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Kishimoto, Hideki
Toratani, Kiyoko

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the International
Argument Alternation
Workshop**

July 16-17, 2025

Edited by
Hideki Kishimoto
Kiyoko Toratani

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Edited by
Hideki Kishimoto (Kobe University)
Kiyoko Toratani (York University)

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Preface

The International Argument Alternation Workshop (IAAW) was held at Rokkodai 2nd Campus, Kobe University, Japan on July 16-17, 2025, hosted by the Graduate School of Humanities, Kobe University. The workshop aimed to serve as a platform encouraging cross-theoretical discussions on argument alternations, bringing together researchers with different backgrounds. The workshop had extensive discussions on new data or new generalizations of argument alternations. The present volume includes ten papers, which represent the outcomes of the IAAW.

We would like to acknowledge the following linguists who served on the scientific committee: John Beavers (The University of Texas, Austin), Jean-Pierre Koenig (University at Buffalo), Andrej Malchukov (University of Mainz), Gillian Ramchand (UiT The Arctic University of Norway), Robert D. Van Valin, Jr. (University at Buffalo/Heinrich Heine University Düsseldorf), Stephen Wechsler (The University of Texas, Austin), and Michael Wilson (University of Delaware). This international workshop was supported (as a NINJAL international symposium) by the National Institute of Japanese Language and Linguistics. The publication of the proceedings was supported by the JSPS Grant-in-Aids for Scientific Research (C) (Grant no. 24K03840).

January 8, 2026

Hideki Kishimoto (Kobe University)

Kiyoko Toratani (York University)

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On building symmetric predicates*

Jeroen van Craenenbroeck and Kyle Johnson
KU Leuven/Meertens Institute and University of Massachusetts at Amherst

1. Introduction

This paper takes as its starting point an empirical generalization uncovered by Winter (2018) which states that two classes of verbs are extensionally equivalent.¹ The first class concerns predicates that undergo a particular type of valency alternation. They can express a relation between individuals either by taking one plural argument referring to those individuals or by taking two, possibly singular, arguments that together refer to those individuals. This alternation shows up in two general patterns. The first, illustrated in (1a) contains verbs that alternate between an intransitive and a transitive version, while in the second type (see (1b)) the verb takes either one or two internal arguments and so alternates between transitive and ditransitive.

- (1) a. intransitive/transitive alternation
 - i. Arjun and Aisha dated. \Leftrightarrow Aisha dated Arjun.
 - ii. Our names rhyme. \Leftrightarrow Your name rhymes with mine.
 - iii. California and Oregon are adjacent. \Leftrightarrow California is adjacent to Oregon.

- b. transitive/ditransitive alternation
 - i. She mixed camphor and menthol. \Leftrightarrow She mixed camphor with menthol.
 - ii. She introduced us. \Leftrightarrow She introduced you to me.
 - iii. She combined the beans and the rice. \Leftrightarrow She combined the beans with the rice.

Winter (2018) proposes that predicates that undergo this type of alternation are also symmetric, and vice versa. A symmetric predicate is one in which the arguments, in a transitive, or the internal arguments, in a ditransitive, can be switched, preserving meaning.² This is illustrated in (2a) and (2b) respectively.

- (2) a. transitives
 - i. Aisha dated Arjun. \Leftrightarrow Arjun dated Aisha.
 - ii. Your name rhymes with my name. \Leftrightarrow My name rhymes with your name.
 - iii. California is adjacent to Oregon. \Leftrightarrow Oregon is adjacent to California.

* This paper was presented at The International Argument Alternation Workshop (July 16–17, 2025), Graduate School of Humanities, Kobe University. We would like to thank the audience members of that workshop for stimulating questions and feedback.

¹ Winter takes this generalization to apply to nominal and adjectival predicates as well, but in this paper we only focus on verbs.

² The meaning that is at stake here is truth-conditional meaning. See Winter (2018:8–12) for a discussion of Figure-Ground differences that arise in sentence pairs like those in (2) as well as presuppositional meaning inherent in symmetric nouns like *sister* or *brother*.

b. ditransitives

- i. She mixed camphor with menthol. \Leftrightarrow She mixed menthol with camphor.
- ii. She introduced you to me. \Leftrightarrow She introduced me to you.
- iii. She combined the beans with the rice. \Leftrightarrow She combined the rice with the beans.

Winter calls this the Reciprocity-Symmetry Generalization (RSG) and he formulates it as in (3):

(3) **Reciprocity-Symmetry Generalization** (Winter 2018:13)

A reciprocal alternation between a unary-collective predicate P and a binary predicate R is **plain** if and only if R is truth-conditionally **symmetric**.

Plain reciprocal alternations are the ones shown in (1), where the intransitive predicates in (1a) are truth-conditionally equivalent to their transitive counterparts, and similarly for the transitive/ditransitive alternation in (1b). The notion of plain reciprocity helps distinguish the predicates in (1) from related ones like *kiss* or *hug*. Such predicates have a similar transitive and intransitive variant, but there is no mutual entailment between the two:

(4) Aisha and Arjun kissed. \Leftrightarrow Aisha kissed Arjun.

Given that such predicates are not symmetric (*Aisha kissed Arjun* \Leftrightarrow *Arjun kissed Aisha*) they comply with the RSG. As is clear from the definition in (3), Winter considers the RSG to be a biconditional. At the same time, he points out that there are counterexamples to the implication from symmetric predicates to plain reciprocity alternations (Winter 2018:18-21). Some relevant examples are given in (5).

- (5) a. This resembles that. \Leftrightarrow That resembles this. \neq *They resemble.
b. She packaged this with that. \Leftrightarrow She packaged that with this.
 \neq She packaged them.
c. You concur with me. \Leftrightarrow I concur with you \neq We concur.
d. This compares with that. \Leftrightarrow That compares with this. \neq They compare.
e. You teamed with me. \Leftrightarrow I teamed with you. \neq We teamed.

All of these cases involve symmetric predicates that either lack a variant with a lower valency (5a), or that are not truth-conditionally equivalent to that variant (5b)–(5e). In light of such counterexamples, this paper will focus on only one of the implications of the RSG, the one going from plain reciprocity alternations to symmetry. We call this Winter's Generalization, and formulate it as follows:

(6) Winter's Generalization

Where $a = b \oplus c$, $[aP \Leftrightarrow bPc] \rightarrow [bPc \Leftrightarrow cPb]$

In (1a), *a* is a subject and *b* and *c* are external and internal arguments. In (1b), *a* is a direct object, and *b* and *c* are internal arguments.

Our goal in this paper is to provide a syntactic account for Winter’s Generalization. The paper is organized as follows. Section 2 introduces Winter (2018)’s analysis of the RSG. There are two key ingredients of his account that we will adopt in ours as well: first, the idea that in the plain reciprocity alternations in (1) the variant with lower valency—the intransitive in (1a) and the transitive in (1b)—is basic and the other one derived, and second, the intuition that what characterizes symmetric predicates is that both arguments receive the same θ -role. It is this second point, however, that will lead us to go beyond Winter’s proposal, in that verbs normally do not come equipped with the ability to assign the same θ -role to two different arguments—a restriction that is often encoded as Chomsky (1981)’s Theta Criterion. Section 3 suggests that comitatives provide a way of overcoming this restriction, and section 4 presents our analysis of Winter’s Generalization. Section 5 sums up and concludes.

2. Winter’s analysis and the Theta Criterion

Winter proposes to derive the verbs characterized by the RSG from a particular type of protopredicate.³ Following Dowty (1989:583–586), he assumes that reciprocal predicates like *marry* do not thematically distinguish their participants. Accordingly, the concept MARRY is a collective predicate concept that ranges over unordered sums of individuals.

The denotation of the intransitive lexical predicate *marry* is given in (7) and the binary, transitive variant in (8):

$$(7) \llbracket \text{marry}_{int} \rrbracket = \lambda z \lambda \epsilon \text{MARRY}(z, \epsilon)^4$$

$$(8) \llbracket \text{marry}_{tr} \rrbracket = \lambda x \lambda y \lambda \epsilon \text{MARRY}(x + y, \epsilon)$$

From this setup, the RSG follows: the symmetry of *marry*_{tr} is derived in (9) and the plainness of the reciprocity alternation between *marry*_{int} and *marry*_{tr} in (10) (Winter 2018:16):

(9) Symmetry

$$\text{marry}_{tr}(x, y) \Leftrightarrow \text{marry}_{int}(x + y) \Leftrightarrow \text{marry}_{int}(y + x) \Leftrightarrow \text{marry}_{tr}(y, x)$$

(10) Plain reciprocity

$$\text{marry}_{int}(x + y) \Leftrightarrow \text{marry}_{tr}(x, y) \wedge \text{marry}_{tr}(y, x)$$

In the analysis we develop in the remainder of this paper, we agree with Winter on two fronts: (1) the intransitive/collective version of a predicate like *marry* is basic and the transitive/binary one is derived, and (2) predicates like *marry* assign only a single θ -role to their arguments, regardless of the specific valency frame that is being used. It is this second part, however, that will warrant some further discussion and that will force us to go beyond Winter’s specific implementation. As is well-known, verbs typically are not able to assign the same θ -role to two different arguments. This restriction is canonized in laws tailored to a variety of different frameworks, but one of the most well-known formulations is Chomsky (1981)’s Theta Criterion:

³ A protopredicate is “an abstract description of a predicate meaning” (Winter 2018:41), i.e. a logical template for verb meanings.

⁴ z refers to a sum of individuals, i.e. $z \in P^2(E) = \{x + y \mid x, y \in E \text{ and } x \neq y\}$, where E is the domain of entities.

(11) Theta Criterion

No θ -role may be assigned to more than one argument position.

This means that the verbs characterized by the RSG are those verbs that can overcome the ban imposed by the Theta Criterion. In order to make the discussion in the following sections more concrete, we introduce here a specific implementation of the ban on multiple arguments receiving the same θ -role, though we believe nothing we propose later hinges on this implementation. We agree with Carlson (1984), Dowty (1989), Schein (1993), and Williams (2015) that the Theta Criterion is a consequence of the meaning of predicates, and not a syntactic principle. That meanings are relevant is indicated by the fact that (12a) doesn't entail (12b). (This argument comes from Schein 1993.)

- (12) a. Arjun and Aisha baked a cake.
b. Arjun baked a cake.

The example in (12b) describes an event that has Arjun as sole agent, and this isn't the event (12a) describes. That example can describe scenarios in which there are two events, each of which have Arjun or Aisha as sole agents, but it can also describe events in which they are joint agents. (Arjun sifts the flour, for instance, and Aisha cracks the eggs.) The truth of (12a) therefore doesn't ensure that Arjun is the sole agent of a baking event. A DP that bears the agent θ -role, therefore, must refer to all those entities that are agents of the event(s) being described. To derive this, we propose that the denotation of the AGENT θ -role has the exhaustivity requirement defined in (13a) associated with it. The denotation of agent is therefore (13b), and the denotations for θ -roles generally are as (13c) describes. (The name "role exhaustion" comes from Williams 2015:165.)

(13) Role Exhaustion

- a. $\theta_X(a)(\epsilon) = \theta(a)(\epsilon) \wedge \forall y [\theta(y)(\epsilon) \rightarrow y \leq a]$
b. $\llbracket \text{agent} \rrbracket = \lambda x \lambda \epsilon \text{AGENT}_X(x)(\epsilon)$
c. $\llbracket \theta \rrbracket = \lambda x \lambda \epsilon \theta_X(x)(\epsilon)$

Role Exhaustion causes (12b) to describe different events than (12a) describes—it excludes those in which there is someone other than Arjun participating in the agent relation. This explains the failure of entailment between (12a) and (12b). It also takes a large step towards deriving the Theta Criterion, as assigning the same θ -role to two arguments would impose the restriction on each of them that they uniquely have that θ -role.⁵ We'll use Role Exhaustion in what follows to express the Theta Criterion, but as pointed out above, we don't believe this is necessary for our argument here.

With this much as background, we can now return to the reciprocal/symmetric predicates that are under the purview of the RSG/Winter's Generalization. Those are the predicates that find a way of assigning the same θ -role to two arguments without violating Role Exhaustion. On the one hand, this state of affairs accounts for the plainness of the reciprocity alternation these verbs are in:

⁵ Role Exhaustion would, unaided, allow violations of the Theta Criterion if the two arguments bearing the same θ -role refer to the same entity.

- (14) When a verb, P , allows $aP \Leftrightarrow bPc$, it is because a , b , and c bear the same θ -role. This means P is equipped with a way of overcoming Role Exhaustion.

On the other hand, Winter's Generalization now also follows, since (15) is true:

- (15) If P assigns the same θ -role to arguments b and c , then $cPb \Leftrightarrow bPc$.

The remainder of the paper, then, will be devoted to making explicit how reciprocal/symmetric verbs can overcome Role Exhaustion. As will become clear in the next section, we believe comitatives are an essential ingredient for achieving this (see also Lakoff and Peters 1969 and Winter 2018:16–17n15).

3. Overcoming Role Exhaustion by means of comitatives

Consider the example in (16). As indicated by the paraphrases, we believe this sentence is ambiguous.

- (16) Aisha ran with Arjun.
a. \approx Aisha is the agent of the running event and Arjun accompanies Aisha.
b. \approx Aisha and Arjun are both agents of the same running event.

The interpretation approximated by the paraphrase in (16a) is one that arises when (16) is used to report that Aisha ran with her son, Arjun, strapped to her back. In this reading, the *with*-phrase seems to behave like a depictive, not unlike the adjectival phrase *mindful of Arjun* in (17).

- (17) Aisha ran mindful of Arjun.

The reading paraphrased in (16b), however, is one that seems directly relevant to our project: it allows for Aisha and Arjun to jointly act as agent of the same running event. Given that the DPs referring to these individuals occupy distinct syntactic positions—*Aisha* is the subject of the sentence, while *Arjun* occupies the complement position of *with*—this implies that under the reading in (16b) the sentence in (16) has found a way to overcome the effect of Role Exhaustion.

In order to gain a better understanding of how this has happened, let us look at a way of disambiguating the two readings of (16) by means of the adverb *together*:

- (18) Aisha ran together with Arjun.
a. \neq Aisha is the agent of the running event and Arjun accompanies Aisha.
b. \approx Aisha and Arjun are both agents of the same running event.

The addition of *together* to the original example has made unavailable the depictive reading of the *with*-phrase.⁶ This arguably follows from the fact that the semantics of *together* requires that the predicate it combines with has a plural argument:

⁶ Similarly, the example in (17) is also rendered infelicitous when *together* is added:
(i) *Aisha ran together mindful of Arjun.

- (19) a. They ran together.
 b. *She ran together.

The contrast in (19) sheds new light on the example in (18). Note that neither of the DPs in this example are plural, and yet the addition of *together* is nonetheless felicitous. This suggests that at the relevant level of representation this example does contain a plural argument. We will argue that it is the presence of comitative *with* that enables this state of affairs. Secondly, the fact that Aisha and Arjun bear the same θ -role leads to the prediction—based on (15)—that the predicate in this sentence should be symmetric. As illustrated in (20), this is indeed the case.

- (20) Aisha ran together with Arjun. \Leftrightarrow Arjun ran together with Aisha.

In short, comitative *with* provides a way of overcoming the effects of Role Exhaustion, which in turn leads to the creation of what one could call a periphrastic symmetric predicate, i.e. a predicate that is not inherently symmetric, but becomes so when combined with comitative *with*. Note that in accordance with the Reciprocity-Symmetry Generalization, this newly formed symmetric predicate also partakes in the plain reciprocity alternation:

- (21) Aisha and Arjun ran together. \Leftrightarrow Aisha ran together with Arjun. \Leftrightarrow Arjun ran together with Aisha.

In light of all this we propose that *with* can take two arguments, form a plural from them, and relate that plural to an event.

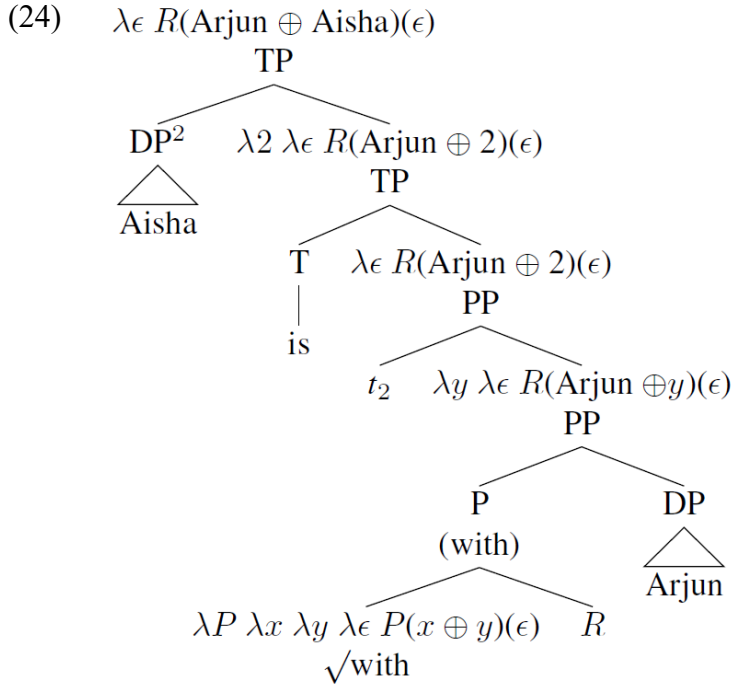
In order to flesh out this proposal technically, let us first look at a basic example where a comitative *with*-phrase is the predicate of a copular construction, as in (22).

- (22) Aisha is with Arjun.

We take this sentence to describe eventualities that the sum of Aisha and Arjun have a particular relation to. Given that *with* is the main predicate in this sentence, we propose the following denotation for this preposition:

- (23) $\llbracket \sqrt{\text{with}} \rrbracket = \lambda P \lambda x \lambda y \lambda \epsilon P(x \oplus y)(\epsilon)$

In other words, *with* describes eventualities that two individuals, x and y , jointly have the relation P to. The derivation of the example in (22) now proceeds as in (24).



The preposition *with* takes three arguments: the property variable R , and the two DPs *Arjun* and *Aisha*. The latter DP subsequently moves to the matrix subject position for case and EPP reasons. The denotation of (22) is a predicate that describes eventualities which the sum of Aisha and Arjun have the relation, R , to. R is a free variable, whose value is influenced by context. This accords well with the fact that the example in (22) is contextually vague or ambiguous. In (25) we provide some illustrative contexts, and the accompanying value for R that they favor.

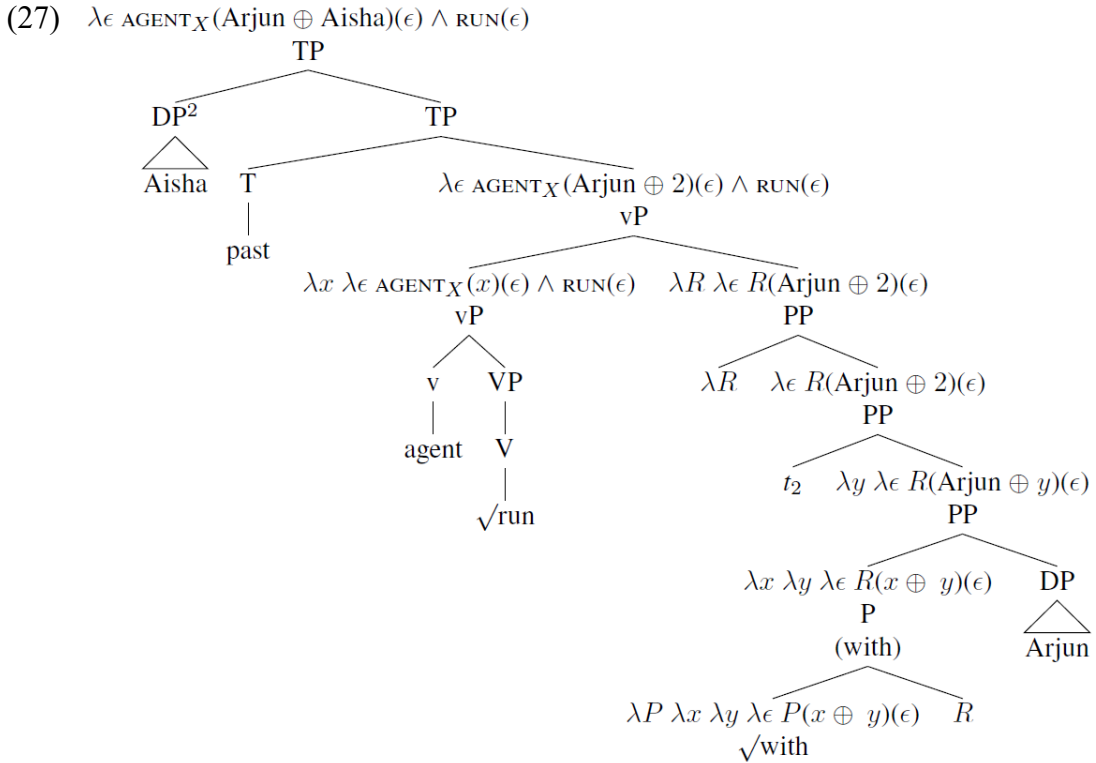
- (25) a. Q: Where is Aisha?
 A: She is with Arjun.
 $R \approx \lambda x \lambda\epsilon \text{AT}(x)(\epsilon) \wedge \text{LOCATION}(\epsilon)$
- b. Q: Who will dance together at the contest?
 A: Aisha is with Arjun and I am with you.
 $R \approx \lambda x \lambda\epsilon \text{PARTICIPANT}(x)(\epsilon) \wedge \text{DANCE}(\epsilon)$
- c. Q: Is anyone else voting for the measure?
 A: I'm with you!
 $R \approx \lambda x \lambda\epsilon \text{AGENT}(x)(\epsilon) \wedge \text{VOTE}(\epsilon)$
- d. Q: Is Aisha single?
 A: She is with Arjun.
 $R \approx \lambda x \lambda\epsilon \text{PARTICIPANT}(x)(\epsilon) \wedge \text{RELATIONSHIP}(\epsilon)$

With the denotation of *with* and the derivation in (24) we have the necessary ingredients in place for a syntactic decomposition of reciprocal/symmetric predicates and hence for a derivation of Winter's Generalization. This is what we turn to in the next section.

4. Deriving symmetric predicates

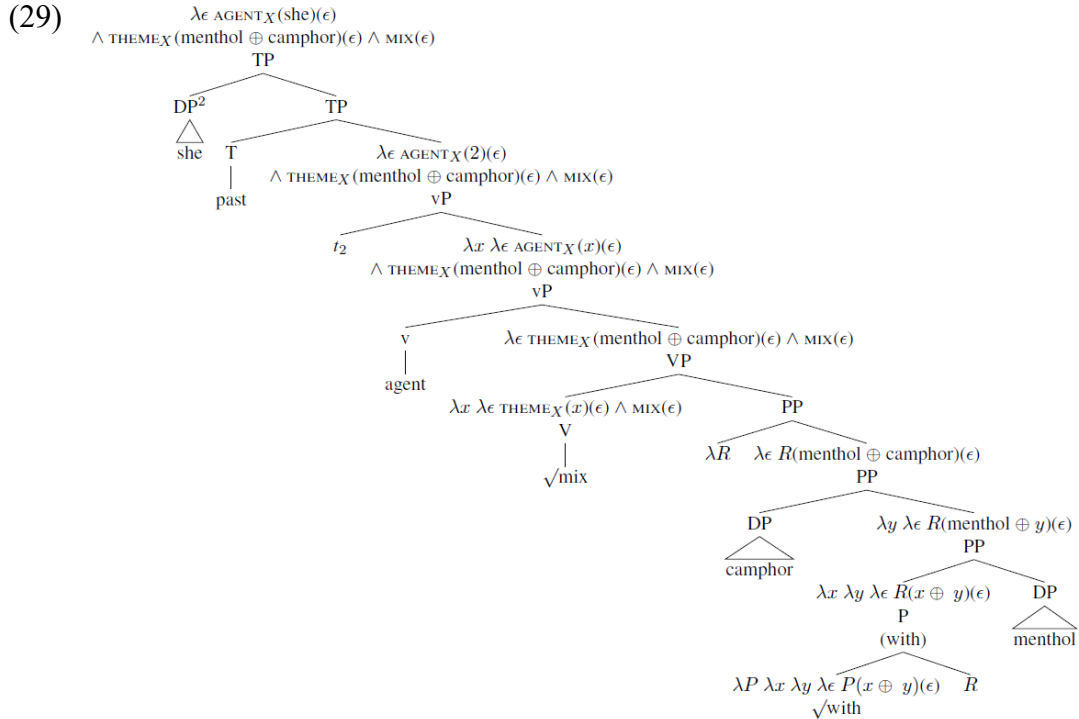
In the derivation shown in (24) the predicate R is a free variable the precise content of which is filled in by the context. The central idea of our analysis of symmetric predicates is that the value of R can also be determined in syntax, particularly by (the verbal predicate in combination with) a θ -role. This means that the relation that the sum of two individuals are said to have towards a particular eventuality is a θ -relation, thereby allowing those individuals to receive the same θ -role and hence overcoming the effects of Role Exhaustion. The derivation in (27) illustrates this idea for the example in (26).

(26) Aisha ran with Arjun.



The prepositional root \sqrt{with} once again combines with three elements: a predicate R and two individuals, represented by the DPs *Arjun* and *Aisha*. Rather than let R be a free variable, however, we λ -abstract over it at the level of the PP. This allows the PP to take vP as its argument, thereby identifying R as the AGENT-relation of the running event. In other words, it ensures that the sum of *Arjun* and *Aisha* is assigned the agent θ -role. Given that *Aisha* moves out of the PP to the matrix subject position, the resulting sentence is one in which the same θ -role seems to be assigned to two different arguments, i.e. a sentence in which the effects of Role Exhaustion have been overcome. In addition, notice that in the structure in (27) the *with*-phrase has a plural argument, which explains why it can successfully be modified by the adverb *together*, even though in the surface representation of the sentence there are only singular DPs. Summing up, we have shown through the derivation in (27) that comitative *with* can be successfully used to construct a symmetric predicate. Exactly the same line of reasoning applies to the transitive/ditransitive-alternation that we introduced in (1b). In (29) we provide the derivation for the example in (28).

(28) She mixed camphor with menthol.



The derivation in (29) is completely parallel to the one in (27), save for the fact that it is the internal θ -role that is being targeted by R. This leads to a denotation in which the THEME θ -role is assigned to the sum of camphor and menthol. Given that the DP *camphor* can subsequently become dissociated from the *with*-PP—witness word orders like *She mixed camphor diligently with menthol*—the end result is once again an apparent violation of the Theta Criterion, and as we have argued above, it is this state of affairs which ensures the predicate in (28) is interpreted as symmetric.

So far, we have focused on what one could call periphrastic symmetric predicates, i.e. predicates that are not inherently symmetric, but that can be converted into one by means of comitative *with*. Now let us turn to the predicates that form the core of Winter’s Generalization, i.e. verbs like *marry* or *date*. What we want to propose is that such verbs also involve comitative *with*, but that the denotation of $\sqrt{\textit{with}}$ is built into the lexical meaning of the verb. In so doing we are drawing a parallel between inherently symmetric predicates and verbs that participate in the causative/inchoative alternation. On one popular account of that alternation, the pair in (30) is syntactically parallel to the one in (31).

- (30) a. Aisha bounced the ball.
b. The ball bounced.

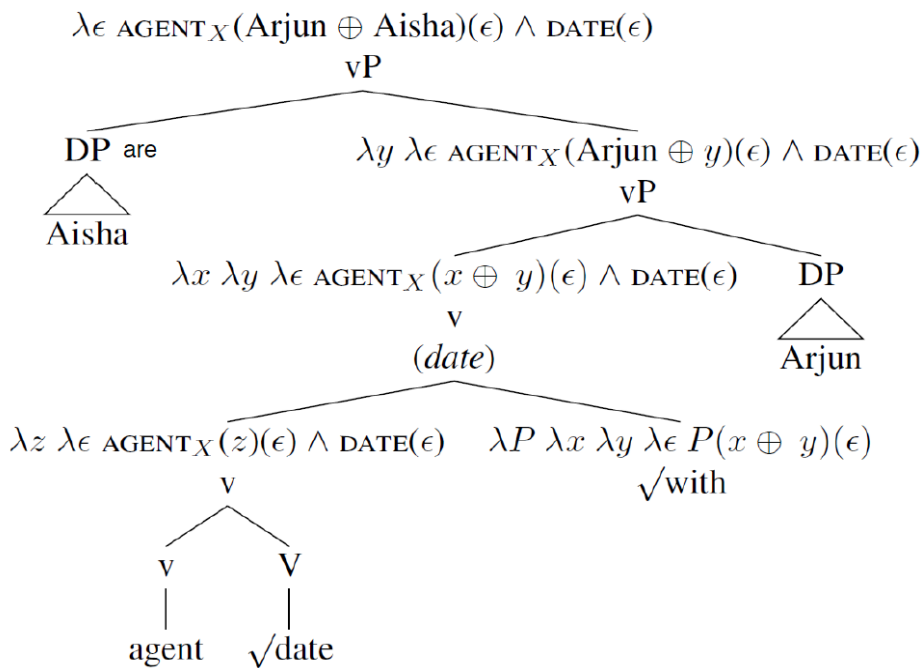
- (31) a. Aisha made the ball bounce.
b. The ball bounced.

The terms associated with $\llbracket make \rrbracket$ in (31a) are syntactically present in (30a), but are expounded by the verb *bounce*. Similarly, we suggest that the denotation for \sqrt{with} is present in examples like (32) and (33), but expounded by the verbs *date* and *introduce*.

- (32) a. Aisha dated Arjun.
 b. Aisha and Arjun dated.
- (33) a. She introduced you to me.
 b. She introduced us.

The verbs that participate in the $aP \Leftrightarrow bPc$ alternation are just those predicates that in English can expone \sqrt{with} . By expounding \sqrt{with} , they can overcome Role Exhaustion, and are therefore symmetric. This accounts for Winter’s Generalization. Let us go through the derivations of the examples in (32) and (33) in detail to show how this works. The derivation of (32a) is given in (34).

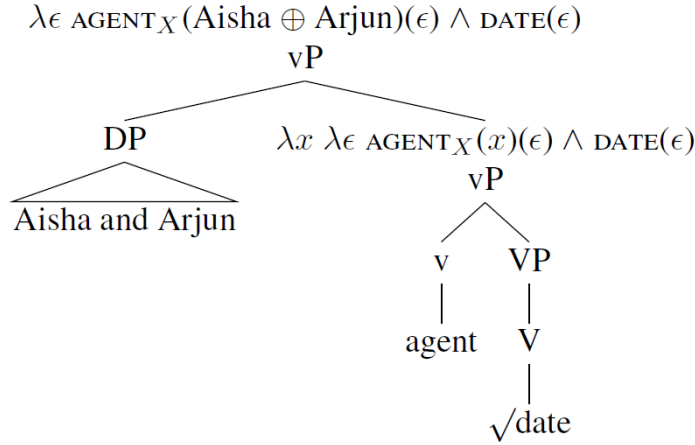
- (34) *bPc* frame:



The derivation of the transitive, symmetric version of *date*—the *bPc* frame—contains the same ingredients as the derivations in (27) and (29), but combined in a different constellation: \sqrt{with} combines directly with the verb+ θ -role complex, rather than with the two DPs. The result is an incorporation analysis, whereby the denotation of \sqrt{with} is expounded by the morpheme realizing the verb *date*. This leads to a transitive version of the verb, with a denotation that is identical in all relevant respects to Winter’s semantics for transitive symmetric verbs (see (8) above).

Just as the incorporation of $\llbracket make \rrbracket$ in the morpheme *bounce* in (30)–(31) is optional, so is the inclusion of \sqrt{with} in *date*. When it is not included, we derive the unary-collective version of the verb. The derivation of the example in (32b) is given in (35).

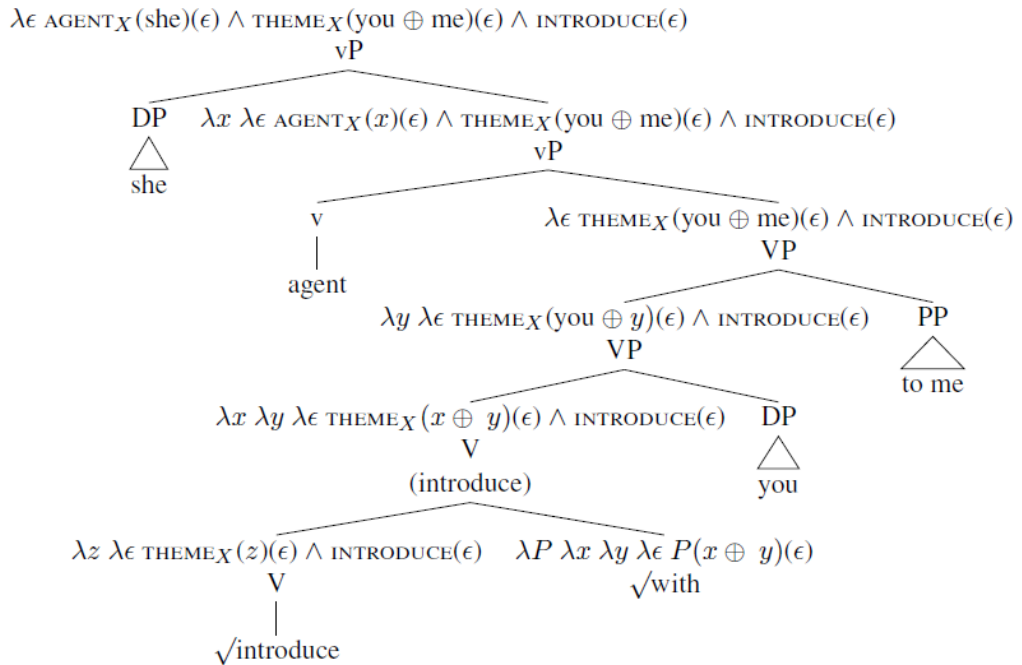
(35) *aP* frame:



The intransitive verb *date* takes a plural DP—in this case, a coordination of two DPs—as its sole argument, resulting in a denotation whereby a single θ -role is assigned to this plural DP, a denotation that mirrors the one proposed by Winter given in (7).

The same line of reasoning applies, *mutatis mutandis*, to the inherently symmetric verbs partaking in the transitive/ditransitive-alternation illustrated in (1b). The tree structure in (36) represents the derivation of (33a).

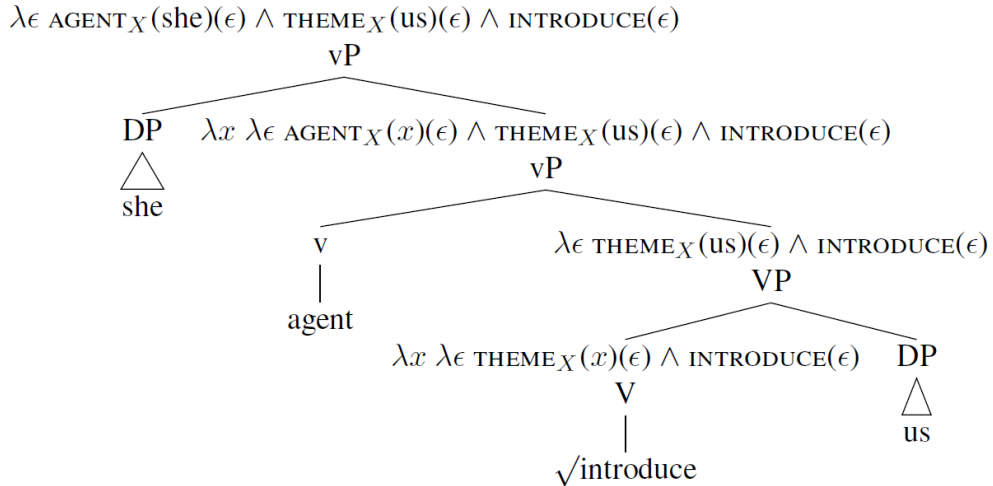
(36) *bPc* frame:



Just like *date*, the verb *introduce* can also incorporate $\sqrt{\text{with}}$. When it does, it can select two DPs and assign its internal θ -role to the sum of the individuals referred to by those

DPs.⁷ When *introduce* does not expone $\sqrt{\textit{with}}$, the result is a transitive verb, the internal argument of which is necessarily plural:

(37) *aP* frame:



This concludes our analysis of symmetric predicates and our derivation of Winter’s Generalization more generally.

5. Conclusion

This paper has focused on an empirical generalization uncovered by Winter (2018), which states that verbs that participate in the alternations illustrated in (38) are also symmetric, as shown in (39).

- (38) a. Arjun and Aisha dated. \Leftrightarrow Aisha dated Arjun. \Leftrightarrow Arjun dated Aisha.
 b. She mixed camphor and menthol. \Leftrightarrow She mixed camphor with menthol. \Leftrightarrow She mixed menthol with camphor.
- (39) a. Aisha dated Arjun. \Leftrightarrow Arjun dated Aisha.
 b. She mixed camphor with menthol. \Leftrightarrow She mixed menthol with camphor.

Our account of this generalization leaned heavily on two insights from Winter’s original analysis: (1) the hypothesis that the collective version of predicates partaking in plain reciprocity alternations is basic and the symmetric version derived, and (2) that symmetric predicates are ones that can assign the same θ -role to more than one argument. It was this second ingredient that sparked the innovation our analysis has brought into the discussion: verbs are traditionally considered not to be able to assign the same θ -role to more than one argument (a restriction most well-known as the Theta Criterion). We have argued that comitative *with* provides a way of overcoming the effects of the Theta Criterion. It can combine two individuals into a sum and then relate that sum to an eventuality via a property. When this property is identified as a θ -role, the effects of the Theta Criterion can be circumvented, and symmetry ensues. This allowed us not only to provide an account of the inherently symmetric verbs that fall under the purview of Winter’s

⁷ Note that we take the preposition *to* preceding the second DP to be semantically vacuous.

Generalization, but the analysis also extends to what one could call periphrastic symmetric verbs, whereby the presence of a comitative *with*-phrase renders an otherwise non-symmetric verb symmetric and allows it to partake in the reciprocity alternation, as shown in (40).

- (40) a. Aisha ran together with Arjun. \Leftrightarrow Arjun ran together with Aisha.
b. Arjun and Aisha ran together. \Leftrightarrow Aisha ran together with Arjun. \Leftrightarrow Arjun ran together with Aisha.

References

- Carlson, Greg (1984). Thematic roles and their role in semantic interpretation. *Linguistics* 22, 259–279.
- Chomsky, Noam (1981). *Lectures on Government and Binding*. Dordrecht: Foris Publications.
- Dowty, David (1989). On the semantic content of the notion of ‘thematic role’. In Gennaro Chierchia, Barbara H. Partee, and Raymond Turner (eds.) *Properties, Types and Meaning: Semantic Issues*, 69–129. Dordrecht: Kluwer Academic Press.
- Lakoff, George, and Stanley Peters (1969). Phrasal conjunction and symmetric predicates. In David A. Reibel, and Sanford A. Schane (eds) *Modern Studies in English: Readings in Transformational Grammar*, 113–142. Englewood Cliffs, NJ: Prentice-Hall.
- Schein, Barry (1993). *Plurals and Events*. Cambridge, MA: MIT Press.
- Williams, Alexander (2015). *Arguments in Syntax and Semantics*. Cambridge: Cambridge University Press.
- Winter, Yoad (2018). Symmetric predicates and the semantics of reciprocal alternations. *Semantics and Pragmatics* 11, 1–47.

Lexicon-pragmatics interaction in argument structure alternation*

Kazuhiko Fukushima
University of Air

1. Introduction

Pragmatics has been treated as a post-grammatical filter by formally oriented researchers of language. Mostly, pragmatic is appealed to for tweaking word meanings and choosing contextually appropriate constructions. This paper argues against such a view drawing on argument structure (ARG-ST) formation and alternation of lexical V-V compounds in Japanese.

Horn (2017) illustrates that for scalar values associated with adjectives like *warm*, a conversational implicature sets the upper-bound while the lower-bound is literally stated. Thus, *warm* means ‘at least warm’ but implicates ‘warm but not hot’. Also, with implicatures the meaning of the word *animal* can be narrowed down to indicate creatures excluding humans, birds, and fish. According to Green (2004), pragmatics affects the choice between truth conditionally equivalent sentences: with passives, an affected individual usually becomes the subject and the agentive *by*-phrase is left out since the referent is simply unknown/irrelevant in *My bike was taken between 3:00 and 5:30 on Monday*.

Goldberg (2004) exemplifies a more formally inclined use of pragmatics where a ditransitive ARG-ST of the verb *send* and that of its dative counterpart are different—ditransitives require an animate ‘goal’ but datives do not.

(1) a. Datives:

send a package to them and *send a package to that place*

b. Ditransitives:

send them a package vs. **send that place a package*

But even in (1), pragmatics can still be viewed as a mere filter just to screen out unwanted output of a grammatical system. Stronger evidence is desired involving a more intricate grammatical device the workings of which cannot be explicated without pragmatics. In this paper the formation of ARG-STs of lexical V-V compounds in Japanese (Kageyama 1988, 1993, 2013, Li 1993, Matsumoto 1996, 1998, Nishiyama 1998, 2002, Himeno 1999, Toratani 2002, Fukushima 2005, 2021, 2024, in press, Yumoto 2005, Chen and Matsumoto 2018, inter alia) exemplified in (2) is tapped on to demonstrate how essential pragmatic factors are for complex word-formation (a formal grammatical system). Specifically, the speaker’s referential intention, focus designation, and semantic/pragmatic anomaly avoidance determine the outcome of ARGUMENT SYNTHESIS

*The comments from the participants of *The International Argument Alternation Workshop* are appreciated, especially, those by Hideki Kishimoto and Osamu Sawada. Saeko Urushibara’s (p.c.) question years ago regarding (2c) vs. (2c’) was the starting point of tackling the issue of lexicon-pragmatics interface (ARG-ST alternation inter alia). All remaining shortcomings that might be found herein are blamed on the current author alone.

(AS). AS is simple in (2a-b, c') but not in (2c). If the subject of *ne* and that of *sizumar* are matched blindly as in (2c'), the subsequent semantic interpretation will be disrupted in (2c).

- (2) a. *Taroo-ga hasiri-sat-ta.* (morphophonemics [sar]→[sat])
 Taroo-NOM run-leave-PAST
 'Taroo left running.'
- b. *Hanako-ga sara-o tataki-wat-ta.* ([war]→[wat])
 Hanako-NOM plate-ACC hit-break-PAST
 'Hanako broke a plate by hitting (it).'
- c. *Ie-ga ne-sizumat-ta.* ([sizumar]→[sizumat])
 house-NOM sleep-become.quiet-PAST
 'The house became quiet due to (the occupants') sleeping.'
- c'. *Kazoku-ga ne-sizumat-ta.*
 family-NOM sleep-become.quiet-PAST
 'The family became quiet due to (their) sleeping.'
 [N.B.: V₁-final [i] or [e] is continuative morphology. Only right-headed compounds are included in this paper.]

Section 2 begins with the current assumptions followed by demonstrations of complex AS which necessitates the amalgamation of pragmatic (use-based) factors. Given the complex behavior of lexical V-V compounds, a brief consideration regarding a suitable grammatical model will be carried out in section 3 followed by concluding remarks in section 4.

2. V-V compounds and complex ARGUMENT SYNTHESIS

This section demonstrates the fact that AS calls for the involvement of pragmatic factors. First, the current assumptions are laid out and then simple and complex cases of AS are demonstrated.

2.1. Assumptions

Following Fukushima (2005, 2024), the current assumptions (abridged) are listed in (3).

- (3) V-V compound ARGUMENT SYNTHESIS
- AS is head-driven (i.e. strong but not complete head V₂ domination), e.g. no dismissal of the head's arguments and retention of the head's case-marking patterns
 - Matching of arguments proceeds in the order of ARG-STs based on THEMATIC PROTO-ROLE entailments.
 - Dismissal of non-head arguments is possible only before a match is found. A dismissed argument is existentially quantified.
 - Two classes of THEMATIC PROTO-ROLES as clusters (Dowty 1991) of lexica semantic entailments:
 PROTO-AGENT (PA):
 - ✧ volitional involvement in the event or state
 - ✧ sentience
 - ✧ causing an event or change of state in another participant
 - ✧ movement (relative to the position of another participant)

- ◇ (exist independently of the event named by the verb)
- PROTO-PATIENT (PP):
 - ◇ undergoes change of state
 - ◇ incremental theme (i.e. event-object homomorphism)
 - ◇ causally affected by another participant
 - ◇ stationary relative to the movement of another participant
 - ◇ (does not exist independent of the event, or not at all)
- ARGUMENT SELECTION PRINCIPLE (ASP):
 - Subject (SUBJ): the argument with the greatest number of PA entailments
 - Direct object (D-OBJ): the argument having the greatest number of PP entailments
- ARGUMENT SELECTION INDETERMINACY (ASI): If two arguments of a relation have (approximately) equal numbers of entailed PA (or PP) properties then either or both may be lexicalized as the subject (or object), e.g. *buy* and *sell* are mirror-image words—their ‘agent’ and ‘goal’ arguments share the identical proto-role entailments.
- ROLE NONDISCRETENESS (RND): Proto-roles do not classify arguments exhaustively (some arguments have neither role) or uniquely (some arguments may share the same role) or discretely (some arguments could qualify partially but equally for both proto-roles).

2.2. Simple cases of AS

By way of illustration, let us first examine how straightforward AS is carried out for (2b) with two transitive verbs *tatak* and *war*.

- (4) a. *Hanako-ga sara-o tataki-wat-ta.* (= (2b))
 Hanako-NOM plate-ACC hit-break-PAST
 ‘Hanako broke a plate by hitting (it)’
- b. V_1 *tatak* ‘hit’: ARG-ST< NP_{ga}^i, NP_o^j > with $NP_{ga}^i = PA$ (volition; sentience; movement; causer) and $NP_o^j = PP$ (causee, stationary)
- c. V_2 *war* ‘break’: ARG-ST< NP_{ga}^k, NP_o^l > with $NP_{ga}^k = PA$ (volition; sentience; movement; causer) and $NP_o^l = PP$ (change of state; causee)
- d. V_1 - V_2 *tataki-war* ‘break by hitting’: ARG-ST< $NP_{ga}^{i,k}, NP_o^{j,l}$ > with $NP_{ga}^i \approx NP_{ga}^k$ and $NP_o^j \approx NP_o^l$

[N.B.: Superscripting individuates arguments. A dot ‘•’ between superscripts indicates ‘identification’ of arguments. The symbol ‘ \approx ’ (or ‘ $\not\approx$ ’, a combination of negation and equivalence symbols) signifies ‘equivalence’ but not necessarily identity (or ‘non-equivalence’) in terms of proto-roles. Compositional translation steps are not included.]

As seen in (4d), the subject and object arguments of V_1 and V_2 are matched, respectively, yielding $\lambda x \lambda y. (\mathbf{VIA}'(\mathbf{hit}'(x)(y))(\mathbf{break}'(x)(y)))$ to render (4a) as $\mathbf{VIA}'(\mathbf{hit}'(\text{plate})(\text{hanako}))(\mathbf{break}'(\text{plate})(\text{hanako}))$. Here \mathbf{VIA}' is a function making an adverbial modifier out of a proposition¹ in that the proposition with V_1 *tatak* (i.e. $\mathbf{hit}'(\text{plate})(\text{hanako})$) is a modifier for the proposition with V_2 *war* (i.e. $\mathbf{break}'(\text{plate})(\text{hanako})$).

¹ The output of \mathbf{VIA}' is ultimately determined by pragmatic considerations. There is nothing intrinsic about the verb meanings per se that brings about the difference, for

2.3. Complex AS 1: reference choice

Let us take up (2c-c') above (repeated in (5)) where AS needs to partially depend on pragmatics to make available two distinct semantic interpretations.

Though V_1 *ne* is employed in (5a) (= (2c)), the house cannot be a sleeper so it is unqualified as the subject of V_1 . However, the family can be construed as such in (5b) (= (2c')). The subject of V_1 , then, should be reflected in the compound's ARG-ST in one case but not in the other. Similarly in (6a-b).²

- (5) a. *Ie-ga ne-sizumat-ta.* 'The house became quiet due to (the occupants') sleeping.'
 b. *Kazoku-ga ne-sizumat-ta.* 'The family became quiet due to their sleeping.'

- (6) a. *Hoho-ga naki-nure-ta.*
 cheek-NOM cry-become.wet-PAST
 '(Someone's) cheek(s) became wet due to weeping'
 b. *Taroo-ga naki-nure-ta.*
 Taroo-NOM cry-become.wet-PAST
 'Taroo became wet due to his weeping'

Picking (5), we entertain the following two possibilities for AS: (i) the one with lexical information alone (case 1) and (ii) another (case 2) with pragmatic information, namely, a speaker-oriented reference choice. We begin with (7a) where *ie* is the subject—a default case with lexical (entailment) information alone.

- (7) Case 1 (with lexical information exclusively):
 a. V_1 *ne* 'sleep': ARG-ST< NP_{ga^i} > with $NP_{ga^i} = PA$ (sentience)
 b. V_2 *sizumar* 'become.quiet': ARG-ST< NP_{ga^j} > with $NP_{ga^j} = PP$ (change of state)
 c. V_1 - V_2 *ne-sizumar*: ARG-ST< NP_{ga^j} > with $NP_{ga^i} \not\approx NP_{ga^j}$ and NP_{ga^i} (a non-head argument) is dismissed.

As (7c) shows, the arguments of V_1 and V_2 are not equivalent, thus making a match impossible. Since AS is head-driven and no match is found so far, argument dismissal is possible for V_1 . NP_{ga^i} is dismissed but existentially quantified to yield: $\lambda x \exists y. (VIA'(\text{sleep}'(y))(\text{become.quiet}'(x)))$ and $\exists y. VIA'(\text{sleep}'(y))(\text{become.quiet}'(\text{house}))$ for (5a).³

example, between the manner and cause readings of *koroge-oti* 'fall rolling' or 'fall due to rolling'.

² In (6a), the inalienable possessor of the cheek(s) will also be wet as in (6b). However, this is due to transitivity of inalienability (i.e. secondary) and not directly relevant here.

³ As far as AS goes, this is all we need here. However, a precise semantic interpretation for (5a) necessitates knowing more about the referent of the dismissed subject of V_1 . As the subject, *ie* 'house (a hyponym)', *?tatemono* 'building (a hypernym)' and *#Akiya* 'vacant.house' show increasing degradation.

Also, some may consider that (5a) involves 'metonymy' where *ie* can possibly indicate *kazoku* 'family member'. This is unsatisfactory since, outside of V-V compounds, the alleged metonymy is unavailable (e.g. *#Ie-ga zen-in sin-da.* '(Int.) The family members all died.')

Another possibility reflecting a speaker-referential choice is seen in (5b) above and is analyzed as follows:

- (8) Case 2 (with a speaker intended reference to a family):
- a. V_1 *ne* ‘sleep’: ARG-ST<NP_{gaⁱ}> with NP_{gaⁱ} = PA (sentence)
 - b. V_2 *sizumar* ‘become.quiet’: ARG-ST<NP_{gd^j}> with NP_{gd^j} = PA or PP (change of state plus **sentence** inherited from the speaker-intended subject referent; for such inheritance, see section 4.)
 - c. V_1 - V_2 *ne-sizumar*: ARG-ST<NP_{gaⁱj}> with NP_{gaⁱ} ≈ NP_{gd^j}

Unlike case 1 above, a PA entailment, sentence, is evoked for NP_{gd^j} of V_2 due to the speaker picking the family as the subject referent. V_2 is pragmatically *compatible* but does not semantically entail sentence. This is an instance of RND in (3) above. The compound and the sentence are translated as: $\lambda x.(\text{VIA}'(\text{sleep}'(x))(\text{become.quiet}'(x)))$ and $\text{VIA}'(\text{sleep}'(\text{family}))(\text{become.quiet}'(\text{family}))$. (6a, b) are similar.

What is witnessed above is how two different motivations ((5a)/(7) vs. (5b)/(8)) bring about distinct ARG-STs of superficially identical compounds.

2.4. Complex AS 2: discourse prominence and differential object marking

A speaker-intended allocation of discourse prominence affects AS as well. Verbs like *ur* and *nom* in (9a) take an NP_o arguments, just as *aruk* and *mawar* do in (9b).

- (9) a. *Ziroo-ga sake-o ut-ta/non-da.* ([ur]→[ut], [nom]→[non])
 Ziroo-NOM sake-ACC sell-PAST/drink-PAST
 ‘Ziroo sold/drank sake.’
- b. *Saburoo-ga mati-o arui-ta/mawat-ta.* ([aruk]→[arui], [mawar]→[mawat])
 Saburoo-NOM city-ACC walk-PAST/go.around-PAST
 ‘Saburoo walked through/went around the city.’

When, for example, *ur* and *mawar* are combined as in (10a, b), either NP_o (but not both) can surface with accusative case-marking. In (10a) *mati* appears with *-dake* ‘only’ to avert the DOUBLE ACCUSATIVE CONSTRAINT (DAC) that prohibits more than one accusative direct object in a single clause as in (10c) (Harada 1973). *Sake* in (10b) is rendered as *sake-dake* ‘only sake’ to satisfy the DAC as well. The same holds for *nomi-aruk* in (10d).⁴

- (10) a. *Ziroo-ga mati-dake sake-o uri-mawat-ta.*
 Ziroo-NOM town-only sake-ACC sell-go.around-PAST
 ‘Ziroo went around only in the town selling sake.’
- b. *Ziroo-ga mati-o sake-dake uri-mawat-ta.*
 Ziroo-NOM town-ACC sake-only sell-go.around-PAST
 ‘Ziroo went around the town selling only sake.’
- c. **Ziroo-ga mati-o sake-o uri-mawat-ta.*
 Ziroo-NOM town-ACC sake-ACC sell-go.around-PAST

⁴ NP_{ga/o} + *-dake* is rendered as NP_{dake} due to the incompatibility between *-ga/-o* and *-dake*: *NP_{ga-dake} or *NP_{o-dake}. It is noted that though NP_{dake} + *-ga/-o* is possible, this does not help to avoid the DAC.

‘(Int.) Ziroom went around the town selling only sake.’

- d. *Saburoo-ga* {*mati-o sake-dake* / *mati-dake sake-o*} *nomi-arui-ta*.
 Saburoo-NOM {town-ACC sake-only / town-only sake-ACC} drink-walk-PAST
 ‘Saburoo walked around the town drinking only sake’
 ‘Saburoo walked around only the town drinking sake’

How would such AS variability be possible? Again, two possibilities. In (10a), though both NP_d^j and NP_o^l are semantically PPs and should be matched, sake is not walkable or the town is not sellable *semantically/pragmatically*, resulting in separate inheritance (11c). In case 1 (11), the speaker designates *sake* as a non-prominent direct object with the accusative case-marking *-o*. *Mati* shows up with *-dake* not only to obey the DAC but also to indicate a focal (i.e. prominent) element in the discourse.

This choice is very likely to be driven by ‘prominence’ (attributed here to focus or exceptionality). Discourse prominence is responsible (among other factors like animacy often observed in Romance languages) for differential object marking (Kabatek et al. 2021).

(11) Case 1 (with *mati* being a prominent direct object):

- a. V_1 *ur* ‘sell’: ARG-ST< NP_{ga}^i, NP_d^j > with NP_{ga}^i = PA (volition; sentience; movement; causer) and NP_d^j = PP (change of state, causee)
- b. V_2 *mawar* ‘go.around’: ARG-ST< NP_{ga}^k, NP_o^l > with NP_{ga}^k = PA (volition; sentience; movement) and NP_o^l = PP (incremental theme—the town is traversed gradually; stationary)
- c. V_1 - V_2 *uri-mawar* ‘go.around by selling’: ARG-ST< $NP_{ga}^{i*k}, NP_{dake}^l, NP_d^j$ > with $NP_{ga}^i \approx NP_{ga}^k$ but $NP_d^j \not\approx NP_o^l$ —two PPs but *no* match due to semantic/pragmatic incongruity

Being a PA the subjects of V_1 and V_2 are matched and the direct objects NP_d^j and NP_o^l (as NP_{dake}^l) are inherited separately from V_1 and V_2 . (No dismissal of arguments once a match is found.) Though being PPs NP_d^j and NP_o^l compete and are potentially eligible for being NP_o , the speaker designates *mati* as discourse-prominent with *-dake*. *Sake* meanwhile ends up being accusative, satisfying the DAC. The compound and sentence translations are: $\lambda x \lambda y \lambda z. (VIA'(\text{sell}'(x)(z))(\text{go.around}'(y)(z)))$ and $VIA'(\text{sell}'(\text{sake})(\text{ziroom}))(\text{go.around}'(\text{city-only})(\text{ziroom}))$ for (10a).

In case 2 (12), designating *mati* as a non-prominent direct object, the speaker chooses to construe *sake* as discourse prominent.

(12) Case 2 (with *sake* as a prominent direct objects):

- V_1 - V_2 *uri-mawar* ‘go.around by selling’: ARG-ST< $NP_{ga}^{i*k}, NP_o^l, NP_{dake}^l$ > with $NP_{ga}^i \approx NP_{ga}^k$ but $NP_d^j \not\approx NP_o^l$ —two PPs but *no* match again due to semantic/pragmatic incongruity

The compound and translations are slightly different from (10a)’s and the sentence (10b) is translated as: $VIA'(\text{sell}'(\text{sake-only})(\text{ziroom}))(\text{go.around}'(\text{city})(\text{ziroom}))$.

Here again, we witness how formal and pragmatic motivations conspire and compete to balance out distinct demands arising from the lexical semantics of a compound verb (two potential direct object NPs), the syntactic condition (the DAC), and discourse-prominence designation.

Before moving on, let us examine a side-issue concerning the addition of the dative(*to*)-marked indirect object of *ur*: ARG-ST<NP_{ga}, NP_o, (NP_{ni})> as in (13). The dative argument can optionally be left out due to its irrelevance (cf. the absence of *by*-phrase in English passives), or even when the sentence is uttered out of the blue. However, the direct object argument cannot remain unexpressed (unless the sentence follows a preceding utterance where NP_o is clearly a ‘theme’ vis-à-vis a ‘rheme’). As an isolated utterance, however, (13) without NP_o strikes us as an incomplete proposition at best.

- (13) *Taroo-ga *(hon-o) (Hanako-ni) ut-ta.*
 Taroo-NOM book-ACC Hanako-to sell- PAST
 ‘Taroo sold a book to Hanako.’

The ASP in (3) demands a (‘strong’) argument with the largest number of PP entailments to be realized as a direct object. With NP_o this is satisfied since *hon* being a PP (affectee, change of state) but will not be without it. (*Hanako* is a PA with volition and sentience; see below.)

Returning to (10), we note that entailment strength affects V-V compound formation as well. The V-V compound’s ARG-ST<NP_{ga}, NP_o^{*ur*}, NP_o^{*aruk*}, (NP_{ni})> will give rise to an ill-formed sentence as noted above. Regardless of the inclusion of NP_{ni}, according to the ASP, dropping NP_o^{*ur*} cannot be an option in (14) due to the fact that *sake* (affectee, change of state) commands more PP entailments than *mati* (incremental theme), i.e. the former is a stronger candidate for a direct object. (An example like (14) is noted by Hideki Kishimoto (p.c.).)

- (14) **Ziroo-ga mati-o (kyaku-ni) uri-mawat-ta.*
 Ziroo-NOM town-ACC customer-to sell-go.around-PAST
 ‘(Int.) Ziroo went around the town selling (something) to the customers.’

2.5. Complex AS 3: semantic/pragmatic anomaly avoidance

Yet another complication in AS arises in examples like (15) where straightforward matching based on the order of ARG-STs ends up being anomalous. In (15a), for example, V₂ *uke* is fine with the alignment of NP_{ga}, NP_o, and NP_{kara}, that are the subject, direct object, and ‘source’ argument, respectively. However, the arguments of V₁ *yuzur*, if aligned in its standard ARG-ST order, would give rise to a semantic/pragmatic anomaly. Matching between the direct object arguments aside (a non-issue), such a step would render the yielder to be identified with the yeldee (or the ‘goal’ with the ‘source’). So Hanako, for one thing, would incoherently end up being the yielder and yeldee simultaneously and anomalously! Nevertheless, since the compound is legitimate, actual, and semantically coherent, what would make the seemingly impossible outcome possible then? A similar observation can be repeated for (15b).

- (15) a. *Taroo-ga hon-o Hanako-kara yuzuri-uke-ta.*
 Taroo-NOM book-ACC Hanako-from yield-receive- PAST
 ‘Taroo received a book from Hanako who yielded (it to him).’
 b. *Ziroo-ga sirase-o Saburoo-kara tutae-kii-ta.*
 Ziroo-NOM news-ACC Saburoo-from transmit-hear- PAST
 ‘Ziroo heard the news from Saburoo who transmitted (it to him).’

The key concept here is semantic/pragmatic anomaly avoidance combined with simultaneous accommodation of expressiveness where the speaker tweaks argument-matching to circumvent the anomaly described here. Specifically, the two ARG-STs are matched in a ‘mirror image’ of each other. Farfetched? Not really. According to Dowty (1991), verbs like *sell/buy* (displaying ASI in (3)) express basically the same relation with different ‘surface’ argument configurations. Their ‘agent’ and ‘goal’ arguments command the same kind/number of proto-role entailments, namely, volition and sentience.

This holds for *yuzur* (V₁) and *uke* (V₂) in (15a) whose respective ‘surface’ argument realizations reflect different perspectives: it is the yielder’s perspective for the former and the receiver’s for the latter. In either case, the yielder or yeldee of *yuzur* or the ‘source’ or ‘goal’ argument of *uke* has to have a will (volition) and awareness (sentience) to perform the action.

(16) Mirror image argument synthesis:

- a. V₁ *yuzur* ‘yield’: ARG-ST<NP_{ga}ⁱ, NP_o^j, NP_{ni}^k> with NP_{ga}ⁱ = PA (volition, sentience), NP_o^j = PP (change of state, causee), and NP_{ni}^k = PA (volition, sentience)
- b. V₂ *uke* ‘receive’: ARG-ST<NP_{ga}^l, NP_o^m, NP_{kara}ⁿ> with NP_{ga}^l = PA (volition, sentience), NP_o^m = PP (change of state, causee), and NP_{kara}ⁿ = PA (volition, sentience)
- c. Expected but *anomalous* matching:
yuzuri-uke ‘yield-receive’: ARG-ST<NP_{ga}^{i•l}, NP_o^{j•m}, NP_{kara}^{k•n}> with NP_{ga}ⁱ ≈ NP_{ga}^l, NP_o^j ≈ NP_o^m, and NP_{ni}^k ≈ NP_{kara}ⁿ
- d. Unexpected but *actual* mirror image matching:
yuzuri-uke ‘yield-receive’: ARG-ST<NP_{ga}^{k•l}, NP_o^{j•m}, NP_{kara}^{i•n}> with NP_{ga}ⁱ ≈ NP_{kara}ⁿ, NP_o^j ≈ NP_o^m, and NP_{ni}^k ≈ NP_{ga}^l

(16c) shows AS with the regular assumption introduced in (3) that observes the lexical ARG-ST orders as is but ends up being anomalous. To avoid that, a mirror image matching takes place as in (16d), yielding the compound and sentence translations as: λxλyλz.(VIA’(yield’(z)(y)(x))(receive’(x)(y)(z))) and VIA’(yield’(taroo)(book)(hanako))(receive’(hanako)(book)(taroo)).

Why an out-of-the-way extra step? The speaker may wish to creatively and efficiently depict yielding and receiving *with a single word*. The receiver perspective of V₂ is superimposed on V₁, effectively ‘reversing’ the ARG-ST of V₁ and accomplishing mirror image matching. (Recall that the head V₂ dominates AS.) And as with *sell/buy* type verbs (unlike for rigid transitive verbs), the ASP permits alternative lexicalizations (i.e. a reversed ARG-ST) when there is ‘a tie’ in terms of proto-role entailments.⁵ In this connection, there is an actual straightforward compound expressing the receiver’s perspective exclusively, namely, *morai-uke* ‘accept-receive’. In contrast, *yuzuri-uke* in (15a) is a creative mix of two perspectives for retaining the sense of benevolence of yielding associated with *yuzur* which is lacking in *moraw*.

3. A suitable model of grammar

Given that pragmatic information counts as a significant factor in V-V compound formation, let us briefly consider a suitable grammatical architecture to accommodate the

⁵ The term lexicalization here simply refers to the process of listing a word as an actual lexical entry. The lexicon consists of morphemes, words, and word-formation rules.

compounds. Such an architecture should be the one that allows us to *simultaneously* access various linguistic information in real time. In the current context, lexical word-formation ought to be able to employ both a formal mechanism (like AS) and pragmatic information (like reference choice). A model that separates and sets up a strict ordering of various components, treating pragmatics as a post-grammatical filter, seems unsuitable.

A model with a pragmatic filter would force us to backtrack unnecessarily and laboriously as in garden path sentences. Considering the complexity of V-V compound formation demonstrated above, we find that such an approach is not only inefficient but also unsatisfactory. For example, for (5a-b) above, backtracking is needed to trace the origin of (5a), a lexical default case (without a reference choice) where the subject argument of V_1 is dismissed, and undo the whole process. Then a new ARG-ST identifying the subject arguments of V_1 and V_2 has to be constructed for (5b).

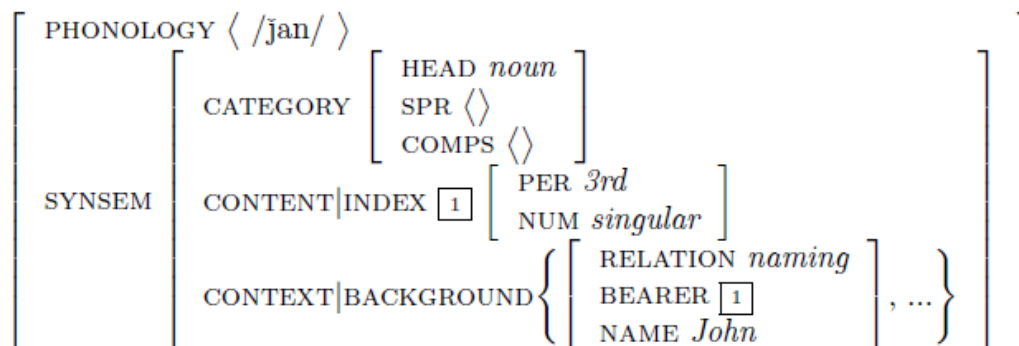
The matters are also problematic for the filtering view with regard to (10) and (15). In (10) we cannot formally have two accusative NPs due to the DAC. However, since the two separately inherited direct object NP arguments are PPs, without any pragmatic information, there is no way to implement differential object marking on just one of them since it requires the information regarding speaker-oriented discourse prominence. While both of the two potential direct object arguments can be marked with *-dake* to avoid violating the DAC (i.e. both supposedly being prominent), such an arrangement ends up in an unnatural stilted interpretation.

As for (15), a regular unmarked attempt of AS ends up being semantically/pragmatically anomalous, and the intended compounding will simply be rejected. The mirror image argument matching is possible due to the speaker's desire to be linguistically creative and efficient. If the filtering view is correct, for V-V compounds like those in (15) to exist, they have to be rejected once as illegitimate words but reinstated as actual and legitimate after use-based information becomes available. Such a post-grammatical filtering is unconventional and awkward in that instead of screening words out, it allows them in while the formal system has already rejected them.

After all, AS in lexical V-V compound formation is much more intricate than simply tweaking with or micro-adjusting a meaning of a word—(i) semantic proto-role entailments (lexical semantics), (ii) ARG-STs, the DAC, differential object marking (syntax), and (iii) use-based factors and real-world information (pragmatics) need to be consolidated into the process. A suitable model of grammar capable of handling such an interaction is, for example, a constraint-based formalism like HPSG (Sag et al. 2003 and other related frameworks⁶) where linguistic information from various sources (including pragmatics via the CONTEXT attribute) is accessible simultaneously as in (18). The (use-based) information regarding the subject referent, for example, will be shared by the AS process through UNIFICATION of the subject NP (with a specific referent) and the subject NP argument in the verb's ARG-ST.

⁶ See, for example, SIGN-BASED CONSTRUCTION GRAMMAR approach (Michaelis 2011, 2013, Sag 2012, Kim 2016) to lexical V-V compounds illustrated by Fukushima (in press). More generally, Fukushima (2002, 2006, 2007) demonstrates applications of the formalism assumed here for grammar-pragmatics interface within the context of Japanese and English.

(18) Constraint-based formalism for the lexical item *John*:



4. Conclusion

It has been demonstrated that use-based and real-world pragmatic factors are determinants in complex word formation, namely, lexical V-V compounds. Downplaying or denying the significance of these factors undermines generalization, analytical precision, efficiency, and creativity in the domain of morphology. An architecture of grammar needed to accommodate the compounds is the one that allows simultaneous access to various (non-)linguistic information (pragmatics inclusive).

References

- Chen, Yi-Ting, and Yo Matsumoto (2018). *Nihongo Fukugo Doshi-no Imi-to Taikei* [The Meaning and Systematic Organization of Compound Verbs in Japanese]. Tokyo: Hituzi Syobo.
- Dowty, David (1991). Thematic proto-roles and argument selection. *Language* 67, 547–619.
- Fukushima, Kazuhiko (2002). Competence and performance revisited: The implications of social role terms in Japanese. *Journal of Pragmatics* 34, 939–968.
- Fukushima, Kazuhiko (2005). Lexical V-V compounds in Japanese: Lexicon vs. syntax. *Language* 81, 568–612.
- Fukushima, Kazuhiko (2006). The overview of syntax-pragmatics interface. In Keith Brown (ed.) *Encyclopedia of Language and Linguistics Volume 12*, 2nd edn., 422–426. Oxford: Elsevier.
- Fukushima, Kazuhiko (2007). Conspiracy of form and context for proper semantic interpretation: The implications of lonesome numeral classifiers in Japanese. *Journal of Pragmatics* 39, 960–989.
- Fukushima, Kazuhiko (2021). Getting a head with Japanese lexical V-V compounds. In Jeon Hae-Sung, Peter Sells, Zixi You, Sotaro Kita, and Jaehoon Yeon (eds.) *Japanese and Korean Linguistics* 28, 229–243. Stanford: CSLI Publications.
- Fukushima, Kazuhiko (2024). Competition of lexicon vs. pragmatics in word formation: Japanese lexical V-V compounds and argument synthesis. In Aleksandra Bagasheva, Akiko Nagano and Vincent Renner (eds.) *Competition in Word-Formation*, 275–296. Amsterdam: John Benjamins.
- Fukushima, Kazuhiko (in press). Being a regular verb and a manner adverbial simultaneously: A privilege for a non-head verb in a V-V compound in Japanese.

- In Olivier Duplâtre and Patrick Duffley (eds.), *Expressing Manner*. Berlin: De Gruyter Mouton.
- Goldberg, Adele (2006). Pragmatics and argument structure. In Laurence R. Horn and Gregory Ward (eds.) *The Handbook of Pragmatics*, 427–441. Oxford: Blackwell.
- Green, Georgia (2006). Some interactions of pragmatics and grammar. In Laurence R. Horn and Gregory Ward (eds.) *The Handbook of Pragmatics*, 407–426. Oxford: Blackwell.
- Harada, Shinichi (1973). Counter equi NP deletion. *Annual bulletin 7*. Tokyo: Research Institute of Logopedics and Phoniatics, University of Tokyo, 113–47.
- Himeno, Masako (1999). *Hukugodooshi-no Kozo-to Imiyooohoo* [Structure and Semantic Usage of Compound Verbs]. Tokyo: Hituzi Syobo.
- Horn, Laurence R. and Gregory Ward (2006). *The Handbook of Pragmatics*. Oxford: Blackwell.
- Horn, Laurence R. (2017). Pragmatics and the lexicon. In Yan Huang (ed.) *The Oxford Handbook of Pragmatics*, 511–531. Oxford: Oxford University Press.
- Kageyama, Taro (1993). *Bunpoo-to Gokeisei* [Grammar and Word-Formation]. Tokyo: Hituzi Syobo.
- Kageyama, Taro (2013). *Fukugodoshi Kenkyu-no Saisentan* [New Explorations into the Mysteries of Compound Verbs]. Tokyo: Hituzi Syobo.
- Kabatek, Johannes, Philipp Obrist, and Albert Wall (2021). The third wave of studies on DOM in Romance: An introduction to this volume. In Johannes Kabatek, Philipp Obrist & Albert Wall (eds.) *Differential Object Marking in Romance: The Third Wave*. 3rd edn, 3–19. Berlin: De Gruyter Mouton.
- Kim, Jong-Bok (2016). *The Syntactic Structure of Korean*. Cambridge: Cambridge University Press.
- Li, Yafei (1993). Structural head and aspectuality. *Language* 69, 480–504.
- Matsumoto, Yo (1996). *Complex Predicates in Japanese: A Syntactic and Semantic Study of the Notion 'Word'*. Stanford: CSLI Publications.
- Matsumoto, Yo (1998). Nihongo-no goiteki fukugodoshi-niokeru doshi-no kumiawase [Verb combinations displayed by lexical V-V compounds in Japanese]. *Gengo Kenkyu* [Language Research], 114, 37–83.
- Michaelis, Laura (2011). Stative by construction. *Linguistics* 49, 1359-1399.
- Michaelis, Laura. (2013). Sign-based construction grammar. In Thomas Hoffmann and Graeme Trousdale (eds.), *The Oxford Handbook of Construction Grammar*, 133–152. Oxford/New York: Oxford University Press.
- Nishiyama, Kunio (1998). V-V compounds as serialization. *Journal of East Asian Linguistics* 7, 175–217.
- Nishiyama, Kunio (2002). V-V compounds. In Shigeru Miyagawa and Mamoru Saito (eds.) *The Oxford Handbook of Japanese Linguistics*, 320–347. Oxford: Oxford University Press.
- Sag, Ivan, Thomas Wasow, and Emily Bender (2003), *Syntactic Theory: A Formal Introduction*, 2nd edn. Stanford: CSLI Publications.
- Sag, Ivan (2012). Sign-based construction grammar: an informal synopsis. In Hans Boas and Ivan Sag (eds.), *Sign-Based Construction Grammar*, 31-67. Stanford: CSLI Publications.
- Toratani, Kiyoko (2002). *The Morphosyntactic Structure and Logical Structures of Compound Verbs in Japanese*. Doctoral dissertation, University of New York at Buffalo.

Yumoto, Yoko (2005). *Fukugodoshi/Haseidoshi-no Imi-to Togo: Mojuru Keitairon-kara Mita Nichieigo-no Doshi Keisei* [The Semantics and Syntax of Compound Verbs/Derived Verbs: Verb-Formation in Japanese and English Viewed from a Modular Morphological Perspective]. Tokyo: Hituzi Syobo.

Argument alternation in (copular) predication*

Caroline Heycock
University of Edinburgh

1. Introduction

Discussion of argument-taking is, naturally, focused on verbs. But English, like many other languages, includes constructions where it seems that the predicate is headed by some other category, including nouns. This is the category I will be concentrating on in this paper. Thus in (1a,b) the interpretation suggests that at least in semantic terms the predicate is the Adjective Phrase *clever*, the PP *at the height of her fame*, or the nominal¹ *the source of the rumor*, with the subject *Ayano* as its external argument.

- (1) a. Ayano is {clever / at the height of her fame / the source of the rumor}.
b. Everyone considers [Ayano {clever / at the height of her fame / the source of the rumor}].

Of course, in (1a) the copula *be* is required, but it is generally assumed that this verbal element is required to satisfy morphosyntactic constraints. One classic argument for this is the possibility of the same items (*clever*, *at the height of her fame*, etc.) combining with their external argument in the absence of the copula, as in (1b).

If we then consider what kind of argument alternation could occur here, the most striking candidate is the possibility for some binominal copular clauses—those where the head of the predicate, as well as of the subject, is a noun—to allow the two nominals to appear in the opposite order.

- (2) a. {*Guilty / The source of the rumor} is Ayano.
b. Everyone considers [{*guilty / *the source of the rumor} Ayano].
c. If we've ruled out all the other alternatives, that would make [{*guilty / the source of the rumor} Ayano].

Questions arise immediately. First: Is this really *argument* alternation? That is, if *the source of the rumor* in (1a,b) is a predicate, then there is only one argument in the clause, the other element involved in the reordering is the predicate. A second question that is

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¹ I will generally use the term “nominal” to refer to the maximal nominal projection, as for most of the discussion in this short paper the question of whether this is an NP, a DP, or some other category is not explored.

very much entwined with the first is what exactly any nominals in a copular clause are arguments of.

In this paper I will briefly outline two lines of analysis that have been pursued on these questions. I will then argue that while both of these approaches have greatly improved our understanding of nominal predication and the observed alternations, both underplay the variety of ways that nominals can function as (part of) predicates in copular constructions. I advocate instead for differentiating between cases where one nominal gets a predicative interpretation, and others where both are arguments.

2. Line 1: All binominal copular clauses have one predicative nominal

2.1. The proposal in rough summary

In a sequence of influential works dating back to the 90s, Andrea Moro, following Longobardi (1985), has argued for the strong position that in a binominal copular clause one nominal is always interpreted as a predicate:

What must be affirmed here is that identity is not predicated by the copula or equivalently that one of the two noun phrases involved in a copular sentence always plays the role of a predicate. (Moro 2006: 8)

Thus, in (3b), *Vina* is an argument of the predicate *a/the victor*, just as it is an argument of the AP *victorious* in (3a).

- (3) a. *Vina* was victorious.
- b. *Vina* was a/the victor.

In fact the structure is a little more complex, in that predication is established in a “small clause” complement to the copula, with the subject subsequently raising above the copula where that appears, as in (4a). Alternatively, it may be the nominal predicate that moves to the higher subject position, as in (4b).

- (4) a. *Vina* was [~~<*Vina*>~~ the victor]
- b. The victor was [*Vina* the victor>]

Thus the alternation in order illustrated in (2) and (4) involves only one argument; the alternation is in the order of this argument and the predicate: “predicate inversion”.

A classic apparent counterexample to the claim that all binominal copular clause must feature one predicative nominal involves “equatives,” where both nominals appear to be referential:

- (5) a. *Hesperus* is *Phosphorus*. / *Phosphorus* is *Hesperus*.
- b. The Morning Star is the Evening Star. / The Evening Star is the Morning Star

Moro argues, however, that such examples also involve one predicative nominal. The primary evidence he gives in Moro 2006 comes from a particular case of pronominal obviation (obligatory non-coreference). As had been discussed in earlier literature, a pronominal possessor of a predicative noun phrase in English, or Italian, cannot co-refer

with the subject, unless *own* is added, which is typically assumed (without a great deal of discussion) to combine with the pronominal possessor to form some kind of anaphor. Thus, without *own*, (6a) cannot be interpreted to mean that Omer cooks for himself. In contrast, coreference with the unmodified pronoun is perfectly possible when a possessed noun phrase occurs in an argument position (6b).

- (6) a. Omer_i is his_i *(own) cook.
c. Omer_i met his_i cook.

Importantly this holds also for cases that look perhaps more similar to the putative equative sentences in (5) above:

- (7) a. [The morning star]_i is its_i *(own) source of energy.
b. [The morning star]_i lost its_i source of energy.

The obviation effect in (6a, 7a), then, is given as evidence that it is not possible for both of the nominals in the sentence to be referring arguments; one must always be predicative.

2.2. A problem

A first concern with the strong claim that in a binominal copular clause one of the nominals has to be predicative is that some diagnostics point in the other direction. For example, argumental definites, but not predicates, can be modified by non-restrictive relative clauses introduced by *who* (Rothstein 1995). But in some copular clauses, *both* noun phrases can be modified in this way, suggesting then that neither one is being interpreted predicatively:

- (8) The duty nurse, who as you have noted is very efficient, is Rina, who I am very fond of.

Even more telling is the argument made most extensively in Fiorin and Delfitto 2025 concerning Moro's diagnostic of obviation illustrated by (6a,7a). As these authors show, there are other examples where the coreference is fully acceptable. (9a) is from Hoeksema and Napoli (1990), (9b) is from Hartmann et al. (2024).

- (9) a. [Don't talk to John! Talk to his boss!] John_i is not his_i boss!
b. Omer's cook produces delicious food. But unfortunately, today Omer himself is cooking for us. And as you can tell, Omer_i is not his_i cook

Moro's own logic then leads to the conclusion that in such examples the postcopular nominal is *not* in fact a predicate.

3. Line 2: Noun phrases are never themselves predicates

3.1. The proposal

We have just seen evidence that it is possible to have a binominal copular clause where neither nominal is predicative. Fiorin and Delfitto (2025) Fiorin and Delfitto (2025) go further, arguing that binominal copular clauses *never* involve nominals with a predicative interpretation. Instead, they propose that at least all definites (including possessed

nominals like *his boss*) are always referential (type *e*). At the same time, they wish to maintain the position that the copula itself takes a small clause as its argument. So they propose that this small clause may be headed by a functional category H, which combines with two referential phrases (is of type $\langle e, \langle e, t \rangle \rangle$) and expresses “asymmetric identification”.²

$$(10) \quad [[H]] := \lambda y \lambda x (\forall P \forall s (\text{Ascribe}(s, P, y) \rightarrow \text{Ascribe}(s, P, x)))$$

They describe the denotation of H as “a transitive relation between two arguments y and x that is true iff for all properties P and cognitive agents s involved in the conversational exchange at stake, if P is relevant to s for identifying object y, then P is also relevant to s for identifying object x.” (Fiorin and Delfitto 2025: 10–11).

This then gives them a natural account of examples like (11).

- (11) *Anna_i è tutta sua_i madre.* [Italian]
 Anna is all her mother
 ‘Anna is entirely her mother / is like her mother in every way.’

They further argue that this yields the correct meaning for examples like (12a–c).

- (12) a. *Tiepolo_i è i suoi_i cieli.* [Italian]
 Tiepolo is the his skies
 Possible interpretation: ‘The beauty of Tiepolo’s painting resides in the skies he painted’
 b. *Una star_i (non) è il suo pubblico.* [Italian]
 a star (not) is the her/his audience
 ‘A star is (not) her/his audience.’
 c. *John_i is not his_i father.*

Note that in all these cited cases there is coreference between the subject and the possessor of the postcopular nominal, just as in (9a,b) above.

But if *all* binominal copular clauses involve H combining with two referential nominals, which like any other referential nominal can include a possessor that is coreferential with another argument (as in (7b) above), how are we to account for examples like (6a/7a), where such coreference is impossible? The proposal in Fiorin and Delfitto 2025 is as follows:

First, the one-way implication at the heart of “asymmetrical identification” may become a symmetric biconditional by a process of “pragmatic strengthening.” Given a statement of asymmetric identification of the form DP^1 is DP^2 , where DP^1 refers to object *a* and DP^2 to object *b*, its meaning can be represented as in (13a). Then pragmatic strengthening applies to yield the biconditional in (13b). Fiorin and Delfitto argue that this strengthening is an instance of the pragmatic process of “conditional perfection,” whereby a conditional like *If you mow the lawn I’ll give you \$5* invites the further inference that if you don’t mow the lawn, I won’t give you \$5 (and so is interpreted as a

² The formulation in (10) is not exactly as given in either of Delfitto and Fiorin’s two papers, but I think that it matches the intention as described in the texts. For the authors’ definitions, see Delfitto and Fiorin, example (35) and Fiorin and Delfitto (2025: 10).

biconditional). The biconditional in (13b) now states that the referents of the two nominal arguments share all (relevant) properties. Leibniz’s principle of the identity of indiscernibles (if two entities share all their properties, they are identical; i.e. they cannot be distinct objects) then entails that the two arguments refer to the same entity, i.e. the sentence is now interpreted as the claim of identity in (13c).

- (13) a. $\forall P \forall s(\text{Ascribe}(s,P,b) \rightarrow \text{Ascribe}(s,P,a))$
 pragmatically strengthened (by Conditional Perfection) to
 b. $\forall P \forall s(\text{Ascribe}(s,P,b) \leftrightarrow \text{Ascribe}(s,P,a))$
 entailing (by Leibniz’s principle of the identity of indiscernibles)
 c. $a = b$

In all cases where coreference is impossible, as in (6a/7a), this chain of inferencing sparked by pragmatic strengthening is argued to have taken place. But why should this lead to the failure of coreference? Fiorin and Delfitto (2025):14 point out that if this process has applied to a copular clause like *Omer_i is his_i cook*, one consequence of arriving at an identity statement will be that *his* and *his cook* will refer to the same person (*Omer_i is [his_i cook]_i*). Assuming that *cook* denotes a function which combines with an argument *x* (the possessor) to return the person who cooks for *x*, in this case the value of the function is the same as its input. This situation—a kind of “i-within-i configuration”—they argue to be strongly disfavored.

This then is the explanation for the ungrammaticality of coreference in examples like (6a/7a/14a). Moro had attributed this to the predicative status of *his cook*, but Fiorin and Delfitto (2025) stress that in their account such phrases are uniformly referring expressions.

- (14) a. A: Omer doesn’t cook for himself, right?
 B: Yeah exactly. *Omer_i isn’t his_i cook.
 b. A: We’re going to eat well at Omer’s, right? I hear he has a great cook!
 B: Well, sadly today Omer himself is cooking. And as will be all too clear, Omer_i isn’t his_i cook.

What about the grammaticality of (11/12a,b,c/14b)? The proposal is that here pragmatic strengthening has *not* applied. That is, the chain of inferences outlined above in (13) that would lead to these being (the negation of) claims of identity has not taken place.

3.2. The problem of negation

There is however a serious problem for the account given for ungrammatical cases like (14a). Specifically, the pragmatic process sketched out in (13) should not be possible with a negated example like (14a). In uttering the negated sentence *Omer_i isn’t his_i cook*, the speaker has, under the proposed analysis, specifically denied that Omer has all the relevant properties of his cook. Leibniz’s principle of identity of indiscernibles then cannot apply, so *cook* in this context will clearly not wind up as an identity function, and no version of the “i-within-i” constraint will apply. In consequence, the analysis predicts that while coreference will be impossible in a positive example like (15a) if *own* is not included, it will be fully acceptable in its negated counterpart (15b).

- (15) A: Does Omer cook for himself?
 a. B: Yes, Omer_i is his_i *(own) cook!
 b. B: No, Omer_i isn't his_i *(own) cook!

However, in my judgment, which I think is uncontroversial, (15a) and (15b) have exactly the same status: the coreference is essentially unavailable in this context.

4. More than one way to get a predicate from a nominal.

4.1. Interim summary

So far we have seen two different attempts to give a unified account of the underlying structure of a binominal copular clause, which rely on different claims about the possible interpretation of definite noun phrases. We can abstract a common schematic structure for a copular clause, where F is a functional head of some kind.

- (16) [be [_{FP} DP^A [_F F DP^B]]]

For Longobardi and Moro (and many others) DP^B is always a predicate (type $\langle e, t \rangle$) and DP^A is its single argument.³ A referential nominal may occur in postcopular position only if predicate inversion has taken place, moving the predicative nominal above *be*.

For Fiorin and Delfitto, on the other hand, DP^B is always a referring expression (type *e*). It does not take the other nominal as its argument; rather, both nominals are the arguments to the functional head F, which corresponds to H in their analysis—the head expressing asymmetric identification. Alternations can arise in either of two ways:

- The head H can take any referring expression *x* as an argument and return a predicate with the meaning “is ascribed all the relevant properties of *x*”. Thus a referring expression is free to occur either as first (lowest) or the second (“subject”) argument to H.
- Moro-style inversion is also possible; that is, either argument of H can become the subject of the clause (or, possibly, H+DP^B can move past DP^A as a unit).

We saw that there are convincing arguments in Fiorin and Delfitto’s papers against the claim that DP^B is uniformly predicative—and see also the analysis of statements of mistaken identity in Percus and Sharvit 2024. Fiorin and Delfitto (2025) go further and argue for a different but also unified account, namely that DP^B is uniformly arugmental/non-predicative.

In what follows I will argue that this second attempt at unification across all binominal copular cluses is also untenable. Rather, while some definite nominals are themselves predicative (*contra* Fiorin and Delfitto), others are arguments to a functional head within the small clause, as argued in Heycock (2012), Percus and Sharvit (2024), Delfitto and Fiorin (2025), Fiorin and Delfitto (2025). I will further suggest that at least in some languages, only in the latter case is “inversion” possible.

³ Given this semantic type, semantic considerations alone do not require the presence of the functional head F/Pr/Pred, and indeed a number of authors (including Moro and more recently, for very different reasons, Matushansky 2019) have argued that a binominal small clause consists only of the predicative nominal DP^B and its argument DP^A.

4.2. Evidence for definites as predicates

A number of linguists have made arguments that definite nominals can get predicative interpretations (for a useful summary see Coppock and Beaver 2015). Some of these arguments are not in fact telling against Fiorin and Delfitto's proposal, in which definites are always of type *e* but can combine with the small clause head H to yield a derived predicate. However, some arguments that definites can themselves get a predicative interpretation cannot be easily deflected.

One such case involves appositional conjunction (Hoeksema 1988, Winter 2001, Coppock and Beaver 2015).

- (17) a. My great opponent and the hero of my youth has passed away.
b. The hero of the siege and the only man I have ever loved has passed away.

Note the interpretation (and the agreement): the reference in each case is to a single individual who satisfies both properties. This would be unexpected for the conjunction of type *e* categories. Winter (2001) argues that cases like (17) are possible because they indeed involve conjunction of *predicates* (with subsequent type-shifting to get the argumental reading—this could involve a silent functional head above the level of the conjunction). Note that an analysis invoking Fiorin and Delfitto's head H to convert a referential nominal to a predicate would fail to predict that while definites (including possessives) can participate in appositional conjunction, proper names cannot.

- (18) Dr. Jekyll and Mr. Hyde have/*has passed away.

Another piece of evidence in the same direction comes from the possible lack of existential presupposition for definites in predicate position. The sentence in (19) is ambiguous; on the interpretation in (19b) there is no presupposition of the prior existence of *the cleverest woman in the world*.

- (19) With a wave of the magician's wand, I became the cleverest woman in the world.
a. Scenario 1: The cleverest woman in the world is Amanda K. The magician transformed me into Amanda K.
b. Scenario 2: The magician endowed me with the property of being cleverer than any other woman in the world.

If every binominal copular structure with a definite involved a referential use, it is very hard to see how we could account for this ambiguity. On the other hand, if definites can get predicative as well as referential interpretations, the ambiguity in (19) can be explained.

4.3. Two routes for nominals in predication

To summarize: the recent work by Fiorin and Delfitto, (and also Percus and Sharvit 2024, which unfortunately I do not have space to discuss here), has provided convincing evidence that we require a functional head that can create a predicate from a referring expression (Fiorin and Delfitto's head H; Percus and Sharvit's head VAL, Heycock (2012)'s F). Instances would include those in (20)

- (20) a. With a wave of the magician’s wand, I became Amanda K, the woman I had been introduced to and the cleverest woman in the world.
 b. My sister Su would have been able to help you, but unfortunately for you, I am not my sister.
 c. In the dark, for I moment I thought that you were your sister Kaori.

At the same time, there is evidence that not only indefinite but also definite nominals can function semantically and syntactically as predicates. Given the existence of copular clauses and small clauses with other predicative categories (most obviously, Adjective Phrases), it is therefore predicted that definites can also appear in such clauses.

- (21) a. On the departure of his brother, Zaid became the last man in the village.
 b. A: Is Charlie related to you? Or don’t you have any living relatives?
 B: Charlie is my cousin! And so is Liz.
 c. A: Does Kyoko really look after her health entirely on her own?
 B: Yes! She is her *(own) doctor.

In some cases—such as these—some aspect of the context or the interpretation makes it clear whether the definite is interpreted as a predicate (21) or only as a subpart of a larger predicate (20). But in many cases there will be ambiguity. Exactly this conclusion has been argued for on the basis of evidence from Thai (Kuno and Wongkhomthong 1981; Hedberg and Potter 2010) and more recently French (Roy 2022). Thus for example in Thai there are two copulas that can both appear in binominal copular clauses: *bpen* and *kheuu*. In unambiguously predicative cases, only *bpen* is grammatical, but in cases where the non-subject nominal gets a definite interpretation, either copula is possible (examples from Kuno and Wongkhomthong 1981):

- (22) a. *yîpùn pen/*khi: pràthê:d ùdsă:hàkam.* [Thai]
 Japan is/is country industry
 ‘Japan is an industrial country.’
 b. *cɔ:n pen/khi khon thî: chán rág.*
 John is/is person that I love
 ‘John is the person that I love.’

Kuno and Wongkhomthong state that the interpretation of (22b) is subtly different depending on the choice of copula:

[(22b)]for example, can be interpreted either as a sentence that presents one of the characteristics that John has, or as a sentence which states that John and the person that the speaker loves are one and the same person. The characterizational [=predicational] copula *pen* is used for the former interpretation, and the identificational [=specificational] copula *khi:* is used for the latter interpretation. (Kuno and Wongkhomthong 1981, p. 69)

We can therefore hypothesize that *kheuu* combines with small clauses headed by some variant of the F/VAL head proposed in Heycock (2012), Percus and Sharvit (2024), while *bpen* combines with small clauses headed by whatever functional head takes predicative phrases as its complement. The possibility of both occurring in

examples like (22b) arises because the final noun phrase can receive either a predicative or an argumental interpretation, and so can combine with either.

5. Alternation and inversion

Finally, let us return to the issue of alternation. We have just seen that in Thai, the sentence that translates *John is the person that I love* can appear with either one of the two copulas. This is at least indirect support for the hypothesis proposed here that in English *John is the person that I love* is potentially ambiguous, with *the person that I love* getting either a predicative or an argumental interpretation. Strikingly, as in English, alternation in the order of the two nominals is possible; but in the “inverted” order only *kheuu* can occur.

- (23) *khon thî: chán rág *pen/khî cɔ:n.* [Thai]
 person that I love is/is John
 ‘The person that I love is John.’

A similar pattern is observed in French, where the issue is the presence or absence of *ce* (Roy 2022): two possibilities when the order is as in (22b) but only one when it is as in (23). As argued by Hedberg and Potter on the basis of the Thai data, this supports a specific view of the alternation with the “inverted” order in examples like (23/2a,c/4b). Namely, rather than being predicate inversion, this inversion is in fact not possible for predicative nominals (any more than it is possible with APs), but is possible when the predicate in the small clause is constructed from an argumental nominal combining with F/VAL/H.

6. Conclusions and open questions

In this paper I have discussed alternation in the order of nominals occurring in binominal copular clauses in English (with some data also from other languages), an alternation that is often referred to, following Moro 1997, as predicate inversion. I have examined two lines of analysis that have been proposed to give a unitary analysis of the type of nominals that can occur in binominal copular clauses, and argued that neither reduction can capture all the data. Rather, we need to allow for the coexistence of two different ways of obtaining a predicate from a nominal. Once we have made this move, we arrive at the hypothesis that the observed alternation occurs only when the “fronted” nominal is not itself predicative

This brief paper leaves open many issues that remain to be resolved. To mention just two among them: First, is there a difference in the internal structure of predicative vs. argumental definites (Zamparelli 1996; Cheng et al. 2017)? Second: why is it that “inversion” is possible only in one of the two structures at issue, and what exactly is the nature of this derivation? There are always more questions, but as the eminent linguist Bill Labov used to say: The more you know, the more you can find out.

References

- Cheng, Lisa Lai-Shen, Caroline Heycock, and Roberto Zamparelli (2017). Two levels for definiteness. In Michael Yoshitaka Erlewine (ed.) *Proceedings of GLOW in Asia XI - Volume I*, 79–93. *MIT Working Papers in Linguistics 84*. Cambridge, MA: MITWPL.

- Coppock, Elizabeth and David Beaver (2015). Definiteness and determinacy. *Linguistics and Philosophy* 38, 377–435.
- Delfitto, Denis, and Gaetano Fiorin (2025). Copular structures and asymmetric identity. *Studia Linguistica* 79: 180–214.
- Fiorin, Gaetano, and Denis Delfitto (2025). Possessive binding in copular sentences and the logic of identification. *Glossa: A Journal of General Linguistics* 10 (1), 1–27.
- Hartmann, Jutta Maria, Caroline Heycock, Isabelle Roy, and Roberto Zamparelli (2024). The syntax of nominal copular clauses: Theoretical and empirical perspectives. Project proposal, AHRC/DFG.
- Hedberg, Nancy, and David Potter (2010). Equative and predicational copulas in Thai. In Nicholas Rolle, Jeremy Stefman, and John Sylak-Glassmann (eds.) *Proceedings of the Thirty Sixth Annual Meeting of the Berkeley Linguistics Society*, 144–157.
- Heycock, Caroline (2012). Specification, equation, and agreement in copular sentences. *Canadian Journal of Linguistics/ Revue Canadienne de Linguistique* 57 (2), 209–40.
- Hoeksema, Jack (1988). The semantics of non-Boolean *and*. *Journal of Semantics* 6: 19–40.
- Hoeksema, Jack, and Donna Jo Napoli (1990). A condition on circular chains: A restatement of i-within-i. *Journal of Linguistics* 26 (2), 403–424.
- Kuno, Susumu, and Preya Wongkhomthong (1981). Characterizational and identificational sentences in Thai. *Studies in Language* 5 (1), 65–109.
- Longobardi, Giuseppe (1983). Le frasi copulari in italiano e la struttura della teoria sintattica. *Annali della Scuola Normale Superiore di Pisa Classe de Lettere e Filosofia*, III, 1151–1164.
- Longobardi, Giuseppe (1985). Su alcune proprietà della sintassi e della forma logica delle frasi copulari. In L.M. Savoia and A. Franchi De Bellis (eds.) *Sintassi e morfologia della lingua italiana d'uso: Teorie ed applicazioni descrittive*, Atti del XVII congresso internazionale di studi della SLI. Bulzoni, 211–223.
- Matushansky, Ora (2019). Against the PredP theory of Small Clauses. *Linguistic Inquiry* 50 (1), 63–104.
- Moro, Andrea (1997). *The Raising of Predicates: Predicative Noun Phrases and the Theory of Clause Structure*. Cambridge: Cambridge University Press.
- Moro, Andrea (2006). Copular sentences. In Martin Everaert and Henk van Riemsdijk (eds.) *The Blackwell Companion to Syntax*, Volume 2, 1–23. 1st edn. London: Blackwell.
- Percus, Orin, and Yael Sharvit (2024). Copular asymmetries in belief reports. *Natural Language Semantics* 32 (3), 403–30.
- Rothstein, Susan (1995). Small Clauses and copular constructions. In Anna Cardinaletti and Maria Teresa Guasti (eds.) *Small Clauses*. New York: Academic Press.
- Roy, Isabelle (2022). Predication, specification, equation: Nominal copular sentences in search of asymmetry. Unpublished manuscript. University of Nantes.
- Winter, Yoad (2001). *Flexibility Principles in Boolean Semantics*. Cambridge MA: MIT Press.
- Zamparelli, Roberto (1996.) *Layers in the Determiner Phrase*. Doctoral dissertation, University of Rochester.

Structural effects of nominative-genitive conversion in Japanese*

Hideki Kishimoto
Kobe University

1. Introduction

In Japanese, genitive subjects can be derived via so-called “nominative-genitive (*ga-no*) conversion” when finite clauses comprising nominative subjects are embedded under nominals to form complex DPs (i.e. relative clauses and noun-complement clauses) (see Harada 1971, Maki and Uchibori 2008, Ochi 2016, and others).

- (1) a. [*gakusei*-{**ga/no**} *yon-da*] *hon*
 student- $\{NOM/GEN\}$ read-PAST book
 ‘the book which the students read’ (relative clause)
- b. [*gakusei*-{**ga/no**} *ku-ru*] *kanoosei*
 student- $\{NOM/GEN\}$ come-PRES possibility
 ‘the possibility that the students will come’ (noun-complement clause)

The genitive case marking is not allowed on the subject in the matrix context. Thus, the subjects in (2) can be marked with nominative case, but not genitive case.

- (2) a. *Gakusei*-{**ga/*no**} *hon-o* *yon-da*.
 student- $\{NOM/GEN\}$ book-ACC read-PAST
 ‘The students read the books.’
- b. *Gakusei*-{**ga/*no**} *ku-ru*.
 student- $\{NOM/GEN\}$ come-PRES
 ‘The students will come.’

One perennial issue surrounding the nominative-genitive conversion in Japanese is where subjects are located. Three different proposals are available in the literature.

- (3) a. [_{DP} **SBJ-GEN** [_{CP} [_{TP} SBJ-NOM [_{vP} V-v] T] C] D]
 b. [_{DP} [_{CP} [_{TP} SBJ-NOM [_{vP} **SBJ-GEN** V-v] T] C] D]
 c. [_{DP} [_{CP} **SBJ-GEN** [_{TP} SBJ-NOM [_{vP} V-v] T] C] D]

Some researchers (e.g. Bedell (1972), Saito (2004), Sakai (1994)) maintain a classic view, and claim that genitive subjects appear in the nominal domain which is projected above the embedded clause, as in (3a). Watanabe (1996), Hiraiwa (2001, 2005), and Miyagawa (2011, 2013) hold that genitive subjects appear in vP without undergoing A-movement to a higher position, as in (3b), which is currently the most prevalent view. Kishimoto

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(2017a) advances another analysis, and claims that genitive subjects appear in the CP domain, as in (3c).

In this paper, I will argue that the genitive subject is moved to Spec CP, in line with the third analysis, and that genitive subjects are located in Spec-CP in overt syntax by virtue of the EPP feature assigned to C. Crucial empirical data in support of this claim come from the facts of NPI licensing. It is shown that genitive objects derived via nominative-genitive conversion stay in situ in overt syntax, but are raised to CP at LF. On the basis of this fact, I suggest that genitive Case is licensed by D while observing the PIC (Phase Impenetrability Condition).

2. The structural position of genitive subjects

In this section, I will provide several pieces of new data that allow us to state that genitive subjects derived by nominative-genitive conversion are moved to CP.

2.1. Genitive subjects are not in the nominal domain

In this section, I argue that genitive subjects derived from nominative-genitive conversion are *not* located in the nominal domain, i.e. DP or NP (pace the classic analysis (Bedell (1972), Saito (2004), and Sakai (1994))).

The view that genitive subjects appear inside the nominal domain, i.e. the DP/NP, projected above the embedded clause gains empirical support from the facts of adjectival modification (Kishimoto 2017a). First, observe that the adjectival modifier *oisii* ‘delicious’ cannot follow the subject of the predicate *taberu* ‘eat’ regardless of its case marking in (4).

- (4) [[(*oisii*) *gakusei*-{*ga/no*} (**oisii*) *tabe-ta*] *keeki*]
 delicious student-{NOM/GEN} delicious eat-PAST cake
 ‘the (delicious) cake that the student ate’

The same adjectival modifier *oisii* can appear either to the left or the right of a genitive argument located in the nominal domain, as shown in (5).

- (5) [(*oisii*) *gakusei-no* (*oisii*) *obentoo*]
 delicious student-GEN delicious lunchbox
 ‘the student’s (delicious) lunchbox’

In (5), the adjectival modifier can follow the genitive argument since it appears inside the DP/NP. The impossibility of placing the adjectival modifier to the right of the genitive subject in (4) indicates then that it appears not in DP/NP, but the embedded clause.

Additional support for the view that the genitive subject is in the embedded clause may be adduced from the noun-complement construction in (6), where the nominal *isi* ‘intention’ selects a control complement.

- (6) [*Eri*-{*no/*ga*} *kaigai-ni iku*] *isi-wa kawara-nakat-ta*.
Eri-{GEN/NOM} overseas-to go-PRES intention-TOP change-NEG-PAST
 ‘Eri’s intention that she will go abroad did not change.’

In (6), the genitive argument is interpreted as the subject of the predicate, but cannot be marked with nominative case. This fact illustrates that the genitive argument in (6) is not

derived via nominative-genitive conversion, but is an argument selected by the nominal *isi*. It can be posited then that the complement clause has PRO controlled by the genitive argument located inside the DP in (7).

(7) [DP Eri_i-GEN [CP PRO_i]]

The genitive argument *Eri* in (6) is interpreted as the subject of the embedded predicate since *Eri* controls PRO. Notably, it is not possible to embed an inanimate subject clause under the nominal *isi* ‘intention’, as (8) illustrates.

(8) *[*Ame-no huru*] *isi-wa kawara-nakat-ta*.
rain-GEN fall-PRES intention-TOP change-NEG-PAST
(lit.) ‘The rain’s intention that it will fall did not change.’

As argued by Kishimoto (2005, 2017b), an animacy requirement is imposed on controlled PRO in Japanese. Then the fact that (8) is excluded as unacceptable suggests that the complement clause in (6) has a control structure.

By contrast, no animacy requirement is imposed on the genitive-subject construction whereby the genitive subject is derived by the nominative-genitive conversion. Thus, (9) is acceptable.

(9) [*Ame-no huru*] *kanoosei-wa kawara-nakat-ta*.
rain-GEN fall-PRES possibility-TOP change-NEG-PAST
‘The probability that it will rain did not change.’

(9) shows that the complement clause does not have a control structure, which in turn suggests that the genitive subject appears in the noun-complement clause, and thus the adjectival modifier is prevented from occurring to the right of the genitive subject in (4).

Remarkably, the noun-complement construction whose head noun is *isi* allows an adjectival modifier to follow the genitive argument.

(10) [(*katai*) *Eri-no (katai) kaigai-ni iku*] *isi*
firm Eri-GEN firm overseas go-PRES intention
‘Eri’s (firm) intention to go abroad’

Obviously, the adjectival modifier can be placed to right of the genitive argument, since it appears inside the nominal domain. The data point to the conclusion that genitive subjects derived via nominative-genitive conversion are not located inside DP/NP.

2.2. The position of genitive/nominative subjects in the embedded clause

Some researchers (including Watanabe (1996), Hiraiwa (2001, 2005), and Miyagawa (2011, 2013)) claim that genitive subjects stay in vP, as in (11a).

(11) a. [CP [TP [vP SUBJ-GEN V-v] T] C]
b. [CP SUBJ-GEN [TP [vP ~~SUBJ-GEN~~ V-v] T] C]

I will provide empirical evidence in support of the view that the genitive subject is located in CP, occupying a higher position than the nominative subject, as (11b) illustrates.

Crucial empirical evidence comes from the interpretation of an NPI *amari ooku-no* ‘very many’ (Kishimoto 2017b).

As an entry to this discussion, let us mention some notable properties of the NPI *amari ooku-no* ‘very many’. First, the NPI is a premodifier to a DP, which allows the host to bear an overt case marking. It can appear in a negative clause, but not an affirmative clause, as shown in (12a) and (12b).

- (12) a. [*Amari ooku-no hito*]-*ga hanasa-nakat-ta*.
 very many-GEN man-NOM talk-NEG-PAST
 ‘Not very many people have talked (=a small number of people talked).’
 b. **[Amari ooku-no hito]-ga hanasi-ta*.
 very many-GEN man-NOM talk-PAST
 (lit.) ‘Very many people talked.’

Note that if the NPI is licensed in the negative context, negation necessarily takes scope over *ooku-no* ‘many’, obtaining the “NEG > very many” interpretation, i.e. the combination of “*amari ooku-no* plus NEG” mean “(just) a small number of”.¹

Secondly, no subject-object asymmetry is observed in the licensing of *amari ooku-no* in a simple finite clause owing to the fact that the negator takes scope over TP (Kishimoto 2017b).

- (13) a. [*Amari ooku-no hito*]-*ga sono koto-o hanasa-nakat-ta*.
 very many-GEN man-NOM that matter-ACC talk-NEG-PAST
 ‘A small number of people talked about that matter.’
 b. *Ken-wa [amari ooku-no koto]-o hanasa-nakat-ta*.
 Ken-TOP very many-GEN thing-ACC talk-NEG-PAST
 ‘Ken talked about a small number of matters.’

The NPI residing outside the scope of negation is not licensed. This can be confirmed by the bi-clausal construction with *soo-da* ‘likely’ indicating probability.

- (14) a. **[Amari ooku-no hito]-ga sono koto-o hanasa-nasa-soo-da*.
 very many-GEN man-NOM that matter-ACC talk-NEG-likely-PRES
 (lit.) ‘Very many people are likely not to talk about that matter.’
 b. *Ken-wa [amari ooku-no koto]-o hanasa-nasa-soo-da*.
 Ken-TOP very many-GEN thing-ACC talk-NEG-likely-PRES
 ‘Ken is likely to talk about a small number of matters.’

In both sentences in (14), the negator is followed by *soo da*. In (14a), the NPI in the subject position is not licensed, so that the sentence cannot have the interpretation that a

¹ There are cases where the NPI *amari* is licensed without negation, since the NPI is not a strong type (Sawada, Kishimoto, and Imani 2024). When *amari* is allowed in a non-negative context, it carries the meaning of “too much”. Importantly, “neg > many” interpretation is possible only if the NPI is licensed under the scope of negation. Thus, the presence or absence of a “neg > many” interpretation is used as a yardstick to assess whether *amari* falls under the scope of negation.

small number of people talked about that matter. In (14b), where the NPI appears in the object position, the NPI is licensed, so that the sentence can have the interpretation that Ken talked about a small number of matters.

It is also possible to place the negator to the right of *soo da*, in which case the negator appears in the matrix clause. In this case, the matrix subject NPI, as well as the object NPI, is licensed in (15).

- (15) a. [*Amari ooku-no hito*]-ga hanasi-soo-ni-na-i.
 very many-GEN man-NOM talk-likely-COP-NEG-PRES
 ‘A small number of people are likely to talk.’
 b. *Ken-wa [amari ooku-no koto]-o hanasi-soo-ni-na-i.*
 Ken-TOP very many-GEN matter-NOM talk-likely-COP-NEG-PRES
 ‘Ken is not likely to talk about a small number of matters.’

(15a) is legitimate with the interpretation that a small number of people seem to talk. (15b) is legitimate as well, obtaining the interpretation that Ken seems to talk about a small number of things since the object NPI falls under the scope of negation.

The *soo-da* sentences in (14) and (15) are raising constructions where the embedded subject is raised to the matrix clause, as depicted in (16).

- (16) [TP SUBJ [TP SUBJ OBJ V Neg]-*soo da*]
└──────────────────────────────────┘
negative scope

As discussed by Kishimoto (2017b), the negative *nai*, which initially appears in NegP, takes scope over the subject if it undergoes Neg-head raising to TP. The negator in (14) is placed in the embedded clause, so it takes scope over the embedded TP. Thus, the NPI subject raised to the matrix clause in (14a) is not licensed. The object falls under the scope of negation, and is licensed in (14b).

No subject-asymmetry in NPI licensing is observed in (15) since the scope of negation extends over the matrix TP when the negator follows the auxiliary *soo-da*, as (17) illustrates.

- (17) [TP SUBJ-NOM [TP ~~SUBJ-NOM~~ OBJ-ACC V]-*soo ni* NEG-T]
└──┘
negative scope

In this case, the NPI is licensed regardless of whether it occurs in subject position or in object position. Accordingly, both sentences in (15) are acceptable.

With the licensing condition of the NPI *amari ooku-no* and its relative scope interpretation in mind, let us proceed to consider data on the nominative-genitive conversion. (18) is a case where the subject appearing in the noun-complement clause is marked with nominative case.

- (18) [[*Amari ooku-no gakusei*]-ga hanasa-nakat-ta] kanoosei-ga ar-u.
 very many-GEN student-NOM talk-NEG-PAST possibility-NOM be-PRES
 ‘There is the possibility that a small number of students talked.’

In (18), the NPI *amari ooku-no* is licensed under the scope of embedded negation, and the embedded clause can have the interpretation that a small number of students talked. This fact shows that the nominative subject in (18) resides in Spec-TP in the finite noun-complement clause.

In contrast, the embedded genitive subject in (19) is not licensed under the embedded negation, and hence (19) does not have a legitimate interpretation that a small number of students talked.

- (19) *[[*Amari ooku-no gakusei*]-*no hanasa-nakat-ta*] *kanoosei-ga ar-u*.
 very many-GEN student-GEN talk-NEG-PAST possibility-NOM be-PRES
 (lit.) ‘there is the possibility that very many people did not talk.’

The absence of the intended interpretation shows that the genitive subject falls outside the scope of the embedded negator, which takes scope over the embedded TP.

A comparison of (18) and (19) shows that the genitive subject is located in a higher position than the nominative subject. Since negative scope extends over TP in the noun-complement clause, it can be stated that the genitive subject appears in CP, as illustrated in (20).

- (20) [_{CP} SUBJ-GEN [_{TP} SUBJ-NOM.....Neg-T] C]
 └──┘
 negative scope

The NPI appearing in a structural position below the nominative subject is licensed by the clausal negation. Importantly, the NPI *amari ooku-no* is not licensed by negation if it is marked with genitive case, whereas it is licensed if marked with nominative case. It is easy to see then that the genitive subject is located in a higher position than the nominative subject.

It is worth noting that both genitive and nominative subjects undergo A-movement when direct passivization applies. This can be confirmed by appealing to subject-oriented reflexive *zibun* ‘self’.

- (21) a. *[[*Sensei-ga Eri-o zibun_i-no heya-de sikat-ta*] *kanoosei-ga ar-u*.
 teacher-NOM Eri-ACC self-GEN room-in scold-PAST possibility-NOM
 be-PRES
 (lit.) ‘There is the possibility why the teacher scolded Eri_i in self_i’s room.’
- b. [*Eri_i-{ga/no}*] *zibun_i-no heya-de sikar-are-ta*] *kanoosei-ga ar-u*.
 Eri-_i{NOM/GEN} self-GEN room-in scold-PASS-PAST possibility-NOM
 be-PRES
 (lit.) ‘There is the possibility that Eri was scolded by self_i’s room.’

(21a) shows that the object of a transitive clause does not serve as the antecedent of *zibun*. Nevertheless, if the object is rendered as the passive subject by direct passivization, it can antecede *zibun* regardless of whether it is marked with genitive or nominative case, as seen in (21b).

When an argument undergoes A'-movement (such as topicalization) or scrambling, no change of grammatical relation takes place. Thus, the moved object in (22b-c) cannot be the antecedent of *zibun*.

- (22) a. **Sensei-ga Eri-o zibun-no heya-de sikat-ta.*
 teacher-NOM Eri-ACC self-GEN room-in scold-PAST
 'The teacher scolded Eri in self's room.'
- b. **Eri-o sensei-ga zibun-no heya-de sikat-ta.*
 Eri-ACC teacher-NOM self-GEN room-in scold-PAST
 'Eri, the teacher scolded in self's room.' (fronting by scrambling)
- c. **Eri-wa sensei-ga zibun-no heya-de sikat-ta.*
 Eri-TOP teacher-NOM self-GEN room-in scold-PAST
 'As for Eri, the teacher scolded in self's room.' (fronting by topicalization)

A comparison of (21) and (22) shows that the passive subject undergoes A-movement from its original object position irrespective of whether it is marked with nominative case or genitive case.

In Japanese, negative scope extends over TP in verbal clauses (Kishimoto 2017b). The nominative subject appears in Spec-TP and hence the NPI subject is licensed under the scope of negation. By contrast, the unacceptability of (19) shows that the genitive subject is located outside the scope of negation, which suggests that it undergoes A-movement to Spec-CP. Both nominative and genitive subjects undergo A-movement by the clausal subject requirement, i.e. the EPP requirement, but they stop at different positions in clause structure.

Chomsky (2008) suggests that an EPP feature is assigned to the phase head of C, and that this feature can be inherited by T. Given this, it is reasonable to postulate that the genitive subject differs from the nominative subject in the locus where the EPP feature attracts the subject.² In the nominative-subject construction, the EPP feature assigned to C is inherited by T, so that the subject is moved to Spec-TP. In this case, the Case feature is also inherited by T, and T Case-licenses the subject. In the genitive-subject construction, C retains the EPP feature, and thus the subject moves into Spec-CP. T does not inherit the formal features when a Case feature is not assigned to C. Accordingly, the genitive Case on the genitive subject is Case-licensed by D.

2.3. Non-subject arguments with genitive case

In the present analysis, both genitive and nominative subjects undergo A-movement by the EPP requirement. Given that the subjects are moved by the EPP requirement, it is expected that non-subject arguments will not undergo A-movement regardless of their case marking.

With a view to verifying the claim that non-subject arguments do not undergo A-movement, I will look into adjectival clauses, which, as Kishimoto (2019) discusses, do not extend the negative scope over TP. This fact can be confirmed by the unacceptability of (23) with the intended interpretation that a small number of papers were interesting.

² This is in line with the D-licensing approach. The C-licensing approach (Hiraiwa 2001, 2005) is not adopted in this paper since there is not a strict correlation between the genitive case marking on the subject and the predicate inflection. For reasons of space, I will not discuss this point in this paper.

- (23) **[Amari ooku-no ronbun]-ga omosiroku nakat-ta.*
 very many-GEN paper-NOM interesting NEG-PAST
 (lit.) ‘Very many papers were not interesting.’

(23) shows that negative scope does not extend over TP in adjectival clauses. The adequacy of this view is reinforced by the adjective clause in (24), which has a transitive adjective as its predicate. In the case of transitive adjectives, a subject-complement asymmetry is observed in NPI licensing, as seen in (24).

- (24) a. **[Amari ooku-no hito]-ga kare-ni yasaki nakat-ta.*
 very many-GEN person-NOM he-DAT nice NEG-PAST
 (lit.) ‘Very many people was not nice to him.’
 b. *Ken-wa [amari ooku-no hito]-ni yasaki nakat-ta.*
 Ken-TOP very many-GEN person-DAT nice NEG-PAST
 ‘Ken was nice to a small number of drinks.’

The transitive adjective *yasasii* ‘nice’ takes a nominative subject and a dative complement. When the NPI *amari ooku-no* is included in the subject, the sentence cannot have the interpretation that a small number of people were nice to him. But when the dative argument comprises the NPI, the sentence can have the interpretation that Ken was nice to a small number of people. The interpretive facts suggest that the negator does not undergo head movement to T, and thus negative scope does not extend over TP in the adjectival predicate construction (Kishimoto 2019).

The same holds true of another type of transitive adjective *hosii* ‘want’, which takes two nominative arguments.

- (25) a. **[Amari ooku-no hito]-ga nomimono-ga hosiku nakat-ta.*
 very many-GEN person-NOM drink-NOM want NEG-PAST
 (lit.) ‘Very many people did not want drinks.’
 b. *Ken-wa [amari ooku-no nomimono]-ga hosiku nakat-ta.*
 Ken-TOP very many-NOM drink-NOM want NEG-PAST
 ‘Ken wanted a small number of drinks.’

In (25a), the NPI is contained in the first argument, i.e. the subject, and the NPI is not licensed. Thus the sentence cannot have the interpretation that a small number of people wanted drinks. In (25b), the NPI occurring inside complement to the adjective predicate is licensed. Thus (25b) has the interpretation that Ken wanted a small number of drinks.

The transitive predicate *hosii* ‘want’ takes a nominative-nominative case pattern. Accordingly, the second argument of *hosii* can undergo the nominative-genitive conversion. (26a) shows that the NPI complement is licensed under the scope of negation regardless of whether it bears the nominative or genitive marking and has the interpretation that Ken wanted a small number of drinks.

- (26) a. *[Ken-ga [amari ooku-no nomimono]-{ga/no} hosiku nakat-ta]*
 Ken-NOM very many-GEN drink- $\{$ NOM/GEN $\}$ want NEG-PAST
kanoosei-ga ar-u.
 possibility-NOM be-PRES

- ‘There is the possibility that Ken wanted a small number of drinks.’
- b. *[[*Amari ooku-no hito-{ga/no}* *nomimono-ga hosiku-nakat-ta*]
 very many-GEN man- {NOM/GEN} drink-NOM want-NEG-PAST
 kanoosei-ga ar-u.
 possibility-NOM be-PRES
 (lit.) ‘There is the possibility that very many people did not want drinks.’

When the NPI appears in the first argument, it is not licensed by the embedded negator, as seen in (26b).

The important fact is that the NPI appearing in the second argument, but not the first argument, i.e. the subject, of transitive adjectives is licensed under negation. The interpretive facts of the transitive adjective *hosii* ‘want’ follow given that negative scope extends only over the adjectival predicate without Neg-head raising, as depicted in (27).

- (27) [CP SUBJ-GEN [SUBJ-NOM [NegP [aP ARG-NOM/GEN...a-A] Neg] T]
- negative scope

If the negator remains in NegP, its scope extends over only aP. Hence the NPI in the subject position is not licensed in the adjectival clauses. The second argument stays in situ. Thus, the NPI appearing in the second argument is licensed regardless of its case marking even when the negator in the adjectival clause extends its scope only over aP.

2.4. How is genitive Case licensed?

The facts of the transitive adjective construction raise the question of how genitive Case on the complement is licensed. In the present perspective, genitive Case on the genitive subject is licensed by D. If a genitive complement stays in situ, the question arises as to how D licenses its genitive Case. Since the arguments can be subject to nominative-genitive conversion only when they are embedded under nominals, it looks as if genitive Case on the complement of a transitive adjective is sanctioned by the Case-licensing D-head at a distance in violation of the Phase Impenetrability Condition (PIC) (Chomsky 2000, 2001, 2004). On the contrary, the genitive complement is moved up to CP at LF, so that Case licensing is implemented by observing the PIC.

Empirical evidence in favor of the present view can be adduced from the facts of association with focus by *dake* appearing at the clause end. Observe that in (28), the focus interpretation differs depending on the subject marking.

- (28) [[*Ken{ga/*no}* *kono nomimono-ga hosikat-ta*] *dake-no*]
 Ken- {NOM/GEN} this drink-NOM want-PAST only-COP
 kanoosei-ga ar-u.
 possibility-NOM be-PRES
 ‘There is the possibility that **only Ken** wanted this drink.’

In (28), the focus particle *dake* ‘only’ can be associated with the subject *Ken*, and can have the interpretation that only Ken wanted this drink when it is marked with nominative case, but not genitive case. Given this, the presence or absence of the subject focus interpretation is naturally expected if the nominative subject resides in TP, and the genitive subject in CP.

The same distribution is observed for the second argument of the transitive adjective *hosii* ‘want’, as illustrated in (29).

- (29) [[*Ken-ga kono nomimono-~~{ga/*no}~~ hosikat-ta*] *dake-no*]
 Ken-NOM this drink-~~{NOM/GEN}~~ want-PAST only-COP
kanoosei-ga ar-u.
 possibility-NOM be-PRES
 ‘There is the possibility that Ken wanted **only this drink.**’

Crucially, (29) lacks the interpretation where the focus of *dake* falls on the second complement argument if it is marked with genitive case, but this interpretation is permitted if it bears nominative marking.

As argued by Kishimoto (2009), *dake* takes TP as its focusing domain and the possibility of *dake*-focusing is fixed at the LF level. Since the genitive complement of *hosii* remains in aP in overt syntax, it can be stated that the genitive complement argument is moved into CP at the LF level.

- (30) a. The genitive subject is moved to CP overtly by the EPP feature assigned to C.
 Overt Syntax: [_{CP} SUBJ-GEN [_{TP} [_{vP} ~~SUBJ-GEN~~ Arg-GEN V-v]T]C]
 b. The non-subject argument in the genitive case is moved to CP by LF raising.
 LF: [_{CP} SUBJ-GEN Arg-GEN [_{TP} [_{vP} ~~SUBJ-GEN~~ ~~Arg-GEN~~ V-v]T]C]

The overall generalization is that the genitive arguments whose case marking is made available via nominative-genitive conversion are Case-licensed by moving into CP. Given that D is a Case-licenser of genitive Case, and that the arguments moved into the edge of CP are accessible to D, it can be stated that the Case-licensing of the genitive arguments observe the PIC.

Miyagawa (2011) suggests that the genitive arguments derived by nominative-genitive conversion are licensed by D within vP due to the small clause size lacking CP, but the data on the NPI licensing suggest that the clause size should not be so small. The new data considered in this section suggest that genitive Case on the genitive argument is licensed with a local relation at LF even if it appears in a position that is not accessible to D in overt syntax.

3. Conclusion

In this paper, I have argued for the following points: (A) Genitive subjects derived via nominative-genitive conversion occur in CP in overt syntax, while nominative subjects appear in TP. (B) Genitive subjects undergo A-movement to CP, and this movement is motivated by an EPP feature assigned to C and their genitive Case is licensed by D. (D) Genitive complements derived via nominative-genitive conversion are not subject to overt A-movement. Nevertheless, they are raised to CP by LF movement and their genitive Case is licensed by D.

References

- Bedell, George (1972). On *no*. *UCLA Papers in Syntax 3: Studies in East Asian Syntax*, 1–20.

- Chomsky, Noam (2000). Minimalist inquiries: The framework. In Roger Martin, David Michaels, and Juan Uriagereka (eds.) *Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik*, 89–155. Cambridge, MA: MIT Press.
- Chomsky, Noam (2001). Derivation by phase. In Michael Kenstowicz (ed.) *Ken Hale: A Life in Language*, 1–52. Cambridge, MA: MIT Press.
- Chomsky, Noam. (2004). Beyond explanatory adequacy. In Adriana Belletti (ed.) *Structures and Beyond*, 104–131. Oxford: Oxford University Press.
- Chomsky, Noam (2008). On phases. In Robert Freidin, Carlos P. Otero, and Maria Luisa Zubizarreta (eds.) *Foundational Issues in Linguistic Theory*, 133–166. Cambridge MA: MIT Press.
- Harada, S. I. (1971). Ga-no conversion and idiolectal variation in Japanese. *Gengo Kenkyu* 60, 25–38.
- Hiraiwa, Ken (2001). On nominative-genitive conversion. *MIT Working Papers in Linguistics* 39, 65–123.
- Hiraiwa, Ken (2005). *Dimensions of Symmetry in Syntax: Agreement and Clausal Architecture*. Doctoral dissertation, MIT.
- Kishimoto, Hideki (2005). *Toogo-koozoo-to Bunpoo-kankei* [Syntactic Structures and Grammatical Relations]. Tokyo: Kurosio Publishers.
- Kishimoto, Hideki (2009). Topic prominence in Japanese. *The Linguistic Review* 26, 465–513.
- Kishimoto, Hideki (2017a). Remarks on nominative-genitive conversion in Japanese. *Nanzan Linguistics* 12, 1–27.
- Kishimoto, Hideki (2017b). Negative polarity, A-movement, and clause architecture in Japanese. *Journal of East Asian Linguistics* 17, 109–161.
- Kishimoto, Hideki (2019). Nihongo-no hitei-kyokusesi-hyoogen-to toogo-koozo [Negative polarity expressions in Japanese]. In Osamu Sawada, Hideki Kishimoto, and Ikumi Imani (eds.) *Kyokusei-Hyoogen-no Koozoo, Imi, Kinoo* [Polarity-sensitive Expressions: Their Forms, Meanings and Functions, 50–79. Tokyo: Kaitakushya.
- Maki, Hideki, and Asako Uchibori (2008) *Ga/no* conversion. In Shigeru Miyagawa and Mamoru Saito (eds.) *The Oxford Handbook of Japanese Linguistics*, 192–216. Oxford: Oxford University Press.
- Miyagawa, Shigeru (2011). Genitive subjects in Altaic and specification of phase. *Lingua* 121, 1265–1282.
- Miyagawa, Shigeru (2013). Strong uniformity and *ga/no* conversion. *English Linguistics* 30, 1–24.
- Ochi, Masao (2016). Meishi-syuushoku-ni-okeru kaku-no kootai-genshoo [Case alternation phenomena in noun-modifying constructions]. In Keiko Murasugi, Mamoru Saito, Yoichi Miyamoto, and Kensuke Takita (eds.) *Nihongo Bunpoo Handobukku* [The Japanese Grammar Handbook], 146–188. Tokyo: Kaitakusha.
- Saito, Mamoru (2004). Genitive subjects in Japanese: Implications for the theory of null objects. In Peri Bhaskararao and Karumuri Venkata Subbarao (eds.) *Non-Nominative Subjects: Volume 2*, 103–118. Amsterdam: John Benjamins.
- Sakai, Hiromu (1994). Complex NP constraint and case-conversions in Japanese. In Masaru Nakamura, (ed.) *Current Topics in English and Japanese*, 179–203. Tokyo: Hituzi Syobo.
- Sawada, Osamu, Hideki Kishimoto, and Ikumi Imani (2024). Some empirical and theoretical issues in polarity-sensitive expressions. In Osamu Sawada, Hideki

Kishimoto, and Ikumi Imani (eds.) *Polarity-Sensitive Expressions: Comparisons between Japanese and Other Languages*, 3–25. Berlin: De Gruyter Mouton.

Watanabe, Akira (1996). Nominative-genitive conversion and agreement in Japanese: A cross-linguistic perspective. *Journal of East Asian Linguistics* 5, 373-410.

‘At-dative’ alternation with event nominal *look*: Interplays between verbal and nominal semantics*

Tetsuya Kogusuri
The University of Osaka

1. Introduction

The English dative alternation has long been a central topic in research on argument alternations. Two patterns are typically distinguished by whether the dative argument is marked with *to*, as in (1a), or *for*, as in (1b).

- (1) a. John gave Mary a cake. / John gave a cake *to* Mary.
b. John baked Mary a cake. / John baked a cake *for* Mary.

In addition to the *to*- and *for*-dative patterns, there is a less discussed alternation in which the dative argument is marked with *at*, as in (2).

- (2) a. John {threw / cast / shot} Mary a look.
b. John {threw / cast / shot} a look at Mary.

Both (2a) and (2b) can be paraphrased as ‘John looked at Mary’. I refer to this alternation as the ditransitive/*at*-dative alternation (henceforth, the *at*-dative alternation).

The *at*-dative alternation is considerably more restricted. For instance, with the verb *get* in (3), (3a) conveys a permissive meaning—‘John allowed Mary to look (at something)’ (cf. Oehrle 1976, Cattell 1984, Dixon 2005)—whereas (3b) has the simple active reading ‘John looked at Mary’.

- (3) a. John *got* Mary a look.
b. John *got* a look at Mary.
(cf. John *got* Mary a present. / John *got* a present for Mary.)

Thus, although *get* occurs in both the ditransitive and the prepositional dative constructions, the two uses differ in meaning, and therefore do not constitute an alternation. This is noteworthy because *get* does participate in the *for*-dative alternation, but it does not license the *at*-dative alternation in (3).

These observations raise two questions. First, which verbs are eligible to participate in the *at*-dative alternation? Second, why do some *at*-dative expressions alternate with the ditransitive construction (realizing the recipient as an indirect object), while others do not? The second question is illustrated by the contrast in (4), repeated from (2a) and (3a).

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- (4) a. John threw Mary a look.
b. John got Mary a look.

In (4a), *Mary* refers to a percept—the person being looked at by John—whereas in (4b), *Mary* refers to a perceiver—the person who is (permissively) enabled to look.¹ Why, then, do these indirect objects differ in semantic role?

The organization of the paper is as follows. Section 2 surveys prior work on light verb constructions for descriptive observations. Section 3 presents a corpus study conducted for this paper, detailing the methodology and results concerning which verbs do and do not participate in the *at*-dative alternation. Section 4 introduces the two theoretical frameworks that ground the analysis—Frame Semantics and Construction Grammar—and develops an account of the *at*-dative alternation. The analysis argues that alternating and non-alternating verbs differentially evoke distinct frames (or construals) of the event nominal *look*, thereby offering a principled explanation for the two questions raised above. Section 5 addresses further issues and provides additional supporting evidence, and Section 6 concludes. Although other event nominals participate in the *at*-dative alternation, for reasons of scope I focus here on the event nominal *look*.

2. *At*-datives and light verb constructions

The *at*-dative alternation has received little attention in the literature. Studies on light verb constructions have often examined the prepositional-dative and the ditransitive patterns separately (e.g., Wierzbicka 1982, Dixon 2005), as in (5), without treating them as alternating variants.

- (5) a. John {took / have} a look at it.
b. John gave Bill a look.

Another important observation regarding the *at*-dative alternation is that light verbs in the ditransitive construction do not allow *to*-dative counterparts (Cattell 1984: 82, Pinker 1989: 156, Goldberg 1995: 94, Newman 1996: 205).

- (6) a. *He threw a look to the man.
b. *She threw a parting glance to him. (Goldberg 1995: 94)

Given this, the acceptability of the *at*-dative alternation in (2) is unexpected and calls for explanation.

3. Corpus data

For this study, I used the *Corpus of Contemporary American English* (COCA) to collect attested examples of the ditransitive and *at*-dative patterns. The aim of this survey was to extract verbs that take *look* as a direct object. After obtaining the results, I manually filtered the data to exclude non-perceptual uses—for example, expressions like *have one's good looks*, where *look* refers to appearance rather than an act of perception. To ensure reliability, I also consulted two native English speakers to confirm the intended

¹ For some speakers, (4b) is somewhat degraded in isolation, plausibly because no explicit target of perception is provided.

interpretations in borderline cases.

A non-exhaustive list of alternating verbs attested in COCA is presented in (7). These verbs take the event nominal *look* as a direct object with a perceptual meaning.

- (7) a. Caused-motion verbs:
*throw, shoot, cast, dart, direct, fire, flash, fling, pass, toss; direct, return, slant*²
b. Cutting and related verbs:
cut, dagger, drill, snap

From the corpus data, the alternating verbs fall into two semantic groups: those in (7a) are caused-motion verbs, and those in (7b) are cutting and related verbs. These verbs often require a metaphorical construal, as illustrated in (8)–(9).

- (8) *cut*
a. Jack cuts him a sharp look, turns and walks away. (COCA)
b. Deb snapped back. He cut a look at her. (COCA)
(9) *drill*
a. Then she drilled him a look over the top. (COCA)
b. ABOOTT drills a look at PAMELA. (COCA)

Notice here that the verbs *cut* and *drill* both refer to acts of looking that are interpreted metaphorically: they do not describe literal physical actions with a knife or a drill that cause a change of state in someone or something. Rather, these verbs convey that the act of looking is performed in a cutting or drilling manner—an interesting issue that is taken up in Section 5.2.

In contrast to those verbs in (8) and (9), *get* and *deny* are non-alternating verbs: they occur in the prepositional-dative and the ditransitive patterns, but do not participate in the *at*-dative alternation, as seen in (3). The following examples are attested in COCA.

- (10) a. I can also get you a look at his IRS records. (COCA)
b. ... we got a look at the environmental practices of the USSR and their satellite states. (COCA)

While *got a look* in (10b) yields an active reading, paraphrased as ‘we looked at the environmental practices ...’, the ditransitive pattern in (10a) does not; it is interpreted as a permissive-causative construction: ‘I can also allow you to look at his IRS records’.

I refer to such pairs as “causative-active pairs”. The number of verbs showing this pattern is quite limited, notably *get* and *deny*. The causative-active pairs are interesting

² The verb *give* is idiosyncratic in permitting three patterns.

- (i) a. He *gave a long look* to the right and then to the left. (COCA)
b. ... and she *gave him a look* as if he’d just kicked her. (COCA)
c. I reached into his mind and *gave him a look at what awaits him* ... (COCA)

The transitive use in (i-a) and the ditransitive use in (i-b) both convey an active perceptual event, roughly paraphrased as ‘look at something’. By contrast, the ditransitive in (i-c) yields a permissive-causative reading, which patterns with the ditransitive *get* in (4b). I suggest that this seemingly unexpected behavior follows from the polysemy of *give*. A full analysis is left for future research.

because this enables us to ask why they do not alternate, whereas verbs with similar meanings—such as the caused-motion verbs and others in (7)—do alternate.

4. A constructional analysis of the V NP *a look* construction

In this section, drawing on Frame Semantics (e.g., Fillmore 1982) and Construction Grammar (Goldberg 1995, 2006), I advance two proposals to answer the questions set up in Section 1.

4.1. Theoretical background: Frame Semantics and Construction Grammar

Frame Semantics, developed by Charles Fillmore, explains meaning in terms of frames. A frame is structured knowledge based on human experience including linguistic knowledge and encyclopedic knowledge. For example, the words *flesh* and *meat* denote similar concepts but they are understood in different background knowledge: *flesh* activates, or evokes, a Body frame and *meat* a Food frame. In this way, a word can evoke a frame that organizes related concepts.

As observed by Croft (2009), a single word may also evoke different frames depending on context. For example, the verb *eat* is used in (11), where its meaning is understood in different ways.

- (11) a. We ate a *healthy diet*. [Nutrition frame]
b. We ate dinner *with Carol*. [Social Activity frame]

In (11a), the speaker refers to the subject's nutrition or lifestyle, whereas in (11b), they construe the subject as engaging in a social activity. Thus, the meaning of *eat* is construed against different types of background knowledge: in the former case, *eat* evokes the Nutrition frame; in the latter, it is understood within the Social Activity frame. The Nutrition frame involves health-related properties as its frame element, while the Social Activity frame invokes a co-participant in a social activity (e.g., the comitative marked by *with*). In other words, the relation between a frame and its morphosyntactic encoding in language is indirect: a lexical item may evoke different frames, and conversely, frames are not tied to a single lexical unit (van Trijp 2025: 261–262). Differences in framing give rise to alternative construals of the same event. This perspective enables a deeper understanding of the multiple meaning patterns found in V NP *a look* constructions, as we will see in the next subsection.

Another theoretical framework adopted in this study is Construction Grammar (e.g., Goldberg 1995, 2006). From the perspective of this theory, grammatical patterns are viewed as conventionalized form-meaning pairings, referred to as *constructions*. In this framework, not only words but also larger grammatical structures—such as the ditransitive construction—are considered to carry meaning in their own right. Like words, constructions can also be polysemous, exhibiting multiple but related meanings. For example, the ditransitive construction can express different but related senses—such as caused transfer in (12a), permission in (12b), or intended possession in (12c)—depending on the verb and the frame it evokes (Goldberg 1995: 75).

- (12) a. John gave Sally the ball. [‘X causes Y to receive Z’]
b. Joe promised Bob a car. [‘X enables Y to receive Z’]
c. Joe baked Bob a cake. [‘X intends Y to receive Z in the future’]

This illustrates the interaction between lexical semantics and constructional meaning—a central assumption shared by Frame Semantics and Construction Grammar. Taken together, these two frameworks provide complementary perspectives for analyzing the *at*-dative alternation, particularly the interaction between lexical meaning and constructional semantics.

4.2. Two proposals

Building on the two theoretical frameworks, I advance two proposals to account for how meaning is constructed in V NP *a look* constructions. First, the event nominal *look* is polysemous: its interpretation varies depending on the frame evoked in context.³ One such frame is Visual Motion, in which the perceiver’s gaze is construed as a moving entity directed toward a target, and this motion yields perception. This interpretation is illustrated in (13):

- (13) *A look* passed between Frank and Otis. (COCA)
(cf. She’s sitting quietly, her *gaze* aimed at me. (COCA))

Here, the noun *look* is construed as something that moves between participants and can be paraphrased as ‘gaze’. The noun *gaze* is amenable to the same conceptualization, as in *her gaze aimed at me*.

Crucially, this type of visual perception is metaphorically structured as abstract caused motion—a well-established idea, dating back to Gruber (1967), Goldsmith (1979), and subsequent work (Jackendoff 1983, Talmy 1996, 2000, Matsumoto 2004, Gisborne 2010, among others).

In contrast to the Visual Motion frame, *look* can also evoke what I call the Visual Possession frame. In this frame, the perceiver is conceptualized as possessing or acquiring a view of the target—that is, perception is metaphorically understood as a kind of abstract possession rather than motion. This is illustrated in (14).

- (14) Until now, scientists *wanting a clear look* at stars and galaxies were thwarted by Earth’s turbulent atmosphere. (COCA)
(cf. ... we again *had a clear view* of the station. (COCA))

Here, *look* is synonymous with ‘view,’ and what is emphasized is the attainment of visual access, not the movement of the gaze. As shown below, the polysemous nature of *look*, reflected upon Visual Motion and Visual Possession frames, helps explain why certain verbs allow the *at*-dative alternation, while others do not.

Another theoretical tool employed here is *frame integration*. Frame integration (also called frame-to-frame mapping) has been developed to account for metaphorical expressions (e.g., Sullivan 2013, 2016), intra-sentential semantic relations (Hasegawa and Ohara 2023), translation (Czulo 2017), and related phenomena. Consider the metaphorical expression *build an argument*. To understand this expression, the verb *build* evokes the Building frame, which includes an agent, a created entity, and components. The noun *argument* evokes the Reasoning frame, which includes an arguer, content, and

³ I use *event nominal* to refer not only to nominals that describe an event, but also to lexical units that evoke a frame which, in context, is integrated as the main event frame of the constructional meaning (see also Atkins et al. 2003 for frame-evoking nominals).

support. The transitive construction integrates these frames, linking their elements to each other, as in (15).

(15) *build an argument*

[V-frame: **Building**] An **agent** creates **an entity** by joining **components** [= ‘build’]
 [N-frame: **Reasoning**] An **arguer** presents **content** along with **support** [= ‘argue’]
 Cx meaning: ‘An **agent(arguer)** creates **an entity(content)** by joining **components(support)**.’

In (15), the V-frame and N-frame represent the Building and the Reasoning frames evoked by *build* and *argument*, respectively; each is presented in a simplified, one-sentence form, partly adapted from the FrameNet descriptions. The constructional (Cx) meaning captures the overall interpretation of *build an argument* as the result of integrating the V-frame and N-frame. Following Sullivan (2016: 152), bracketed notation such as “agent(arguer)” indicates role-filler relations between the two frames. In this representation, the V-frame provides the force-dynamic structure that underlies the overall event structure described in the Cx meaning. The key idea is straightforward: the verb- and noun-evoked frames are integrated into a single event representation.

4.3. Frame-integration analysis of two types of V (NP) *a look* constructions

Applying the frame-based analysis to the V (NP) *a look* constructions, the *at*-dative phenomena can be captured in terms of integration between a verbal frame and a nominal frame. Consider first the *at*-dative pattern in (16).

(16) *He threw a look at her.*

[V-frame: **Throwing**] The **agent** causes **an object** to move toward **a target** [= ‘throw’]
 [N-frame: **Visual Motion**] The **perceiver** causes **their gaze** to move toward **a percept**
 Cx meaning: ‘The **agent(perceiver)** causes **an object(their gaze)** to move toward **a target(percept)**.’

The verb *throw* evokes a Throwing frame, a subtype of the Caused Motion frame, and the event nominal *look* evokes a Visual Motion frame. These frames integrate into a single caused-motion construal—corresponding to the caused-motion construction NP V NP *at* NP—such that a perceiver causes their gaze to move toward a target of perception. Intuitively, this mapping indicates that the act of looking is construed metaphorically as throwing something. Thus, *He threw a look at her* means ‘he caused his gaze to move toward her’. This interpretation is essentially equal to ‘He looked at her’.

As for the ditransitive construction *He threw her a look*, the verbal and nominal frames are integrated to fit with the constructional meaning ‘X causes Y to receive Z’. The integration of these frames allows for the interpretation that the agent caused her to receive his gaze, which again corresponds to ‘He looked at her’.

(17) *He threw her a look.*

[V-frame: **Throwing**] The **agent** causes **an object** to move toward **a target** [= ‘throw’]
 [N-frame: **Visual Motion**] The **perceiver** causes **their gaze** to move toward **a percept**
 Cx meaning: ‘The **agent(perceiver)** causes **a target(percept)** to receive **an object(gaze)**.’

In other words, (17) describes (or profiles) a transferred possession of the agent’s gaze to the recipient, which is a metaphorical understanding of looking as throwing someone something. To conclude, the interplay between the verbal Throwing frame and the nominal Visual Motion frame licenses the *at*-dative alternation.

Now consider causative-active pairs, which do not engage in the *at*-dative alternation. In the case of *get a look*, the verb *get* evokes the Getting frame—a subtype of the Caused Possession frame—which aligns with the Visual Possession frame evoked by *look*. Under frame integration, the transferred object is understood as a ‘view’ of something, i.e., looking is conceptualized as acquiring visual access. In the transitive pattern *He got a look at her* in (18), the constructional meaning is paraphrased as ‘He caused himself to have a view of her’.

(18) *He got a look at her.*

[V-frame: **Getting**] The **agent** causes **someone** to have **an object** [= ‘get’]
 [N-frame: **Vis. Possession**] The **agent** causes **a perceiver** to have **a view of the percept**
 Cx meaning: ‘The **agent** causes **herself(a perceiver)** to have **an object(a view of the percept)**.’

This accounts for why *get a look* conveys active visual perception, i.e. an act of looking at something.

Given the frame integration between *get* and *look* in (18), the meaning of the ditransitive pattern like *He got her a look* in (19) is analyzed as caused possession of visual access from the agent to the recipient: the recipient argument is the perceiver and causee, construed as coming to possess a view or sight of something, while the specific target of perception is left implicit.

(19) *He got her a look.*

[V-frame: **Getting**] The **agent** causes **someone** to have **an object** [= ‘get’]
 [N-frame: **Vis. Possession**] The **perceiver** causes **her** to have **a view of the percept**
 Cx meaning: ‘The **agent(perceiver)** *permits* **her** to have **an object(a view of the percept)**.’

In this configuration, a permission reading (‘permit’) is constructionally specified by the *give*-type ditransitive construction: with *get*, *give*, and *offer*, for instance, the indirect object is interpreted as the causee of a perceptual experience (e.g., *She {got / gave / offered} us a look at the paper*) (cf. Oehrle 1976: 47, Cattell 1984: 77, Dixon 2005: 466).

4.4. Interim summary

Table 1 overviews the interplay between the verbal and the nominal semantics.

Verbal frame (typical verbs)	Frame of <i>look</i>	Integrated event	<i>At</i> -dative alternation
Caused Motion (<i>throw, shoot, cut</i>)	Visual Motion	Perceiver’s <i>gaze</i> moves toward a target	Yes
Caused Possession (<i>get, deny</i>)	Visual Possession	Perceiver comes to possess <i>a view</i> of the target	No

Table 1. Interplay between verbal and nominal frames

To summarize, the event nominal *look* can evoke two distinct frames—Visual Motion and Visual Possession—depending on the frame evoked by the main verb. In this sense, *look* is polysemous, and its interpretation covaries with the verb’s frame. The *at*-dative alternation obtains when the verb meaning integrates with the Visual Motion construal of *look*; caused-possession verbs instead align with the Visual Possession

construal and block alternation. This analysis underscores the crucial role of verb-noun frame interaction in the *at*-dative alternation.

5. Further issues

5.1. Further evidence for the frame-based distinction on V NP *a look* constructions

The frame-integration account predicts distinct relations between *look* and the *at*-phrase under Visual Motion vs. Visual Possession frames. In the Visual Motion frame, the *at*-phrase denotes the goal of the moving gaze encoded by *look*. In the Visual Possession frame, by contrast, the *at*-phrase denotes a percept located within the possessed view. In other words, in the former, the *at*-phrase is an independent goal argument of *throw*; in the latter, it forms a single constituent with *a look* both semantically and syntactically.

- (20) a. He threw [a look]_{theme} [at her]_{goal}. [Visual Motion]
 b. He got [a look at her]_{theme}. [Visual Possession]

Empirically, the *one*-substitution test in (21) supports this contrast: replacing *a look* with *one* is natural with *throw* (evoking the Visual Motion frame), but degraded with *get* (evoking the Visual Possession frame).⁴

- (21) a. John threw *a look* at Mary and Bill threw one at Chris. [Visual Motion]
 b. ?John got *a look* at Mary and Bill got one at Chris. [Visual Possession]

Another piece of evidence for the distinction is that the Visual Motion type of the ditransitive construction disallows an *at*-phrase following *look*, whereas the Visual Possession type permits one:

- (22) a. *He threw her a look at the book. [Visual Motion]
 b. He got her a look at the book. [Visual Possession]

In (22a), the indirect object (*her*) and the *at*-phrase (*at the book*) both serves the same semantic role, the percept, resulting in a role conflict and unacceptability. By contrast, in (22b), the indirect object expresses the perceiver/causee, while the *at*-phrase designates the percept, so co-occurrence is acceptable.

Further evidence comes from the distribution of adjectives modifying *look*. In the Visual Motion frame, the subject intentionally directs the point of gaze toward a target; the gaze can metonymically encode the subject's emotion or stance toward that target, as illustrated in (23a). By contrast, in the Visual Possession frame, the relevant semantic dimension is resolution or access within the possessed visual field, favoring modifiers like *clear*, as in (23b).

- (23) a. She'd stand in the kitchen door and throw an *angry* look at Mabel. (COCA)
 b. ... but not before they both got a *clear* look at Dora's face. (COCA)

This contrast gives rise to a complementary distribution, as illustrated in (24) and (25).

- (24) a. He threw her {an angry look / *a clear look}.

⁴ I thank an anonymous IAAW reviewer for drawing my attention to this point.

- b. He threw {an angry look / *a clear look} at it.
 (25) a. He got her {*an angry look / a clear look}.
 b. He got {*an angry look / a clear look} at it.

In short, although the same noun *look* appears in both patterns, the constructions evoke distinct frames, and the modifier distributions align accordingly, corroborating our frame-integration analysis.

5.2. Metaphorical interpretation

As seen in (8) and (9), repeated as (26) and (27), verbs *cut* and *drill* participate in the *at-*dative alternation, even though they do not lexically encode caused motion.

- (26) a. Jack cuts him a sharp look, turns and walks away.
 b. Deb snapped back. He cut a look at her.
 (27) a. Then she drilled him a look over the top.
 b. ABOOTT [sic] drills a look at PAMELA.

In addition, these uses of *cut* and *drill* require a metaphorical construal. Two questions arise: (i) how can these verbs participate in the alternation despite lacking a caused-motion sense in their lexical meaning, and (ii) what licenses this metaphorical interpretation?

I argue that, although *cut* and *drill* are not caused-motion verbs per se, the encyclopedic knowledge associated with these verbs includes motion subevents (e.g., a knife/drill moving toward a target). This background knowledge is independently attested by caused-motion uses of these verbs, as in the following data.

- (28) a. ... as though you'd *cut* the knife through the middle of [the cinema].
 b. Carefully *drill* the screw into the wood.

(*Google Books*, emphasis mine)

Accordingly, in certain contexts *cut* and *drill* can be understood as caused-motion verbs, by foregrounding their motion subevents—i.e., an instrument moving along a directed path to effect cutting or drilling. When these subevents are foregrounded, the verbs align with the Visual Motion construal of *look* and can integrate into V (NP) a *look* constructions.

- (29) a. He cut {her a look / a look at her}.
 'He caused his gaze to move like a knife toward a target.'
 b. He drilled {her a look / a look at her}.
 'He caused his gaze to move like a drill toward a target.'

As for their metaphorical construals, *cut* and *drill* evoke frames that integrate with the Visual Motion frame, yielding a metaphorical reconceptualization: the act of looking is construed as directed motion, as if the gaze were a knife or a drill moving toward a target. A parallel analysis applies to *throw (someone) a look*: nothing is literally thrown; the “throwing” is a constructionally licensed metaphor for directing one’s gaze.

6. Conclusion

Drawing on Frame Semantics and Construction Grammar, I have proposed a frame-based, constructional analysis of the *at*-dative alternation involving the event nominal *look*. The analysis demonstrated how the verbal frame and the nominal frame are integrated to give rise to various sentential interpretations. We can now answer the two questions raised in Section 1, as in the following.

(30) Q: *What verbs are eligible to participate in the at-dative alternation?*

A: Verbs that evoke the Caused Motion frame.

(31) Q: *Why do some at-datives alternate with indirect objects?*

A: When the Visual Motion frame is evoked, both the *at*-dative argument and the indirect object refer to the goal or recipient of a moving gaze from the perceiver, in which case the alternation is available.

Future work will examine whether the analysis extends to other event nominals, such as *kick*, *hug*, and *laugh*.

References

- Atkins, Sue, Charles J. Fillmore, and Christopher R. Johnson (2003). Lexicographic relevance: Selecting information from corpus evidence. *International Journal of Lexicography* 16(3), 251–280.
- Cattell, Ray (1984). *Composite Predicates in English*. Sydney: Academic Press.
- Croft, William (2009). Connecting frames and constructions: A case study of ‘eat’ and ‘feed’. *Constructions and Frames* 1(1), 7–28.
- Czulo, Oliver (2017). Aspects of a primacy of frame model of translation. In Silvia Hansen-Schirra, Oliver Czulo, and Sascha Hofmann (eds.) *Empirical Modelling of Translation and Interpreting*, 465–490. Berlin: Language Science Press.
- Dixon, Robert M. W. (2005). *A Semantic Approach to English Grammar*. Oxford: Oxford University Press.
- Fillmore, Charles (1982). Frame semantics. *Linguistics in the Morning Calm*, 111–137. Seoul: Hanshin Publishing Company.
- Gisborne, Nikolas (2010). *The Event Structure of Perception Verbs*. Oxford: Oxford University Press.
- Goldberg, Adele E. (1995). *Constructions: A Construction Grammar Approach to Argument Structure*. Chicago: University of Chicago Press.
- Goldberg, Adele E. (2006). *Constructions at Work: The Nature of Generalization in Language*. Oxford: Oxford University Press.
- Goldsmith, John (1979). On the thematic nature of *see*. *Linguistic Inquiry* 10, 347–352.
- Gruber, Jeffrey S. (1967). *Look and see*. *Language* 43, 937–947.
- Hasegawa, Yoko and Kiyoko Hirose Ohara (2023). Frame integration and head-switching. *Constructions and Frames* 15(1), 91–118.
- Jackendoff, Ray (1983). *Semantics and Cognition*. Cambridge, MA: MIT Press.
- Matsumoto, Yo (2004). Nihongo no sikaku-hyogen ni okeru kyoko idoo [Fictive motion in visual expressions in Japanese]. *Nihongo Bumpoo [Japanese Grammar]* 4(1), 111–128.
- Newman, John (1996). *GIVE: A Cognitive Linguistic Study*. Berlin: Mouton de Gruyter.
- Oehrle, Richard Thomas (1976). *The Grammatical Status of the English Dative Alternation*. Doctoral dissertation, MIT.

- Pinker, Steven (1989). *Learnability and Cognition: The Acquisition of Argument Structure*. Cambridge, MA: MIT Press.
- Sullivan, Karen (2013). *Frames and Constructions in Metaphoric Language*. Amsterdam: John Benjamins.
- Sullivan, Karen (2016). Integrating constructional semantics and conceptual metaphor. *Constructions and Frames* 8(2), 141–165.
- Talmy, Leonard (1996). Fictive motion in language and ‘ception’. In Paul Bloom, Merrill F. Garrett, Lynn Nadel, and Mary A. Peterson (eds.) *Language and Space*, 211–276. Cambridge, MA: MIT Press.
- Talmy, Leonard (2000). *Toward a Cognitive Semantics Vol. 1: Concept Structuring Systems*. Cambridge, MA: MIT Press.
- van Trijp, Remi (2025). Different constructional approaches in practice. In Mirjam Fried and Kiki Nikiforidou (eds.) *The Cambridge Handbook of Construction Grammar*, 249–289. Cambridge: Cambridge University Press.
- Wierzbicka, Anna (1982). Why can you *have a drink* when you can’t **have an eat*?. *Language* 58(4), 753–799.

Corpus

- Davies, Mark (2008–). *The Corpus of Contemporary American English (COCA)*. Available online at <https://www.english-corpora.org/coca/>.

Beyond dative alternation: Four types of Korean ditransitives*

Youngho Lee
Seoul National University

1. Proposal

English has very productive ‘Dative Alternation’, exemplified in (1).

- (1) a. John gave Mary a book. (Double Object Construction, ‘DOC’)
b. John gave a book to Mary. (Prepositional Dative Construction, ‘PDC’)

Interestingly, this alternation is restricted when the *giving* is abstract or idiomatic (2), when the construction involves a beneficiary Indirect Object (IO) as in (3), or when the ditransitive verb conveys ‘anti-possession’ (4).

- (2) a. John gave Mary a cold.
b. *John gave a cold to Mary. (Green 1974, Larson 1988, Bruening 2010a i.a.)
(3) a. John bought Mary a car.
b. *John bought a car to Mary. (Kittilä 2005, Song 2010)
(4) a. The boss denied George his pay.
b. %The boss denied his pay to George. (Larson 1988, Bruening 2010a; 2010b)

A well-known analysis related to this restriction comes from Harley (2002), who proposes that the (a) and (b) variants are not identical in meaning. Intuitively, DOC *give* means ‘cause to have’ while PDC *give* means ‘cause to be located at’. The fine details might differ, but many scholars have subsequently agreed that such a distinction is largely correct. Harley and Jung (2015) later revise Harley’s initial proposal, converging on (5). Roots are manner-adjoined to *v* in their DOC structure.

- (5) a. DOC: [_{VP} *v* [_{HAVEP} IO [_{HAVE} DO]]]
b. PDC: [_{VP} DO [_{give_v} IO]] (accepting Bruening’s (2010b) proposal)

The notion that DOCs have a special HAVE component seems to be compatible with the initial restrictions (e.g., a *cold* can be *had* but not *located*). However, the following four pieces of Korean data are very puzzling if the proposal is fully correct.

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- (6) a. *John-i Mary-eykey chayk-ul cwuessta.* (PDC)
 John-NOM Mary-DAT book-ACC gave
 ‘John gave a book to Mary.’
 b. *John-i Mary-lul chayk-ul cwuessta.* (DOC)
 John-NOM Mary-ACC book-ACC gave
 ‘John gave Mary a book.’
- (7) a. *John-i Mary-eykey yengkam-ul cwuessta.* (PDC)
 John-NOM Mary-DAT inspiration-ACC gave
 ‘John gave inspiration to Mary.’
 b. **John-i Mary-lul yengkam-ul cwuessta.* (*DOC)
 John-NOM Mary-ACC inspiration-ACC gave
 ‘John gave Mary inspiration.’

Korean *cwu-* ‘give’ normally participates in dative alternation (6). The alternation restriction observed in English (2) carries onto Korean (7), except in the exact opposite direction. It is the PDC variant that is grammatical, and the DOC variant that is not.

Even more puzzling is that the animacy restriction in DOCs applies in a *parallel* fashion for the two languages. (8a) is only felicitous if ‘London’ is construed as an office or some group of people (Oehrle’s (1976) ‘London office effect’). This effect does not exist in PDCs. In Korean as well, the indirect object must be an animate entity capable of possession, only in DOCs and not in PDCs (Jung and Miyagawa 2004).

- (8) a. I sent *London the letter. (cf. I sent the letter to London.)
 b. *Mary-ka hakkyo-ey/*lul ton-ul cwuessta.*
 Mary-NOM school- {DAT/*ACC} money-ACC gave
 ‘Mary gave money to the school.’

So we are faced with seemingly contradictory evidence. Korean does align with English animacy restrictions, but alternates in the opposite direction when the *giving* is abstract.¹

The goal of this paper is to provide a coherent account of this puzzle. In what follows, I reexamine the English ‘DOC-only’ cases, proposing a new syntactic structure for them. I will then show how the analysis works in Korean as well, proposing a Case parameter that causes the difference between (2) and (7). The central claims of this paper are as follows:

- (9) a. High applicatives that introduce Affectees, Benefactives and Malefactives (Pykkänen 2002; 2008) exist in English, too.²
 b. English DOC-only cases arise when the indirect object must play a ‘double’

¹ By abstract *giving*, I refer to cases which Larson (1988: 376) describes as ‘when the direct object cannot be understood as undergoing motion along some path’. Another possible understanding is Bruening’s (2010b: 557), who states that ‘one can only *have* a headache and not *receive* one’, which is what causes **give a headache to X*. I assume their descriptions to be correct. If this is true, *to*-phrases must be what I refer to as ‘physical’ or ‘concrete’ recipients of *giving*.

² As Cuervo (2003) and Bosse and Bruening (2011) point out, each of these Applicative heads have slightly different positions. These distinctions will be inconsequential for the current proposal, so I ignore them for now.

- role, as a possessor and also as a high applied argument.
- c. Such double theta roles are assumed through A-movement from a base-generated possessor position (cf. Hornstein 1999).
 - d. The parameter setting is such that English High Applicative does not license Case, while Korean High Applicative does.

2. Background

Applicative heads introduce extra, non-core arguments into the syntax (think of how ‘Voice’ introduces external arguments). Pylkkänen (2002; 2008) famously posits two basic kinds of Applicative heads – Low and High. A Low Applicative (L.Appl) directly relates two individuals, while a High Applicative (H.Appl) relates an entity in its specifier to a vP event in its sister. A sketch of their syntax and semantics is given in (10).

- (10) a. [_{L.ApplP} DP [**L.Appl** DP]]
 ‘My specifier DP possesses my sister DP.’
 b. [_{H.ApplP} DP [**H.Appl** vP]]
 ‘My specifier is an affectee/beneficiary/maleficiary/etc. of my sister vP event.’

Especially for L.Appl, note how it is analogous to the HAVE element characteristic of DOCs (Harley and Miyagawa (2017) recognize HAVE and L.Appl as ‘notational variants’). On top of the animacy restrictions noted above in (8), there exists much more evidence for positing a L.Appl ‘HAVE’ in DOCs (See Cuervo (2003) for Spanish, Jung and Miyagawa (2004) for Korean, and Georgala et al. (2008) for Mandarin).

Capitalizing on such facts, Oehrle (1976), Pinker (1989), Jackendoff (1990), and Pesetsky (1995), among others, have led the field to a relatively broad consensus that dative alternation is lexical in nature, i.e. the variants are derivationally unrelated. This departs from Larson’s (1988) influential proposal where DOCs are syntactically derived from a base-generated PDC.

That (i) DOCs ‘uniformly’ involve some kind of possession subevent (Bruening 2018), and that (ii) the PDC and DOC variants are derivationally unrelated will be background assumptions throughout this paper.

3. Abstract *giving* as idiomatic

Now, let us examine what kinds of themes exactly pattern with (2), repeated as (11).

- (11) a. John gave Mary a cold.
 b. *John gave a cold to Mary.
 (12) Themes that pattern with (11): *cold, kiss, black eye, ideas, punch...*

To *give* these themes has a noticeably idiomatic flavor, and Larson (1988) makes another important observation that such DOCs involve some kind of special meaning: “There seems to be an extra dimension of affectedness at work...that favors the double object versus the oblique construction.” Indeed, if we test with ‘What happened to X was Y’, utilized in Cruse (1973: 13) and Jackendoff (1990: 125), we see that idiomatic DOC IOs display some kind of extra affectedness meaning.

- (13) a. ??What happened to John is that Mary gave him a letter.
 b. ??What happened to John is that Mary gave him a coconut.

- c. What happened to John is that Mary gave him a cold.
- d. What happened to John is that the lighting here gave him a headache.

The proposal, then, can apply straightforwardly. In abstract *giving*, the IO is base-generated as a DOC possessor and moves to the specifier of an Affectee Applicative (14). In concrete *giving*, the DOC possessor remains in situ and does not get the extra Affectee role.

- (14) [_{H.ApplIP} IO_i [**H.Appl_{AFF}** [_{VP} V [_{L.ApplIP} IO_i [**L.Appl** DO]]]]]]
 Base structure: IO has DO ((a) and (b))
 Shifted structure: IO_i is AFFECTed by the event of IO_i getting DO ((c) and (d))³

Going further, Bruening's (2010b: 532) Principle of Idiomatic Interpretation (15) can be utilized to explain why **giving a cold to someone* does not arise. As can be seen in (16), DOC idioms can be thought of as involving [IO [**L.Appl** DO]] (Harley and Jung 2015). Since PDCs have their themes in the specifier of the lexical V head (5b), the structural configuration necessary for idiomatic interpretation does not exist.

- (15) X and Y may be interpreted idiomatically only if X selects Y.
 (16) L.Appl + Theme idioms (Harley and Jung 2015)
 a. His boss gave John the boot.
 b. John got the boot.
 c. Mary's support gave John heart.
 d. John took heart (from Mary's support).

Finally, the proposed Case parameter (9d) accounts for why dative alternation goes in the opposite direction for the two languages in question. Parametrization of Case assignment by Applicatives is something independently developed by Woolford (2006), who assumes that languages differ with respect to whether each Applicative head licenses inherent Case. In English (17a), the IO must get Case before movement as H.Appl does not assign Case. In Korean (17b), the IO gets inherent DAT at [Spec, H.Appl_{AFFP}]. A nice consequence is that this analysis rules out the English data in (18), which is often cited as evidence against the existence of H.Appl in English (McGinnis 2008). In effect, both languages have movement applied to a base-generated DOC, to yield a derived DOC (English) and PDC (Korean) respectively.⁴

- (17) a. IO_{ACC}: [_{H.ApplIP} IO_i [**H.Appl_{AFF}** [_{VP} V [_{L.ApplIP} IO_i [**L.Appl** DO]]]]]] (English)
 b. IO_{DAT}: [_{H.ApplIP} IO_i [**H.Appl_{AFF}** [_{VP} V [_{L.ApplIP} IO_i [**L.Appl** DO]]]]]] (Korean)
 (18) *John ran Mary_{AFF}. (with 'Mary' as an affectee of John's running)

³ Some DOCs, especially those that occur exclusively in the DOC, have underlying possession subevents in the form of dynamic GET or TAKE rather than stative HAVE (Richards 2001).

⁴ This is different from e.g. Larson's (1988) proposal, where the DOC is derived by raising a *to*-phrase from an underlying PDC. I assume underlying PDCs and DOCs to be distinctly generated (Section 2).

4. Benefactive ditransitives

Next, I turn to DOCs which involve a benefactive recipient. The initial data is as follows (19).

- (19) (repeated from (3))
a. John bought Mary a car.
b. *John bought a car to Mary.

That the (a) sentence involves some kind of ‘hybrid role’ has been noticed by scholars like Kittilä (2005) and Song (2010). For them, the fact that *John bought Mary a car* alternates with (i.e., has similar meaning with) *John bought a car for Mary* is taken to be a diagnostic of a benefactive argument. Furthermore, (20) shows that in the DOC variant *Mary* is not just a benefactive, but also a prospective possessor.

- (20) Context: Mary wants to make her friend Sue happy. She decides to buy a car as a present for Sue, but doesn’t have the time to go buy one herself. She asks John to go buy a car *in her stead*. John directly gave the car to Sue on Mary’s behalf.
a. John bought a car for Mary. (^{OK}proxy reading)
b. #John bought Mary a car. (#proxy reading)

Again, I apply my initial proposal to this data where *Mary* assumes two theta roles at once (21). The Case parameter setting rules out the impossible English sentence in (22), where the logical possibility of applying a beneficiary argument above *v* is tested. As for why the *to*-variant is ungrammatical, notice that *make* or *bake* are originally monotransitive verbs (23) that would *require* an Applicative head to involve two internal arguments. This is different from *give* or *send* that can take two arguments themselves, yielding a PDC. In a nutshell, these verbs simply do not have a lexical entry that would end up realizing a *to*-argument (This would apply to *deny*, *spare*, and *cost* as well).

- (21) [_{H.ApplP} Mary_i [_{H.ApplBEN} [_{VP} V [_{L.ApplP} ~~Mary_i~~ [_{L.Appl} a cake]]]]]]
(22) *She went_i [_{H.ApplP} me_{BEN} [_{H.ApplBEN} [_{VP} t_i to the market]]].
(23) a. Mary made a paper plane. → (Application) → Mary made X a paper plane.
b. John baked a pie. → (Application) → John baked X a pie.
c. (out of the blue) *Mary gave a paper airplane./*John sent a pie.

5. Anti-possession ditransitives

Yet another DOC-only configuration comes from anti-possession verbs like *deny*, *spare*, and *cost*. The initial observation carries onto all three of them as in (24).

- (24) a. John denied Mary the ice cream.
b. %John denied the ice cream to Mary.
c. John spared me the gruesome details.
d. *John spared the gruesome details to me.
e. The bike cost her 20 dollars.
f. *The bike cost 20 dollars to her.

A tricky part about straightforwardly applying my proposal is that these verbs somehow mean the exact opposite of what L.Appl (HAVE or GET) is supposed to mean. Nonetheless,

the requirement that the IOs at least be able to possess something still stands (25).

- (25) a. John denied the student some pencils.
 b. #John denied the drawer some pencils.

A possibility, then, would be to decompose the verbs into CAUSE-NOT-HAVE/GET. Indeed, Beck and Johnson (2004) briefly allude to the possibility of positing a ‘NOT HAVE’ predication but leave it unexplored, presumably because it complicates the theory too much. Others such as Bruening (2010b) and Harley and Jung (2015) leave *deny* as a true ditransitive verb that lexically selects for *both* of its internal arguments. A downside is that for them, the prospective possessor restriction in (25) becomes a pure coincidence.

For this problem, I will extend an already-existing proposal from Beavers (2011). His starting point is that depending on the verb, caused possession can be cancelled (26).

- (26) a. #John gave Mary a book, but Mary never got the book.
 b. John sent Mary a book, but Mary never got the book.

Beavers’ solution is to modalize the possession subevent with a \diamond operator in the case of *send*. Although he does not provide an explicit syntactic structure with this operator, it can reasonably be incorporated as in (27). The extension that I make is (27c), which means that the subevent is true in no worlds.

- (27) a. $[\text{ModalP } \square [\text{L.ApplP } \text{Mary L.Appl a book}]]$ (*give*)
 b. $[\text{ModalP } \diamond [\text{L.ApplP } \text{Mary L.Appl a book}]]$ (*send*)
 c. $[\text{ModalP } \neg [\text{L.ApplP } \text{Mary L.Appl a book}]]$ (*deny*)

Under this structure, the proposal can finally apply to yield (28). It would mean ‘IO_i is a maleficiary/beneficiary of IO_i not getting DO’. As (29) shows, *deny* involves a maleficiary IO while *spare* involves a beneficiary IO. Their distinct argument structure can be attributed to the respective types of H.Appl – H.Appl_{MAL} and H.Appl_{BEN}.

- (28) $[\text{H.ApplP } \mathbf{IO}_i [\text{H.Appl}_{\text{MAL/BEN}} [\text{VP } \text{V } [\text{ModalP } \neg [\text{L.ApplP } \mathbf{IO}_i [\text{L.Appl } \text{DO}]]]]]]]$
 (29) a. #Deny me the ordeal.
 b. Spare me the ordeal.

A notable property of the structure in (28) is that the IO is A-moved above the NOT operator. This makes some predictions about quantifier scope and NPI licensing. For the proposal to hold water, (i) the IO must always outscope NOT, and (ii) only the DO and not the IO should be a viable position for NPIs.

Both predictions are borne out. First, in (30) we notice that *every* always takes higher scope despite its surface position being lower than overt *deny*. Next, in (31) we see that the anti-possession verbs uniformly license NPIs only in DO position ((a)-(d) examples from Bruening (2010b)).

- (30) I denied every worker a raise.
 a. *NOT >> every: It is not the case that every worker got a raise.
 b. every >> NOT: For every worker, that worker did not get a raise.

- (31) a. They denied me any chance of redeeming myself.
 b. *They denied any worker a raise.
 c. That mistake cost me any chance of redeeming myself.
 d. *That mistake cost anyone their marriage.
 (cf. That mistake didn't cost anyone their marriage.)
 e. The well-prepared documentation spared me any potential trouble.
 f. *The well-prepared documentation spared anyone potential trouble.

6. Conclusion

So far, I have proposed a new understanding of English DOC-only ditransitives as well as Korean PDC-only *give*. A summary of my analyses is given as <Table 1>.

Type of DOC	Analysis
Physical <i>give</i> - John gave Mary a book.	$[_{VP} V [_{L.ApplP} IO [_{L.Appl} DO]]]$ 'IO is caused to HAVE DO'
Abstract/idiomatic <i>give</i> - John gave Mary a cold. - (Kor.) 'to give inspiration/heart'	$[_{H.ApplP} IO_i [_{H.Appl}_{AFF} [_{VP} V [_{L.ApplP} IO_i [_{L.Appl} DO]]]]]$ 'IO is AFFECTed by result of being caused to HAVE DO'
Benefactive DOCs - John bought Mary a car.	$[_{H.ApplP} IO_i [_{H.Appl}_{BEN} [_{VP} V [_{L.ApplP} IO_i [_{L.Appl} DO]]]]]$ 'IO BENefits from being caused to HAVE DO'
Anti-possession DOCs (<i>deny</i>) - John denied Mary her pay.	$[_{H.ApplP} IO_i [_{H.Appl}_{MAL} [_{VP} V [_{ModalP} \neg [_{L.ApplP} IO_i [_{L.Appl} DO]]]]]]]$ 'IO is MALeficiary of being caused NOT to HAVE DO'

<Table 1> Summary

Theoretically, this paper bases itself on and supports the idea that DOCs uniformly involve possession meaning and that dative alternation is lexical, not syntactic. It also makes use of Hornstein's (1999) A-movement implementation of Control, which lets us account for the difference in Case assignment between English and Korean. Beavers' (2011) idea that DOCs involve a special kind of sublexical modality was extended to account for anti-possession ditransitives. Finally, Chomsky's (2001) Strong Uniformity is respected, such that without a strong reason to do otherwise, I have assumed an almost identical syntax for English and Korean. Surface differences can hereby be ascribed to a minimal difference on a functional head. The same semantic distinction (physical/literal vs. abstract/idiomatic) is shown to cause similar reflexes across the two languages in this regard.

References

- Beavers, John (2011). An aspectual analysis of ditransitive verbs of caused possession in English. *Journal of Semantics* 28(1), 1-54.
- Beck, Sigrid, and Kyle Johnson (2004). Double Objects Again. *Linguistic Inquiry* 35(1), 97-123.
- Bosse, Solveig, and Benjamin Bruening (2011). Benefactive versus experiencer datives. In Mary Byram Washburn, Katherine McKinney-Bock, Erika Varis, Ann Sawyer, and Barbara Tomaszewicz (eds.) *Proceedings of the 28th West Coast Conference on Formal Linguistics*, 69-77. Somerville: Cascadilla Proceedings Project.
- Bruening, Benjamin (2010a). Double object constructions disguised as prepositional datives. *Linguistic Inquiry* 41(2), 287-305.
- Bruening, Benjamin (2010b). Ditransitive asymmetries and a theory of idiom formation. *Linguistic Inquiry* 41(4), 519-562.

- Bruening, Benjamin (2018). Double object constructions and prepositional dative constructions are distinct: A reply to Ormazabal and Romero 2012. *Linguistic Inquiry* 49(1), 123-150.
- Chomsky, Noam (2001). Derivation by phase. In Michael Kenstowicz (ed.) *Ken Hale: A Life in Language*, 1-52. Cambridge, MA: MIT Press.
- Cruse, D. Alan (1973). Some thoughts on agentivity. *Journal of Linguistics* 9(1), 11-23.
- Cuervo, María Cristina (2003). *Datives at Large*. Doctoral dissertation, MIT.
- Georgala, Effi, Waltraud Paul, and John Whitman (2008). Expletive and Thematic Applicatives. In Charles B. Chang and Hannah J. Haynie (eds.) *Proceedings of the 26th West Coast Conference on Formal Linguistics*, 181-189. Somerville, Mass.: Cascadilla Proceedings Project.
- Green, Georgia M. (1974). *Semantics and Syntactic Regularity*. Bloomington: Indiana University Press.
- Harley, Heidi (2002). Possession and the double object construction. *Linguistic Variation Yearbook* 2, 29-68. Amsterdam: John Benjamins.
- Harley, Heidi, and Hyun Kyoung Jung (2015). In support of the P_{HAVE} analysis of the double object construction. *Linguistic Inquiry* 46(4), 703-730.
- Harley, Heidi, and Shigeru Miyagawa (2017). Syntax of ditransitives. In *Oxford Research Encyclopedia of Linguistics*. [DOI: <https://oxfordre.com/linguistics/view/10.1093/acrefore/9780199384655.001.0001/acrefore-9780199384655-e-186>]
- Hornstein, Norbert (1999). Movement and Control. *Linguistic Inquiry* 30(1), 69-96.
- Jackendoff, Ray (1990). *Semantic Structures*. Cambridge, MA: MIT Press.
- Jung, Yeun-Jin, and Shigeru Miyagawa (2004). Decomposing ditransitive Verbs. In *Proceedings of SICGG*, 101-120.
- Kittilä, Seppo (2005). Recipient-prominence vs. beneficiary-prominence. *Linguistic Typology* 9(2), 269-297.
- Larson, Richard K. (1988). On the double object construction. *Linguistic Inquiry* 19(3), 335-391.
- McGinnis, Martha (2008). Applicatives. *Language and Linguistics Compass* 2(6), 1225-1245.
- Oehrle, Richard T. (1976). *The Grammatical Status of the English Dative Alternation*. Doctoral dissertation, MIT.
- Pesetsky, David (1995). *Zero Syntax: Experiencers and Cascades*. Cambridge MA: MIT Press.
- Pinker, Steven (1989). Markedness and language development. In Robert J. Matthews, and William Demopoulos (eds.) *Learnability and Linguistic Theory*, 107-127. Dordrecht: Springer Netherlands.
- Pylkkänen, Liina (2002). *Introducing Arguments*. Doctoral dissertation, MIT.
- Pylkkänen, Liina (2008). *Introducing Arguments*. Cambridge, MA: MIT Press.
- Richards, Norvin (2001). An idiomatic argument for lexical decomposition. *Linguistic Inquiry* 32(1), 183-192.
- Song, Jae Jung (2010). Korean benefactive particles and their meanings. In Fernando Zúñiga, and Seppo Kittilä (eds.) *Benefactives and Malefactives: Typological perspectives and case studies*, 393-418. Amsterdam: John Benjamins.
- Woolford, Ellen (2006). Lexical case, inherent case, and argument structure. *Linguistic Inquiry* 37(1), 111-130.

Differential object marking in Spanish: Does affectedness really matter? *

Ekaterina Levina
University of Vienna

1. Introduction

Differential object marking (DOM) is the selective marking of direct objects based on their semantic or pragmatic properties, or a combination of these. Cross-linguistically, the most commonly attested correlates of DOM include animacy and definiteness (cf. Bossong 1985; Aissen 2003). In Spanish, the presence of the marker *a* in (1a) correlates with animacy, as shown by its contrast with (1b), which lacks the marker while differing only in the animacy of the object.

- (1) a. *Conozco #(a) esta chica.* b. *Conozco (#a) esta película.*
 know:1SG DOM this girl know:1SG DOM this movie
 ‘I know this girl.’ ‘I know this movie.’

In Spanish, however, animacy is not the only factor influencing DOM. Other well-known factors include referentiality and topicality, which can be grouped together with animacy under the broader notion of *individuation* (cf. von Heusinger and Kaiser 2003, 2007). Since individuation alone cannot sharply distinguish [+DOM] from [-DOM] cases, additional factors have been sought. Von Heusinger and Kaiser 2007 and von Heusinger (2008) propose that verbs’ selectional restrictions on their objects also play a role: verbs selecting human objects are more likely to appear with DOM than verbs that take both animate and inanimate ones.

Another proposed factor is *affectedness* (in the sense of Tsunoda 1985): the higher an object ranks on the affectedness hierarchy, the more likely it is to appear with DOM (cf. von Heusinger 2007; von Heusinger and Kaiser 2011; Heredero and García 2023). This idea is illustrated in (1), where verbs entailing greater affectedness on the object (*beat, murder*) seem to favor DOM, while those entailing less affectedness (*see, find*) do not.

- (2) *Golpearon/asesinaron* ?? \emptyset /*a* *un* *turista.*
 beat.3PL/killed:3PL \emptyset /DOM a tourist
 ‘They beat/murdered a tourist.’
- (3) *Vieron/encontraron* \emptyset /*a* *un* *turista.*
 saw.3PL/found:3PL \emptyset /DOM a tourist
 ‘They saw/found a tourist.’

This paper challenges the claim that affectedness influences DOM in Spanish. Based on a quantitative corpus analysis of DOM rates across verbs differing in affectedness and

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nouns varying in animacy and referentiality, we show that while DOM correlates strongly with animacy and referentiality, it does not correlate with affectedness.

2. The background

DOM is a widespread phenomenon. By 1985, it was attested in more than 300 languages (Bossong 1985). Its most common semantic correlates, acting independently or jointly, include animacy, definiteness, specificity, individuation, and topicality (Comrie 1979; Bossong 1985; Aissen 2003; Bossong 2011; Iemmolo 2010; Pensado 1995; Dalrymple and Nikolaeva 2005, 2011; Givón 1984). For all these properties (arguably including affectedness), the generalization holds that the more pronounced the feature, the higher the likelihood of DOM (e.g., definite nominals are more often marked than indefinite ones, animates more often than inanimates).

Being a case-marking strategy, DOM naturally reflects alignment. In nominative–accusative languages, the nominative case usually corresponds to the unmarked form, and accusative, the case commonly marking patients, is derived through additional morphology. In ergative–absolutive systems, the absolutive case, also encoding patients, is the unmarked form. Consequently, DOM, which relies on morphological differentiation of the object, has no structural basis in ergative languages. Such languages tend instead to exhibit *differential subject marking*, where ergative subjects are more likely to be overtly marked when high in animacy or definiteness (Aissen 2003; de Hoop and Malchukov 2008).

DOM is also linked to word order. It occurs more frequently in languages with flexible word order than in those with rigid word order (Comrie 1989; Bossong 2011; Croft 2002; Song 2014; Iemmolo 2010). In languages lacking overt case, encoding of grammatical relations depends heavily on fixed word order, whereas case marking allows movement freedom by signaling grammatical roles morphologically.

Research on DOM seeks to answer two major questions: (i) why languages employ DOM rather than consistent case marking, and (ii) why DOM correlates cross-linguistically with certain semantic and pragmatic features such as animacy and referentiality. As for (i), Bossong (2011) argues that DOM develops as an economical replacement of a full-fledged case system (e.g., the shift from elaborate case system of Latin to DOM in Spanish). As for (ii), two broad explanatory frameworks have been proposed: transitivity accounts and ambiguity accounts.

Following Hopper and Thompson (1980), transitivity is understood not as a property of the verb alone but of the entire clause, depending on factors such as the object's affectedness and individuation. A clause is maximally transitive when the object is highly individuated and strongly affected. Hopper and Thompson (1980) further assume that individuation and affectedness are interconnected: an individuated object is more easily affected. The more transitive is the clause, the more likely the object is to be morphologically marked. Næss (2004, 2007) goes one step further, arguing that DOM directly encodes affectedness, with animacy and definiteness derived from it. This view predicts that verbs entailing high affectedness should favor DOM, a prediction our data will show not to hold.

In contrast, ambiguity-based approaches (e.g., Comrie 1979; Aissen 2003; Bossong 1985) see DOM as a disambiguating device distinguishing subjects and objects. DOM appears on objects with subjectlike features (animacy, definiteness, topicality), which overlap with canonical subject properties and could otherwise lead to ambiguity. Aissen

(2003) formalizes this intuition: DOM increases when object properties resemble those of subjects and when subject–object differentiation in the clause becomes less transparent.

Ambiguity accounts do not consider verb meaning as a factor affecting DOM and therefore predict no correlation with affectedness. In Spanish, DOM strongly correlates with animacy and referentiality. The two are interconnected and often treated as part of a single scale of *individuation* (Laca 2006; von Heusinger and Kaiser 2011; Heredero and García 2023). Topicality, while also relevant, largely follows word order: left-dislocated, topical objects obligatorily bear *a*, while in-situ focal objects may not.¹

Several studies have extended the analysis beyond these core dimensions. Von Heusinger and Kaiser (2007) and von Heusinger (2008) argue that DOM is sensitive to selectional restrictions verbs impose on their objects: verbs preferring animate objects show more DOM than those that select inanimates. Furthermore, von Heusinger and Kaiser (2011) claim that affectedness also contributes, grouping verbs into affectedness classes following Tsunoda (1985). They find that verbs with higher affectedness show earlier and more frequent DOM historically, though with many exceptions (e.g., perception verbs show higher DOM rates than some verbs of physical impact).

More recent experimental work (Heredero and García 2023) uses a force dynamic notion of affectedness (the object as recipient of force) (Croft 1991; Jackendoff 1990). Speakers preferred DOM with affected objects (88%) over non-affected ones (75%), leading the authors to conclude that affectedness promotes DOM. However, both the [+affected] and [–affected] verb classes are semantically heterogeneous, and the results are internally inconsistent: [–affected] verbs like *amar* ‘love’ and *oír* ‘hear’ show higher DOM rates than many [+affected] ones. Moreover, as in earlier work, only animate objects were considered, making it impossible to disentangle affectedness from animacy.

2. The study

This section formulates the predictions suggested by previous studies claiming a correlation between affectedness and DOM and outlines the approach adopted to test them. Specifically, we conduct a corpus-based analysis examining how DOM patterns align with the fine-grained affectedness hierarchy proposed by Beavers (2011), while controlling for animacy and referentiality.

2.1. Affectedness and DOM: Predictions and expectations

Setting aside the shortcomings of previous approaches, let us assume, following the authors reviewed above, that affectedness indeed motivates DOM. If this assumption is correct, we should expect the relation to hold not only under a coarse binary distinction (e.g., affected vs. non-affected) but also when affectedness is treated as a more fine-grained scalar notion. To test this, we adopt the model proposed by Beavers (2011), who defines affectedness in terms of the degree of change the object undergoes during the event.

According to Beavers (2011), affectedness is determined by how precisely a verb specifies a change in the object along some scalar dimension, such as location, existence, or physical state. Crucially, affectedness is not merely a matter of whether change occurs, but of how fully that change is specified within the verb’s lexical meaning. Beavers distinguishes four degrees of affectedness, ordered as follows:

¹ Since our corpus study excludes non-canonical word order, topicality is not further analyzed.

(4) Affectedness Hierarchy

Quantized change > *non-quantized change* > *potential change* > *unspecified for change*
(*break, shatter, devour*) (*widen, cool, cut*) (*hit, punch, rub*) (*see, laugh at, follow*)

Verbs unspecified for change denote actions that do not involve physical contact or do not cause immediate impact on the undergoer. These roughly correspond to the [–affected] class in Heredero and García (2023) and to midrange classes on Tsunoda’s (1985) hierarchy, as used by von Heusinger and Kaiser (2011). The remaining three categories, quantized, non-quantized, and potential change, provide finer distinctions within the broader [+affected] class assumed in earlier studies.

If affectedness indeed triggers DOM, verbs entailing a higher degree of affectedness (e.g., quantized change) should display higher DOM rates, while those expressing lower degrees (e.g., potential or unspecified change) should show lower rates, once animacy and referentiality are controlled.

2.2. Methodology

To test this prediction, we analyzed data from the Spanish Google Ngram Viewer corpus, which contains approximately 158.9 billion tokens from a broad range of published texts. Although biased toward Peninsular Spanish, its scope and lexical diversity make it suitable for tracking morphosyntactic patterns such as DOM. The corpus returns normalized relative frequencies by year, enabling quantitative comparison of DOM and non-DOM variants.

Fourteen verbs were selected to represent the four affectedness levels, following Beavers (2011) and including several verbs from previous studies:

- (i) quantized change: *abatir, arrollar, matar, romper, asesinar*;
- (ii) non-quantized change: *arrastrar, herir, cortar, mojar*;
- (iii) potential change: *apalear, empujar, golpear*;
- (iv) unspecified for change: *ver, escuchar*.

For each verb, six high-frequency direct object nouns were chosen from the corpus, representing human, animal, and inanimate referents. To control for referentiality, definite, indefinite, and bare forms were retrieved separately, in both singular and plural. This design enabled the analysis of DOM across all combinations of animacy, referentiality, and number.

Searches were conducted using the infinitive verb form, which proved most stable across combinations. For each verb–noun pair, minimal pairs contrasting DOM and non-DOM variants (e.g., *ver a la mujer* vs. *ver la mujer*) were submitted as single queries. Ratios were calculated manually from normalized frequencies to account for zero counts that prevent automatic computation. The time span was set to 1960–2020, with smoothing of 30, producing stable frequency averages centered at 1990.

Despite its large scale, the corpus presents some limitations. It contains only written data, though no major DOM differences are known between spoken and written Spanish. Because it primarily represents Peninsular Spanish, some dialectal variation may be underrepresented, but DOM is not known to vary systematically across dialects. Finally, only canonical verb–object sequences were analyzed. Constructions involving dislocation

or fronting were excluded to avoid interference from topicalization, meaning that focus-driven or discourse-related DOM patterns fall outside the present scope.

3. Results and discussion

3.1. Affectedness

We first consider a representative excerpt of the data and then turn to the statistical evaluation of the entire dataset.

Table 1 shows [+DOM]/[-DOM] ratios for six definite singular objects paired with verbs representing different affectedness levels.

Affectedness-Verb	<i>el hombre</i> 'the man'	<i>la mujer</i> 'the woman'	<i>la gente</i> 'the people'	<i>animal</i>	<i>inanimate</i>
3 - <i>mojar</i> 'to wet'		100%			0
2 - <i>golpear</i> 'to hit'	100%	100%	100%	100%	0.01
2 - <i>apalea</i> 'to beat'	100%		100%		0
4 - <i>arrollar</i> 'to crush'	100%		100%		0
3 - <i>herir</i> 'to wound'	100%		199	97	0.52
4 - <i>asesinar</i> 'to murder'	100%	100%	49		
2 - <i>empujar</i> 'to push'	100%	100%	29		0
4 - <i>matar</i> 'to kill'	31	33	71	3.2	0
4 - <i>abatir</i> 'to knock down'	19		1.5	100%	0.35
3 - <i>arrastrar</i> 'to drag'	17.5				5
1 - <i>escuchar</i> 'to hear'	13	20	0.003		0.2
1 - <i>ver</i> 'to see'	10.5	10.3	3		0.0015
3 - <i>cortar</i> 'to cut'	1.6	100%	10.6	0.95	0
4 - <i>romper</i> 'to break'	0.44		0.36		1.57

Table 1: Affectedness and DOM: definite singular nominals

The verbs in the leftmost column are preceded by a number indicating their degree of affectedness: 1 = *unspecified for change*, 2 = *potential change*, 3 = *non-quantized change*, and 4 = *quantized change*. The following columns show [+DOM]/[-DOM] ratios for definite singular nouns such as *el hombre* 'the man', *la mujer* 'the woman', and *la gente* 'the people', as well as representative animal and inanimate nouns. Empty cells reflect the absence of occurrences in the corpus; 100% indicates categorical DOM presence, 0 indicates its absence.

If affectedness influences DOM, we should expect that the same nominal shows higher DOM ratios with verbs entailing greater affectedness. However, Table 1 shows no consistent correspondence between affectedness and DOM.

For instance, *matar* 'to kill', which entails maximal affectedness, has lower DOM ratios than *golpear* 'to hit' or *herir* 'to wound', both ranked lower on the affectedness scale. Conversely, perception verbs like *ver* 'to see' and *escuchar* 'to hear, to listen', the least affectedness-entailing verbs, exhibit higher DOM rates than verbs such as *romper* 'to break' or *cortar* 'to cut'. The same pattern holds across other noun types.

This inconsistency also appears within affectedness classes: among quantized-change verbs (Class 4), DOM ratios range from 0.44 for *romper* 'to break' to 100% for *asesinar* 'to murder'. Even verbs with identical result states, such as *matar* 'to kill' and *asesinar* 'to murder', behave differently: *asesinar* consistently shows categorical DOM

with definite human objects, while *matar* exhibits far lower ratios. These results suggest that affectedness, as operationalized here, does not account for the observed variation.

To test this quantitatively, we calculated Spearman’s rank correlations between affectedness level and [+DOM]/[−DOM] ratios for each verb–noun pair, across twelve *animacy* × *referentiality* combinations (human/animal/inanimate × definite/indefinite/bare). The measure is nonparametric and robust to zeros (no-DOM) and infinities (all-DOM).

Ten of the twelve strata showed no reliable association; two displayed weak, negative correlations, contrary to prediction (higher affectedness → lower DOM). Key results are summarized in Table 2.

Instance	Spearman’s ρ	p -value	N
human × bare PL	−0.44	0.02	24
inanimate × DEF.PL	−0.48	0.04	15
(pooled) bare PL	−0.27	0.05	45
human × DEF.SG	0.19	0.29	41
Overall (all pooled)	−0.08	0.23	123

Table 2: Correlation between affectedness and DOM

Across the dataset, correlations are negligible and non-significant ($|\rho| < 0.3$). Only three cases show significance, all weak and negative. We therefore conclude that affectedness is not a reliable predictor of DOM once animacy and referentiality are controlled. Any residual effects are likely mediated by other factors, not by affectedness per se.

3.2. Referentiality and number

DOM in Spanish correlates strongly with referentiality: definite objects are more likely to bear DOM than indefinite ones, which in turn are more likely than bare nominals lacking identifiable discourse antecedents. To assess this quantitatively, we compared [+DOM]/[−DOM] ratios for definite, indefinite, and bare forms within identical verb–noun combinations, while controlling for number.

Because singular bare nouns and plural indefinites are rare and the latter are semantically different, we conducted three pairwise comparisons: (i) definite vs. indefinite singulars; (ii) definite vs. bare plurals; and (iii) singular vs. plural definites. Spearman’s ρ was computed for each.

Comparison	Spearman’s ρ	p -value	N
(i) Def.SG vs. Indef.SG	0.85	< 0.001	39
(ii) Def.PL vs. Bare.PL	0.85	< 0.001	32
(iii) Def.SG vs. Def.PL	0.83	< 0.001	34

Table 3: Correlation between DOM, referentiality, and number

The results reveal significant high positive correlations ($\rho \approx 0.83$ – 0.85). Verbs and nouns that frequently take DOM with definite objects also tend to take it with indefinite and bare ones. The near-equivalence between (iii) and (i)/(ii) indicates that number patterns mirror referentiality. However, number does not act independently: singulars are typically more individuated and thus more referential than plurals. We therefore interpret number as a

feature feeding into referentiality rather than as a distinct DOM trigger. These results confirm that referentiality remains one of the strongest predictors of DOM in Spanish.

3.3. Animacy

Our data likewise confirm the correlation between animacy and DOM. Table 4 summarizes mean [+DOM]/[−DOM] ratios for humans, animals, and inanimates across referentiality levels.

Animacy	DEF.SG	DEF.PL	INDEF.SG	Bare PL
human	7.33	10.36	5.14	0.78
animal	4.18	1.41	1.32	0.01
inanimate	0.24	0.16	0.16	0.17

Table 4: DOM and animacy across referentiality levels

A clear animacy gradient emerges: DOM decreases from humans to animals to inanimates. To confirm this pattern, we fitted a mixed-effects logistic regression with *animacy* as a fixed effect and random intercepts for *verb* and *noun*. Results show strong animacy effects: compared to inanimates, animals are about 9–10 times more likely to take DOM, and humans about 32 times more likely. Within animates, humans are roughly 3.4 times likelier than animals. These values correspond to probabilities of 0.8–0.9 for humans, 0.6–0.8 for animals, and 0.15–0.2 for inanimates, consistent with the well-established pattern human > animal > inanimate.

Animacy thus determines whether DOM is possible at all, while referentiality modulates its frequency. Within the animate domain, referential contrasts (definite vs. indefinite, singular vs. plural) account for more variation than the human–animal distinction, confirming that referentiality exerts the stronger gradient effect once animacy is fixed.

3.4. Selectional restrictions

As noted in Section 1, von Heusinger and Kaiser (2007) proposed that DOM correlates with verbs’ selectional restrictions: verbs selecting human objects should show higher DOM than those selecting animates or inanimates. Our data, however, do not support a reliable effect. Spearman’s $\rho = 0.37$ ($p = 0.33$), indicating only a weak, non-significant trend. The likely reason is the small number of verbs available for comparison.

4. Broader implications

Our corpus study has shown that DOM in Spanish does not correlate with affectedness, contrary to previous claims (von Heusinger and Kaiser 2011; Heredero and García 2023). Instead, it confirms that animacy and referentiality jointly determine DOM. These findings support ambiguity-based approaches and challenge transitivity-based accounts that tie DOM to high affectedness and event transitivity (Hopper and Thompson 1980; Næss 2004, 2007).

Under ambiguity approaches, DOM serves to disambiguate subjects and objects. Two versions can be distinguished: a *weak* version (Bossong 1985), where DOM marks objects with subject-like properties (high animacy, high referentiality), and a *strong* version (Aissen 2003), where DOM depends on two factors, subject-like object properties and clause-level subject–object differentiation. When both arguments share similar animacy and referentiality, DOM appears on the object to ensure distinct interpretation.

Although ambiguity accounts do not consider verb meaning, the strong version is, in our view, compatible with an analysis on which verb meaning contributes clause-level subject-object disambiguation. Consider *asesinar* ‘to murder’ and *matar* ‘to kill’: both entail identical result states, but differ in participant selection. *Asesinar* requires two human participants, while *matar* allows inanimate subjects.

- (5) *Un loco / La bomba mató (a) 17 personas.*
 a crazy person / the bomb killed DOM 17 people
 ‘A crazy person / The bomb killed 17 people.’
- (6) *Un loco / #La bomba asesinó (a) 17 personas.*
 a crazy person / the bomb murdered DOM 17 people
 ‘A crazy person / The bomb murdered 17 people.’

In configurations like (5), animacy alone disambiguates grammatical roles: the inanimate must be the subject, the animate the object. By contrast, *asesinar* always involves two human participants competing for subject and object interpretation. Similarly, as shown in (7)–(8), *matar* allows any animate object, while *asesinar* favors humans exclusively.

- (7) *Pedro mató a su vecino / perro.*
 Pedro killed DOM his neighbor / dog
 ‘Pedro killed his neighbor/dog.’
- (8) *Pedro asesinó a su vecino / #perro.*
 Pedro murdered DOM his neighbor / dog
 ‘Pedro murdered his neighbor/dog.’

Thus, verbs’ selectional restrictions reduce or heighten the need for DOM depending on how they constrain possible argument roles. For *matar*, animacy cues are sufficient for disambiguation; for *asesinar*, they are not. This aligns with our data, which show higher DOM rates for *asesinar* than for *matar*. We therefore suggest that selectional restrictions, both on subjects and on objects, can be modeled as feeding into clause-level disambiguation pressure. In this way, verb semantics fits naturally within the strong ambiguity approach: not as an independent DOM trigger, but as a factor influencing when disambiguation through DOM becomes necessary.

References

- Aissen, Judith (2003). Differential object marking: Iconicity vs. economy. *Natural Language & Linguistic Theory* 21(3), 435–483.
- Beavers, John. (2011). On affectedness. *Natural Language & Linguistic Theory* 29(2), 335–370.
- Bossong, Georg (1985). Empirische Universalienforschung: Differentielle Objektmarkierung in den neuiranischen Sprachen. Tübingen: Narr.
- Bossong, Georg (2011). Differential object marking in Romance and beyond. In Nuessel, Frank (ed.) *New Analyses in Romance Linguistics: Selected papers from the Linguistic Symposium on Romance Languages XVIII, Urbana-Champaign, April 7–9, 1988*, 143–170. Amsterdam: John Benjamins.

- Comrie, Bernard (1979). Definite and animate direct objects: A natural class. *Linguistica Silesiana* 3, 13–21.
- Comrie, Bernard (1989). *Language Universals and Linguistic Typology: Syntax and Morphology*. Chicago: University of Chicago Press.
- Croft, William (1991). *Syntactic Categories and Grammatical Relations*. Chicago: University of Chicago Press.
- Croft, William (2002). *Typology and Universals*. Cambridge: Cambridge University Press.
- Dalrymple, Mary, and Irina Nikolaeva (2005). Topicality and non-subject marking: Agreement, case marking, and grammatical function. Oxford: Ms., University of Oxford.
- Dalrymple, Mary, and Irina Nikolaeva (2011). *Objects and Information Structure*. Cambridge: Cambridge University Press.
- de Hoop, Helen, and Andrej Malchukov (2008). Case-marking strategies. *Linguistic Inquiry* 39(4), 565–587.
- de Swart, Peter (2014). Prepositional inanimates in Dutch: A paradigmatic case of differential object marking. *Linguistics* 52(2), 445–468.
- Dowty, David. (1991). Thematic proto-roles and argument selection. *Language* 67(3), 547–619.
- Fleischhauer, Jens (2018). Animacy and affectedness in Germanic languages. *Open Linguistics* 4(1), 566–588.
- Givón, Talmy (1976). Topic, pronoun and grammatical agreement in subject and topic. In Charles. N. Li (Ed.), *Subject and Topic*, 151–188. New York: Academic Press.
- Givón, Talmy (1984). *Syntax: A Functional-Typological Approach*. Amsterdam: John Benjamins.
- Herebero, Diego Romero, and Marco García García (2023). Differential object marking in Spanish: The effect of affectedness. *Caplletra. Revista Internacional de Filologia* 74, 259–285.
- Hinkle, Denis E., William Wiersma, Stephen G. Jurs. (2003). *Applied Statistics for the Behavioral Sciences*, Volume 663. Houghton Mifflin Boston.
- Hopper, Paul J. and Sandra A. Thompson (1980). Transitivity in grammar and discourse. *Language* 56(2), 251–299.
- Iemmolo, Giorgio (2010). Topicality and differential object marking: Evidence from Romance and beyond. *Studies in Language* 34(2), 239–272.
- Jackendoff, Ray (1990). *Semantic Structures*. Cambridge, MA: MIT Press.
- Laca, Brenda (2006). El objeto directo. la marcación preposicional. *Sintaxis Histórica de la Lengua Española. Primera parte: La Frase Verbal I*(Cap. 5), 423–475.
- Lambrecht, Knud (1996). *Information Structure and Sentence Form: Topic, Focus, and the Mental Representations of Discourse Referents*. Cambridge: Cambridge University Press.
- Lundquist, Björn, and Gillian Ramchand. (2012). Contact, animacy and affectedness in Germanic. In Peter Ackema, Rebecca Alcorn, Caloline Heycock, Dirk Jaspers, Jeroen van Craenenbroeck, and Guido Vanden Wyngaerd (eds.) *Comparative Germanic Syntax: The State of the Art*, Volume 191, 223–248. Amsterdam: John Benjamins.
- Næss, Åshild (2004). What markedness marks: The markedness problem with direct objects. *Lingua* 114(9-10), 1186–1212.
- Næss, Åshild (2007). *Prototypical Transitivity*. Amsterdam: John Benjamins.

- Pensado, Carmen (1995). La creación del objeto directo preposicional y la flexión de los pronombres personales en las lenguas románicas. In Carmen Pensado (ed.) *El Complemento Directo Preposicional*, 179–233. Madrid: Visor Libros.
- Song, Jae Jung (2004). Linguistic typology: Morphology and syntax. *Journal of Linguistics*, 40(1), 198–200.
- Spearman, Charles (1904). The proof and measurement of association between two things. *The American Journal of Psychology* 15(1), 72–101.
- Tsunoda, Tasaku (1985). Remarks on transitivity. *Journal of linguistics* 21(2), 385–396.
- von Heusinger, Klaus (2007). Accessibility and definite noun phrases. In Monika Schwarz-Friesel, Manfred Consten, and Mareile Knees (eds.) *Anaphors in Text: Cognitive, Formal and Applied Approaches to Anaphoric Reference*, 123-144. Amsterdam: John Benjamins.
- von Heusinger, Klaus (2008). Verbal semantics and the diachronic development of DOM in Spanish. *Probus* 20(1), 1-31.
- von Heusinger, Klaus, and Georg. A. Kaiser (2003). The interaction of animacy, definiteness and specificity in Spanish. *Proceedings of the Workshop: Semantic and Syntactic Aspects of Specificity, Romance Languages*, 41–65. Konstanz: Universität Konstanz.
- von Heusinger, Klaus and Georg. A. Kaiser (2007). Differential object marking and the lexical semantics of verbs in Spanish. In Georg A. Kaiser and Manuel Leonetti (eds.) *Proceedings of the Workshop Definiteness, Specificity and Animacy in Ibero-Romance languages*, 85–110. Konstanz: Fachbereich Sprachwissenschaft der Universität Konstanz.
- von Heusinger, Klaus and Georg. A. Kaiser (2011). Affectedness and differential object marking in Spanish. *Morphology* 21(3), 593–617.

Dative anticausatives in Slavic*

Tatjana Ilic

Keio University; National Defense Academy of Japan

1. Introduction

Slavic languages distinguish between agents with full control over the event in which they are causally involved (nominative agents) and agents that lack full control over the event and are therefore lower in agency in comparison (dative agents). This distinction, which occurs across Slavic languages, is illustrated in (1) and (2) below for Polish (West Slavic), and (3) and (4) for Serbian (South Slavic) (as cited in Rivero 2003 and Rivero and Arregui 2012).¹

- (1) *Jan czyta książkę.*
John.NOM read.PRES.1SG book.ACC
'John is reading a book.'
- (2) *Jankowi czytało się tę książkę z przyjemnością.*
John.DAT read.NEUT REFL this book.ACC with pleasure
'(Somehow) John read this book with pleasure.'
- (3) *Marko čita knjigu.*
Mark.NOM read.PRES.1SG book.ACC
'Mark is reading a book.'
- (4) *Marku se čita knjiga.*
Mark.DAT REFL read.PRES.3SG book.NOM
'Mark feels like reading a book.'

Nominative agents in (1) and (3) above are conceptualized as fully responsible for the event actualization and its outcome. That the event happens is entirely the result of the agent's intention and, everything else being equal, the success of the event depends entirely on the agent's ability to produce the intended outcome. In contrast, dative agents in (2) and (4) are conceptualized as lacking full responsibility for the actualization and the outcome of the event in which they are causally involved. Sentences in (2) and (4) therefore both express eventualities which are beyond control of the dative agent and differ primarily in that in Polish (2), the event of the book reading is successfully actualized due to some unexpressed facilitating factors (note the word "somehow" in the English translation), whereas the corresponding example in Serbian (4) merely states a potential for the event actualization due to some unexpressed factors triggering agent's

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¹ If not otherwise marked, Serbian examples are provided by the author.

disposition to do the reading (to be discussed in greater detail in section 3.1.). The dative agent in (4) is therefore best understood as a *potential agent* of an unactualized event (rather than the experiencer, as it is commonly claimed in the literature), while the dative agent in (2) is a *de facto* agent of the actualized event of reading. Crucially, however, neither one of them has a full control over the event actualization and its outcome, which puts them in sharp contrast with the nominative agents in (1) and (3).

A further distinction between these two types of agents is that the nominative agents in (1) and (3) occur with active verb morphology, while the dative agents in (2) and (4) occur with the reflexive marker which is functionally anticausative (see section 4.5. for more details). At first glance this might seem typologically odd considering that the verbs in (2) and (4) are agentive, rather than causative. However, as we will see shortly, lexical semantics of the base verb plays the key role in the proposal put forward in this paper. In the subsequent sections, sentences illustrated in (2) and (4) will be analyzed within the larger context of anticausative verbs, particularly dative anticausatives (cf. *the oblique causer construction*, Schäfer 2008), and will be claimed to arise as the extension of use of the anticausative verb morphology to agentive verb bases. Examples below illustrate anticausatives and dative anticausatives with causative verb bases in Polish, (5) and (6), and Serbian, (7) and (8) (as cited in Rivero 2003 for Polish).

(5) *Złamały się okulary.*
 PERF.broken.FEM.PL REFL glasses.NOM.FEM.PL
 ‘The glasses broke.’

(6) *Jankowi złamały się okulary.*
 John.DAT PERF.broken.FEM.PL REFL glasses.NOM.FEM.PL
 ‘John accidentally broke the glasses.’

(7) *Slomile su se naočare.*
 PERF.broken.FEM.PL AUX.PL REFL glasses.NOM.FEM.PL
 ‘The glasses broke.’

(8) *Marku su se slomile naočare.*
 Mark.DAT AUX.PL REFL PERF.broken.FEM.PL glasses.NOM.FEM.PL
 ‘John accidentally broke the glasses.’

Note that both dative anticausatives with causative verb bases illustrated above, and dative anticausatives with agentive verb bases illustrated in (2) and (4), crucially express the same basic meaning that the noted eventuality is beyond control of the dative participant (e.g., Rivero and Arregui 2012 and the references therein; Ilic 2013, 2014). In section 4., I will argue that this basic meaning of dative anticausatives arises from the anticausative morphology, while their specific interpretations arise due to the interaction between anticausative morphology and the lexical semantics of the base verb – causative and agentive, respectively. The relevant distinction between causative and agentive verbs is readily captured in terms of the distinction between externally and internally caused eventualities (Levin and Rappaport Hovav 1995), while the motivation for the interpretational differences is explained in terms of infelicitous category interactions (Malchukov 2011) and the idea that conflicts between lexical and grammatical features on the verb lead to either blocking or reinterpretation (Malchukov 2019). This has already

been demonstrated for South Slavic (Ilic 2013, 2014), where it was shown that incompatibility between anticausative morphology and lexical semantics of the agentive verb bases in Serbian dative anticausatives cancels the event actualization and gives rise to a modal dispositional meaning (see section 3.1.).

In the remainder of this paper I show that in West Slavic and Russian, the same incompatibility with agentive verb bases preserves event actualization and gives rise to a modal facilitative (abilitative) meaning with an additional evaluative component in the affirmative sentences (section 3.2.). Incompatibility between anticausative morphology and agentive verb bases therefore produces different outcomes across Slavic languages, leading to cancellation of the event actualization only in South Slavic, while reinterpretation occurs in all of them.

2. Dative anticausatives with causative verb bases

Anticausative constructions involving a dative (or genitive) marked participant with an obligatorily human referent commonly occur in many Indo-European languages. These constructions, which I refer to as “dative anticausatives” (cf. Ilic 2013, 2014), have been discussed in the literature under various labels, such as the ‘oblique causer construction’ (Schäfer 2008), ‘dative unaccusatives’ (Kallulli 2006), and the ‘dative anticausative construction’ (Rivero 2003, 2004, 2012), among others. Below are some examples of dative anticausatives as they occur in Spanish (9) and Greek (10) (as cited in Rivero 2004).²

- (9) *A Ana se le rompieron las gafas.*
 to Ann REFL she.DAT broke.3.PL the glasses.NOM.FEM.SG
 a) ‘Ann’s glasses broke.’
 b) ‘Ann was affected by the glasses breaking.’
 c) ‘Ann broke the glasses involuntarily.’
- (10) *Tu Ben tu kaike i supa*
 the.GEN Ben he.GEN burnt.NACT the soup.NOM
 d) ‘Ben’s soup burned.’
 e) ‘Ben was affected by the soup burning.’
 f) ‘Ben involuntarily caused the soup to burn.’

Note that dative anticausatives in both Spanish and Greek are ambiguous between three different readings on which the dative participant is interpreted as a) the possessor of the theme undergoing the change, b) the entity being affected by this change, and c) the involuntary causer who causes the change accidentally (i.e., unintentionally). This is true for Slavic dative anticausatives as well, illustrated below with an example from Serbian (11).

- (11) *Marku se prosula kafa.*
 Mark.DAT REFL PERF.spill.FEM.SG coffee.NOM.FEM.SG
 a) ‘Mark’s coffee spilled.’
 b) ‘Mark is affected by the coffee spilling.’
 c) ‘Mark accidentally spilled the coffee.’

² Greek anticausatives are marked with the non-active morphology (10).

However, as demonstrated in (12) below, the possessor reading is easily canceled in the presence of another possessor and therefore seems to arise inferentially, possibly piggybacking on the affected (benefactive/malefactive) reading which seems to be more basic. A similar observation was also made in Rivero (2003) for Polish (13).

(12) *Marku se prosula Marijina kafa.*
 Mark.DAT REFL PERF.spill.FEM.SG Mary's coffee.NOM.FEM.SG
 *‘Mark’s coffee spilled.’

(13) *Jankowi zlamaly sie okulary Marysi.*
 John.DAT PERF.broken.FEM.PL REFL glasses.NOM.FEM.PL Mary.GEN
 *‘John’s glasses broke.’

Moreover, dative anticausatives always indicate accidental outcomes which occur due to some uncontrollable factors, rather than by the design of an intentional human causer. Dative anticausatives are therefore incompatible with adverbs indicating intentionality, as demonstrated in (14) below, thereby contrasting with active construction with the nominative causer in (15), which is compatible with both intentional and accidental reading.

(14) *Marku se prosula kafa*
 Mark.DAT REFL PERF.spill.FEM.SG coffee.NOM.FEM.SG
 (**namerno/slučajno*)
 (*intentionally/unintentionally)
 ‘Mark accidentally spilled the coffee (*intentionally/unintentionally).’

(15) *Marko je prosuo kafu*
 Mark.NOM AUX PERF.spill.FEM.SG coffee.ACC.FEM.SG
 (*namerno/slučajno*)
 (intentionally/unintentionally)
 a) ‘Mark poured out the coffee (intentionally).’
 b) ‘Mark accidentally spilled the coffee (unintentionally).’

This uncontrollable nature of dative anticausatives is the essential part of their meaning, and they can therefore only occur with verbs which can be conceptualized as occurring spontaneously. Dative anticausatives are consequently restricted in their use to causative (alternating) verbs which involve the result component in their lexical semantics and do not require to be instigated by an agent.

3. Dative anticausatives with agentive verb bases

Considering how common dative anticausatives are in Indo-European languages, it is rather surprising that Slavic languages seem to be among the only ones which allow dative anticausatives to occur with both causative and agentive verb bases. To the best of my knowledge, outside of the Slavic group of languages only Albanian (Kallulli 2006), and

more marginally Baltic languages (Geniušiene 1987), allow this option.³

Examples below contrast dative anticausatives with a causative (16) and agentive (17) verb base in Serbian. Note that the verb in (16) occurs with the perfective prefix indicating result, while in (17) this prefix is absent, and the verb therefore has an imperfective aspectual value (Ilic, 2013).

- (16) *Marku se prosula kafa.*
Mark.DAT REFL PERF.spill.FEM.SG coffee.NOM.FEM.SG
a) 'Mark's coffee spilled.'
b) 'Mark is affected by the coffee spilling.'
c) 'Mark accidentally spilled the coffee.'

- (17) *Marku se pila kafa.*
Mark.DAT REFL drank.FEM.SG coffee.NOM.FEM.SG
'Mark was craving coffee.'

Although at first glance it might seem that the difference in meaning between (16) and (17) is due to the differences in aspect, this is not the case. As indicated in (18) below, the possessor/affected/involuntary causer readings arise even when the verb undergoes secondary imperfectivization, thereby receiving an overall imperfective aspectual value. Note, however, that the imperfectivization here contributes a durative meaning, but the verb is still resultative due to the presence of the perfective prefix. In contrast, the dispositional meaning cannot arise when the verb bears the perfective prefix and is therefore resultative, as demonstrated in (19).

- (18) *Marku se prosipa kafa.*
Mark.DAT REFL PERF.spill.IMPERF.PRES.3.SG coffee.NOM.SG
a) 'Mark's coffee is spilling.'
b) 'Mark is being affected by the coffee spilling.'
c) 'Mark is accidentally spilling the coffee.'

- (19) *Marku se pojeo keks.*
Mark.DAT REFL PERF.ate.MASC.SG cookies.NOM.MASC.SG
*'Mark craved the cookies.'

We therefore conclude that it is not the aspect *per se* that drives the interpretational differences between dative anticausatives with causative (18) and agentive (19) verb bases, but rather lexical semantics of the base verb.⁴

This is further supported below, where the same sentences are repeated, only this time the attempted interpretations are reversed, thereby testing whether the dispositional

³ Dative anticausatives with agentive verb bases have been discussed in the literature under various labels, such as the “dispositional reflexive construction” (Franks 1995), “modal deagentive reflexives” (Nedjalkov 1980, Geniušiene 1987), “involuntary states” (Rivero and Arregui 2012), the “feel-like construction” (Marušič and Žaucer 2006), “reflexive-with-dative construction” (Ivanova 2014), and “dative unaccusatives” (Kallulli 2006), among others.

⁴ Perfectivization in Slavic languages is a derivational process.

meaning can arise with the causative verb base (20), and whether the possessive/affected/involuntary causer interpretations can arise with the agentive verb base (21).

- (20) *Marku se prosipa kafa.*
 Mark.DAT REFL PERF.spill.IMPERF.PRES.3.SG coffee.NOM.SG
 #‘Mark feels like pouring out the coffee.’
- (21) *Marku se pojeo keks.*
 Mark.DAT REFL PERF.ate.MASC.SG cookies.NOM.MASC.SG
 a) ??‘Mark’s cookies were eating themselves up.’
 b) ??‘Mark was affected by the cookies eating themselves up.’
 c) *‘Mark accidentally ate the cookies.’

As demonstrated above, the dispositional meaning can arise with the causative verb base (although this is pragmatically odd), but only if the event is conceptualized as agentive (20), as indicated by the English translation (*pour out* vs. *spill*). In contrast, the possessive/affected/involuntary causer interpretations cannot arise with the agentive verb base regardless of the perfective prefix introducing the resultative component (21). We therefore conclude that the lexical semantics of the verb base plays the crucial role in interpretation of dative anticausatives in Serbian (this is true for other Slavic languages as well).

3.1. Dative anticausatives with agentive verb bases in South Slavic

Dative anticausatives with agentive verb bases in South Slavic give rise to a wide range of semantically related interpretations, such as needs, desires, and dispositions of the dative agent towards the event, depending on the specific verb used. They speak of “the agent’s predisposition to perform the action”, of uncontrollable “urges ...and impulses of the dative [referent], not actions in the ‘real world’... They report “dispositions that need not materialize” (Rivero and Arregui, 2012) and are uncontrollable and “inexplicable” in their nature (Ivanova, 2014). These are needs, desires, and dispositions of potential agents, towards potential (non-actualized) events, arising due to some internal factors which are beyond control of the agent. This is illustrated in (22) for Slovenian (Rivero 2003), and (23) and (24) for Bulgarian (Ivanova 2014).

- (22) *Janezu se spi.*
 Janez.DAT REFL sleep.PRES.3SG
 ‘Janez is sleepy/Janez needs to sleep.’
- (23) *Puši mi se.*
 smoke.PRES.3SG I.DAT REFL
 ‘I feel like smoking.’
- (24) *Ne mi se smee.*
 NEG I.DAT REFL laugh.PRES.3SG
 ‘I don’t feel like laughing.’

The above sentences are all *irrealis* in the sense that they do not entail actualization of the event. If actualization is cancelled, no contradiction arises, as demonstrated in (25)

for Serbian. This is true in other South Slavic languages as well (Rivero 2004). In this respect, dative anticausatives with agentive verb bases in South Slavic differ from their counterparts in West Slavic and Russian, where actualization cannot be cancelled without contradiction (Rivero 2003).

- (25) *Marku se pila kafa, ali je nije pio.*
 Mark.DAT REFL drank.FEM coffee.NOM.FEM, but it.ACC.FEM NEG.AUX
 drink
 ‘Mark was in the mood for coffee, but he didn’t drink any.’

3.2. Dative anticausatives with agentive verb bases in West Slavic and Russian

Examples provided below illustrate dative anticausatives with causative (26) and agentive (27) verb bases in Czech (as cited in Geniušienė 1987 and Rivero 2004, respectively).

- (26) *Zlomil se mi nehet.*
 PERF.broken.MASC.SG REFL I.DAT nail.NOM.MASC.SG
 a) ‘My nail got broken on me.’
 b) ‘I broke my nail by accident.’

- (27) *Ta kniha se Janovi četla dobře.*
 that book.NOM.FEM REFL John.DAT read.PST.FEM well
 ‘John read this book with ease.’
 ‘Somehow it was easy for John to read this book.’
 ‘Reading this book came easily to John.’

Dative anticausatives in West Slavic (Polish, Czech, Slovak) and Russian represent subjective evaluations of actualized events. As noted in Rivero and Arregui (2012), “the agent perceives his own action as proceeding well (or not well) for reasons independent of him” (Wierzbicka 1988), “the goal is achieved through luck and external conditions” (Dąbrowska 1997), and the success is commonly attributed to “the environment in which the action takes place” (Wierzbicka 1988). Examples (28) from Czech (Franks 1995) and (29) from Russian (Ivanova 2014) illustrate this point. In (28), the agent’s performance of the action is facilitated by some favorable conditions which exist at the certain location referred to as “there”, in (29), the quality of the agent’s sleeping is diminished with the window closed, and in (30), the agent’s ability to write well is affected by the properties of the article that he is writing (the abilitative meaning arises prominently under the negation). Finally, because these sentences are subjective evaluations, they occur with adverbial modifiers that qualify the event as proceeding excellently (28), or with difficulties (29), which in (30) is indicated by the negation – all as perceived by the speaker (the last example is from Polish, as cited in Franks 1995).

- (28) *Sestře se tam pracuje výborně.*
 sister.DAT REFL there work.PRS.3.SG excellently
 ‘(My) sister is working excellently there.’

(29) *Mne pri zakrytoj fortočke ploxu spit-sja.*
 I.DAT with closed window badly sleep-REFL
 ‘My sleeping goes badly with the window closed.’

(30) *Ten artykuł nie pisze mi się dobrze.*
 this.NOM article.NOM NEG write.PRS.3.SG he.DAT REFL well
 ‘I just can’t write this article well.’

Overall, due to their facilitative meaning in West Slavic, and dispositional meaning in South Slavic, dative anticausatives with agentive verb bases are essentially both modal and differ most notably in their event actualization status, as well as in the presence of the evaluative component in West Slavic and Russian.

4. Towards a unifying account of Slavic dative anticausatives

It is commonly accepted in the literature that dative anticausatives in Slavic all crucially express the same basic meaning of lack of control on the part of the dative participant (e.g., Rivero 2003, 2004, Rivero and Arregui 2012, Ilic 2013, 2014). In this section, I will argue that this meaning arises from the anticausative morphology, while the specific interpretations arise compositionally, as a result of the interaction between anticausative morphology and the lexical semantics of the base verb. The distinction between causative (alternating) and agentive verbs is explained in terms of the distinction between externally and internally caused eventualities (Levin and Rappaport Hovav 1995).

4.1. Externally and internally caused eventualities

In order to explain which causative change-of-state verbs undergo the causative-anticausative alternation, Levin and Rappaport Hovav (1995) introduced a distinction between externally and internally caused eventualities. Externally caused eventualities inherently involve an external cause which brings about the change and is therefore perceived as responsible for that change (e.g., *John/the hammer/the storm broke the window*). In contrast, internally caused eventualities are brought about by some inherent properties of the entity undergoing the change (cf. “a change by inner predisposition”; Bentley 2024), and the responsibility for the change is therefore attributed to these properties (e.g. *The flower wilted*) (Levin and Rappaport Hovav 1995: 90-91).

Verbs such as *break* and *close* describe eventualities that can easily be conceptualized as internally caused, i.e. without the help of an agent, and can therefore appear as either causative or anticausative, e.g. *John broke the window/The window broke (by itself)*. Internally caused eventualities, on the other hand, arise from the inherent properties of the entity undergoing the change (“inner predispositions”) and therefore cannot be conceptualized as externally controlled, which is why they also lack causative counterparts.

4.2. Internal causation subsumes agency

According to Levin and Rappaport Hovav (1995), agentive verbs are also internally caused by some inherent properties which are responsible for bringing about the eventuality. “For agentive verbs, such as *play* and *speak*, this property is the will or volition of the agent who performs the activity” (Levin and Rappaport Hovav 1995: 91). In contrast to verbs such as *break* and *open*, agentive verbs therefore cannot be externally controlled, as they occur due to the inherent properties of the agent – e.g. *Mark is playing*,

because he feels like playing (i.e. he wants to play), and *Mark is sleeping, because he is sleepy* (i.e. he needs to sleep). Agentive verbs can therefore only be controlled internally, i.e. by the agent who performs the activity (Smith 1970). I will use the term “agent’s inner dispositions” to refer to these inherent properties of the agents that prompt them to perform different activities (in parallel to the “inner predispositions” of the theme, Bentley 2024).

4.3. Agency presupposes agent’s inner dispositions

The inherent properties of the agent, such as agent’s needs, desires, and dispositions, represent conditions for the event actualization and are associated with the semantic notion of agent as non-cancellable presuppositions. Consider (31), with an active verb expressing that the nominative agent is involved in an ongoing event of sleeping. When the agent’s disposition towards sleeping is negated in (32), a contradiction arises, as it is illogical to claim that *Mark* would be sleeping without him feeling sleepy. This indicates that, in order to be true, the active sentence in (32) presupposes *Mark’s* disposition towards sleeping. In addition, as demonstrated in (33), the agent’s disposition towards sleeping is preserved under the negation, further confirming its status of a semantic presupposition. This is replicated in (34) and (35) for Serbian. Crucially, part of the sentence expressing *Mark’s* disposition towards sleeping, which is presupposed in (34) and (35), looks exactly like the dative anticausative with the agentive verb *sleep* in (36).

(31) *Mark is sleeping.*

(32) ??*Mark is sleeping (but he is not sleepy).*

(33) *Mark is not sleeping (but he is sleepy).*

(34) ??*Marko spava (ali mu se ne spava).*
 Marko.NOM sleep.PRES.3.SG, (but him.DAT REFL NEG sleep.PRES.3.SG)
 ‘Mark is sleeping (but he is not sleepy/he doesn’t need to sleep).’

(35) *Marko ne spava (ali mu se spava).*
 Marko.NOM NEG sleep.PRES.3.SG (but him.DAT REFL sleep.PRES.3.SG)
 ‘Mark is not sleeping (but he is sleepy/he needs to sleep).’

(36) *Marku se spava.*
 Mark.DAT REFL sleep.PRES.3.SG
 ‘Mark is sleepy/Mark needs to sleep.’

In the subsequent section, I will propose that the modal dispositional meaning in dative anticausatives with agentive verb bases in South Slavic arises precisely from these modal presuppositions expressing agents’ dispositions towards performance of the predicated events.

4.4. Agency and control

Agent’s dispositions are closely tied to the notion of agent control. Recall that agentive verbs denote internally caused eventualities which are brought about by the inherent properties of the agent, i.e. the agent’s dispositions, and can therefore only be controlled

internally, by the agent. This is the case with canonical nominative agents. However, when the factors that bring about the event actualization and are responsible for its outcome are agent-external, the event is controlled by those external factors, while the agent has no control over the predicated event. This is the case with dative agents in dative anticausatives in Slavic.

4.5. The proposal

Across Slavic languages, dative anticausatives with agentive verb bases arise through the extension of use of the anticausative verb morphology to the new class of the agentive verb bases. Anticausative morphology reduces agentivity by indicating that the event is not caused and controlled by the inner properties of the agent, but rather by some other factors which are now seen as the ultimate causal factors responsible for the event actualization and its outcome. Causative (alternating) verbs denote externally caused eventualities which involve the result component and are readily conceptualized as occurring spontaneously, rather than through the involvement of an agent – hence elimination of the syntactic external argument. Agentive verbs, on the other hand, denote internally caused eventualities and can therefore only be controlled by the inner properties of the agent, leading to incompatibility with the anticausative morphology (cf. Ilic 2013, 2014).

In South Slavic languages, incompatibility between agentive verbs and anticausative morphology cancels event actualization and the construction is reanalyzed as modal, expressing agent's disposition towards the event. This meaning is contributed by the modal presupposition expressing inner properties of the agent, which was demonstrated to arise in (34) and (35). In West Slavic and Russian, on the other hand, incompatibility between the lexical meaning of the agentive verb and the anticausative morphology does not cancel actualization entailment and instead leads to reinterpretation of agentive (internally caused and controlled) eventualities as eventualities which are ultimately controlled by some external facilitating factors, such as locations, circumstances, or properties of the theme (examples (28), (29), and (30)), as indicated by the anticausative morphology. An additional evaluative component of the meaning referencing quality (or success) of facilitation is grammaticalized. Across Slavic languages, these essentially modal interpretations (in terms of their basic meanings) arise due to the extension of use of the anticausative morphology to a new class of verbs with an incompatible semantics, leading to cancellation of the event actualization (South Slavic) and/or reanalysis.

5. Conclusion

Dative anticausatives in Slavic languages exhibit complex interactional patterns between anticausative morphology and lexical semantics of their verb bases, with their mutual (in)compatibility determining their final interpretation. Causative and modal meanings arise compositionally, as a result of this interaction. The modality of the dative anticausatives with agentive verb bases was claimed to result from the extension of the anticausative verb morphology to agentive verb bases, with their mutual incompatibility triggering semantic reanalysis. Although the observed outcomes of this reanalysis demonstrate a substantial variation, the resulting meanings are essentially both modal, expressing conditions on event actualization as created by some external facilitative factors (West Slavic and Russian) or agent's inner dispositions (South Slavic).

References

- Bentley, Delia (2024). Internally caused change as change by inner predisposition: Comparative evidence from Romance. *Journal of Linguistics* 60, 483–525.
- Franks, Steven (1995). *Parameters of Slavic Morphosyntax*. New York: Oxford University Press.
- Geniušiene, Emma (1987). *The Typology of Reflexives*. Berlin: Mouton de Gruyter.
- Ilic, Tatjana (2013). *Modality and Causation in Serbian Dative Anticausatives: a Crosslinguistic Perspective*. Doctoral Dissertation, University of Hawaii at Mānoa.
- Ilic, Tatjana (2014). Modality and causation: Two sides of the same coin. In Copley, Bridget and Fabienne Martin (eds.) *Causation in Grammatical Structures*, 152–175. Oxford: Oxford University Press.
- Ivanova, Elena (2014). Reflexive-with-dative construction in Russian and Bulgarian. *Proceedings of International Conference on Education, Art and Intercultural Communication (ICELAIC 2014)*, Vol.3, 427–431.
- Kallulli, Dalina (2006). Unaccusatives with dative causers and experiencers: A unified account. In Hole Daniel, Meinunger André and Werner Abraham (eds.) *Datives and Other Cases*, 271–301. Amsterdam: John Benjamins.
- Kim, Dganit Jenia, and Tal Siloni (2020). The dative dispositional construction in Russian. *Linguistic Inquiry*, 1, 237–279.
- Levin, Beth, and Malka Rappaport Hovav (1995). *Unaccusativity: At the syntax-lexical semantics interface*. Cambridge, MA: MIT Press.
- Malchukov, Andrej (2019). Interaction of verbal categories in a typological perspective. In *Gengo Kenkyu* 156, 1–24.
- Marušič, Franc, and Rok Žaucer (2006). On the intensional FEEL-LIKE construction in Slovenian. *Natural Language and Linguistic Theory* 24, 1093–1159.
- Nedjalkov, Vladimir P. (1980). Reflexive constructions: A functional typology. In Gunter Brettschneider and Christian Lehmann (eds.) *Wege Zur Universalienforschung*, 222–228.. Tübingen: Narr.
- Rivero, María Luisa (2003). Reflexive clitic constructions with datives: Syntax and semantics. In *Formal Approaches to Slavic Linguistics: The Amherst Meeting 2002*, 469–494. Ann Arbor: Michigan Slavic Publications.
- Rivero, María Luisa (2004). Datives and the non-active voice/reflective clitics in Balkan languages. In Tomic, Olga Miseska (ed.) *Balkan Syntax and Semantics*, 237–267. Amsterdam: John Benjamins.
- Rivero, María Luisa, and Ana Arregui (2012). Building involuntary states in Slavic. In Violeta Demonte and Louise McNally (eds.) *Telicity, Change, and Sate: A Cross-Categorical View of Event Structure*, 300–332. New York: Oxford University Press.
- Schäfer, Florian (2008). *The Syntax of (Anti-)Causatives: External Arguments in Change-of-State Contexts*. Amsterdam: John Benjamins.
- Smith, S. Carlota (1970). Jespersen's 'Move and Change' class and causative verbs in English. In Jazayery Mohammad Ali, Polomé C. Edgar, and Werner Winter (eds.) *Linguistic and Literary Studies in Honor of Archibald A. Hill, Vol.2, Descriptive Linguistics*, 101–109. The Hague: Mouton Publisher.

Internally caused change-of-state verbs in transitivity alternations*

Enrique Merino
Universitat Autònoma de Barcelona

1. Introduction

This short paper presents a preliminary study of two under-researched transitive uses of so-called internally caused change-of-state (ICCOS) verbs (Levin 1993), such as *blossom*, in Basque and Spanish. These verbs have been typically characterized as denoting changes of state that originate internally, and are therefore expected to resist causativization and combination with agentive subjects. However, both Basque and Spanish display constructions in which verbs that canonically belong to the ICCOS class appear in syntactically transitive frames and with agentive external arguments. The existence of such uses calls into question the traditional assumption that ICCOS verbs are lexically specified as “internally caused,” and suggests that their argument and event structure may instead be derived syntactically.

To account for the data, it is proposed that ICCOS verbs involve a possessive layer in their syntactic derivation. This layer introduces a relation between an argument and the entity denoted by the root of the verb, and provides the structural basis for the alternations observed in the two languages.

The paper is structured as follows. Section 2 introduces the notion of ICCOS verb and outlines the theoretical framework. Section 3 presents the main empirical evidence for a possession-based account. Section 4 applies this analysis to explain the relevant transitivity alternations. Section 5 concludes.

2. Background

This section briefly introduces the theoretical assumptions underlying the analysis and reviews previous work on ICCOS verbs, laying the foundation for the proposal developed in the following sections.

2.1. Theoretical framework

The analysis proposed in this paper is framed in the theory of Distributed Morphology (Halle & Marantz 1993), which assumes that language is a generative system whose combinatory capacity derives from the syntactic component alone. Words are thus built directly in the syntax. Within this framework, the lexical core of a word is incarnated by a root, $\sqrt{\quad}$, an acategorial element that acquires a syntactic category through combination with dedicated functional heads.

In the verbal domain, the head responsible for categorization is *v*, which is also associated with event semantics. External arguments are assumed to be introduced by a

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higher functional head, Voice (Kratzer 1996; but see Alexiadou 2014 and the discussion in the next section), merged on top of the vP .

2.2. On internally caused change-of-state verbs

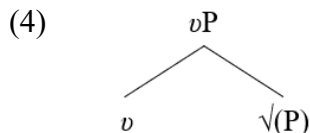
When discussing ICCOS verbs, Levin and Rappaport-Hovav (1995) argued that these cannot be used transitively, based on the unacceptability of sentences like (1).

- (1) **The gardener blossomed the cherry tree.*

However, McKoon and Macfarland (2000) and Wright (2001, 2002) provide further evidence that contests this claim. Building on these authors' work, Alexiadou (2014) proposes that ICCOS verbs can be subdivided into two classes: verbs from the *blossom* class are compatible with a pure cause as subject (2a) but cannot be passivized (2b); verbs from the *ferment* class, on the other hand, behave like any other regular change-of-state predicate, allowing both agentive subjects (3a) and passivization (3b).

- (2) a. *Early summer heat blossomed fruit trees across the valley.*
 (Wright 2002: 340, ex. (6a))
 b. **The fruit trees were blossomed by the early summer heat of June.*
- (3) a. *I don't think I would ferment tomatoes nearly as long as I fermented cabbage for sour kraut.*
 (Alexiadou 2014: 887, ex. (14a))
 b. *Low-fat ice cream mix was fermented with probiotic-supplemented and traditional starter culture systems.*
 (Alexiadou 2014: 897, ex. (35))

Based on these facts, Alexiadou proposes the structure in (4) for *blossom*-type verbs.



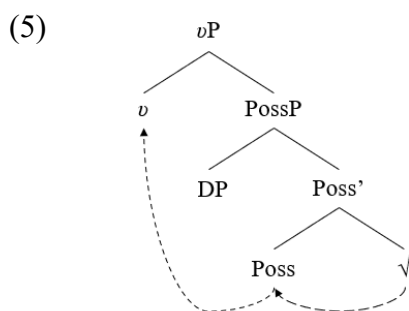
To cut a long story short, Alexiadou argues that these verbs do not project Voice, the head that introduces agents and is associated with non-active morphology in languages like Greek. The lack of Voice in these verbs predicts the unavailability of agentive subjects and the impossibility to passivize. In Alexiadou's view, these structural restrictions emanate from the encyclopedic content of the relevant roots. A root like $\sqrt{\text{BLOSSOM}}$, for example, refers to an internally caused change-of-state event, a fact that makes it uninterpretable in the context of Voice. Pure causers, however, are licensed and introduced by the verbalizing eventive head v , which explains their availability with verbs of the *blossom* class.

Although this paper provides additional data in support of the idea that verbs belonging to the *blossom* class can occur in transitive frames, it challenges the general conclusion that they are incompatible with agentive subjects. The conclusion that follows is that roots are not specified as "internally caused", as verbs that receive an ICCOS interpretation in the inchoative frame can be compatible with agentive subjects when used

transitively. An alternative syntactic account for these verbs will be developed in the next sections.

3. Possession in internally caused change-of-state verbs

The core proposal of this paper is that *blossom*-type verbs contain a possessive layer in their syntactic structure. The root is first merged as the complement of a Poss head, and subsequently incorporates into it, forming a complex head [Poss + $\sqrt{\text{ }}$]. This complex head, in turn, incorporates into the verbalizing head *v*, yielding a verb. The Possessor argument, which ultimately surfaces as the clausal subject, is introduced in the specifier position of the possessive phrase. The proposal is schematically represented in (5), where dotted arrows indicate incorporation.



Two pieces of evidence support the idea that *blossom*-type ICCOS verbs involve a possessive projection in their structure.

3.1. Entailment of a possessive result state

A first indication that *blossom*-type ICCOS verbs involve a possessive layer comes from their result-state interpretation. Canonical change-of-state verbs entail an adjectival result state, as is shown in (6) for Spanish.

- (6) *La ventana se ha roto* → *La ventana está rota.*
 the window SE has broken the window is broken
 ‘The window broke → The window is broken.’

By contrast, ICCOS verbs of the *blossom*-type entail a possessive result state, as shown in (7) and (8) for Spanish and Basque, respectively.

- (7) *El cerezo ha florecido* → *El cerezo tiene flores.*
 the cherry.tree has blossomed the cherry.tree has flowers
 ‘The cherry tree has blossomed → The cherry tree has flowers.’
- (8) *Txita luma-tu da* → *Txitak lumak ditu.*
 chick.ABS.SG feather-VBZ is chick.ERG.SG feather.ABS.PL has.ABS.PL
 ‘The chick has feathered → The chick has feathers.’

In both cases, the result state corresponds to an inherent possession relation between the entity denoted by the clausal subject (the cherry tree and the chick) and the entity referred to by the root of the verb (flowers and feathers). The entailment relations between each of the two sentences in the pairs above can be schematically represented as in (9).

- (9) P: x BECOME [y HAVE z] → Q: y HAVE z

3.2. Denominal flavor of *blossom*-type verbs

A second piece of evidence in favor of the possession hypothesis concerns the observation that, crosslinguistically, verbs belonging to the *blossom* class tend to display a denominal character. This can be seen clearly in the following examples from Spanish (10) and Basque (11).

- (10) a. *flor-ecer* < *flor* ‘(to) blossom, flower’
b. *gran-ar* < *grano* ‘(to produce) grain’
c. *en-moh-ecer* < *moho* ‘(to) mold’
d. *en-roñ-ar* < *roña* ‘(to) rust’
- (11) a. *lora-tu* < *lore* ‘(to) blossom, flower’
b. *luma-tu* < *luma* ‘(to) feather’
c. *ale-tu* < *ale* ‘(to produce) grain’
d. *herdoil-du* < *herdoil* ‘(to) rust’

To the best of my knowledge, the systematic denominal character of *blossom*-type ICCOS verbs has not been explicitly noted in previous literature, and it clearly calls for a theoretical explanation. The possession hypothesis can straightforwardly explain this pattern. I assume here that the Poss head denotes a possession relation between two entities (see Pylkkänen’s (2002) and Cuervo’s (2003) Low Applicative; see also Wood & Marantz’s (2017) account of possession). Consequently, the complement of Poss must itself be an entity-denoting element, either an *nP/DP*, or a Thing root in Harley’s (2005) typology. If a State or Event root were to appear as the complement of Poss, the derivation would result in a type mismatch at LF. The prevalent denominal character of *blossom*-type verbs thus follows from the semantic properties of the Poss head.

Taken together, the two diagnostics discussed above provide strong support for the view that *blossom*-type ICCOS verbs project a possessive layer. As will be shown in the next section, this structural property not only accounts for their interpretive and morphological properties, but also offers a principled explanation for two transitivity alternations that further corroborate the possession-based analysis.

4. Internally caused change-of-state verbs in two transitivity alternations

Having established that *blossom*-type ICCOS verbs involve a possessive layer in their syntax, this section will provide an analysis of two under-researched transitivity alternations involving these verbs, the first one attested in both Basque and Spanish, and the second one only present in Basque. I will argue that their existence provides additional support for the possession-based account.

4.1. Alternation 1: *florecer* vs. *dar flor*

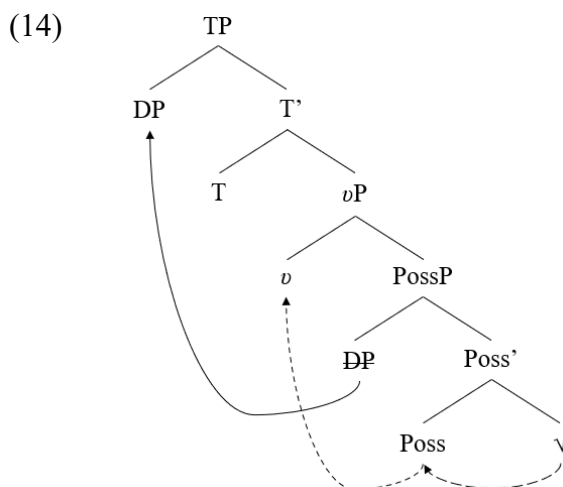
In both Basque and Spanish, *blossom*-type ICCOS verbs alternate with analytic constructions that involve the counterpart of *give* in these languages. The alternation is illustrated in (12) for Basque and (13) for Spanish.

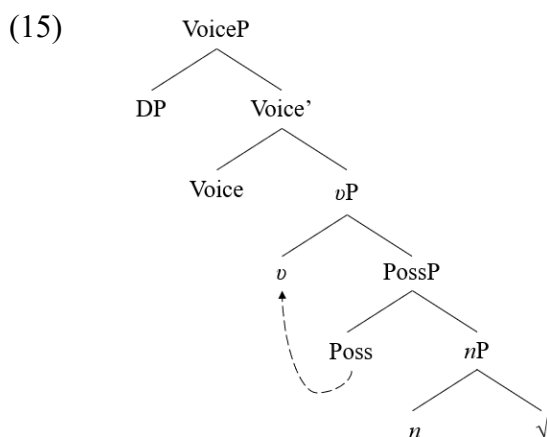
- (12) a. *Sagarrondoa fruitu-tu da.*
apple.tree.ABS.SG fruit-VBZ is

- ‘The apple tree has fruited.’
- b. *Sagarrondoak fruitu eman du.*
 apple.tree.ERG.SG fruit give has
 ‘The apple tree has yielded fruit.’
- (13) a. *El cerezo ha florecido.*
 the cherry.tree has blossomed
 ‘The cherry tree has blossomed.’
- b. *El cerezo ha dado flor.*
 the cherry.tree has given flower
 ‘The cherry tree has blossomed.’

Harley (2002) argues that both verbal *have* and *give* in the double object construction are the surface realization of the same abstract possessive head, P_{HAVE} , in different syntactic contexts. More specifically, *give* is the spell-out of this possessive element in a transitive/causative context.

It is worth emphasizing that, as illustrated by the Basque examples in (12), the two constructions differ systematically in both case marking and auxiliary selection, and that these differences have clear structural implications. In the analytic construction (12b), the subject surfaces with ergative case and combines with the transitive auxiliary *du* ‘has.’ This straightforwardly indicates that the subject is merged as an external argument and signals the presence of Voice. In contrast, in the synthetic ICCOS verb construction (12a), the subject bears absolutive case and the auxiliary selected is *da* ‘is,’ which belongs to the class of intransitive auxiliaries. These facts jointly suggest that no external argument is projected in the structure, and that the clausal subject originates as an internal argument. This is entirely consistent with the hypothesis defended in the previous section, schematized in (4) above, that (i) the subject of *blossom*-type verbs is generated within a possessive phrase in *v*-complement position, functioning as the possessor of the entity denoted by the root, and (ii) that these verbs lack a Voice projection (in this respect, see also Alexiadou 2014). In other words, data from case marking and auxiliary selection provide independent empirical support for the presence vs. absence of a Voice projection in the two variants of the alternation. The proposed structures for each variant are represented in (14) and (15), respectively.





In (14), the structure proposed for the synthetic variant of the alternation, the clausal subject is externally merged as the specifier of PossP, as has been argued for previously. Consistent with the transitivity facts discussed above, this structure lacks a Voice projection, and therefore contains no dedicated position for an external argument. From its base position within PossP, the possessor DP can undergo A-movement to Spec-TP, where it ends up receiving absolutive case. As the dotted arrows signal, the entity-denoting root incorporates into Poss, and the resulting complex head [$\sqrt{\text{ + Poss}}$] further incorporates into v , yielding a synthetic verb. Crucially, if the root were to be independently categorized by a nominalizing head rather than incorporating into Poss, the created nominal element would remain without structural case due to the absence of case-assigning Voice, leading to an ungrammatical derivation.

The structure in (15), however, does involve the presence of a Voice layer. The presence of Voice introduces an additional case assigner besides T, making it possible for the root to be independently categorized by a Little n head rather than incorporating into Poss and v . Poss, in contrast, does incorporate into v , and since the resulting complex head [$\text{Poss + } v$] appears within a transitive configuration including Voice, it is morphologically realized as *give*, in line with Harley's (2002) proposal. The relevant Spell-Out instruction for the Basque case appears in (16).

(16) $\text{Poss + } v \rightarrow /e'man/ \mid [\text{Voice } ____]$

The fact that the possessor is merged as an external argument in (14), however, calls for an explanation. I take sentences involving analytic predicates such as *fruitu eman* or *dar flor* to be cases of external possession constructions, where external possession is broadly defined as a configuration in which the syntactic introduction of the possessor is dissociated from its semantic licensing. Following Wood & Marantz (2017), I assume that the possessor role introduced by Poss may remain unsaturated within the possessive phrase. This open role is subsequently saturated by a DP externally merged in a higher functional projection, specifically, VoiceP. In the analytic construction, therefore, the licensing of the possessor role and the introduction of the DP that ultimately bears that role are carried out by two distinct syntactic heads. Voice is expletive here in the sense that it introduces an argument but does not assign an independent semantic role to it. This mechanism elegantly captures the dual nature of the analytic construction: while it is

syntactically transitive, it remains semantically intransitive, preserving the denotation that characterizes *blossom*-type verbs.

To summarize, the *florece* vs. *dar flor* alternation provides further evidence for the presence of a possessive layer in the syntax of *blossom*-type ICCOS verbs. The contrast between the synthetic and the analytic constructions correlates systematically with the presence versus absence of a Voice projection, reflected in both case marking and auxiliary selection, as the Basque data show. In the synthetic configuration, the possessor argument is generated within the possessive phrase and no Voice is present, yielding a syntactically unaccusative pattern that matches its semantically intransitive interpretation. In the analytic construction, by contrast, the possessor is introduced externally via an expletive Voice head, giving rise to a syntactically transitive structure that nonetheless preserves the underlying intransitive semantics.

4.2. Alternation 2: The growing/removal alternation

The second alternation that this short paper aims to elucidate is found in Basque with denominal verbs such as *lumatu*, derived from *luma* ‘feather,’ *ale*tu, from *ale* ‘grain,’ and *kimatu*, from *kima* ‘bud.’ As originally noted by Etxepare (2003), these verbs display a remarkable and, to the best of my knowledge, crosslinguistically unique transitivity alternation. When they appear in an intransitive frame, the verbs in question receive an internally caused change-of-state interpretation, parallel to that of *blossom*-type verbs. In their transitive counterpart, however, they are interpreted as removing predicates, also known as *pit* verbs in Levin’s (1993) terminology. As will be argued below, this alternation, exemplified by (17) and (18), provides further empirical support for the view that a possessive layer plays a central role in the syntax of *blossom*-type ICCOS verbs.

- (17) *Txitak luma-tu dira.*
 chick.ABS.PL feather-VBZ are
 ‘The chicks have grown feathers.’
- (18) *Amonak oiloak luma-tu ditu.*
 grandma.ERG.SG hen.ABS.PL feather-VBZ has.ABS.PL
 ‘Grandma has plucked the hens.’

Syntactically, sentence (17) is intransitive, as shown by the fact that its subject surfaces with absolutive case (*txitak*) and the selected auxiliary belongs to the BE class (*dira*). Semantically, it roughly means that the chicks underwent a change of state from not having feathers to having feathers, and that this change happened by inner predisposition of the chicks (Bentley 2023). It should be stressed that the transition from a state of not having feathers to a state of having them is part of the meaning of the predicate. The sentence would be infelicitous in a context where the chicks already had feathers and one merely wants to describe these as having grown longer or denser. This restriction mirrors what we find with *blossom*-type predicates. For instance, sentence (19) cannot be used to describe a situation in which a cherry tree that was already in blossom has simply produced more flowers. Even a sentence like (20) presupposes that the cherry tree had previously lost all its blossoms.

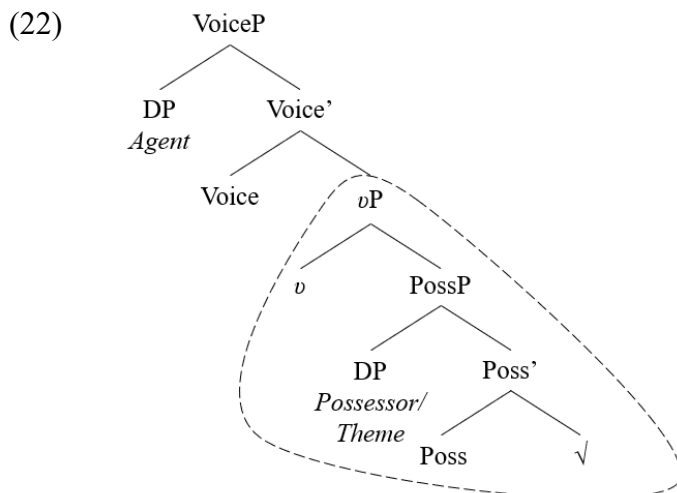
- (19) *Gereziondoa lora-tu da.*
 cherry.tree.ABS.SG flower-VBZ is
 ‘The cherry tree has blossomed.’

- (20) *Gereziondoa bir-lora-tu da.*
 cherry.tree.ABS.SG re-flower-VBZ is
 ‘The cherry tree has reblossomed.’

On the other hand, sentence (18) is transitive, an observation supported by the presence of an ergative-marked subject (*amonak*) and an auxiliary from the HAVE class (*ditu*). Semantically, this variant conveys the reverse of the change described by the intransitive sentence in (17): it denotes a transition from a state of having feathers to a state of not having them. Crucially, this removal reading arises only in the presence of an agentive external argument (*amonak*, in this case). The interpretation of the verbal predicate in (18), therefore, aligns with the lexical semantics of other *pit* verbs, in which the event involves an agent that causes a patient to cease possessing an inherent part. The proposed denotation has observable truth-conditional consequences. For instance, sentence (18) cannot be used in a situation where the hens are only partially plucked or where they still retain some of their feathers, because, as argued, the predicate entails a transition to a complete absence of the inherently possessed entity. The infelicity of (21) as a continuation to (18) further illustrates this point.

- (21) #... *baina oiloek oraindik lumak dituzte.*
 but hen.ERG.PL still feather.ABS.PL have.ABS.PL.ERG.PL
 ‘... but the hens still have feathers.’

The crucial observation here is that both variants of the alternation are semantically anchored in the same inherent possessive relation between the theme and the entity denoted by the root of the verb: in both cases, the event consists of a change in that possessive relation, differing only in the directionality of the change. The alternation can therefore be given a unified account if both variants contain a possessive subcomponent in their syntax. The structure for the inchoative variant, as argued earlier, is represented in (5) above. The tree diagram in (22) below represents the structure of the transitive variant. As can be seen, the alternation is derived from a common base consisting of a possessive phrase and the verbalizing/eventivizing head (circled in (22) below), and ultimately reduces to the presence *vs.* absence of a Voice projection, an analysis consistent with what has been independently proposed for other transitivity alternations (see, e.g., Alexiadou et al. 2015).



A crucial question, however, needs to be answered at this point: How is the removal interpretation obtained in the transitive variant? A tentative hypothesis is that a Neg head is merged on top of the possessive phrase in the structure in (22). Looking at (18), apart from the semantic denotation of the predicate (roughly paraphrasable as CAUSE NOT to HAVE *x*, where *x* stands for the entity denoted by the root) there seems to be no further proof of the presence of such Neg head in the syntax. However, the fact that other *pit* verbs in Basque are formed by means of the affix *-gabe* ‘without’ might be illuminating. Consider example (23):

- (23) *Amonak olibak hezur-gabe-tu ditu.*
 grandma.ERG.SG olive.ABS.PL stone-without-VBZ has.ABS.PL
 ‘Grandma has stoned the olives.’

Under the assumptions of Distributed Morphology, the morpheme *-gabe* must be the phonological realization of one or more abstract syntactic heads. I propose that *-gabe* is the negated non-verbal counterpart of *have* (see, e.g., Le Bruyn et al. 2013), decomposing syntactically into a Neg head and a Poss head (or P_{HAVE} in Harley’s 2002 terms). Therefore, if (18) and (23) have the same syntactic structure, an assumption that does not seem preposterous, (18) must involve a Neg head that is not overtly realized.

This hypothesis offers a principled explanation for the obligatory removing semantics of the transitive construction: the addition of a negating operator over the possessive layer reverses the direction of the change denoted by the predicate, turning an inchoative “come-to-have” event into a causative “make-not-have” event. If the removing interpretation were not grammatical, but rather derived from a pragmatic inference, it would be hard to explain why the predicate in a sentence like (18) can never mean “provide with feathers.” In fact, there is an independent verbal form, *lumaztatu*, that has this “provide-with-feathers” interpretation, although this verb can take complements for whom the entity denoted by the root, *luma* in this case, is not a defining property, as (24) shows, where feathers are not a defining property of hats.

- (24) *Amonak txapela luma-z-tatu du.*
 grandma.erg.sg hat.abs.sg feather-with-VBZ has
 ‘Grandma has feathered the hat.’

All in all, while the data discussed here is preliminary, the negation hypothesis does have some credit, as there seems to be independent morphosyntactic evidence in favor of it. A more comprehensive exploration of this issue, however, must be left for future research.

5. Conclusions

This paper has explored two transitivity alternations involving *blossom*-type ICCOS verbs in Basque and Spanish, arguing that both alternations can be accounted for by positing the presence of a syntactic possessive layer.

The first alternation examined concerned analytic constructions involving the counterparts of *give* in Basque and Spanish, such as *fruitu eman* ‘give fruit’ and *dar flor* ‘give flower.’ These were shown to alternate with synthetic ICCOS verbs such as *fruitutu* ‘fruit’ and *florece* ‘blossom.’ Building on Harley’s (2002) analysis of *give* as the surface realization of an abstract possessive head in a transitive context, the paper proposed that the analytic variant involves the projection of a Voice head introducing an external

argument, while the synthetic variant lacks Voice. The ergative marking of the subject in the Basque analytic construction and the selection of the transitive auxiliary *du* ‘has’ confirm the presence of an active Voice layer, in contrast with the absolutive marking and the intransitive auxiliary *da* ‘is’ of the synthetic form.

Importantly, the analytic construction was analyzed as an instance of external possession, following Wood and Marantz (2017). In this configuration, the possessor role introduced by the possessive head remains unsaturated within the possessive phrase and is subsequently linked to an argument externally merged in the specifier of an expletive Voice projection. This dissociation between syntactic introduction and semantic licensing explains why these constructions behave syntactically as transitives yet semantically preserve the anticausative character typical of ICCOS predicates. Thus, the present account, if on the right track, gives credit to the autonomy of the syntax from semantics, as two different syntactic structures can give rise to the same LF representation. Moreover, if this analysis is correct, and if external possession is indeed a syntactic phenomenon, then the present account provides additional support for a syntactically based theory of argument structure alternations, one that locates the source of variation in the presence, absence, or configuration of specific functional heads in the syntax.

The second alternation examined, involving denominal verbs such as *lumatu* ‘feather’ in Basque, offered another case of syntactico-semantic alignment around possession. In their intransitive form, these verbs denote a change of state whereby the subject acquires the entity denoted by the root; in their transitive form, however, they are interpreted as removing predicates. The alternation thus expresses opposite directions of change along the same possessive axis: acquisition versus loss of an inherently possessed entity. Crucially, the transitive variant requires an agentive external argument. The possibility of having agents with ICCOS roots thus argues against semantically specified event roots (*contra* Alexiadou 2014), supporting instead a strongly syntactic approach to argument structure where roots can be freely inserted into different syntactic configurations.

Beyond the specific empirical facts discussed here, the analysis proposed in this paper carries broader theoretical implications for the study of event and argument structure. If the possession hypothesis for ICCOS verbs proves to be on the right track, this would support the idea that possession is a fundamental primitive in the syntax–semantics interface, underlying not only canonical possessive constructions but also a wider range of verbal predicates.

Future research should explore whether the Basque and Spanish patterns described here have parallels in other languages and to what extent the possession hypothesis can capture those patterns. In addition, a more thorough study of the morphosyntax of removing predicates in different languages will help us improve our understanding of the role that negation plays in their derivation. Ultimately, the questions raised here point toward a more unified, syntactic understanding of how verbal meaning and argument structure interact.

References

- Alexiadou, Artemis (2014). The problem with internally caused change-of-state verbs. *Linguistics* 52.4, 879–909. <https://doi.org/10.1515/ling-2014-0011>
- Alexiadou, Artemis, Elena Anagnostopoulou and Florian Schäfer (2015). *External Arguments in Transitivity Alternations. A Layering Approach*. Oxford: Oxford University Press.

- Bentley, Delia (2024). Internally caused change as change by inner predisposition: Comparative evidence from Romance. *Journal of Linguistics* 60(3), 483–525. <https://doi.org/10.1017/S0022226723000154>
- Cuervo, M. Cristina (2003). *Datives at Large*. Doctoral dissertation, MIT.
- Ettxepare, Ricardo (2003). Valency and argument structure in the Basque verb. In José Ignacio Hualde and Jon Ortiz de Urbina (eds.) *A Grammar of Basque*, 363–425. Berlin: Mouton de Gruyter.
- Halle, Morris and Alec Marantz (1993). Distributed Morphology and the pieces of inflection. In Ken L. Hale and Samuel J. Keyser (eds.) *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*, 111–76. Cambridge, MA: MIT Press.
- Harley, Heidi (2002). Possession and the double object construction. *Linguistic Variation Yearbook* 2(1), 31–70.
- Harley, Heidi (2005). How do verbs take their names? Denominal verbs, manner incorporation and the ontology of roots in English. In Nomi Erteschik-Shir and Tova Rapoport (eds.) *The Syntax of Aspect*, 42–64. Oxford: Oxford University Press.
- Kratzer, Angelika (1996). Severing the external argument from its verb. In Johan Rooryck and Laurie Zaring (eds.) *Phrase Structure and the Lexicon*, 109–137. Dordrecht: Kluwer.
- Levin, Beth (1993). *English Verb Classes and Alternations: A Preliminary Investigation*. Chicago: University of Chicago Press.
- Levin, Beth and Malka Rappaport Hovav (1995). *Unaccusativity at the Syntax-Lexical semantics interface*. Cambridge, MA: MIT Press.
- Le Bruyn, Bert, Henriëtte de Swart and Joost Zwarts (2013). 'Have', 'with' and 'without'. *Proceedings of SALT23*, 535–548.
- McKoon, Gail and Talke Macfarland (2000). Externally and internally caused change of state verbs. *Language* 76, 833–858. <https://doi.org/10.2307/417201>
- Pylkkänen, Liina (2002). *Introducing Arguments*. Doctoral dissertation, MIT.
- Wood, Jim and Alec Marantz (2017). The interpretation of external arguments. In Roberta D'Alessandro, Irene Franco, and Ángel J. Gallego (eds.) *The Verbal Domain*, 255–278. Oxford: Oxford University Press.
- Wright, Sandra (2001). *Internally Caused and Externally Caused Change of State Verbs*. Doctoral dissertation, Northwestern University.
- Wright, Sandra (2002). Transitivity and change of state verbs. *BLS* 28, 339–350.

A plausible analysis of the Japanese light verb *naru* construction *

Yile Yu
Shiga University

1. Introduction

In a light verb construction, a complex predicate is formed through the combination of a semantically light verb and its argument(s), where the main predicative content is carried by the nominal element, rather than the verb itself (cf. Jespersen 1942). The main concern of this paper is to provide a plausible analysis of the Japanese light verb construction with *naru* ‘become’ such as *benkyoo-ni naru* ‘studying-DAT become’ where *naru* is combined with a verbal noun like *benkyoo* ‘studying’ followed by a dative case. This type of Japanese light verb construction with *naru* has not received as much attention as those with *suru* ‘do’. This paper particularly focuses on what kind of argument structure should be postulated for the light verb *naru*. To answer this research question, the argument structure of *naru* is examined and justified by comparing it with the argument structures of the light verb *suru* discussed in Kishimoto (2019, 2025). It is concluded that *naru* takes ‘theme(VN)’ as its argument, which is similar with the non-agentive type of *suru* (Kishimoto 2019, 2025).

This paper is organized as follows. Section 2 introduces the core data of the light verb *naru* construction and shows the syntactic and semantic peculiarities of the current construction. In section 3, it is first shown how *suru* has been analyzed in previous studies, followed by a discussion of the argument structure of *naru*, along with the syntactic structure of the light verb *naru* construction. Section 4 discusses the semantic characteristics of the oblique argument and argues that the light verb *naru* construction can be divided into two types: one that requires a modifier to the verbal noun and the other type that does not have such a requirement. Section 5 is a conclusion.

2. The light verb *naru* construction

This section first discusses that the constructions like (1) below can be considered as one type of the light verb construction, which has not received much attention.¹

- (1) *Kaigai-no shikitari-ga John nitotte/no benkyoo-ni na-tta.*
Foreign-GEN custom-NOM John for/ GEN studying-DAT become-PST
‘(Learning) foreign customs became a learning experience for John.’

The predicate *benkyoo-ni naru* ‘studying-DAT become’ in (1) consists of a verbal noun *benkyoo* ‘studying’ and the verb *naru* ‘become’, forming one type of complex predicates

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¹ List of abbreviations: ACC=accusative, ALL=allative, COMP=complementizer, CONJ=conjunctive, COP=copula, DAT=dative, GEN=genitive, NEG=negation, NOM=nominative, NMLZ=nominalizer, PST=past, TOP=topic

where the main predicative content is carried by the nominal element. This is confirmed by the fact that sentence (1) would be ungrammatical if the verbal noun *benkyoo* ‘studying’ is omitted as shown in (2).

- (2) **Kaigai-no shikitari-ga John nitotte/no na-tta.*
 foreign-GEN custom-NOM John for/GEN become-PST
 Intended: ‘(Learning) foreign customs became a learning experience for John.’

The fact that the semantic burden of (1) relies on the verbal noun can also be confirmed by looking at (3), which shows that the nominative case marked noun *kaigai-no shikitari* ‘foreign customs’ can occur within the verbal noun phrase as its argument. In such a case, the argument is case-marked by a genitive case *no* followed by the verbal noun.

- (3) *Kaigai-no shikitari-no benkyoo*
 foreign-GEN custom-GEN studying
 ‘the study on foreign customs’

Overall, the observations above indicate that sentences like (1) show one type of light verb constructions. However, (1) is not a typical light verb construction regarding the argument alignment. In general, *benkyoo* ‘studying’ requires an agent and a theme. When the verbal noun *benkyoo* ‘studying’ is combined with the light verb *suru* ‘do’ indicating an action of studying, the agent argument appears in a syntactically higher position than the theme argument as shown in (4)

- (4) *John-ga kaigai-no shikitari nitsuite no benkyoo-o shi-ta.*
 John-NOM foreign-GEN custom about GEN studying-ACC do-PST
 ‘John learned the foreign customs.’

In (4), the agent *John* is realized as a subject and the theme *kaigai no shikitari* ‘foreign customs’ is marked with the genitive case *no*, appearing inside the verbal noun phrase. In (1), on the other hand, the theme argument *kaigai-no shikitari* ‘foreign custom’ is realized as the subject. The agent argument *John* in (4) corresponds to the argument marked either by *nitotte* or *no* in (1) and this argument represents an experiencer role. The experiencer argument can be considered as an oblique argument since *John* in (1) is omissible as shown in (5).

- (5) *Kaigai-no shikitari-ga benkyoo-ni na-tta.*
 Foreign-GEN custom-NOM studying-DAT become-PST
 ‘(Learning) foreign customs became a learning experience.’

The examples (1) and (4) show that the argument realization differs although both the light verb *naru* ‘become’ and *suru* ‘do’ select the same verbal noun *benkyoo* ‘studying’. While the Japanese light verb construction depicted by *suru* ‘do’ plus verbal nouns like (4) has been attracted attention for over 35 years (Grimshaw and Mester 1988, Miyagawa 1989, Terada 1990, Tsujimura 1990, Kageyama 1993, Uchida and Nakayama 1993, Miyamoto and Kishimoto (2016), Kishimoto 2019, 2025), examples of *naru* ‘become’ predicates like (1) have not received much attention except Yu (2016, 2020). In Yu (2016, 2020), it is argued that the light verb *naru* ‘become’ like (1) shows different behaviors

from the other *naru* predicates that have been discussed in the literature (cf. Sato 2005). It is shown in Yu (2016, 2020) that the new type of *naru* ‘become’ does not mean a change of state unlike the typical use of *naru* ‘become’. For instance, *naru* ‘become’ in a sentence like *John ga kyooju-ni natta*. ‘John became a professor.’ describes the change of state of the subject *John*. The *naru* ‘become’ in (1) is also different from what Sato (2005) calls *Keisanteki Suiron no naru* ‘Computational reasoning *naru*’ and *Taijinteki kooi no naru* ‘Interpersonal behavior *naru*’ (See Sato (2005) for the definition of the both types of *naru*). In these two types of *naru*, Sato (2005) analyzes that the *naru* does not mean a change of state because it can be replaced by the copular verb *da*. With respect to this point, Yu (2016, 2020) show that the light verb *naru* in (1) is different from both *Keisanteki Suiron no naru* ‘Computational reasoning *naru*’ and *Taijinteki kooi no naru* ‘Interpersonal behavior *naru*’ because *naru* in (1) cannot be replaced with the copular verb *da* as shown in (6).

- (6) **Kaigai-no shikitari-ga John nitotte/no benkyoo da.*
 foreign-GEN custom-NOM John for/GEN studying-DAT COP
 ‘(Learning) foreign customs is a learning experience for John.’

Accordingly, it is concluded in Yu (2016, 2020) that the *naru* in examples like (1) belongs to a different type from the other three types of *naru*, and the new type of *naru* is named “The Fourth Type of *naru*”. In what follows, this paper sheds light on the argument structure and the argument realization of the new type of *naru* like (1), which is not mentioned in Yu (2016, 2020). It is shown that the argument structure of *naru* ‘become’ shares with the argument structure of the non-agentive type of *suru*.

3. The argument structure of *suru* and *naru*

Due to the space limitations, this section provides a brief review of previous analyses of the light verb construction with *suru*, with a special focus on its argument structure. It then suggests that the light verb *naru* shares the same argument structure as the non-agentive type of *suru* discussed in Kishimoto (2019, 2025).

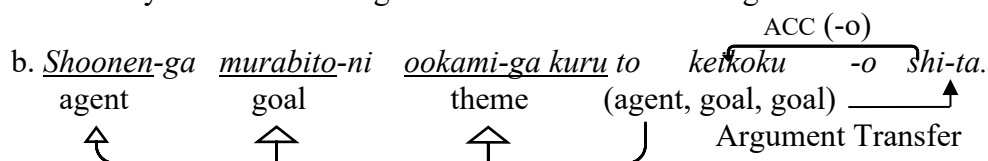
3.1. Arguments over *suru*

Grimshaw and Mester (1988), which is the classic and most influential study of the argument structure of the light verb *suru*, postulates that *suru* does not obtain any arguments in its argument structure. It is suggested in Grimshaw and Mester (1988) that the arguments of the verbal noun transfers to the argument structure of *suru* by an operation they call *Argument Transfer*. This is depicted as in (7).

- (7) a. *keikoku* (agent, goal, theme)
 b. *suru* () < ACC >
 c. *keikoku* () + *suru* (agent, goal, theme) < ACC >

(7a) indicates that the verbal noun *keikoku* ‘warning’ takes the thematic roles of agent, goal, and theme in its argument structure. (7b) represents that *suru* does not take any thematic roles in its argument structure but it only assigns an accusative case. (7c) shows that the arguments of the verbal noun is transferred to the argument structure of *suru* when the verbal noun is combined with *suru*. With this in mind, the argument realization of (8a) is explained by (8b) (Grimshaw and Mester 1988).

- (8) a. *Shoonen-ga murabito-ni ookami-ga kuru to keikoku -o shi-ta.*
 boy-NOM villager-DAT wolf-NOM come COMP warning-ACC do-PST
 ‘The boy warned the villagers that the wolf was coming.’



(8b) shows that the agent and goal and theme arguments of *keikoku* ‘warning’ is first transferred to *suru* and then the agent is assigned to *shoonen* ‘boy’, the goal to *murabito* ‘villager’, and theme to *ookami-ga kuru* ‘wolf coming’. The accusative case of *keikoku* ‘warning’ is assigned by *suru*. As a result, sentence (8a) would be borne out.

Contrary to Grimshaw and Mester (1998), the recent studies of Kishimoto (2019, 2025) argue that the light verb *suru* possesses an argument structure. Kishimoto (2019, 2025) suggest that there can be postulated two types of argument structures in accordance with whether *suru* is agentive or non-agentive. The agentive type of *suru* like sentences of (8a) possesses an argument structure depicted in (9).

- (9) *suru* : <agent, goal, theme(VN)>

(9) shows that *suru* takes agent and goal and VN as its arguments, where ‘theme(VN)’ is designated as a label for the theme role assigned to the VN (Kishimoto 2025: 242). In addition, the theme role, *ookami ga kuru*, is assigned by the verbal noun (VN) and it is extracted from the VN by Argument Ascension as (10) illustrates.

- (10) *Shoonen*_{<agent>}-*ga murabito*_{<goal>}-*ni ookami-ga kuru to* [_{VNP} *ookami-ga kuru*
*keikoku*_{<theme>}]-*o shi-ta*_{<agent, goal, theme(VN)>}.
-
- Argument Ascension

In contrast, the non-agentive type of the light verb construction with *suru* such as (11a) is different from the agentive type in that the non-agentive type of *suru* bears an argument structure like (11b). In (11b), *suru* only selects VN as its argument.

- (11) a. *Kazan-ga funka-o shi-ta.*
 volcano-NOM eruption-ACC do-PST
 ‘The volcano erupted.’
 b. *suru* : <theme(VN)>

The derivation of (11a) is explained as shown in (12). In (12), the argument *kazan* ‘volcano’ which is assigned a theme role from the verbal noun *funka* ‘eruption’ is extracted to the subject position by Argument Ascension.

- (12) *Kazan-ga* [_{VNP} *kazan funka*_{<theme>}]-*o shi-ta*_{<theme(VN)>}.
-
- Argument Ascension

The argument structure of the agentive type of *suru* and that of the non-agentive type of *suru* differ in that the agent and goal roles of the agentive type are assigned from *suru*

while the theme role of the (non)agentive type is assigned from the verbal noun. In Kishimoto (2019, 2025), it is argued that this difference gives rises to syntactic distinctions between the agentive type and the non-agentive type. According to Kishimoto (2019, 2025), the two types of *suru* constructions behave differently in scrambling, topicalization, relativization, and pseudo-clefting.

(13) The diagnosis of (non) agentive types

Operation to VN	Scrambling	Topicalization	Relativization	Pseudo-clefting
Agentive Type	ok	ok	ok	ok
Non-agentive Type	*	*	*	*

It is argued in Kishimoto (2019, 2025) that the VN of the agentive type can be moved to a position higher than the subject by the syntactic operations of scrambling, topicalization, relativization, and pseudo-clefting while the VN of the non-agentive type cannot undergo such syntactic operations due to “Proper Binding Condition” effect. These facts are confirmed by following examples. Example (14) shows an agentive type of *suru* and it is illustrated in (15) that the verbal noun *jogen* ‘advice’ can undergo such syntactic operations.

- (14) *Sensei-ga gakusei-ni jogen-o shi-ta.*
 teacher-NOM student-DAT advice-ACC do-PST
 ‘The teacher gave advice to the student.’

(15) a. Scrambling

- Jogen-o sensei-ga gakusei-ni shi-ta.*
 advice-ACC teacher-NOM student-DAT do-PST
 ‘The teacher gave advice to the student.’

b. Topicalization

- Jogen-wa sensei-ga gakusei-ni shi-ta.*
 advice-TOP teacher-NOM student-DAT do-PST
 ‘As for advice, the teacher gave it to the student.’

c. Relativization

- Sensei-ga gakusei-ni shi-ta jogen*
 teacher-NOM student-DAT do-PST advice
 ‘the advice which the teacher gave to the student’

d. Pseudo-clefting

- Sensei-ga gakusei-ni shi-ta no-wa jogen da.*
 teacher-NOM student-DAT do-PST NMLZ-TOP advice COP
 ‘What the student gave to the student was advice’

(16), in contrast, shows that the verbal noun *funka* ‘eruption’ in the non-agentive type of *suru* of (11) cannot undergo such syntactic operations.

(16) a. Scrambling

- ?/**Funka-o kazan-ga shi-ta.*
 eruption-ACC volcano-NOM do-PST
 ‘The volcano erupted.’

b. Topicalization

- **Funka-wa kazan-ga shi-ta.*

eruption-TOP volcano-NOM do-PST
 ‘As for eruption, the volcano did it.’

c. Relativization

*[*kazan-ga shi-ta*] *funka*
 volcano-NOM do-PST eruption
 (Lit.) ‘the eruption which the volcano did’

d. Pseudo-clefting

*[*Kazan-ga shi-ta*] *no-wa funka da.*
 volcano-NOM do-PST NMLZ-TOP eruption COP
 ‘What the volcano did was eruption’

Cases from (14) to (16) indicate that if the verbal noun can be moved to a position higher than the subject by the syntactic operations of scrambling, topicalization, relativization, and pseudo-clefting then the *suru* possesses the argument structure of the agentive type *suru*. If the VN cannot undergo such operations then the *suru* possesses the argument structure of the non-agentive type *suru*. It is reasonable to conclude that the light verb *suru* highly likely possesses argument structures because such distinctions between (15) and (17) would not be borne out if *suru* does not take arguments as suggested in Grimshaw and Mester (1988).

3.2. Application of Kishimoto’s diagnosis to *naru*

Having reviewed that the light verb *suru* has two different types of argument structures, this section shows that the light verb *naru* also possesses the argument structure of <theme(VN)> by looking at the facts that the VN in the light verb *naru* constructions cannot undergo the syntactic operations of scrambling, topicalization, relativization, and pseudo-clefting.

(17) a. Scrambling

?/**Benkyoo-ni Kaigai-no shikitari-ga (John nitotte) na-tta.*
 studying-DAT foreign-GEN custom-NOM John for become-PST
 ‘(Learning) foreign customs became a learning experience for John.’

b. Topicalization

**Benkyoo-wa Kaigai-no shikitari-ga (John nitotte) na-tta.*
 studying-TOP foreign-GEN custom-NOM John for become-PST
 (Lit.) ‘As for learning, (learning) foreign customs became for John.’

c. Relativization

**Kaigai-no shikitari-ga (John nitotte) na-tta benkyoo*
 foreign GEN custom-NOM John for become-PST studying
 (Lit.) ‘the learning which the (learning) foreign customs became’

d. Pseudo-clefting

**Kaigai-no shikitari-ga (John nitotte) na-tta no-wa*
 foreign GEN custom- NOM John for become-PST NMLZ-TOP
benkyoo da.
 studying COP
 (Lit.) ‘What (learning) foreign customs became for John was learning’

(17a-d) represent that the verbal noun *benkyoo* ‘studying’ cannot be moved to a position higher than the subject by the syntactic operations of scrambling, topicalization,

relativization, and pseudo-clefting. These facts represent that the light verb construction with *naru* is parallel to the light verb construction with the non-agentive *suru*. Accordingly, the argument structure of *naru* can be postulated as the same as that of the non-agentive *suru* shown below in (18).

(18) *naru* : <theme(VN)>

Therefore, the arguments of the light verb *naru* construction would be realized in a similar manner with the non-agentive *suru* constructions as (19) shows.

(19) *Kaigai-no shikitari-ga [VNP Kaigai-no shikitari benkyoo<theme>]-ni*
 foreign-GEN custom-NOM foreign-GEN custom studying -DAT
na-tta <theme(VN)> Argument Ascension
 become-PST

(19) shows that the theme role *kaigai-no shikitari* ‘foreign custom’ is first assigned from the verbal noun and then moves to the subject position by Argument Ascension. One now might wonder whether the oblique argument *John* in (1) is the argument of the verbal noun or the argument of *naru*. The fact that the oblique argument in (1) is the argument of the verbal noun can be confirmed by looking at Argument doubling and the ‘deputy’ interpretation.

Kishimoto (2019, 2025) claims that the agentive-type of light verb *suru* constructions allows the ‘deputy’ interpretation as (20) describes. (20) can have a goal argument *Eri* marked with *e-no* ‘to-GEN’ optionally (i.e. the postposition *e* indicates that the argument is identified as a goal) in addition to a goal argument *Ken*, meaning that the teacher gave *Ken* advice that he/she was supposed to give to *Eri*.

(20) *Sensei-ga Ken-ni [Eri-e-no jogen]-o shi-ta.*
 teacher-NOM Ken-DAT [Eri-to-GEN advice-ACC do-PST
 ‘The teacher gave Eri’s advice to Ken.’

In (20), there are two goal arguments, *Eri* and *Ken*. Kishimoto (2019, 2025) argues that this is possible because the goal argument *Ken* is assigned by the light verb *suru* while the goal argument *Eri* is assigned by the verbal noun *jogen* ‘advice’. In accordance with this deputy interpretation, (21a) shows that it is not possible to use two different theme role arguments. This fact is similar with the non-agentive *suru* construction as (21b) shows (Kishimoto 2019, 2025).

(21) a. **Kaigai-no shikitari-ga (kawarini) [kokunai-no shikitari-no]*
 foreign-GEN custom-NOM on.behalf domestic-GEN custom-GEN
benkyoo-ni na-tta.
 studying-DAT become-PST
 (Lit.) ‘(Learning) foreign customs became a learning experience on behalf of learning domestic customs.’
 b. **Fuji-san-ga [Asama-yama-no funka]-o shi-ta.*
 Fuji-Mt-NOM Asama-Mt-GEN eruption-ACC do-PST
 ‘Mt. Fuji had Mt. Asama’s eruption.’

In the non-agentive type of light verb *suru* constructions of (21b), it is not possible to contain an extra theme argument *Asama-yama* ‘Mt. Asama’, in addition to the theme subject *Fuji-san* ‘Mt. Fuji’. Similar remarks hold for (21a). In the light verb *naru* construction of (21a), it is not possible to contain an extra theme argument *kokunai-no shikitari* ‘domestic custom’, in addition to the theme subject *kaigai-no shikitari* ‘foreign custom’. Please note that one participant at *The International Argument Alternation Workshop* pointed out that sentences like (22a) sound grammatical even though there appear two different theme roles, *kaigai-no shikitari* ‘foreign custom’ and *bunka* ‘culture’. However, these two arguments cannot be considered in a similar manner with (21a) because *kawarini* ‘on.behalf’ is not possible to co-occur in the sentence, showing that the deputy interpretation does not obtain here.

- (22) a. *Kaigai-no shikitari-ga [subarashii bunka-no] benkyoo-ni na-tta.*
 foreign-GEN custom-NOM wonderful culture-GEN studying-DAT become-PST
 (Lit.) ‘(Learning) foreign customs became a learning experience on behalf of
 learning wonderful cultures.’
- b. **Kaigai-no shikitari-ga kawarini [subarashii bunka-no]*
 foreign-GEN custom-NOM on.behalf wonderful culture-GEN
benkyoo-ni na-tta.
 studying-DAT become-PST
 (Lit.) ‘(Learning) foreign customs became a learning experience on behalf of
 learning wonderful cultures.’

Let us now look at the possibility that whether we can take two different oblique arguments in (1). (23) shows that the oblique argument marked with *nitotte* in (1) cannot have deputy interpretation and therefore it can be concluded that the oblique argument is not assigned from *naru* but it is assigned from the verbal noun *benkyoo* ‘studying’.

- (23) **Kaigai-no shikitari-ga John nitotte [Mary-no benkyoo-ni] na-tta.*
 foreign-GEN custom-NOM John for/GEN Mary-GEN studying-DAT become-PST
 (Lit.) ‘(Learning) foreign customs became a learning experience for John on
 behalf of Mary.’

3.3. Theoretically predicted facts

If my proposal is on the right track, it is predicted that the light verb *naru* construction will show the same descriptive patterns in argument ellipsis and the specificity condition effect as the non-agentive type *suru* constructions. This prediction is right as shown below. (24a) shows that the non-agentive light verb construction with *suru* is not acceptable if the verbal noun is omitted while the theme subject is overtly expressed (Kishimoto 2025:256). Similar remarks hold for the *naru* construction as (24b) represents.

- (24) a. **Kinoo-wa ano kazan-ga funka-o shi-ta-ga,*
 yesterday-TOP that volcano-NOM eruption-ACC do-PST-CONJ
kyoo-wa kono kazan-ga shi-ta.
 today-TOP this volcano-NOM do-PST
 ‘That volcano erupted yesterday, and this volcano did today.’
- b. **Kinoo-wa kaigai-no shikitari-ga benkyoo-ni*
 yesterday-TOP foreign-GEN custom-NOM studying-DAT

na-tta-ga, kyoo-wa kokunai-no shikitari-ga na-tta.
 become-PST-CONJ today-TOP domestic-GEN custom-NOM become-PST
 ‘(Learning) foreign customs became a learning experience yesterday, and
 (learning) domestic customs became a learning experience today.’

In addition, (25a) and (25b) show that the verbal nouns cannot be modified by definite expressions like *kyonen* ‘last year’ in both the non-agentive type *suru* and the light verb *naru*.

- (25) a. ?**Kazan-ga [kyonen-no funka]-o shi-ta.*
 volcano-NOM [last.year-GEN eruption-ACC do-PST
 (Lit.) ‘The volcano did last year’s eruption.’
 b. **Kaigai no shikitari-ga kyonen-no benkyoo ni na-tta.*
 foreign-GEN custom-NMLZ last.year-GEN studying-DAT become-PST
 (Lit.) ‘(Learning) foreign customs became last year’s learning experience.’

The similarities shown above between the non-agentive *suru* type of the light verb *suru* construction and the light verb *naru* construction indicate that it is reasonable to claim that the light verb *naru* possesses the argument structure of <theme(VN)> in a similar manner with the non-agentive *suru* of the light verb *suru* construction.

4. Thematic roles of the oblique argument

Before concluding this paper, I would like to claim that there are two distinct thematic roles of the oblique argument. One is beneficiary as (26) shows. In (26a), the oblique argument *watashitachi* ‘we’ is understood as a beneficiary, and so is *kare* ‘he’ in (26b). *watashitachi* ‘we’ in (26a) receives a benefit from the deal and *kare* ‘he’ in (26b) receives a benefit from walking.

- (26) a. *Kono torihiki-ga watashitachi-no toku-ni naru.*
 this deal-NOM we-GEN benefit-DAT become
 ‘This deal will benefit us.’
 b. *Sampon-ga kare nitotte daietto-ni na-tta.*
 walking-NOM he for diet-DAT become-PST
 ‘Walking helped him lose weight.’

The other one is malefactive as (27) represents. In (27), the oblique argument *anata* ‘you’ is understood as a malefactive because *anata* ‘you’ will be harmed by telling lies.

- (27) *Uso-wa anata-ni totte son-ni naru.*
 lies-TOP you-DAT for harm-DAT become
 ‘(Telling) lies will harm you.’

The fact that the oblique argument can be understood as either beneficiary or malefactive can be confirmed by looking at the comparison below.

- (28) a. *Taro-wa gengogaku-o benkyoo shi-ta ga, nanimo minitsuite i-nai.*
 Taro-TOP linguistics-ACC studying do-PST CONJ, nothing acquire be-NEG
 ‘Taro studied linguistics, but nothing has stuck with him.’

- b. **Gengogaku-wa Taro nitotte benkyoo-ni na-tta ga,*
 linguistics-TOP Taro for studying-DAT become-PST CONJ,
nanimo minitsuite i-nai.
 nothing acquire be-NEG
 ‘Linguistics was a learning experience for Taro, but nothing really stuck
 with him.’

The subordinate clause followed by the conjunction *ga* in (28a) is the agentive light verb *suru* construction. In this case, it is possible to cancel the result that will be brought about by the action of studying. In contrast, such a cancelation is not possible in the light verb *naru* construction of (28b), showing that *Taro* here is not merely the doer of the action of studying but the experiencer who undergoes a benefit that will be brought about by the action of studying linguistics.

Lastly, it is noted that some verbal nouns of the light verb *naru* predicates require obligatory modifiers as shown in (29).

- (29) a. *Ryuugaku-ga gakusei nitotte *(ii) keiken-ni naru.*
 studying.abroad-NOM student for good.experiencing-DAT become
 ‘Studying abroad can be a good experience for students.’
 b. *Kobe-e-no hoomon-ga watashi nitotte *(tanoshii) ryokoo-ni na-tta.*
 Kobe-ALL-GENvisit-NOM I for fun.travelling-DAT become-PST
 ‘The visit to Kobe turned out to be a fun trip for me.’

(29) shows that the verb nouns *keiken* ‘experiencing’ in (29a) and *ryokoo* ‘travelling’ in (29b) do not combine with the light verb *naru* ‘become’ on their own, but the sentences become acceptable when modifiers like *ii* (‘good’) are added to the verbal nouns. This is because the oblique argument *gakusei* ‘student’ in (29a) and *watashi* ‘I’ in (29b) cannot be understood as an experiencer argument without such modifiers.²

5. Conclusion

This paper has pointed out that there is a new type of the Japanese light verb construction with the light verb *naru* and has shown that it is plausible to claim that *naru* in the light verb *naru* construction possesses the argument structure of <theme(VN)>, which is the same argument structure as the non-agentive type of *suru* in the light verb *suru* construction. As a side effect of our proposal, in response to the contentious debate over

²The examples in (i) represent some other lists of those verbal nouns that require obligatory modifiers with *naru*. Those in (ii) represents the verbal nouns that do not require such modifiers. Due to the space limitations, I would not discuss further about the details of the data in the lists.

- (i) *gakusyuu-ni naru* (learning-DAT become), *keiken-ni naru* (experience-DAT become), *taiken-ni naru* (hands-on experience-DAT become), *shigoto-ni naru* (work-DAT become), *hanashi-ni naru* (talk-DAT become), *undo-ni naru* (exercise-DAT become), *toreeningu-ni naru* (training-DAT become), *ryokoo-ni naru* (trip-DAT become), *seikatsu-ni naru* (living-DAT become), etc.
 (ii) *benkyoo-ni naru* (study-DAT become), *kyoouiku-ni naru* (education-DAT become), *toku-ni naru* (benefit-DAT become), *son-ni naru* (damage-DAT become), *daietto-ni naru* (diet-DAT become), etc.

whether *suru* has argument structures, this paper implies that it is necessary to posit argument structures for *suru*. If both *sure* and *naru* do not have argument structures, then the *suru* and *naru* constructions under the discussion would have the same syntactic structure, contrary to fact.

References

- Grimshaw, Jane, and Armin Mester (1988). Light verbs and θ -marking. *Linguistic Inquiry* 19 (2), 205–232.
- Jespersen, Otto (1942). *A Modern English Grammar on Historical Principles, Part VI, Morphology*. Copenhagen: Ejnar Munksgaard.
- Kageyama, Taro (1993). *Bumpou to Gokeisei* [Grammar and Word Formation]. Tokyo: Hituzi Syobo.
- Kishimoto, Hideki (2019). Keidoushi koobun niokeru imiyakuwarihuyo no mekanizumu [The mechanism of theta assignments on light verb constructions]. In Hideki Kishimoto (ed.) *Rekishikon no Gendai Riron to sono Ooyoo* [Modern Theories of Lexicon and Their Applications], 99–126. Tokyo: Kuroshio Publishers.
- Kishimoto, Hideki (2025) On the light verb construction in Japanese. In Anna Riccio and Jens Fleischhaver (eds.) *Light Verbs*, 233–275. Düsseldorf: Düsseldorf University Press.
- Miyagawa, Shigeru (1989). Light verbs and the ergative hypothesis. *Linguistic Inquiry* 20, 659-668.
- Miyamoto, Tadao, and Hideki Kishimoto (2016). Light verb constructions with verbal nouns. In Taro Kageyama and Hideki Kishimoto (eds.) *Handbook of Japanese Lexicon and Word Formation*, 425–458. Berlin: De Gruyter Mouton.
- Sato, Takuzo (2005). *Jidooshibun to Tadooshibun no Imiron* [The Semantics of Intransitive Sentences and Transitive Sentences], Tokyo: Kasama Shoin.
- Terada, Michiko (1990). *Incorporation and Argument Structure in Japanese*. Doctoral dissertation, University of Massachusetts, Amherst.
- Tsujimura, Natsuko (1990). Ergativity of nouns and case assignment. *Linguistic Inquiry* 21, 277-287.
- Uchida, Yoshiko, and Mineharu Nakayama (1993). Japanese verbal noun constructions. *Linguistics* 31, 623-666.
- Yu, Yile (2016) Daiyonshu no “naru” [The Fourth Type of “naru”]. *Nihon Kenkyuu* 42, 105–120.
- Yu, Yile (2020) Naru jutsugo niokeru koo no sentaku to kuoria koozoo [Argument selections and the qualia structures in *naru* predicates]. In Yile Yu, Kiyoko Eguchi, Yasuhito Kido, Miho Mano (eds.) *Toogokoozoo to Goi no Takakuteki Kenkyuu - Kishimoto Hideki Kyoju Kanreki Kinen Ronbunshuu* [Exploring Syntax and Lexicon from Multiple Perspectives: A Festschrift in Honor of Professor Hideki Kishimoto on the Occasion of His 60th Birthday], 319–334. Tokyo: Kaitakusha.

International Argument Alternation Workshop (IAAW)

📍 *Takigawa Memorial Hall, Rokkodai 2nd Campus, Kobe University*

Program

Day 1: July 16, 2025 (Wed.)		
8:30 – 9:00	Registration	
9:00 – 9:10	Welcome	
	Chair: Lilián Guerrero	
9:10 – 10:10	Keynote Lecture - The causative alternation under a microvariational lens: inchoative-anticausative mismatches in Romance and their theoretical consequences	Delia Bentley (The University of Manchester)
10:10 – 10:30	Break	
	Chair: Caroline Heycock	
10:30 – 11:00	Dative reflexives (anticausatives) in Slavic	Tatjana Ilic (National Defense Academy Japan; Keio University)
11:00 – 11:30	Beyond dative alternation: Four types of Korean ditransitives	Youngho Lee (Seoul National University)
11:30– 13:15	Lunch break	
	Chair: Yile Yu	
13:15 – 13:45	Structural effects of nominative-genitive conversion in Japanese	Hideki Kishimoto (Kobe University)
13:45 – 14:15	Case domains in double causatives	Jens Hopperdietzel and Haydar Batuhan Yıldız (University of Cologne)
14:15 – 14:45	Argument realisation in Italian <i>tough</i>-movement	Leonardo Russo Cardona (University of Cambridge)
14:45 – 15:05	Break	
	Chair: Kyle Johnson	
15:05 – 15:35	Root sensitivity in argument realization in Turkish recursive causatives	Haydar Batuhan Yıldız (University of Cologne)
15:35 – 16:05	A quantitative account of the understood object alternation in English(es)	Vladimir Buskin (Catholic University of Eichstätt-Ingolstadt)
16:05 – 16:35	Valency change in Hawaiian reduplication	David J. Medeiros (California State University, Northridge)
17:30– 19:30	Conference/Workshop Dinner: Restaurant <i>Sakura</i> , 3rd floor of Academia Building, Rokkodai 1st Campus, Kobe University	

Day 2: July 17, 2025 (Thurs.)		
9:00 – 9:10	Registration	
	Chair: Saeko Urushibara	
9:10 – 9:40	‘At-dative’ alternation with event nominal <i>look</i>: Interplays between verbal and nominal semantics	Tetsuya Kogusuri (The University of Osaka)
9:40 – 10:10	On the argument structure of Japanese light verb <i>naru</i> and <i>suru</i>	Yile Yu (Shiga University)
10:10 – 10:30	Break	
	Chair: Tetsuya Kogusuri	
10:30 – 11:00	Internally caused change-of-state verbs in transitivity alternations	Enrique Merino (Universitat Autònoma de Barcelona)
11:00 – 11:30	Differential object marking in Spanish: Does affectedness really matter?	Ekaterina Levina (University of Vienna)
11:30– 13:15	Lunch break	
	Chair: Osamu Sawada	
13:15 – 13:45	Adjective-verb alternation in Japanese psychological and physiological predicates: Distributed-Morphological account of argument alternation	Saeko Urushibara (Tokyo Woman’s Christian University)
13:45 – 14:15	Lexicon-pragmatics interaction in argument structure alternation: Japanese lexical V-V compounds and argument synthesis	Kazuhiko Fukushima (Kansai Gaidai University)
14:15 – 14:35	Break	
	Chair: Hideki Kishimoto	
14:35 – 15:05	On building symmetric predicates	Jeroen van Craenenbroeck (KU Leuven/Meertens Institute) and Kyle Johnson (University of Massachusetts at Amherst)
15:05 – 16:05	Keynote Lecture - Argument alternation in (copular) predication	Caroline Heycock (The University of Edinburgh)
16:05 –16:10	Closing	