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Summary

In this talk, I reconsider Takahashi's (2015) findings regarding the cooccurrence restriction between the transitive/intransitive verbs and the morpheme *asar-*, and make a generalization: (i) the morpheme *asar-* can concatenate with the transitive verbs when the transitive marker is phonetically null, and (ii) otherwise, the morpheme *asar-* concatenates with the intransitive verbs. Also, I provide several pieces of evidence showing that the output of the verb with the morpheme *asar-* is determined morphologically, phonologically, and syntactically, and the output is subject to universal principles (such as Elsewhere Condition, locality, etc.). This analysis implies that the transitive/intransitive marker in Kesen may sometimes become allomorphy (see Akimoto (2018)).

1. Introduction

- (1) *Sar(u)* expressions
 - a. they are mainly used in Northern part of Japan (Hokkaido, Aomori, Iwate)
 - b. they express spontaneous meaning
 - c. *Sar(u)* is an auxiliary.
- (2) The auxiliary *asar* can concatenate with transitive verbs as well as intransitive verbs.

a.	tabe-ru	tabe-rasar-u	(transitive)
	eat-present	eat-SARU-present	
b.	yak-u	yak-asar-u	(transitive)
	burn-present	burn-SARU-present	
c.	aruk-u	aruk-asar-u	(intransitive)
	walk-present	walk-SARU-present	
d.	okir-u	okir-asar-u	(intransitive)
	wake.up-present	wake.up-SARU-present	
- (3) Takahashi's (2015) finding 1: transitive verbs that end with *e* (shimo-ichidan conjugation verbs) cannot co-occur with the morpheme *asar-*.

a.	atsum-ar-u	'to gather'	atsum-ar-asar-u
	gather-INT-present		gather-INT-SARU-present
b.	atsum-e-ru	'to gather'	*atsum-e-rasar-u
	gather-TR-present		gather-TR-SARU-present
c.	ag-ar-u	'to go up'	ag-ar-asar-u
	go.up-INT-present		go.up-INT-SARU-present
d.	ag-e-ru	'to raise'	*ag-e-rasar-u
	go.up-TR-present		go.up--TR-SARU-present
e.	tom-ar-u	'to stop'	tom-ar-asar-u
	stop-INT-present		stop-INT-SARU-present
f.	tom-e-ru	'to stop'	*tom-e-rasar-u
	stop-TR-present		stop-TR-SARU-present

- (4) Takahashi's (2015) finding 2: intransitive verbs that end with *e* (shimo-ichidan conjugation verbs) cannot co-occur with the morpheme *asar-*.
- | | | | |
|----|-------------------|----------------|------------------------|
| a. | kir-u | 'to cut' | kir-asar-u |
| | cut-present | | cut-SARU-present |
| b. | kir-e-ru | 'to be cut' | *kir-e-rasar-u |
| | cut-INT-present | | cut-INT-SARU-present |
| c. | taos-u | 'to beat' | taos-asar-u |
| | beat-present | | beat-SARU-present |
| d. | tao-e-ru | 'to fall down' | *tao-re-rasar-u |
| | beat-INT-present | | beat-INT-SARU-present |
| e. | war-u | 'to break' | war-asar-u |
| | break-present | | break-SARU-present |
| f. | war-e-ru | 'to be broken' | *war-e-rasar-u |
| | break-INT-present | | break-INT-SARU-present |
- (5) Questions
- What is the generalization concerning the combination of verbs and the morpheme *asar*?
 - How can we account for the generalization?
- (6) Kesen
- This language is spoken in South-eastern coastal cities such as Ofunato and Rikuzentakata.
 - There are about 80,000 native speakers.

2. Data

- (7) Jacobsen's (1992) 15 types of transitive/intransitive alternation
- (8) type 1: *e-φ*
- | | | | |
|----|----------------------|---------------|---------------------------|
| a. | hag-e-ru | 'to peel off' | *hag-e-rasar-u |
| | peel.off-INT-present | | peel.off-INT-SARU-present |
| b. | hag-u | 'to peel off' | hag-asar-u |
| | peel.off-present | | peel.off-SARU-present |
- (9) type 2: *φ-e*
- | | | | |
|----|-------------------|----------------|------------------------|
| a. | tijim-u | 'to shrink' | tijim-asar-u |
| | shrink-present | | shrink-SARU-present |
| b. | tijim-e-ru | 'to be shrunk' | *tijim-e-rasar-u |
| | shrink-TR-present | | shrink-TR-SARU-present |
- (10) type 3: *ar-e*
- | | | | |
|----|-------------------|------------|------------------------|
| a. | ag-ar-u | 'to go up' | ag-ar-asar-u |
| | go.up-INT-present | | go.up-INT-SARU-present |
| b. | ag-e-ru | 'to raise' | *ag-e-rasar-u |
| | go.up-TR-present | | go.up-TR-SARU-present |
- (11) type 4: *ar-φ*
- | | | | |
|----|--------------------|----------------|-------------------------|
| a. | hasam-ar-u | 'to be put in' | *hasam-ar-asar-u |
| | put.in-INT-present | | put.in-INT-SARU-present |
| b. | hasam-u | 'to put in' | hasam-asar-u |
| | put.in-present | | put.in-SARU-present |

- (12) type 5: r-s
 a. ama-r-u ‘to be left over’ ama-r-asar-u
 leave-INT-present leave-INT-SARU-present
 b. ama-s-u ‘to leave’ *ama-s-asar-u
 leave-TR-present leave-TR-SARU-present
- (13) type 6: re-s
 a. hana-re-ru ‘to be separated’ hana-re-rasar-u
 separate-INT-present separate-INT-SARU-present
 b. hana-s-u ‘to separate’ *hana-s-asar-u
 separate-TR-present separate-TR-SARU-present
- (14) type 7: ri-s
 a. ka-ri-ru ‘to borrow’ ka-ri-rasar-u
 b. ka-s-u ‘to rent’ ka-s-a(ra)sar-u
- (15) type 8: ϕ -as
 a. ag-u ‘to open’ ag-asar-u
 open-present open-SARU-present
 b. ag-as-u ‘to spend’ *ag-as-asar-u
 open-TR-present open-TR-SARU-present
- (16) type 9: e-as
 a. ar-e-ru ‘to get rough’ ar-e-rasar-u
 get.rough-INT-present get.rough-INT-SARU-present
 b. ar-as-u ‘to devastate’ *ar-as-asar-u
 get.rough-TR-present get.rough-TR-SARU-present
- (17) type 10: i-as
 a. nob-i-ru ‘to grow’ nob-i-rasar-u
 grow-INT-present grow-INT-SARU-present
 b. nob-as-u ‘to make grow’ *nob-as-asar-u
 grow-TR-present grow-TR-SARU-present
- (18) type 11: i-os
 a. oj-i-ru ‘to fall’ oj-i-rasar-u
 fall-INT-present fall-INT-SARU-present
 b. od-os-u ‘to drop’ *od-os-asar-u
 fall-TR-present fall-TR-SARU-present
- (19) type 12: ϕ -se
 a. no-ru ‘to ride’ no-rasar-u
 ride-present ride-SARU-present
 b. no-se-ru ‘to ride’ *no-se-rasar-u
 ride-TR-present ride-TR-SARU-present
- (20) type 13: e-akas
 a. obi-e-ru ‘be frightened’ obi-e-rasar-u
 frighten-INT-present frighten-INT-SARU-present
 b. obiy-akas-u ‘to frighten’ *obiy-akas-asar-u
 frighten-TR-present frighten-TR-SARU-present

- (21) type 14: or-e
 a. kom-or-u 'to be filled with' kom-or-asar-u
 fill-INT-present fill-INT-SARU-present
 b. kom-e-ru 'to fill' *kom-e-rasar-u
 fill-TR-presente fill-TR-SARU-presente

- (22) type 15: are-e
 a. sud-are-ru 'to go out of use' sud-are-rasar-u
 go.out.of.use-INT-present go.out.of.use-INT-SARU-present
 b. sud-e-ru 'to throw away' sud-e-rasar-u
 throw.away-TR-present throw.away-TR-SARU-present

(23) Summary

	intransitive	transitive
type1	e	ϕ
type2	ϕ	e
type3	ar	s
type4	ar	ϕ
type5	r	s
type6	re	s
type8	ϕ	as
type9	e	as
type10	i	as
type11	i	os
type12	ϕ	se
type13	e	akas
type14	or	e

- (24) Generalization concerning the morpheme *asar-* and the intransitive verbs which have their transitive counterpart
 a. The morpheme *asar-* can concatenate with the transitive verbs when the transitive marker is phonetically null.
 b. Otherwise, the morpheme *asar-* concatenates with the intransitive verbs.

3. An analysis

3.1. Elsewhere condition

- (25) a. The morpheme *asar-* can concatenate with transitives as well as intransitives.
 b. There is a competition between intransitive verbs with their transitive counterpart.
- (26) Underspecification, elsewhere ordering (adapted from Bobaljik 2012: 5)
 The rules of exponence (vocabulary insertion) may be underspecified and thus may compete to realize a given node; such competition is resolved by the Elsewhere Condition [...], in which more specific rules take precedence over more general ones.
- (27) Elsewhere Condition (cf. Anderson (1969), Kiparsky (1973), Aronoff (1976))
 If two (incompatible) rules R1, R2 may apply to a given structure, and the context for application of R2 is contained in that of R1, then R1 applies and R2 does not.

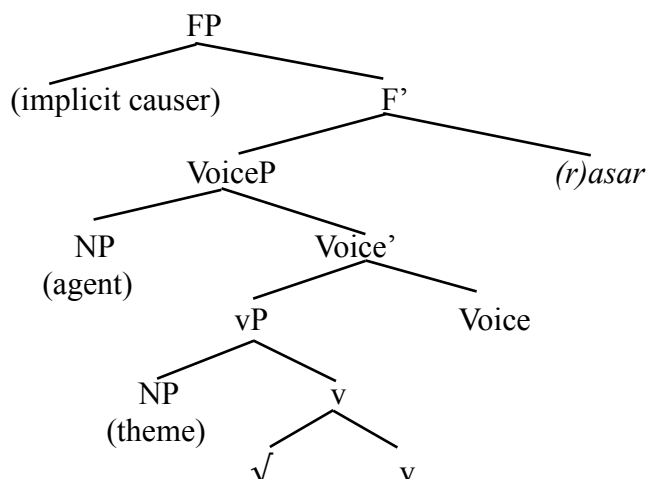
- (28) a. big/bigger/*more big
b. intelligent/more intelligent/*intelligenter
- (29) a. *-er* is applied to only short adjectives.
b. *more* is applied to short and long adjectives.
c. Elsewhere condition dictates that *-er* blocks *more*.

3.2. Locality

- (30) Recent inquiry within DM has shown that morphological interactions such as allomorphy is conditioned by (morpho)syntactic locality: A morpheme β may condition allomorphy for α only when β is local enough to α (cf. Bobaljik 2012; Embick 2010; Bobaljik and Wurmbrand 2013 among others).
- (31) Bošković (2016)'s contextual phase theory
- the highest projection in the extended domain of a lexical head/clause functions as a phase (vP and CP are phases).
 - the next merger determines the phasehood of XP.
 - X can be targeted by movement due to the need to undergo successive-cyclic movement without violating the PIC (cf. Chomsky 2000, 2001)).
 - insertion of a higher phasal head triggers spell-out of the complement of the lower phasal head (Chomsky 2001).
- (32) Phases (Ingason and Sigurðsson 2015)
Category-defining heads, at least *v*, *n*, *a* (Marantz 2001, 2007), and C, and possibly others, trigger Spell-Out of their complements; they are the phase heads. These phase heads are often realized as “derivational morphemes”

3.3. An application

- (33) Structure



- (34) a. The markers that expresses transitivity is located in Voice (cf. Oseki 2017).
b. The morpheme *(r)asar*, which denotes spontaneous, is located in a functional head F, which is above VoiceP (Niinuma and Takahashi 2013, 2016).
c. The consonant *r* is inserted when the element [root+Voice] ends with a vowel.
d. There is an implicit causer, which is located in Spec FP (cf. Alexiadou 2010).

- (35) [[[[root] v] Voice] (*r*)*asar*]
- The morpheme *asar-* is combined with a root and a phonetically null Voice (more specific)
 - The morpheme *asar-* is combined with a root and a Voice which has a feature [-Acc]. (general)
- (36)
- According to the definition of Bošković (2016), F is not a phase head.
 - Thus, Voice does not undergo spell-out, because F is a non-phasal head.
 - Thus, [[root + Voice] *asar*] is in the same phase and there is a competition of the output between intransitives and transitives

4. An interaction with phonology

- (37) An apparent counterexample to the generalization (24): no transitive marker but the intransitive verb can concatenate with the morpheme *asar-*.
- | | | | |
|----|-------------------|---------------|------------------------|
| a. | sas-u | ‘to stick’ | *sas- <i>asar</i> -u |
| | stick-present | | stick-SARU-present |
| b. | sas-ar-u | ‘to be stuck’ | sas-ar- <i>asar</i> -u |
| | stick-INT-present | | stick-INT-SARU-present |
- (38) The unacceptability of (37a) can be accounted for by the Obligatory Contour Principle (OCP) (cf. Sasaki (2011)). There are two successive sequence of *sa* in (37a).
- (39)
- According to the generalization (24), (37a) becomes a candidate.
 - However, (37a) violates the OCP.
 - Alternatively, (37b) becomes acceptable.
- (40) Sasaki’s (2011) examples
- | | | | |
|----|---------------------|---------------|--------------------------|
| a. | tok-as-u | ‘to dissolve’ | *tok-as- <i>asar</i> -u |
| | dissolve-TR-present | | dissolve-TR-SARU-present |
| b. | wak-as-u | ‘to boil’ | *wak-as- <i>asar</i> -u |
| | boil-TR-present | | boil-TR-SARU-present |
- (41) The examples in (40a,b) has an alternative transitive counterpart, which does not have any transitive marker, as in (42a,b). Moreover, the transitive verbs in (42a,b) can combine with the morpheme *asar-*.
- | | | | |
|------|----|---------------|---------------------|
| (42) | a. | tok-u | tok- <i>asar</i> -u |
| | | solve-present | solve-SARU-present |
| | b. | wak-u | wak- <i>asar</i> -u |
| | | boil-present | boil-SARU-present |

5. Morphology-syntax mismatch

- (43) The roles of Voice
- It introduces an external argument in its spec position
 - It licenses the accusative Case of the direct object.
- (44) There are some cases where the intransitives may take an accusative NP in Japanese.
(Mizutani 1964, Suzuki 1985, Suga 1981, among others)

- (45) a. Taroo-ga kaidan-o ag-at-ta.
Taroo-Nom stair-Acc go.up-INT-past
'Taroo went up the stairs.'
b. Taroo-ga daigaku-o de-ta
Taroo-Nom university-Acc come.out-past
'Taroo graduated from the university.'
- (cf. Akimoto 2018)

- (46) a. Taroo-ga eki-no kaidan-o 2-tu ag-ar-ta.
Taroo-Nom station-Gen stair-Acc 2-CL go.up-INT-past
'Taro went up two stairs in a station.'
b. Taroo-ga Amerika-no daigaku-o 2-tu de-ta.
Taroo-Nom America-Gen university-Acc 2-CL come.out-past
'Taro graduated two universities in America.'
- (ibid.)

- (47) Akimoto's (2018) analysis
agaru 'go up' in (45a) and *deru* 'go out' in (45b) are transitive verbs, even though the verbs are morphologically intransitive.

- (48) a. Taroo-ga kaidan-o ag-ar-ta.
Taroo-Nom stair-Acc go.up-INT-past
'Taroo went up the stairs.' (Taroo went up)
b. Kaidan-ga ag-at-ta
stair-Nom go.up-INT-past
'The stair went up' (the stair went up)

- (49) The reading in which the stair went up indicates that the sentence (50) is derived from (48b), not (48a).

- (50) Anya! kaidan-a ag-ar-asar-ta!
Oh! stair-Nom go.up-INT-SARU-past (the stair went up)

- (51) The morpheme *asar-* is concatenated with Voice with [-Acc].

- (52) Generalization concerning the morpheme *asar-* and the intransitive verbs which have their transitive counterpart (final version)
a. The morpheme *asar-* can concatenate with the transitive verbs when the transitive marker is phonetically null.
b. Otherwise, the morpheme *asar-* concatenates with the intransitive verbs with [-Acc].

6. Conclusion

- (53) a. There is a competition concerning the output of the morpheme *asar-* and the transitive/intransitive verb.
b. In some cases, the transitive/intransitive markers may be treated as allomorphy (cf. Akimoto 2018).
c. The output of the morpheme *asar-* with the verbs is conditioned by the universal principles (such as Elsewhere condition, phase).