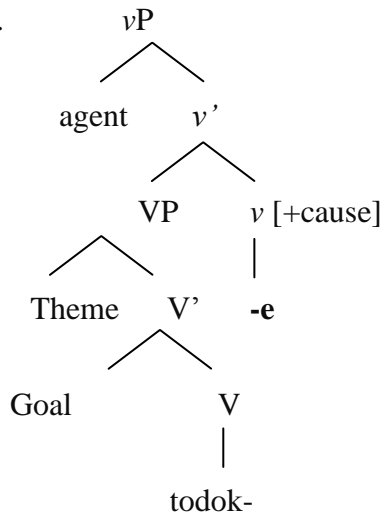
(Murasugi and Hashimoto 2004:8–9)

    b.   The agent role is assigned by the higher verb, called *v* in distinction with the
lower verb V, to its Spec. It has a meaning of CAUSE.   The lower one has the
basic meaning of TODOK and takes two arguments, the theme and the goal.
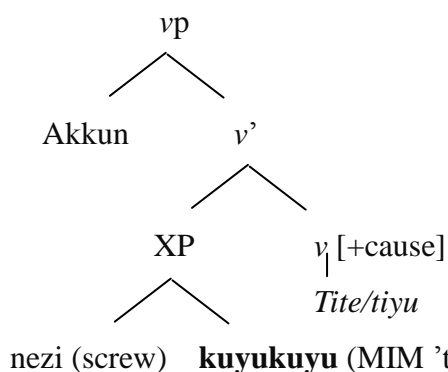
(13)   Stage IV: the analysis of MIM+*suru* (do) in Child Japanese

    a. Akkun nezi   **kuyukuyu**   **tite**,   konoko syaberu (2;09)

        screw   turn around(MIM)   do   this one talk.NPST

     'When Akkun (/I) will wind this one around, it will talk.'

                            (Murasugi & Hashimoto 2004)

    b. Agent⇒*Akkun*・**Kuyukuyu**-*suru*(MIM-do) ⇒"childish" predicate (transitive)

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(14)

vp

Akkun v'

XP v [+cause]

Tite/tiyu

nezi (screw) **kuyukuyu** (MIM 'turn around')

(Murasugi & Hashimoto 2004, See also Murasugi 2016)

3. <u>Root Infinitive (analogues) in Japanese and other Languages in the World</u>

(15) a. Dormir petit bébé.

sleep-INF little baby 'Little baby sleep.' (French 1;11)

b. Papa have it (English 1;06)

(16)   The salient morpho-syntactic and semantic properties of RIs

a.   RIs occur predominantly with null subjects.

b.   At the RI stage, T- or C-related items are not found.

c,   RIs occur in modal contexts (Modal Reference Effects (MRE)).

d.   RIs are restricted to event-denoting predicates (Eventivity Constraint).

(17) a. #Atti.   Atti.   Atti <u>**i-ta**</u> (1;06) (irrealis/volition)

(adult form: ik-u, or ik-e)

There   there   there go-PST   'I want to go there / Go there.'

b. #Tii   <u>**si-ta**</u> (1;07)   (irrealis/volition) (adult form: si-ta-i)

mimetic (pee) do-PST   'I want to take a pee.'

c. #Baba <u>**pai-ta**</u>   (1;08)   (request) (adult form: pai-si-te)

mud MIM(throw away)-PST 'Please throw (this) away.'

(18) Modal Reference Effects of Child Mimetics   (Noji's explanation of the Data)

a. Baba   **pai** -ta (S:1;08) [S wants mother to remove the dirt on a potato.]

dirt   MIM- PST   '(You) remove the dirt.'

b. Odenti   **pai**-na (S:1;10) [trying to take off his gown]

gown   MIM-SFP (mood) '(I want to) take off (my) gown.'

(Murasugi, Fuji & Hashimoto 2007; Murasugi & Fuji 2008)

(19) Child Mimetics as Nominals (Yuta Data) (Murasugi & Nakatani 2013)

a. **pupapupa** (looking at a picture of a patrol car) (1;06) 'a patrol car'

b. **pooi** (looking at a trash (can)) (1;06) 'a trash (can)'

c. **bubuu** (MIM used when mother pointed to a picture of a car) 'a car'

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d. **byubyu** (MIM used when he found a crayon) 'a crayon'

(20) Child Mimetics as Verbal/Adverbials (Yuta Data)

    a. **dadadadadadadada** (looking at a *shinkansen*, a Bullet Train) (1;06)

       'Shinkansen, a Bullet train, is running extremely fast.'

    b. **pooi** (throwing away a trash) (1;06) '(I am) throwing away a trash.'

    c. **bubuu** (playing with a mini car) (1;06) '(A car is) running.'

(21) Modal Reference Effects of Mimetic RIAs (Yuta Data)

    a. **bubuu** (1;06) 'Take me there.' (being held by grandmother and pointing to

                 the place where he wants to go)

    b. **patin pattin** (1;07) 'I want to fasten the button.'

    c. **byu byu byu** (1;07) (holding a pencil) 'I want to draw a picture.'

(22) a. Repeated mimetics (verbal (+adverbial meaning))

    b. PRAAT analysis: Verbal mimetics vs. Nominal mimetics (Cf. (29))

    c. Typical morpho-syntactic and semantic properties that RI(A)s

                        (Murasugi & Nakatani 2013)

(23) a. Typology of Root Infinitives (Deen 2002)

True RI Languages		**Non-RI Languages**		Bare Verb Languages	
German	Swedish	Italian	Japanese	English	Quechua
French	Icelandic	Spanish		Sesotho	Inuktitut
Dutch	Russian	Catalan		Siswati	Swahili

b. Typology of Root Infinitive Analogues (Murasugi & Nakatani 2013)

Root Infinitives ([-bare stem])		**Surrogate Infinitives ([-bare stem])**		**Bare Verbs ([+bare stem])**	
German	Swedish	Italian	Turkish	English	Inuktitut
French	Icelandic	Spanish	Greek	Sesotho	Swahili
Dutch		Catalan	Romanian	Siswati	Malagasy
		Korean	K'iche' Maya	Quechua	
		Japanese	Kuwaiti Arabic	Japanese mimetics	

(24) Reanalysis of Mimetic "verbs" in Child Japanese

        Stage I: the bare Mimetic (=M) form (XP, +N/+V)

        Stage II: **MIM–*ta* (Non-Present form) and MIM–na (Sentence Final**

                Particle) (ROOT INFINITIVE ANALOGUES)

        (Stage III: MIM-tyoodai (give-me))

Stage IV: **MIM-*suru*(present tensed form), MIM-*tyoo* (propositives),**
MIM-*tyee* (imperatives)
(the phonetic realization of *v* and the merger of V-v-T)

(25) (→(2)) Very Early Parameter-Setting

Basic parameters are set correctly at the earliest observable stages, that is, at least from the time that the child enters the two-word stage, around 18 months of age.

a.   Word order, e.g. VO versus OV (e.g. Swedish versus German)

b.   V to I or not (e.g. French versus English)

c   V2 or not (e.g. German versus French or English)

d.   Null subject or not (e.g. Italian versus English or French)

e.   Stem Parameter (Various forms of Root Infinitive Analogues)

   (Murasugi, Nakatani, Fuji 2012, Murasugi & Nakatani 2013, among others)

4. The structure of Mimetic verbs: Implications for Adult Syntax of Mimetic Verbs

(26)   Learnability Problem: When and how is the structure in (14) "delearned"?

(27)   Kageyama-Tsujimura's Insights

  a.   "A specific interpretation of a mimetic words' multiple 'meaning' is determined only when the global information throughout the sentence is taken into considerations." (Tsujimua 2005:147)

  b.   "If we succeed grasping the precise meanings of mimetic words themselves, it is entirely feasible to assimilate the semantic of mimetic verbs into standard, compositional semantics without invoking the notion of Construction.   Mimetic words determine the syntactic constructions they appear in, and not the other around." (Kageyama 2007: 36)

(28)   Kageyama (2007):

The syntactic and semantic behavior of mimetic words can be properly assimilated to standard frameworks of lexical semantics. The meaning of mimetic verbs are divided into seven types, and the meaning of mimetic verbs is fully represented by a mechanism making use of Lexical Conceptual Structure (LCS) and the syntactic realization of their arguments is fully predicted by general principles of linking.

(29) a.   verbal: Nodo-ga **GAragara** <u>suru</u>. 'My throat feels irritated.'

   b.   adverbial: Iwa-ga **GAragara**-<u>to</u> kuzureta. 'Large boulders came.'

   c.   adjectival: Eigakan-wa **gaRAGARA**-<u>da</u>. 'The theater is almost empty.'

   d.   nominal: Akatyan-ni **gaRAGARA**-<u>o</u> ageta. 'I gave the baby a rattle.'

(30)   Kageyama (2005): Three types of -*suru*

a. the main verb (with LCS content)   b. the light verb (whose LCS is null)

c. the mimetic verb (a composite predicate, and seven LCS templates shown above are associated with the verb -*suru*, and the LCS template is conflated with one of the LCS contents of mimetic bases to derive the meaning of mimetic verb.)   (Cf. Grimshaw and Mester 1988)

(31)   Mimetic words can exercise different syntactic functions when put in phrases and sentence, ranging over nouns, adjectivals, adverbials, and verbs, as exemplified by hirahira (representing a 'fluttering' or 'flapping state.)

(Akita and Tsujimura, 2016:134)

(32) a. **Hirahira**-ga   kininaru (noun)

MIM   -Nom be.concious   'He is conscious about the flapping object.'

b. **hirahira**-no/na   sukaato (adjectival)

MIM   -Gen/Nom skirt   'fluttering (flare) skirt'

c. Sakura-no   hanabira-ga   **hirahira** to   tiru (adverbial)

cherry -Gen petal   -Nom MIM   Quot fall

'Cherry petals fall in a fluttering manner'

d. Hata-ga **hirahira**-suru (verb)

flag –Nom MIM -do 'A flag flutters.'

(33)   Yoshinaga (2016)

a. Type AI: unergative verbs   e.g., (Experiencer) **iraira**-suru (irritated)

b. Type AII: unaccusative verbs e.g., (Theme) **zukizuki**-suru (throbbing pain)

(34) a.   Tama-o   **gorogoro**   suru

ball-ACC   roll (mimetic)   do.NPST

'(I) roll the ball.'   → transitive

b.   Onaka-ga   **gorogoro**   suru

stomach-NOM   growl (mimetic) do.NPST

'My stomach is growling.'   →   unaccusative

c.   Inu-ga   **gorogoro**   suru

dog-NOM   roll over(mimetic)   do.NPST

'The dog is rolling over.' → unergative   (Murasugi, in press)

(35) a.   takusan-no sentaku***(-o)**   suru

many   -Gen laundry-*(Acc)   do.NPST   'do a lot of laundry'

b.   takusan kokyuu**(-o)**   suru

many   breathing -(ACC) do.NPST(breath a lot)

c.   takusan   **mogumogu**-**(*-o)** suru

many   (MIM to eat)-(*o) do (eat a lot, typically found in Motherese)

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(36) Mimetics: a derivationally selected stem

    a. Mimetic stem is not full NP

    b. (Dem+) MIM   DIM/+plural marker   ⇒Noun (32a)

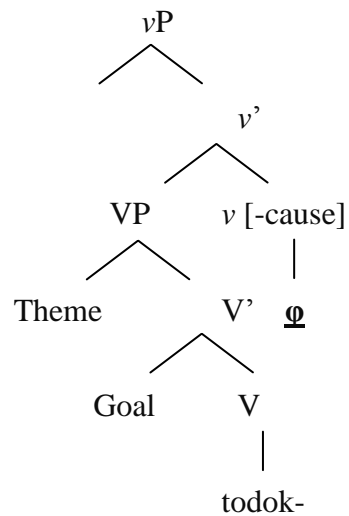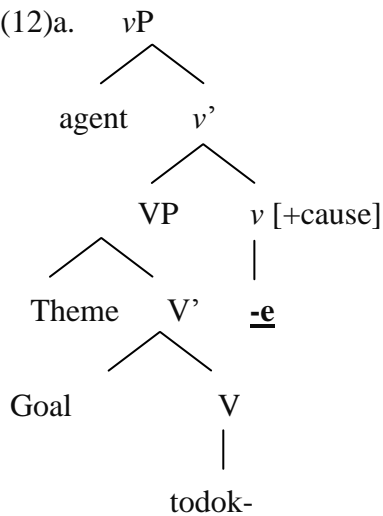   *sono*   **kirakira**   *tyan*/ *tati*

    c. MIM+**i** ⇒Adjectives

       tiara-**i**   (fashionable) < *tyara tyara*   **netyo**-**i**   (sticky) < *netyo netyo*

    d. MIM+**na** ⇒Adjectives (32b)   e. MIM+**to/ni** ⇒Adverbs (32c)
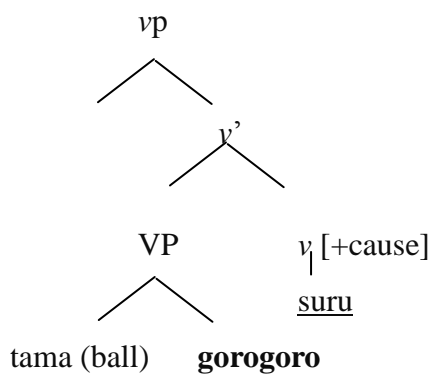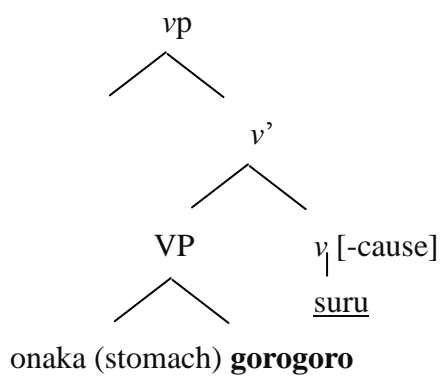
    f. MIM+**suru/iu**   ⇒Verb (32d)

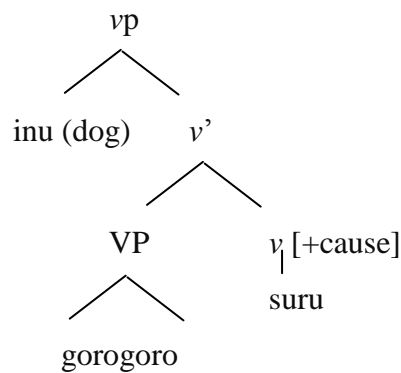(37) =(12)a.

(Murasugi and Hashimoto 2004:8–9)

(38) a.

b.

8

c.

```
            vp
           /  \
    inu (dog)   v'
              /   \
           VP      v [+cause]
          /  \      |
   gorogoro    suru
```

(Murasugi, in press)

(39) (=14)

```
            vp
           /  \
      Akkun     v'
              /   \
            XP      v [+cause]
          /   \      |
                    Tite/tiyu
   nezi (screw)  kuyukuyu (turn around)
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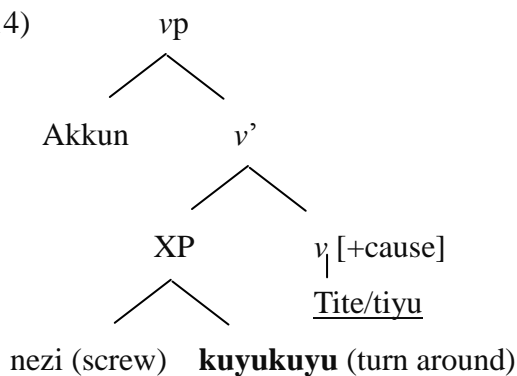
(Murasugi & Hashimoto 2004, See also Murasugi 2016)

(40) Kageyama-Tsujimura's Insights Revisited

   a. "If we succeed grasping the precise meanings of mimetic words themselves, it
       is entirely feasible to assimilate the semantic of mimetic verbs into standard,
       compositional semantics without invoking the notion of Construction."
       (Kageyama 2007: 36) ⇒   Yes.

       (i) * tume-o **kirakira** <u>suru</u>

           Nail-Acc (shine) do   ((You) shine the nail.)

       (ii)   tume-ga **kirakira** <u>suru</u>

           Nail-Nom shine do.   (The nail shines.)

   b. "A specific interpretation of a mimetic words' multiple 'meaning' is determined
       only when the global information throughout the sentence is taken into
       considerations." (Tsujimua 2005:147) ⇒ Yes. The syntactic category is
       determined by the item selecting the mimetic stem.

(41) Mimetic Bootstrapping

5. Conclusion

(42)

   a. Mimetics can be Root Infinitive Analogues (Murasugi and Nakatani 2013)

   b. Three types of *suru*   (Kageyama 2005)

c. Three types of *suru:* main verb, light verb, and small *v. Suru* in the mimetic verbs is the phonetic realization of small *v* in both child and adult Japanese.

d. Derivational Morphology of Mimetics

e. Studies on the acquisition of mimetics have almost exclusively focused on their "marked" aspects, including iconicity and characteristic morphophonology. Among the important findings is the facilitatory role of the sound symbolism (i.e., marked semiotics) of mimetics in the acquisition of verb semantics. (e.g., Imai, Kita, Nagumo & Okada 2008, Kantartiz, Imai & Kita 2011.) In this paper, we presented evidence and argue for the hypothesis that the acquisition of the syntax of mimetic verbs proceeds in parallel with that of conventional lexical verbs, and the mimetics are the ones that help children bootstrap the argument structure of verbs. As far as syntax and semantics are concerned, there is no discrepancy between mimetic verbs and conventional lexical verbs, and no learnability issue arises in the process of the acquisition of verbs.

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Email address: murasugi_ninjal@yahoo.co.jp