Reflexive and Reciprocal as Valency Decrease: A Morpho-syntax Study in Sasak

Nurul Azizah
Udayana University, Bali, Indonesia

Ketut Artawa
Udayana University, Bali, Indonesia

Ni Luh Ketut Mas Indrawati
Udayana University, Bali, Indonesia

Made Sri Satyawati
Udayana University, Bali, Indonesia

Abstract—**This research is a descriptive study that examines the constructions of reflexive and reciprocal of valency decrease using linguistic typological theory proposed by Dixon (2012). The results of data analysis revealed that in Sasak Kuto-Kute dialect, reflexive constructions can be formed through two techniques; namely verb derivation and combination techniques. The verb derivation technique involved the addition of a nasal prefix (N) to the verb functioning as reflexive marker (REF), whilst, the combination technique employed the addition of confix *n- -in* followed by the pronoun *diriqnya* 'him/herself'. The formation of reciprocal construction is carried out through three techniques: the use of reciprocal verbs, verb derivation and the use of reciprocal adverbs. The reciprocal verb used in the data is *tempur* 'meet'. Meanwhile, for verb derivation the addition of confix *meng- -an* on the verb *kaol* 'hug' makes the verb's meaning reciprocal. In the technique of using adverbs, the sentences that bear reciprocal meaning are formed by adding the word *saling* 'each other' appearing before the bases (affixless), verbs with suffix *-in* and confix *ke- -n*. From the overall data, it was found that the verb derivation techniques for reflexive is more preferred, while for reciprocals, the technique of using adverbs is more often used compared to the other two.**

Index Terms—*Sasak*, **reflexive, reciprocal, valency decrease, morpho-syntax**

I. INTRODUCTION

Medial diathesis consists of active sentences in which the subject is affected by the action or situation stated by the verb (Arenales, 1994, p. 1). Some constructions that fall into this category are reflexive and reciprocal. Reflexive sentences carry the message that S does something that the verb states to himself, whilst, reciprocal is the expression of symmetrical relation often shown through the use of reciprocal verbs (Dixon, 2012, p 147-149). According to Kridalaksana (1985, p. 56), reciprocal verbs are verbs whose meaning is related to reciprocity in which both parties are involved in an action or event. Reciprocal verbs occupy the predicate functions in sentences and demand the presence of plural NP functioning as S, who carry out acts of retaliation, or a single NP of S, who performs retaliatory actions with a compliment. Meanwhile, reflexivity is the relation between an argument and the argument itself (Kridalaksana, 1993, p. 186). Soames and Perlmutter (1979, p. 9) say that reflexivization occurs when the direct object of the verb correlates with the subject. Both constructions can be used as a mechanism to reduce the valency of a verb (Dixon and Aikhenvald, 2000, p. 20)

In various languages of the world, the marking of verbs in reflexive construction generally has somewhat different conditions of use than the marking of verbs in reciprocal construction. Heine and Miyashita (2008) note that 61.4% of the majority of languages in the world have similar cases. In Indonesian, for example, this can be seen in the following sentences:

(1a) *Mereka* **menampar** *pipi* **mereka sendiri**
     3PL   ACT-slap cheek REF
     'They **slapped their own** cheeks'
(1b) *Mereka* **saling** *menampar* *pipi*
     3PL   RECIP ACT-slap   cheek
     'They **slapped each other**'s cheek'

Based on the two given examples, it can be seen that sentence (1a) is a reflexive sentence and sentence (1b) is a reciprocal sentence. In sentence (1a) the use of the pronoun *mereka sendiri* 'their own' shows that the activity of 'slapping' is carried out by each person against himself (*Andi slaps his own cheek* and *Ali slaps his own cheek*), while

the use of the word *saling* 'each other' in the sentence (1b) shows that the activity of 'slapping' is carried out by each person against another person (*Andi slaps Ali's cheek* and *Ali slaps Andi's cheek*). The use of the pronoun *mereka sendiri* 'their own' and the adverb *saling* 'each other' are syntactic markings, which show that the sentences are reflexive and reciprocal. Therefore, it can be said that although the two constructions above use the same verb, the addition of the syntactic markers gives a different meaning.

Several writings discussing reflexive and reciprocal constructions were written by quite many linguists including Hendriks, Hoeks and Spenader (2014), Haspelmath (2007) and Maslova & Nedialkov (2008). Hendriks *et al.* discussed the choice of reflexive forms (the weak form of *zich/sich* and the strong form of *zichzelf/sich selbst*) in Dutch and German employed in various sentence types with various verb classes. Haspelmath compared some reciprocal constructions in terms of how to express the reciprocal, reciprocal construction with anaphora and reciprocal with verb markers using data from several languages in the world such as Japanese, Yakut, Kolyma Yukaghir, English, Chukchi, and others. Meanwhile, Maslova & Nedialkov reviewed the reciprocal construction of several languages in the world, such as Cantonese, Kolyma Yukaghir (east of Siberia), Imbabura Quechua, West Greenland Eskimo, and others. The objective of the study on these languages conducted by Maslova & Nedialkov is to formulate the geographical distribution of reciprocal construction of languages primarily in terms of the type of polysemy associated with reciprocal-reflexive polysemy.

In Indonesia itself, an article on reflexive was written by Davies (2007) and several articles on reciprocals were written by Nardiati (1999), Kardana and Satyawati (2014), and also Udayana (2017). Concerning reflexive in Maduranese, in reference to Malay/Indonesian, Davies found that reflexivity in Maduranese is not a true anaphor and the form shares many properties with those found in Indonesian/Malay. On the subject of reciprocals, Nardiati analyzed Javanese reciprocals mainly from the type of verbs that formed the construction. Kardana and Satyawati studied the construction of the Balinese reciprocal morpho-syntactically. Meanwhile, Udayana discussed on how to establish reciprocal constructions in Indonesian. He stated that Indonesian reciprocal construction can be realized in several ways. When using verbal prefixes, the reciprocal meaning can be expressed by prefixes *ber-* and *meng-*. The followings are examples given by Udayana.

(3) *Mereka **berpukulan***
    3PL   ACT/RECIP.hit
    'They **hit each other**'
(4) *Mereka **mencintai**   (satu sama lain)*
    3PL   ACT/RECIP.love RECIP
    'They **love one another**'

As seen in examples (3) and (4), not only that the construction can be marked with verbal prefixes, the meaning 'reciprocal' can also be marked with a phrase *satu sama lain* 'one another/each other'. In addition to the phrase *satu sama lain*, there are adverbial lexicons that can show reciprocal meaning in a sentence, namely *baku* and *saling*. When marked with a particular prefix, the reciprocal construction of the sentence is morphologically marked. However, when marked with a particular lexicon, the reciprocal construction is marked syntactically. In addition to being morphologically and syntactically marked, reciprocals in Indonesian can also employed both markings at the same time (morphologically and syntactically/double marking). An example of this is the combination of lexicon *saling* with prefix *ber-* (*saling berpandangan* 'looking at each other').

By looking at the characteristics of reflexive and reciprocal constructions in some of these local languages, cross-linguistically, it would be very interesting to also see the formation of these constructions in Sasak Kuto-Kute dialect. The purpose of this study is to look at the forms of reflexive and reciprocal constructions in Sasak Kuto-Kute dialect in terms of valency decrease mechanism, which are limited to the list of 70 meaning verbs from Andrej Malchukov and Bernard Comrie (2010).

II. THEORETICAL FRAMEWORK

The theory applied in this research is linguistic typology from Dixon (2012). Linguistic typology is a theory used as a basis for language classification based on their structures (Artawa and Jufrizal, 2008, p.27). In line with this, Comrie (1988) specified that linguistic typological studies aim to classify languages based on their structural properties with the assumptions that all languages may have universal features, which can be used as a basis for comparison, and some languages have different features, which can be employed as grouping them into several types. Meanwhile, according to Whaley (1997, p 7), typological studies concerning linguistic typology is grouping languages or language components based on their common characteristics and formal behaviors. Based on the given definitions, it can be concluded that linguistic typology is a theory that can be used to analyze language constructions in comparison to other languages. Thus, the formation of reflexive and reciprocal constructions in Sasak Kuto-Kute dialect will be seen morpho-syntactically to figure out the set of rules employed by the dialect.

III. METHODOLOGY

The research involved 7 villages in Tanjung district, North Lombok, Indonesia. The method used in this paper is a descriptive method with an inductive approach that explains a language phenomenon related to the forms of reflexive and reciprocal in Sasak Kuto-Kute dialect. The data was taken using the list of 70 verbs meaning proposed by Malchukov and Comrie (2010). The research data is in the form of sentences made from a list of 70 verbs. The collected data is then identified, grouped and analyzed using the theory proposed by Dixon (2012). The data is glossed per-morpheme and followed by free translation.

IV. DISCUSSION

According to Dixon (2012, p. 140-141), cross-linguistically, there are several grammatical profiles of languages that can be used to express reflexive or reciprocal situations. The most commonly found includes the following:

i. Pronouns for reflexive and reciprocal constructions in transitive clauses: the pronouns used for reflexive and reciprocal sentences can be the same and can also be different. For example, the use of the same pronouns for both constructions are found in Iraqi languages, which uses the free pronouns *ti* or the use of bound pronouns in the form of suffix *-rninyi-* in Nyangumarta. For the use of different forms of pronouns, an example is found in the Koasati language which uses bound pronouns *ili-* for reflexive construction and *-itti-* for reciprocals.

ii. Derivation verbs for reflexive and reciprocal constructions of intransitive clauses: markers attached to verbs used in reflexive construction can be the same as those used in reciprocal construction, but can also be different. The similarity of markers for both constructs is found in Maricopa language, which uses prefix *mat-* for both reflexive and reciprocal markers, while the use of different markers is found in Ainu language, which uses prefix *yay-* as reflexive and prefix *u-* for reciprocal markers.

iii. Different types of constructions for reflexive and reciprocal sentences: the use of pronouns for reflexive construction and derivation of verbs for reciprocals. In this case, the formation of reflexive construction is carried out using a series of reflexive-free pronouns, whereas reciprocal construction can be formed through morphological processes employed to the verb. According to Dixon, many languages embrace this system. However, so far, no language has used this system in reverse; the use of pronouns for reciprocal and derivation of verbs to reflexive.

Apart from its grammatical profile, based on meanings, Dixon (2012, p. 145) says that reflexive and reciprocal constructions only apply to certain verbs if both arguments have the same type of reference. That is, if a verb has an A argument, which is lifeless and demands the presence of an O argument, which is also lifeless, then this type of verb cannot be used in reflexive and reciprocal constructions. For the formation of reflexive and reciprocal constructions, Dixon (2012, p. 156-185) proposes several techniques used cross-linguistically. The techniques are:

a. Pronouns: is a technique that uses a pronoun that has the same reference as the controller.

b. Verbal Derivation: is a technique of forming reflexive/reciprocal constructions through the process of verb derivation marked by affixes.

c. Other Techniques: are other grammatical techniques that are used in a small number of languages in the world. These techniques include the use of sequential verbs, the use of transitive verbs in syntactically intransitive sentences, the deletion of O and the use of adverbs that are reciprocal (reciprocal adverb).

d. Combination: is a technique that combines the use of pronouns and verb derivation techniques.

e. Reflexive/Reciprocal verbs: is the use of verbs with reciprocal properties, in which its presence without the pronouns can still be recognized as reflexive/reciprocal constructions.

Reflexive construction can appear as intransitive and transitive sentences. However, because the focus in this study concerns the decrease in verb valence, therefore, the reflexive construction being discussed are forms that appear in intransitive and transitive sentences deriving from transitive and ditransitive verbs. The following are three examples of reflexive sentences found in the data:

(5) *Nina* **me-saluk**   *leq   julun kaca*
    Nina   ACT/REF-dress PREP front mirror
    'Nina **dressed** in front of the mirror'

(6) *Ia* **meny-eboq**   *kon   mudin   bale*
    3SG ACT/REF-hide PREP behind house
    'S/he **hides** behind the house'

(7) *Beaq nu* **n-ampè-in** *diriqnya kadu   kereng*
    Anak DEF ACT-cover-i REF   with   sarong
    'The child **covers him/herself** with sarong'

Sentences (5) and (6) are intransitive reflexives, while sentences (7) is transitive reflexive. *Mesaluk* 'dressed' and *menyeboq* 'hiding' are intransitives deriving from the transitive verbs *saluk* and *seboq*. Unlike the two verbs, the verb *nampèin* 'covering' is a transitive verb deriving from the noun *tampèn* 'blanket', in which when used as a verb semantically falls into the category of ditransitive verb that requires three semantic roles (agent, target and manip/manipulative role).

From the data, it can be seen the intransitive reflexives of (5) and (6) in Sasak Kuto-Kute dialect are formed through verb derivation techniques. The addition of a nasal prefix (N) to each verb does not only function as an active marker

(ACT) but also as a reflexive marker (REF). In this case, the marker of REF signifies that the action carried out by S (Nina and s/he) in both sentences was against her/himself and for her/his own sake. For data (7), which is a transitive reflexive, its construction uses a combination technique. When the transitive verb is used to form the reflexive construction, the verb must be combined with the use of the pronoun 'him/herself', which in this case has the same reference as the controller/S. The appearance of the pronoun that functions as O must be presented after the verb, because if a different pronoun appears after the verb then the sentence becomes a non-reflexive sentence.

Generally, reciprocal construction can reduce the valency of a verb. To figure out the techniques used in Sasak Kuto-Kute dialect, below are the reciprocal constructions found in this dialect, which show the decrease of the bases' valence.

(8) *Nina **men-tempur***   *kanca odos*   *bosnya*
    Nina ACT/RECIP-meet with   former boss-POSS
    'Nina **met** her former boss'

(9) *Ia pada **meng-kaol-an***   *leq*   *lapangan*
    3PL   ACT/RECIP-hug-an PREP field
    'They **hugged** on the field'

(10) *Kami **saling**   **peta**   kon*   *pante*
    1PL RECIP Øsearch PREP beach
    'We **were looking for each other** at the beach'

(11) *Ia pada **saling**   **binoq***
    3PL   RECIP Økill
    'They are killing each other'

(12) *Ia pada **saling** **pangkot-in***
    3PL   RECIP scream-ITE
    'They **are screaming at each other**'

(13) *Bebeaq nu **saling ke-lelè-n***
    PL-child DEF RECIP ke-laugh-ITE
    'The children **are laughing at each other**'

(14) *Amir dait Ahmad **saling**   **lako-en** jawaban*
    Amir with Ahmad RECIP ask-ITE answer
    'Amir and Ahmad **are asking** for answers to **each other**'

(15) *Tetangga-tetangga **saling**   **beng** kengkenan pas*   *lebaran*
    Neighbors   RECIP Øgive foods   during Eid
    'The neighbors **are giving** foods to **each other** during Eid'

Sentences (8) - (12) are the reciprocal intransitive sentences where the verbs derived from transitive verbs. The five sentences above use different techniques in forming their reciprocal constructions. For sentence (8) the reciprocal construction is formed using a reciprocal verb. In this sentence, the verb *mentempur* 'meet', which originates from the word *tempur* 'meet' is a verb that bears a reciprocal meaning. Thus, it can be said that sentence (8) means that 'Nina met her former boss' and 'Her former boss met Nina', although it was possible that the meeting does not take place intentionally. This means that both parties are involved in the same (reciprocal) action. The NP *Nina* in that sentence acts as S and the NP *odos bosnya* 'her former boss' is a compliment.

In data (9), the reciprocal construction is formed using the verb derivation technique. The use of confix *meng- -an* added to the word *kaol* 'hug' makes the verb's meaning reciprocal. The verb *kaol* 'hug' verb is a non-reciprocal verb because if the verb stands alone it will form a transitive verb with non-reciprocal sentence construction. The plural NP *ia pada* 'they' apparent in sentence (9) in this construction functions as S.

In contrast to data (8) and (9), the data in examples (10) - (12) are reciprocals constructed using a different technique: reciprocal adverb *saling* 'mutually/each other'. From the example above it can be seen that the adverb *saling* must be placed before the verbs, and the verbs used in the reciprocal construction are the bases (affixless) and verbs with suffix *-in* as used in the word *pangkotin* 'shouting'. These three verbs, when used alone and are not preceded by the adverb *saling*, the sentences are considered as non-reciprocal sentences and the structures become ungrammatical. The use of adverb *saling* before the intransitive verbs also pointed out that the NP, which is the S of the sentences, must be in plural form (PL). Note that the suffix *-in* in data (12) is an iterative marker (ITE).

For data (13), the reciprocal construction derived from the extended intransitive verb. The verb *leleq* 'laugh', based on its semantic meaning, is an extended intransitive verb that requires the presence of one core argument and one extended core argument. When the verb is used to form reciprocal construction, the original S is changed to the plural and the extended core argument in O position is deleted. The addition of the adverb *saling* 'each other' is also placed before the verb. Notice that the verb form used is the verb with confix *ke- -n*. Likewise, suffix *-n* pada data (13), which is an allomorph of *-in*, is also marked as ITE.

Reciprocal construction can also be formed with transitive verbs derived from ditransitive verbs. The examples can be seen in data (14) and (15). The verbs *lakoq* 'ask' and *beng* 'give' are ditransitive verbs that require three core arguments (A, O1 and O2). Decreasing the valency of the two verbs through reciprocal construction can be done by adding the adverb *saling* before the verbs and changing the actual number of A, which was originally in the singular

form to a plural form. The change is then automatically followed by the deletion of one O in the form of a human. In the data, the transitive verbs appear in the derived form with the suffix -*en* and base form (affixless). Similar to others found within the data, suffix-*en*, which is also an allomorph of the suffix -*in*, is a marker of ITE.

V. CONCLUSION

From the data analysis, it was found that in Sasak Kuto-Kute dialect, reflexive constructions can be formed through two techniques, namely verb derivation and combination techniques. In the verb derivation technique the formation of reflexive construction is done by adding a nasal prefix (N) to the verb as a marker of REF, while the combination formation technique is conducted by adding confix *n- -in* to the ditransitive verb to form transitive derivation, and then the verb is combined with a pronoun the 'him/herself' that appears in the position after the verb. As for reciprocal, the constructions were formed through three techniques: the use of the reciprocal verb, derivation of verbs and the use of a reciprocal adverb. The use of the reciprocal verb, in this case, is represented by the verb *tempur* 'meet'. Through the verb derivation technique, it was found that confix *meng- -an* added to the verb *kaol* 'hug' makes the verb's meaning reciprocal. Meanwhile, in the technique of using an adverb, sentences that bear reciprocal meanings are formed by adding the adverb *saling,* which appears before the verbs. In this case, the constructions use intransitive and transitive verbs appearing as bases (affixless) or verbs with the suffix -in and confix *ke- -n*. Overall, it was found that the usage of the derivation technique in reflexive is more preferred, and the word *saling* as reciprocal markers within the data of Sasak Kuto-Kute dialect is used far more often compared to the other forms.

APPENDIX. ABBREVIATION

1PL	first person plural	3SG	third person singular	3PL	third person plural
A	Agent	ACT	active	CAUS	causative
DEF	definite	ITE	iterative	O	Object
PL	plural	PREP	preposition	POSS	possessive
RECIP	reciprocal	REF	reflexive	S	Subject

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Nurul Azizah is currently a doctoral student studying at Udayana University, Bali, Indonesia. She accomplished her undergraduate degree in 2005 from Mataram University and a Master's Degree in 2009 from UHAMKA, Jakarta, both majoring in English. Her interest is in morpho-syntax.

Ketut Artawa is a professor in Linguistics at Udayana University, Bali, Indonesia. He received his Master's Degree in Linguistics from La Trobe University in 1992 and got his Doctorate also from La Trobe University in 1995. His research interests involve a wide range of topics on morpho-syntax and linguistic landscape.

Ni Luh Ketut Mas Indrawati is a senior lecturer at Udayana University, Bali, Indonesia. She obtained her Ph.D. in 2012 in Linguistic Typology from Udayana University and her MA in Applied Linguistics in 1994 from Sydney University. Her research interests are linguistic typology, sociolinguistics, and applied linguistics.

Made Satyawati is a lecturer at Udayana University, Bali, Indonesia. She accomplished her Master's Degree in Linguistics from Padjadjaran University, Bandung, Indonesia in 1999 and obtained her Doctorate Degree in Linguistics from Udayana University in 2010. Her research interest is linguistics, namely syntax, morphology, and semantics.