

# On the Cross-linguistic Variation of “Reflexive-Marking”: An Interim Report\*

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## 1. Introduction

The following sentences in French and Spanish have two interpretations: an alienable interpretation and an inalienable interpretation.

- (1) a. Les enfants ont levé la main (French)  
The children haveraised the hand(sg) (Vergnaud & Zubizarreta (1992: 596))  
b. Los niños levantaron la mano (Spanish)  
The children raised the hand(sg) (Baauw (2002: 65))  
'The children raised their hands.'

In the inalienable interpretation, the possessors of the body-part denoted by the object are identified as the entities denoted by the subject. Henceforth we will call a construction of this type a Subject-Construction of Inalienable Possession (S-CIP) (cf. Baauw (2002)). The corresponding English sentence in (2a) does not express an inalienable possession.<sup>1</sup> In English, it is expressed by a construction with the possessive pronoun as in (2b).

- (2) a. The children raised the hand (Vergnaud & Zubizarreta (1992: 596))  
b. The children raised their hands (Baauw (2002: 65))

As (1) and (2b) exemplify, the constructions employed to describe an event which involves the inalienable possessive relation are not morpho-syntactically uniform across languages. To explain this variation, various analyses are proposed (cf. Guéron (1985), Vergnaud & Zubizarreta (1992), and Landau (1999), among others). No analysis, however, can explain the fact that the S-CIP in the Romance languages is possible only with a limited class of verbs. This is simply stated as a construction-specific semantic restriction in the previous studies.

Delfitto & d’Hulst (1995) and Baauw (2002) claim that the S-CIP is an instance of reflexive-marking, adopting Reinhart & Reuland’s (1993) reflexivity theory of binding. Reinhart & Reuland (1993) argue that natural languages have two ways to describe an event in which the entity denoted by the subject acts on itself (“reflexivity”). Take English and Dutch, for example. Both languages have the construction with a complex anaphor, *himself* or *zichzelf*, as shown in (3a) and (4a): in addition, English employs the construction without the overt object as in (3b) and Dutch employs the construction with a simplex anaphor, *zich*, as in (4b).

- (3) a. John washed himself (English)  
b. John washed  
(4) a. Max wast zichzelf (Dutch)  
Max wahes ZICHZELF (cf. Reinhart & Reuland (1993: 666))

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\* I would like to express my gratitude to Noriko Imanishi, Akira Watanabe, and anonymous reviewers for their invaluable comments on earlier versions of this paper. My thanks also go to Shun’ichiro Inada and Sakumi Inokuma for their cooperation as informants and helpful suggestions. All errors are of course my own.

<sup>1</sup> An inalienable interpretation becomes possible when the body-part noun is modified by a relative clause (see Guéron (2006)).

- b. Max *wast*     *zich*  
    Max *washes* *ZICH*  
    ‘Max is washing himself.’

The latter two constructions are possible only with a limited class of verbs as the S-CIP in the Romance languages. Reinhart & Reuland (1993) argue that these verbs are listed in the lexicon as inherently reflexive verbs, and hence their reflexivity is licensed at the C-I interface (lexical reflexive-marking).

Delfitto & d’Hulst (1995) and Baauw (2002) propose the abstract noun incorporation analysis of the S-CIP and argue that the S-CIP is an instance of lexical reflexive-marking. Under this analysis, the semantic restriction imposed on the S-CIP is subsumed into the more general restriction imposed on the licensing of “reflexivity” of predicates. However, the class of verbs that allows lexical reflexive-marking in the Romance languages differs from that of the Germanic languages, and thus the statement of the semantic restriction remains to be specific to language families.

This paper is a part of comparative study of the constructions employed to express “reflexivity” in the Romance and the Germanic languages on the one hand and the (morpho-syntactically) corresponding constructions in Japanese on the other. Specifically, we take up the following constructions: the S-CIP in the Romance languages and in Japanese, the construction without the overt object in English and in Japanese, and the construction with a simplex anaphoric expression in Dutch and in Japanese. The aim of the study is to give a unified account to the variations observed in these constructions. As a first step, this paper discusses the following two questions. (I) What are the semantic properties which play a crucial role in licensing lexical reflexive-marking in the Romance and the Germanic languages? (II) Do these semantic properties affect reflexive-marking in Japanese?

## 2. The Semantic Restriction on the S-CIP in the Romance Languages

The S-CIPs in the Romance languages have some peculiar morpho-syntactic properties: (i) inalienable body-part nouns must be singular, whether the subject denotes plural entities or not;<sup>2</sup> (ii) inalienable body-part nouns occur with a definite determiner.

- (1) a. *Les enfants ont levé la main* (French)  
      The children *have raised the hand(sg)* (Vergnaud & Zubizarreta (1992: 596))  
      b. *Los niños levantaron la mano* (Spanish)  
      The children *raised the hand(sg)* (Baauw (2002: 65))  
      ‘The children raised their hands.’

In addition, the S-CIP has the following semantic and syntactic properties. The body-part noun is interpreted distributively irrespective of its singular morphology (the distributivity effect):<sup>3</sup> the sentences in (1) are interpreted as ‘each child raised his/her own hand.’ The S-CIP resembles anaphoric binding in that (i) the possessor must be within the same clause as the body-part noun (the locality effect), and (ii) the possessor (=antecedent) must c-command the body-part noun (the c-command condition) (cf. Guéron (1985)). In (4), for

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<sup>2</sup> Note that inalienable body-part nouns can be plural, when the intended meaning is different. See fn 3.

<sup>3</sup> An interpretation of the S-CIP is ‘strictly distributive’ because the sentence is unambiguous when the inalienable phrase is plural. The English sentence in (2b) can be true under the situation where each child raised one of his/her hands and under the situation where all the children raise both of their hands. The sentence (i) cannot be true under the former situation (see Vergnaud & Zubizarreta (1992)).

- (i) *Les enfants ont levé la mains* (French)  
      The children *have raised the hands*  
      ‘The children raised their hands.’

The same is true of the examples in (5) and (7b-c).

example, the possessor of the body-part ‘eyes’ cannot be Mary or Peter. It must be Peter’s sister.

- (5) María<sub>i</sub> dijo que la hermana<sub>j</sub> de Pedro<sub>k</sub> cerró los<sup>\*i/j/\*k</sup> ojos (Spanish)  
 Mary said that the sister of Peter closed the eyes(pl) (Baauw (2002: 66))  
 ‘Mary said that Peter’s sister closed her eyes.’

The S-CIP is possible only with a limited class of verbs. Both in Spanish and in French, verbs which denote a “body-part” movement allow it, while other verbs do not (Kayne (1975) among others).<sup>4</sup>

- (6) a. Las niñas han levantado la mano (Spanish)  
 the girls have raised the hand(sg)  
 ‘The girls raised their hands.’  
 b. Juan y Maria volvieron la cabeza  
 John and Mary turned the head(sg)  
 ‘John and Mary turned their heads.’  
 c. \*Juan y Maria lavaron la cara  
 John and Mary washed the face(sg) (Baauw (2002: 70-71))  
 ‘John and Mary washed their faces.’
- (7) a. Les hommes ont levé le bras (French)  
 the men have raised the arm(sg)  
 ‘The men raised their arms.’  
 b. Les hommes ont claqué les doigts  
 the men have snapped the fingers(pl)  
 ‘The men snapped their fingers.’  
 c. Les hommes ont ouvert les yeux  
 the men have opened the eyes(pl)  
 ‘The men opened their eyes.’  
 d. \*Les hommes ont lavé le visage  
 the men have washed the face(sg)  
 ‘The men washed their faces.’  
 e. \*Les hommes ont rasé la barbe  
 the men have shaved the beard(sg) (Vergnaud & Zubizarreta (1992: 621))  
 ‘The men shaved their beard.’

Based on these examples, Delfitto & d’Hulst (1995) and Baauw (2002) propose the abstract noun incorporation analysis of the S-CIP. Following Vergnaud & Zubizarreta (1992), they presuppose that the body-part noun takes the possessor argument, which has to be bound to an NP in the sentence.

- (8) Las niñas vuelven [la cabeza [Poss]] (Spanish)  
 the girls turn the head Poss (Baauw (2002:71))

The body-part noun incorporates into the verb and forms a complex V + N predicate. After the incorporation, the possessor argument becomes the direct object and is interpreted to be bound to the subject (=9a), which results in a formation of a “reflexive predicate” (=9b).

<sup>4</sup> Here we use “body-part” as a cover term referring to everything making up a human being, including voice, power, tears, blood and so on.

(9) a. N-to-V Incorporation:

Las niñas cabeza-vuelven [Poss]  
the girls head-turn Poss

b.  $\lambda x [x \text{ cabeza-vuelve } x]$

(Baauw (2002:71-72))

As the licensing conditions at the C-I interface, they presuppose Reinhart & Reuland's (1993) theory of binding: a reflexive predicate is licensed if and only if it takes a SELF-anaphor as one of its arguments (syntactic reflexive-marking) or the predicate itself is inherently reflexive (lexical reflexive-marking). They argue that the complex V + N reflexive predicate formation under discussion is an example of lexical reflexive-marking and that the following restriction is imposed on the licensing of complex V + N predicates in the Romance languages.

(10) A complex V+N predicate is inherently reflexive if its lexical meaning is exclusively associated with a reflexive lexical meaning (Baauw (2002:74) citing from Delfitto & d'Hulst (1995:35))

To define a "reflexive" lexical meaning, an event a predicate denotes is divided into two types by the notion called "internal control" vs. "external control:" an event involving a "body-part" movement by "internal control" and an event involving a body-part movement by "external control." If the movement of "body-part" is "internally controlled," the "body-part" denoted by the object itself moves in response to a signal from neural components. If the movement is "externally controlled," on the other hand, the body-part denoted by the object is moved under the control of something external to it. The example (6a) is possible because "to raise one's hand" is an event involving a movement of one's hand by a signal from neural components and in this sense, the lexical meaning of the complex predicate is exclusively associated with a reflexive lexical meaning. The event is distinguished from an event in which the entity denoted by the subject raises his/her right hand, using his/her left hand, for example. The latter type is an instance of an event involving a body-part movement by "external control," and semantically, this interpretation is considered to be a special case of an event in which the entity denoted by the subject raises the other entity's hand by using his/her right hand. This special case corresponds to the reflexive-representation of the predicate's non-reflexive lexical meaning.

All the V + N predicates in (6c) and (7d-e) cannot be licensed because the events denoted by them are "externally controlled," and hence they cannot be associated with a reflexive lexical meaning. Note that the reflexive representation of their non-reflexive lexical meaning becomes possible when the reflexive-marker *se* occurs, in addition to the body-part noun.<sup>5, 6</sup>

<sup>5</sup> In Norwegian, the S-CIP is found with verbs that denote grooming habit or body movements. See Vergnaud & Zubizarreta (1992: 621)).

- (i) a. De wasket ansiktet (Norwegian)  
they washed the face  
'They washed their faces.'  
b. De barberte skjegget  
they shaved the beard  
'They shaved themselves.'  
c. De reiste hodet  
they raised the head  
'They raised their heads.'  
d. \*Han stolte hodet  
he trusted the head  
'(Lit.) He trusted his head.'

(Vergnaud & Zubizarreta (1992: 622))

<sup>6</sup> Note that if an action denoted by a verb is unambiguously "internally controlled," the sentence with *se* becomes impossible.

- (i) \*Juan se levantó la voz  
John SE raised the voice  
'John raised his voice.'

(i) is ungrammatical because raising one's voice cannot be under the control of other people.

- (11) a. Juan se volvió la cabeza (Spanish)  
 John SE turned the head(sg)  
 ‘John turned his head.’  
 b. María se abrió los ojos  
 Mary SE opened the eyes(pl)  
 ‘Mary opened her eyes.’  
 c. Los niños se lavaron la cara  
 the children SE washed the face(sg)  
 ‘The children washed their faces.’ (Baauw (2002: 75, 108))

### 3. The Semantic Restriction on Lexical Reflexive-Marking in the Germanic Languages

As Reinhart & Reuland (1993) show, a lexical restriction is observed in the constructions employed to express “reflexivity” in the Germanic languages. Verbs of grooming actions can be used reflexively without the overt object in English. The same class of verbs allows a simplex anaphor *zich* in Dutch.<sup>7</sup>

- (12) a. John washed (English)  
 b. John shaved  
 c. John dressed  
 d. \*John hit / John hit himself.
- (13) a. Jan wast zich (Dutch)  
 John washes ZICH (Baauw (2002:73))  
 ‘John is washing (himself).’  
 b. Peter scheert zich  
 Peter shaves ZICH  
 ‘Peter is shaving himself.’  
 c. ??Jan aaide zich / Jan aaide zichzelf  
 John petted ZICH / John petted ZICHZELF  
 ‘John petted himself.’

Based on these examples, Reinhart & Reuland (1993) propose that these verbs are listed in the lexicon as inherently reflexive verbs, and hence their reflexivity is licensed at the C-I interface. Although Reinhart & Reuland (1993) and subsequent works adopting their theory (cf. Reuland (2001), Reinhart (2006), Reinhart & Siloni (2005) among others) do not decompose an event each verb denotes further, let us consider this possibility. First, the verbs of grooming denote an “externally controlled” event, not an “internally controlled” event. They are further distinguished from other verbs by the property called “agent-orientation:” an event denoted by a verb is “agent-oriented” when the starting-point and the end-point of an action become identical. The verbs which allow lexical reflexive-marking can denote an “agent-oriented” event: their lexical meaning can be satisfied (without any special context) if the starting-point and the end-point of the action are identical. The verbs which disallow lexical reflexive-marking, on the other hand, typically denote a “non-agent-oriented” event: their lexical meaning is most naturally satisfied when the starting-point and the end-point of the action are different.

<sup>7</sup> Although we do not take them into discussion, the “experiencer” verbs are similar to the “externally controlled non-agent-oriented” verbs with respect to the possibilities of reflexive-marking: they cannot be used reflexively without the overt object in English, and they disallow *zich* as the object in Dutch.

- (i) \*John hated  
 (ii) \*Oscar haatte zich  
 Oscar hates ZICH  
 ‘Oscar hates himself.’

To sum up so far, predicates/verbs can be classified into three types based on their semantic properties: predicates/verbs which denote an “externally controlled non-agent-oriented” event, predicates/verbs which can denote an “externally controlled agent-oriented” event, and predicates/verbs which denote an “internally controlled” event.<sup>8</sup> Based on this classification, let us observe its interaction with reflexive-marking in Japanese, taking up the following three constructions: the construction without the overt object, the construction with a simplex anaphoric expression, and the S-CIP.

#### 4. “Reflexive-Marking” in Japanese

In Japanese, none of the three classes of verbs is used reflexively without the overt object as in (14).

- (14) a. \*Hanako-ga age-ta  
Hanako-Nom raised  
'(Lit.) Hanako raised.'
- b. \*Taroo-ga ake-ta  
Taroo-Nom opened  
'(Lit.) Taroo opened.'
- c. \*Hanako-ga hariage-ta  
Hanako-Nom raised  
'(Lit.) Hanako raised.'
- d. \*Taroo-ga arat-ta  
Taroo-Nom washed  
'(Lit.) Taroo washed.'
- e. \*Taroo-ga sot-ta  
Taroo-Nom shaved  
'(Lit.) Taroo shaved.'
- f. \*Hanako-ga tokasi-ta  
Hanako-Nom combed  
'(Lit.) Hanako combed.'
- g. \*Taroo-ga nagut-ta  
Taroo-Nom hit  
'(Lit.) Taroo hit.'

Japanese has a simplex anaphoric expression *zibun*, which lacks full  $\phi$ -feature specification and apparently corresponds to the Dutch simplex anaphor *zich*. *Zibun* can occur as the object, but only with a limited class of verbs: it cannot occur with “internally controlled” verbs ((15a-c)) or “externally controlled agent-oriented” verbs ((15d-f)), but can occur with “externally controlled non-agent-oriented” verbs ((15g)).<sup>9</sup>

- (15) a. \*Hanako-ga zibun-o age-ta  
Hanako-Nom ZIBUN-Acc raised  
'(Lit.) Hanako raised herself.'

<sup>8</sup> It is no use asking if an event denoted by “body-part” movement verbs is agent-oriented or not. In the event denoted by these verbs, the starting point and the end point of an action cannot be distinguished. In Kemmer’s (1993) terminology, these three classes of verbs are semantically different in the degree of “relative distinguishability of participants.” “Body-part” movement verbs denote “one-participant events,” while verbs which disallow lexical reflexive-marking in the Germanic languages denote “typical two-participant events.” Verbs of grooming lie in-between.

<sup>9</sup> Some speakers judge (15d) as marginally acceptable. In such case, however, the sentence bears some contrastive or holistic meaning.

- b. \*Taroo-ga zibun-o ake-ta  
 Taroo-Nom ZIBUN-Acc opened  
 ‘(Lit.) Taroo opened himself.’
- c. \*Hanako-ga zibun-o hariage-ta  
 Hanako-Nom ZIBUN-Acc raised  
 ‘(Lit.) Hanako raised herself.’
- d. \*///Taroo-ga zibun-o arat-ta  
 Taroo-Nom ZIBUN-Acc washed  
 ‘(Lit.) Taroo washed himself.’
- e. \*Taroo-ga zibun-o sot-ta  
 Taroo-Nom ZIBUN-Acc shaved  
 ‘(Lit.) Taroo shaved himself.’
- f. \*Hanako-ga zibun-o tokasi-ta  
 Hanako-Nom ZIBUN-Acc combed  
 ‘(Lit.) Hanako combed herself.’
- g. Taroo-ga zibun-o nagut-ta  
 Taroo-Nom ZIBUN-Acc hit  
 ‘Taroo hit himself.’

The syntactic effect of the other two classes of verbs is observed when the S-CIP in Japanese is taken into consideration. Japanese allows the S-CIP, although it does not strictly correspond to the one in the Romance languages morpho-syntactically. Since Japanese is a language with a null-determiner system and without overt number marking on the noun, the body-part noun occurs in its bare form. However, the construction with the body-part noun in the object position shares semantic and syntactic properties with the Romance S-CIP:<sup>10</sup> the distributivity effect and the locality effect are observed, and the c-command condition holds. In (16a), the body-part noun ‘hand’ is interpreted distributively and its possessor is identified as each child. In (16b), under the most natural interpretation (see fn 12), the possessor of the body-part noun “eyes” is identified as the embedded subject “sister” (see (5)).

- (16) a. Kodomo-tati-ga te-o age-ta  
 children-Nom hand-Acc raised  
 ‘The children raised their hands.’
- b. Hanako-ga [Taroo-no oneesan-ga me-o tozi-ta]-to it-ta  
 Hanako-Nom Taroo-Gen sister-Nom eye-Acc closed-Comp said  
 ‘Hanako said Taroo’s sister closed her eyes.’

All of the three classes of verbs allow the body-part noun in the object position, which can be “bound” by the subject.<sup>11</sup>

<sup>10</sup> This confirms the analyses by Guéron (1985) and Vergnaud & Zubizarreta (1992), which predict that a language with a null determiner system allows the S-CIP.

<sup>11</sup> Note that a sharp contrast is observed in the availability of inalienable interpretations between (17a-f) on the one hand and (17g) on the other. The most natural interpretation in (17g) is the one where the entity denoted by the subject hit the other entity’s face. When an anaphoric expression *zibun* occurs in the possessor position, the inalienable interpretation becomes easily available. The same is true of (iii) in fn 13. Strictly speaking, these two sentences cannot be the examples of the S-CIP. I would like to express my gratitude to an anonymous reviewer for his/her suggestion.

- (17) a. Hanako-ga te-o age-ta  
 Hanako-Nom hand-Acc raised  
 ‘Hanako raised her hand.’
- b. Taroo-ga me-o ake-ta  
 Taroo-Nom eye-Acc opened  
 ‘Taroo opened his eyes.’
- c. Hanako-ga koe-o hariage-ta  
 Hanako-Nom voice-Acc raised  
 ‘Hanako raised her voice.’
- d. Taroo-ga kao-o arat-ta  
 Taroo-Nom face-Acc washed  
 ‘Taroo washed his face.’
- e. Taroo-ga hige-o sot-ta  
 Taroo-Nom beard-Acc shaved  
 ‘Taroo shaved his beard.’
- f. Hanako-ga kami-o tokasi-ta  
 Hanako-Nom hair-Acc combed  
 ‘Hanako combed her hair.’
- g. Taroo-ga kao-o nagut-ta  
 Taroo-Nom face-Acc hit  
 ‘Taroo hit his face.’

A sharp contrast, however, is observed between the “internally controlled” verbs and the “externally controlled” verbs, when these verbs are embedded. The locality effect is observed with the former, but not with the latter: the matrix subject cannot be the possessor of the body-part noun in (18a) – (18c), while it can be in (18d) – (18g).<sup>12, 13, 14</sup>

- (18) a. Saburoo-to Siroo-ga [Taroo-to Ziroo-ga te-o age-ta]-to hookokusi-ta  
 Saburoo-and Siroo-Nom Taroo-and Ziroo-Nom hand-Acc raised-Comp reported  
 ‘Saburoo and Siroo reported that Taroo and Ziroo raised their hands.’
- b. Saburoo-to Siroo-ga [Taroo-to Ziroo-ga me-o ake-ta]-to hookokusi-ta  
 Saburoo-and Siroo-Nom Taroo-and Ziroo-Nom eye-Acc opened-Comp reported  
 ‘Saburoo and Siroo reported that Taroo and Ziroo opened their eyes.’

<sup>12</sup> As in the Romance languages, the predicate “te-o ageru (raise the hand)” is ambiguous between the lexical reflexive meaning and the lexical non-reflexive meaning (see section 2). In the interpretation where the verb is interpreted in the latter meaning, the locality effect disappears. The same is true of (16b) and (18b), but not true of (18c) (see fn 6).

<sup>13</sup> As in English and in Dutch, the “experiencer” verbs are similar to the “externally controlled non-agent-oriented” verbs: (i) it cannot be used reflexively without the overt object, (ii) it allows *zibun* as the object, and (iii) it allows the S-CIP.

- (i) \*Taroo-ga kirat-te-iru (koto)  
 Taroo-Nom hates  
 ‘(Lit.) (the fact that) Taroo hates.’
- (ii) Taroo-ga zibun-o kirat-te-iru (koto)  
 Taroo-Nom ZIBUN-Acc hates  
 ‘(the fact that) Taroo hates himself.’
- (iii) ?Taroo-ga (zibun-no) koe-o kirat-te-iru (koto)  
 Taroo-Nom voice-Acc hates  
 ‘(the fact that ) Taroo hates his voice.’

<sup>14</sup> An anonymous reviewer pointed out to me that the locality effect is observed in the examples (18d-f) when the sentences are associated with the one-participant event interpretation. In (18g), on the other hand, such a possibility never arises. I would like to leave this point for future research.



- c. Saburoo-to Siroo-ga [Taroo-to Ziroo-ga koe-o hariageta]-to hookokusi-ta  
 Saburoo-and Siroo-Nom Taroo-and Ziroo-Nom voice-Acc raised-Comp reported  
 ‘Saburoo and Siroo reported that Taroo and Ziroo raised their voice.’
- d. Saburoo-to Siroo-ga [Taroo-to Ziroo-ga kao-o arat-ta]-to hookokusi-ta  
 Saburoo-and Siroo-Nom Taroo-and Ziroo-Nom face-Acc washed-Comp reported  
 ‘Saburoo and Siroo reported that Taroo and Ziroo washed their faces.’
- e. Saburoo-to Siroo-ga [Taroo-to Ziroo-ga hige-o sot-ta]-to hookokushi-ta  
 Saburoo-and Siroo-Nom Taroo-and Ziroo-Nom beard-Acc shaved-Comp reported  
 ‘Saburoo and Siroo reported that Taroo and Ziroo shaved.’
- f. Satiko-to Keiko-ga [Hanako-to Yooko-ga kami-o tokasi-ta]-to hookokusi-ta  
 Satiko-and Keiko-Nom Hanako-and Yooko-Nom hair-Acc combed-Comp reported  
 ‘Satiko and Keiko reported that Hanako and Yoko combed their hair.’
- g. Saburoo-to Siroo-ga [Taroo-to Ziroo-ga kao-o nagut-ta]-to hookokusi-ta  
 Saburoo-and Siroo-Nom Taroo-and Ziroo-Nom face-Acc hit-Comp reported  
 ‘Saburoo and Siroo reported that Taroo and Ziroo hit their faces.’

The examples in (14) – (18) show that the semantic properties under discussion play an important role in determining the distribution of the anaphoric expression *zibun* and the interpretation of the S-CIP in Japanese.

(19)

	External Control		Internal Control
	Non-Agent-oriented	Agent-oriented	
without the object argument	*	*	*
<i>Zibun</i> as the object argument	Possible	*	*
Locality Effect (with body-part N obj.)	Not observed	(Not) Observed <sup>15</sup>	Observed
Body-part noun	Possible	Possible	Possible

## 5. Summary

In this paper, we have investigated the cross-linguistic variation observed in the constructions employed to express “reflexivity.” Based on the examples of lexical reflexive-marking in the Romance and the Germanic languages, we have pointed out that the following two semantic properties play an important role in licensing the “reflexivity” of predicates: “external vs. internal control” and “agent-orientation.” We have further shown that these semantic properties are also crucial in licensing the “reflexivity” of predicates in Japanese.

The constructions licensed, however, are not morpho-syntactically uniform across languages: (i) constructions without the overt object are licensed if verbs have the properties of “external control” and “agent-orientation” in English, but not in Japanese; (ii) constructions with a simplex anaphor are licensed if verbs have the properties of “external control” and “agent-orientation” in Dutch but the apparently corresponding construction in Japanese is licensed if verbs have the properties of “external control” and “non-agent-orientation;” (iii) the S-CIP in the Romance languages is licensed if verbs have the property of “internal control,” and it requires an anaphoric expression *se* if verbs have the property of “external control.” The S-CIP in Japanese is licensed with all the classes of verbs, but strict locality is observed when verbs have the property of “internal control.”

The observation implies that the semantic restriction, which the previous analyses considered to be specific to language families, is attributable to some more general principles. The morpho-syntactic variation should also be given a natural account. We would like to leave the issues for future research.

<sup>15</sup> See note 14.

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