Reciprocality in Papuan Malay

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ABSTRACT
Reciprocality, also known as reciprocal situation or reciprocal constructions, constitutes an expression which describes both the forms and meaning of an activity embodying a mutual relation. Papuan Malay, a pidginized lingua franca in Western New Guinea, has three types of constructions expressing reciprocity: lexical reciprocals, prototypical syntactic reciprocals with the baku construction, and syntactic reciprocals with the discontinuous satu...satu construction. Some additional constructions are considered to be reciprocal-like. These reciprocal constructions vary in their argument structure and valence operations. In argument structure, most constructions allow two kinds of argument structure: Type 1, which takes only a subject argument, and Type 2, which takes both a subject and object, and follows the basic SVO word order. However, the object in the Type 2 construction becomes oblique-like, indicating reduced transitivity in order to accommodate the concept of mutual relation. In valence operations, reciprocals can undergo both valence decreasing and valence increasing operations. In addition, some reciprocal constructions require subject and object to be syntactically retained, even though semantically they represent the same agent-patient/goal mutual relation.

KEYWORDS
Reciprocality; mutual relation; argument structure; valence operations; Papuan Malay.
1. **Introduction**

Reciprocality has become a focus of the recent linguistic work in different schools of linguistics. Both the semantic and syntactic structures, within individual languages and cross-linguistically, have been the focus of a number of studies (for example, Ash Asudeh 1998; Nicholas Evans et al. 2011; Peter Hurst 2006; Ekkehard König and Voker Gast 2008; Vladimir Nedjalkov 2007; Rachel Nordlinger 2008). Many typologists also investigate reciprocality beyond the linguistic domain, in the context of social cognition in the world’s languages (Evans 2006; Evans et al. 2011; König and Gast 2008). Consequently, various terms have been used to indicate reciprocality – reciprocal situation, reciprocal event, reciprocal relation, reciprocal construction, reciprocal marker, and reciprocal predicate (Martin Haspelmath 2007; Nedjalkov 2007). These terms are used interchangeably for both semantic and structural expressions of reciprocality. In this article, I use “reciprocal constructions” to describe regular syntactic constructions which represent reciprocal events, as well as their semantic content (see Evans 2008). Clauses such as “I pushed John” and “John pushed me” are regular expressions in English which can be semantically integrated into a single clause “John and I pushed each other”. This construction is principally said to be a reciprocal event which includes a two-place predicate explicating two arguments in a mutual relation (Haspelmath 2007), each behaving as semantic agent and patient simultaneously when performing the action together towards each other as part of a single, complex reciprocal event.

This article aims to describe reciprocal constructions in Papuan Malay. The term “reciprocal construction” refers to structural/syntactic basis of reciprocality in Papuan Malay grammar. Although my focus of discussion is on the structural level, I shall also deal with other semantic expressions which contribute to the understanding of reciprocality in Papuan Malay.

On the whole, Papuan Malay applies different types of reciprocal constructions which represent different semantic expressions of the relations between arguments. The choice of construction depends on the tightness of the semantic relationship being described.

2. **Papuan Malay: A historical and typological overview**

Papuan Malay is the pidginized Malay spoken as a lingua franca in the western part of New Guinea, in the Indonesian provinces of Papua and West Papua (Danilyn Rutherford 2005). The use of the language is relatively new in the region but it has at least 200 years of history behind its presence in New Guinea (Mark Donohue 2011; Scott Paauw 2008). It was originally introduced along an ancient trading route between New Guinea and other neighbours to the west and reinforced by the initial establishment of the Dutch colonial administration in Papua in 1828 (Mark Donohue and Yusuf Sawaki 2007). Since then, Malay

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1 I would like to express my appreciation of Emily Gasser and Laura Arnold for proofreading and reviewing the first version of this article, but I am still responsible for all its deficiencies.
has taken on the role of a lingua franca. It has spread through most regions of Indonesian New Guinea, but especially the northern coast of the Bird’s Head and around Cenderawasih Bay (formerly Geelvink Bay) as well as along the southwest coast around the Kaimana and Fakfak regions, where it is now used extensively. The first records of Malay used in New Guinea among Biak people were made by Antonie Haga (1884). However, Papuan Malay might have been used long before that along the southwest coast of New Guinea on the old trading route between Onin and Seram Laut. This despite the fact that in that region, the Onin language, a mixture of Malay and local languages spoken along the coasts of the Bomberai Peninsula (W. Seiler 1983; John Conroy 2013: 15), has also been used as a special trade lingua franca.

Historically, different parts of New Guinea established various socio-cultural and economic linkages to different parts of outside world. The linkage between western New Guinea and outsiders can be seen in Conroy (2013). As Papuan Malay has long been in contact with other languages, in particular Austronesian languages in the Papua region, under influence of these languages, it has undergone restructuring in terms of the structural building blocks, although it still retains many Malay features (see Paul van Velzen 1995; Donohue and Sawaki 2007; Paauw 2008; Donohue 2011; Sukardi Gau 2011; Yusuf Sawaki and Sara Karubaba 2012; Angela Kluge 2014). Socio-linguistically, Papuan Malay has several regional dialects (see Donohue and

Map 1. The Papuan Malay-speaking area in New Guinea and the two dialect variations discussed in this article. (Courtesy of Australian National University).
Sawaki 2007; Kluge 2014). For the purpose of this article, I focus on the northern dialect, my native dialect, of Papuan Malay (see Map 1).

Typologically, Papuan Malay uses the word order SV/AVP in the basic clause, as in (1a) and (1b).

(1) a. Jon 3SG-sleep at 1SG=POSS=house 'John sleeps/slept in my house.'
   b. Agus 3PL-push 1PL just.now 'Agus and associates pushed us just now.'

Its verbal morphology reflects the features of regional Austronesian languages in which the pronominal subject marker attaches to the verb as a proclitic. Bound pronouns can also mark possessors when prefixed to the possessive marker; while objects are expressed by syntactically free pronouns or NPs, as shown above. Free pronouns can also function as the subject of a siapa ‘who’ question (see Donohue and Sawaki 2007; Sawaki and Karubaba 2012).

Papuan Malay has an accusative alignment system in which subject and agent are marked identically as opposed to object or patient. Passive constructions can promote patient, benefactive, goal, and theme in the subject position. However, the degree of animacy affects the accessibility of participants to promotion in passive sentences. Human and animate objects are more accessible in passive constructions than their inanimate counterparts. Papuan Malay also allows object alternations with indirect objects in ditransitive constructions. In complex predicates such as depictive, causative, resultative, instrumental, and serial verb constructions, co-referenced argument sharing is common.

3. Reciprocals semantic and structural concepts

Reciprocal relations are shown through syntactic structure, which varies by language. Reciprocals are two-place predicates (Nedjalkov 2007) in which two participants are involved in an identical or parallel relation. The identical or parallel relation refers to a mutual relation (Haselmath 2007), so that each

2 Papuan Malay has two types of personal pronouns, namely free and bound pronouns (Donohue and Sawaki 2007). The free pronouns function grammatically as the object argument, the inclusory pronoun modifying the head noun in a noun phrase, and as an answer (predicate) to a question. On the other hand, the bound pronouns function as the proclitic-subject in both the verbal predicate or in non-verbal predicates. Beside, they also have alternate bound forms phonetically as the native speakers of Papuan Malay alternatively use tong~ton~ten for the first person plural and dorong~don~den for the third person plural. The first alternate form is mainly used for the object pronoun or when the pronoun is positioned at the final position of a sentence. The other two alternate forms are used elsewhere. They derived from the free forms kitong~ketong~katong for the first person plural and dorang for the third person plural. These alternate forms could also reveal dialectal variations.
of the two participants semantically functions as both agent and patient in a same act in the same time (Nedjalkov 2007; Asudeh 1998; Hurst 2012). Note that, by definition, predicates denoting relational situations with only one or more than two participant(s) cannot be considered to be reciprocal, or are at least less reciprocal (Haspelmath 2007). As relational situations, reciprocals can be semantically extended depending on extralinguistic relationships such as friendship, animosity, partnership, togetherness, and other social relations. Languages employ different reciprocal constructions to represent these various extralinguistic facts. Nedjalkov (2007: 6) states that reciprocal meaning types include “to/of/against/from/with/ [...] each other”, highlighting situations in which two participants are within the following parameters:

a. They are in the identical reverse relations and have the same semantic content as in (2).

(2) John and Bill are friends.

b. They perform two identical semantic roles (for instance, of agent and patient) each as in (3).

(3) John and Bill hit each other (that is, John hits Bill and Bill hits John).

The parameters limit the semantic meaning of reciprocal constructions to only two participants in the prototypical reciprocal. Other relations are possible but less prototypical. For example, the situation can be extended to a plural set of more than two participants, such as in English sentences in (4), (5), and (6).

(4) The children hit each other.

(5) Simon, Bill, and John killed each other.

(6) People pushed each other.

The relations established with a collective plural participant such as in (4), the three participants in (5), and indefinite plural in (6) are somewhat different from the prototypical reciprocal relation indicated in the parameters above. However, many languages treat these relational situations using identical reciprocal marking.

Typologically, there are four main types of reciprocal constructions applied in languages, namely lexical, morphological, syntactic, and compositional reciprocals.

a. Lexical reciprocals: In many languages, lexical words, namely verbs, carry reciprocal meaning inside their stem/root, such as in the English verbs to argue, to fight, and to meet, and in English nouns such as brother, partner, colleague, friend, couple, et cetera (see Haspelmath 2007). They semantically determine (at least) two participants are involved in the relational events.
b. Morphological reciprocals: In languages such as Indonesian, there is a morpheme attaching to the verb root to add semantic meaning of reciprocality. For instance, the prefix ber- in the morphological verb bertemu ‘to meet each other’ or berkelahi ‘to fight with each other’ carries the meaning of reciprocal to the predicate as in (7) and (8).

(7) Agus dan Amir ber-kelahi
Agus and Amir ACT-fight
‘Agus and Amir fought with each other.’

(8) Budi dan Yuli ber-temu di pasar
Budi and Yuli ACT-meet at market
‘Budi and Yuli met each other at the market.’

c. Syntactic reciprocals: This type occurs in languages in which there is a lexical item which carries the semantic feature of reciprocality for the whole construction. The lexical item usually brings a reciprocal relation to the verb it modifies in a compositional relation, as in Indonesian saling ‘REC’.

(9) Yani dan Joko saling me-marah-i
Yani and Joko REC ACT-angry-APPL
‘Yani and Joko are angry with each other.’

d. Compositional reciprocal. The compositional reciprocal is a construction in which the reciprocal meaning derives from the whole construction, regardless of the presence of the reciprocal marker. In Wooi (Sawaki 2016: 312), an Austronesian language of New Guinea, the meaning of reciprocality comes from the whole construction as in (10) and (11); no overt reciprocal marker is present.

(10) Humung haru na ramdempe
3DU-DU-fight 3DU LOC yesterday
‘They two fought each other yesterday.’ (expected event)

Note that sentence (10) cannot be interpreted as the two of them fought against someone else as, the prefixed-subject hu- ‘3DU’ on the verb -mung ‘fight’, and the object haru ‘3DU’ co-references. This is a case of the compositional reciprocal.

Another compositional reciprocal is constructed by having a reflexive marker indicate reciprocality. In Wooi (Sawaki 2016), a reciprocal expression which is used to describe an unexpected event is formed with the reflexive marker vaveri ‘REFL’ as in (11). The argument structure (subject and object) follows the same pattern in the compositional reciprocal.

(11) hurariu vaveri haru
3DU-DU-meet REFL 3DU
‘They two met each other.’ (unexpected event)
Types B, C, and D are commonly referred to as grammatical reciprocals (Nedjalkov 2007; Haspelmath 2007) because they make use of certain kinds of grammatical elements such as morphemes (prefixes or suffixes), syntactic markers, and syntactic constructions to construct reciprocal relations.

4. Reciprocal constructions in Papuan Malay

Papuan Malay has a fairly wide range of reciprocal events represented in the language by various constructions. These constructions fall into different categories, both semantic and structural. Grammatically, reciprocals in Papuan Malay include lexical, morphological, and syntactic constructions: the lexical reciprocals, the baku constructions and the discontinuous reciprocal satu...satu constructions. There are also some constructions categorized as reciprocal-like constructions such as the adverbial reciprocal sama-sama, subject-oriented, object-oriented mutual relations, and possessor-oriented mutual relations. The reciprocal-like constructions are considered less reciprocal than the prototypical examples and can permit a reciprocal interpretation in different contexts.

4.1 Lexical reciprocals

There are some lexical verbs in Papuan Malay expressing a mutual relation between two participants in which the meaning of reciprocal is expressed within the verb itself, as in (12), (13), and (14).

(12) \[ Sa=deng \ Andi \ ten=dwa=bakalai \]
\[ 1SG=with \ Andy \ 1PL=two=fight \]
‘Andy and I fought (each other).’

(13) \[ Den=dwa=ketemu \ di \ jalan \ tadi \]
\[ 3PL=two=meet \ at \ street \ just.now \]
‘They (two) met each other at the street just now.’

(14) \[ Jon \ de=deng \ Andi \ sodara \]
\[ John \ 3SG=COM \ Andy \ sibling \]
‘John and Andy are siblings.’

The verbs bakalai ‘fight’ and ketemu ‘meet’, and the noun sodara ‘sibling’ are lexical items which have a semantically intrinsic reciprocal meaning – the event, situation or state entails a mutual relation between participants. When the verb bakalai ‘fight’ is used as in (12), it can only be interpreted as ‘Andy and I fought each other’ but not ‘Andy and I fought together against someone else’. These predicates require two participants in mutual relation as agent and patient/goal, although both arguments are expressed in the subject position. The noun sodara ‘sibling’ in (14) indicates brotherhood, a symmetrical family relation.

Lexical verbs and nouns which semantically code a mutual relation can be used with the baku construction, which is the prototypical reciprocal construction in Papuan Malay shown in (15), (16), and (17).
(15) \(\text{Sa}=\text{deng} \ Andi=\text{de}^3 \ baku=\text{bakalai} \)
\(1\text{SG}=\text{COM} \ Andy=3\text{SG} \ \text{REC}=\text{fight} \)
‘Andy and I fought each other.’

(16) \(\text{Tadi} \ \text{ton}=\text{dwa} \ baku=\text{ketemu} \)
\(\text{just.now} \ 1\text{PL}=\text{two} \ \text{REC}=\text{meet} \)
‘Just now, we met each other.’

(17) \(\text{Jon} \ \text{de}=\text{deng} \ Andi \ baku=\text{sodara} \)
\(\text{John} \ 3\text{SG}=\text{COM} \ Andy \ \text{REC}=\text{sibling} \)
‘John and Andy are (each other’s) siblings.’

The prototypical construction in (15), (16), and (17) will be described in more detail below.

4.2 Prototypical Reciprocal with the baku Construction

The baku construction is the prototypical reciprocal construction in a number of varieties of Eastern Indonesian Malay, including Kupang Malay, Ambon Malay, Manado Malay, Ternate Malay, and Papuan Malay (B.H.J. Litamahuputty 2012; Paauw 2008; Ken Stark and Kyle Letinis 1996; Hein Steinhauer 1983; Don van Minde 1997; and Maxi Wantalangi 1993; David J. Prentice 1994). Papuan Malay in particular tends to use it widely in its grammar (Kluge 2014; Sawaki and Karubaba 2012). In the baku construction, the reciprocal structure is reflected in the phrasal structure, which consists of a verbal phrase, noun phrase, or adverbial phrase including baku ‘REC’ as the reciprocal element and a verb/noun/adverb which indicates the event. Hence, baku ‘REC’ combines with a verb form for a reciprocal event. It can be illustrated in the following structures:

Type 1: \([\text{A COM B} \ \text{SUBJ} \ [\text{baku ‘REC’ + VERB/NOUN/ADVERB}]_{\text{REC EVENT}}]_{\text{REC EVENT}}\)
Type 2: \([\text{A} \ \text{SUBJ} \ [\text{baku ‘REC’ + VERB/NOUN/ADVERB}]_{\text{REC EVENT}} \ [\text{COM B}]_{\text{OBJ}}]\)

Note that the marked third person singular =de ‘SG’ in (15) and the unmarked counterpart in (17) are possible constructions which are grammatically acceptable in Papuan Malay. The marker shows both persons in the subject position are individual entities linked by the comitative deng ‘COM’ as in (a). It is also possible to have a construction in which both persons are seen as the subject of the collective noun by having the associative plural marking ton=dwa ‘1PL=two’ proclitics to the verb as in (b).

(a) \(\text{Jon}=\text{de} \ \text{deng} \ Andi=\text{de} \ \text{don}=\text{dwa}=\text{baku}=\text{sodara} \)
\(\text{John}=3\text{SG} \ \text{COM} \ \text{Andi}=3\text{SG} \ 3\text{PL}=\text{two}=\text{REC}=\text{sibling} \)
‘John and Andi are brothers to each other.’

(b) \(\text{Sa}=\text{deng} \ Andi \ \text{ton}=\text{dwa}=\text{baku}=\text{bakalai} \)
\(1\text{SG}=\text{COM} \ Andi \ 1\text{PL}=\text{two}=\text{REC}=\text{fight} \)
‘I and Andi fought each other.’
Types 1 and 2 differ in the placement of the second participant in the clause. The prototypical reciprocal construction is the Type 1 construction. Its sole requirement is that the subject precedes the reciprocal verbal predicate. The subject is filled by both the semantic agent and patient/goal/recipient to indicate a mutual relation. The mutual relation is indicated by the comitative marker \textit{deng} ‘COM’ triggering the similar semantic role of the subject and the object. This is illustrated in (18) and (19).

(18) \begin{align*}
\text{Agus} & \text{ deng Jon den-dwa baku=mara} \\
\text{Agus} & \text{ COM John 3PL=two REC=angry} \\
\end{align*}
\text{‘Agus and John are angry with each other.’}

(19) \begin{align*}
\text{Yakoba} & \text{ de=deng Eni den-dwa=baku=panggil} \\
\text{Yakoba} & \text{ 3SG=COM Eni 3PL-two=REC=call} \\
\end{align*}
\text{‘Yakoba and Eni called each other.’}

Syntactically, the reciprocal marker \textit{baku} ‘REC’ in the phrase has two grammatical functions. It functions as the verbal modifier to indicate a reciprocal event and it also triggers argument structure. As the reciprocal marker, \textit{baku} is syntactically dependent on a verb, a noun or an adverb which it modifies. Note that not all verbs, nouns, and adverbs can be modified by the reciprocal marker \textit{baku}, only verbs, nouns, or adverbs which show strong mutual relations in the transitivity concept. Transitivity determines if the predicate is at least a two-place predicate or higher in the reciprocal hierarchy. Verbs like \textit{pukul} ‘hit’, \textit{dorong} ‘push’, and \textit{panggil} ‘call’ are accessible to reciprocal constructions.

(20) \begin{align*}
\text{Piter} & \text{ deng orang itu den-dwa=baku=pukul} \\
\text{Piter} & \text{ COM man that 3PL-two=REC=hit} \\
\end{align*}
\text{‘Peter and that man hit each other.’}

Type 2 reciprocal construction deals with different argument structure of subject and object. Subject and object will follow the basic word order, that is, SVO in Papuan Malay. However, the object argument is treated as an oblique-like argument preceded by the preposition \textit{deng} ‘COM’. Semantically, the object with preposition functions to reduce the transitivity of patient-object into new semantic role as an agent-patient object. Therefore, the object in the Type 2 construction is different from the prototypical transitive clause in Papua Malay in which the object is definitely a patient, as in (21); whereas, Sentences (22) and (23) are reciprocal constructions.

(21) \begin{align*}
\text{Minggus} & \text{ de=dorong Ronal dia} \\
\text{Minggus} & \text{ 3SG=push Ronald 3SG} \\
\end{align*}
\text{‘Minggus pushed Ronald.’}
In expressing reciprocal meaning, a construction from which the oblique marker *deng* ‘COM’ is deleted will produce an ungrammatical and unacceptable sentence structure, as in (24).

(24) *Meri de=baku=suka Boas dia*

Meri 3SG=REC=like COM Boas 3SG
‘Meri and Boas like each other.’

Semantically, Type 1 and Type 2 differ slightly in who initiates an action. In Type 1, both the agent and the patient/goal/recipient in the subject position initiate the action and they perform the action in an equivalent and parallel relation. In Type 2, the subject is always considered to be the starting-point in initiating the act and the object responds to it in an equivalent way in order to establish the mutual relation. To show the mutual action performed by the object, the object appears in an oblique position as a consequence of the decreased transitivity which establishes the mutual relation, as in (22) and (23).

Type 1 constructions can also be used in a clause with a nominal predicate, in which the head of the predicate is a noun phrase. The nouns which can be modified by the reciprocal marker *baku* ‘REC’ are those relating to family or friendship relations such as *sibling*, *family*, *friend*, and *acquaintance*. These types of nouns in Papuan Malay are more transitive than other nouns. Hence, they are accessible to a reciprocal event, as in (25) and (26).

(25) *Sa=deng de ten=dwa=baku=sodara*

1SG=COM 3SG 1PL=two=REC=sibling
‘He and I are siblings (of each other).’

(26) *Isak de=deng Ronald dong=baku=teman*

Isak 3SG=COM Ronald 3PL=REC=friend
‘Isak and Ronald are friends (of each other).’

Sentence (25) can be paraphrased as “I am a sibling of him and he is a sibling of me”. Likewise, example (26) can be paraphrased as “Isak is a friend of Ronald’s and Ronald is a friend of Isak’s”.

Type 2 reciprocals are also accessible with a nominal predicate. The construction in the nominal predicate is similar to that of the verbal predicate. The sentence in (25) above could have the alternate construction as in (27).
Unlike sentences with a verbal predicate, Type 2 constructions with nominal predicates are not different in meaning from Type 1. In both cases, the subject is considered as the starting-point to show the family relation with the object.

The Type 1 construction also acts to modify adverbs. Adverbs mainly function to modify a verb in terms of manner or situation. Therefore, the semantic relation between an adverb and a verb is clearly an eventual relation – a verb being the source of action and the adverb the modifier of the action. However, a mutual relation indicating reciprocality is established between subject and adverbial phrases. Sentences (28) and (29) show that the adverbial reciprocals co-refer to the participants in the subject position, so the situations qualify as having a mutual relation.

Adverbial reciprocals are also accessible to Type 2 constructions like those found in verbal and nominal reciprocals. Consider sentences (30) and (31), Type 2 distinguishes subject and object in the grammatical relation.

Semantically, the subject is the projecting point which indicates the mutual relation. In (30), Melki as the subject is seen as the projecting point of the mutual relation with the object, Yani. The mutual relation is shown by the reciprocal adverb rather than the object argument itself.

Another prototypical construction which is commonly used in Papuan Malay is the competitive reciprocal construction. This construction is restricted to an expression in which two participants are facing each other in competition to each other. Here, the competitive marker *taru ‘COMP’* is used within the *baku* construction, as in (32) and (33).
Unlike other baku constructions, Sentences (32) and (33) show that the construction is well constructed with intransitive verbs such as makan ‘eat’ and lari ‘run’ which are less transitive and semantically do not show physical contact between participants. Using taru ‘COMP’ with a transitive verb such as pukul ‘hit’ or dorong ‘push’ will project a different meaning such that the subject (as the agent) competes in doing the action with an object (patient) as in (34).

(34) Agus de=deng Yunus baku=taru=pukul orang itu.
Agus 3SG=COM Yunus REC=COMP=hit man that
‘Agus and Yunus are competing to hit that man.’

In (34), the subjects, Agus and Yunus, are in a mutual relation as competitors in performing the act of hitting the object, that man. The subjects and the object do not show such a relation; instead their relation is as agent and patient. In order to have a reciprocal meaning between subject and object, the reciprocal marker baku ‘REC’ is doubled and the object takes the comitative preposition deng ‘COM’ as in (35).

(35) Agus de=deng Yunus baku=taru baku=pukul deng orang itu
Agus 3SG=COM Yunus REC=COMP REC=hit COM man that
‘Agus and Yunus compete with that man to hit each other.’

Simply, Sentence (35) means that Agus and Yunus on the one side are competing with that man on the other side to hit each other. The sentence cannot be interpreted as Agus competing with Yunus in hitting that man. The Type 2 construction can also be applied to the competitive reciprocal construction, as in (36) and (37).

(36) Orang itu de=baku=taru=makan deng saya
man that 3SG=REC=COMP=eat COM me
‘That man and I competed against each other to eat.’

(37) Sa=baku=taru=lari deng dia
1SG=REC=COMP=run COM him/her
‘I and he competed against each other to run.’

As the prototypical Type 1 baku construction in the verbal predicate, the competitive reciprocal construction carries the same meaning as that of the verbal predicate. The subject is always considered to be the starting-point in
initiating the competitive act towards the object in an identical and mutual relation.

All alternate constructions of the prototypical reciprocals indicate that the object is syntactically introduced into the construction and is categorized as an increased-valence operation. This is described more fully in the section about valence-increasing operations below.

4.3 Reciprocal with the satu...satu construction

Papuan Malay also has another reciprocal construction with satu...satu. The satu...satu construction can occur with both verbs and nouns. In the first case, this construction occurs with transitive verbs and involves their prototypical participants, that is subject and object. As semantically the construction represents unspecified participants, it requires the participants first be introduced to the discourse, as in (38) and (39).

(38) Ade kaka den=dwa ni, satu sayang satu
sibling 3PL=two FOC one love one
‘The two siblings love each other.’

(39) Den=dwa=badiri baru satu pukul satu
3PL=two=stand then one hit one
‘They two stood up and then they two hit each other.’

In (38), the satu...satu construction in the clause co-references the topic participants ade kaka dong=dwa at the beginning of the sentence. Similarly, in (39) the satu...satu construction co-references the plural subject dong= ‘3PL-’ in the first clause. These arguments reflect subject and object in transitive verbs but, semantically, they are mutually related as they both perform the same action towards each other. Like the baku construction above, the satu...satu construction has the possibility to form a Type 2 construction, as in (40).

(40) Dong=dwa itu, satu baku=pukul deng yang satu
3PL=two that one REC=hit COM REL one
‘As for those two, they hit each other.’

5. Reciprocal-like constructions

In Papuan Malay, there are constructions which semantically demonstrate a mutual relation between participants involved in an act. However, they are not categorized as true reciprocal constructions by the definition given above. Consequently, I treat them as reciprocal-like constructions. Reciprocal-like constructions show two main features. Firstly, they do not meet the structural criteria of reciprocal constructions as defined above. Secondly, nevertheless, they do still have the semantic expression of mutual relation in which two (or more) participants act on each other or on the particular object in mutual relation. The following semantic-syntactic expressions fall into reciprocal-like constructions.
5.1 Subject-oriented and object-oriented mutual relations

There are two constructions in which mutual relation is expressed by reduplicated numerals. This feature always refers to the noun functioning as subject or object. I refer these constructions as subject-oriented and object-oriented mutual relations. The object-oriented mutual relation indicates the mutual relation between the object and the indirect object. The reduplicated form satu-satu ‘RED-one’ here specifies the number of the direct object which is given distributively to the indirect object, as in (41).

(41) Dong=pu=bapa de=kase don=dwa ruma satu-satu
     3PL=POSS=father 3SG=give 3PL=two house RED-one
     ‘Their father gave each of them (two) a house.’

The satu-satu construction means that both members given in the indirect object don=dwa ‘3PL=two’ gets a house each. Furthermore, the numeral reduplication can also be used for other numbers as well as such dwa-dwa, tiga-tiga, and so forth.

(42) Don=dwa dapa ruma tiga-tiga
     3PL=two get house RED-three
     ‘The two of them got three houses each.’

The subject-oriented reciprocal identifies a mutual relation between individuals in a collective plural subject in relation to the object in the clause, as in (43).

(43) Don=dwa=dwa dapa ruma dari don=pu=bapa
     3PL=RED=two get house from 3PL=POSS-father
     ‘They (two) got one house each from their father.’

In (43), the clause don=dwa=dwa dapa ruma means the two individuals in the collective (here dual) subject get one house each. The dual subject receives the reciprocal sense in which two participants are benefited by the act of their father in a mutual relation. Furthermore, the construction can also be applied to a construction in which subject-oriented and object-oriented relations take place in the same time as in (44).

(44) Don=dwa-dwa dapa ruma dwa-dwa
     3PL=RED-two get house RED-two
     ‘They (two) got two houses each.’

In (44), the collective subject don=dwa-dwa ‘they two’ has a mutual relation between themselves and the object ruma dwa-dwa ‘two houses’, indicating the number of houses given to the subject as evidence of mutual relation.

The reduplicated numeral form can function as the subject without any overt head nouns or pronouns. It is also a subject-oriented reciprocal, similar to
(43) and (44). In (45), the reduplicated number dwa-dwa refers to the collective (dual) subject.

(45) Dwa-dwa su=dapa ruma dar don=pu=bapa
    RED-two PERF=GET house from 3PL-POSS-father
‘Each of the two has got a house from their father.’

5.2 Possessor-oriented Mutual Relations
In the possessive construction, a reduplicated number can be used to indicate the reciprocal-sense relation of the possessors. The possessors must consist of more than one individual. The possessor satu=satu in (46) shows that there are two individual possessors who have identical mutual relation with the possessee.

(46) Satu-satu=pu=kursi to, jadi jang mara-mara
    RED-one=POSS=chair PART so NEG.IMP RED-angry
‘Each of you has a chair, so don’t be angry with each other.’

In (46), satu-satu ‘RED-one’ represents two individual persons who have one kursi ‘one chair’ each in the possessor-possessee mutual relation. The reciprocal-sense relation occurs in the subject and in a one-to-one relation with the object. Furthermore, the action mara-mara ‘angry’ is also in mutual relation between the two individual persons represented in the satu=satu expression.

The possessor can be expressed with collective plural individuals – three or more, to describe mutual relations. For instance, if the possessor is dwa-dwa ‘two-two’, the meaning is that there are two individuals, and the mutual relation is expressed by the reduplicated number of the collective possessor as in (47).

(47) Dwa-dwa=pu=kursi to jadi jang mara-mara
    RED-two=POSS=chair PART so NEG.IMP RED-angry
‘You two have a chair each, so don’t be angry with each other.’

In (47), the possessor dwa-dwa ‘RED-two’ identifies the subject possessor as a collective noun/pronoun, that is, a dual possessor subject, of whom each has a mutual relation with the possessee – in other words, they have one chair each.

To sum up, satu-satu ‘RED-one’ reciprocal is a possessor subject-oriented reciprocal which semantically shows a one-one mutual relation between the plural subject and object. In a construction which has more than one possessor subject, such as dwa-dwa, tiga-tiga, the mutual relation semantically shows the collective relation of the dual, trial or plural subject with the object.

5.3 The Mutual Expression sama-sama
There are constructions expressed by the reciprocal-like adverb sama-sama ‘RED-together’ which implies togetherness. Sama-sama conveys a situation in which two participants are mutually involved in the same identical event. For instance, sama-sama makan ‘eat together’ means a group of people (we,
you, and they) are involved together in the action of eating. Grammatically, sama-sama can function as a subject, a predicate, and an adverbial clause. Note that the construction is not merely a prototypical reciprocal construction but also expresses a mutual relation as a reciprocal does.

As a subject, sama-sama can stand without a head noun in a clause as in (48). The subject sama-sama indicates that the subject is a plural subject and it semantically defines the mutual relation between individuals of the plural subject.

(48) Sama-sama suka makan ikan
      RED-together like eat fish
      ‘(we/you/they) Altogether like to eat fish.’

When a clause has a head noun, sama-sama functions as a modifier of the nominal subject, as in (49). The mutual relation between individuals of the plural subject is similar to that of (48).

(49) Dong=sama-sama suka makan ikan
     3PL=RED-together like eat fish
     ‘They altogether like to eat fish.’

Sama-sama can also function as a predicate of a clause. As a predicate, it can be an intransitive predicate in which it has only a subject, within which the reciprocal relation occurs as in (50).

(50) Jon de=deng Agus den=dwa=sama-sama tadi di sini
     John 3SG=COM Agus 3PL=two=RED-together just.now LOC here
     ‘John and Agus were together here just now.’

The example in (50) is also a subject-oriented reciprocal in which the reciprocal event occurs within the plural subject. However, the reciprocal event can also be indicated by the mutual relation between subject and object in a transitive predicate enacted by the reciprocal sama-sama, as in (51).

(51) Tadi ton=sama-sama (deng) dia
tadi just.now 1PL=RED-together (COM) 3SG
     ‘We were together with him just now.’

Sama-sama can also function as a modifier. It can modify a verb, a noun, or an adjective. When used as a modifier, the reciprocal relation is subject-oriented. As a verb modifier, it can be pre-verbal or post-verbal as in (52) and (53).

(52) Orang-orang itu don=sama-sama datang
     person-person that 3PL=RED-together come
     ‘The people came together.’
Pre-verbal and post-verbal adverbial modifiers can also occur with a transitive verb, as in (54) and (55). In these expressions, the adverb sama-sama ‘RED-together’ refers to the subject (plural) in mutual relation which acts upon the object; while the object is the patient which is affected by that action.

(54) \textit{Agus de=deng Jon don=dwa=pukul Melki sama-sama}  
\textit{Agus 3SG=COM John 3PL=two=hit Melki RED-together}  
‘Agus and John both hit Melki.’

(55) \textit{Agus de=deng Jon don=dwa sama-sama pukul Melki dia}  
\textit{Agus de=COM John 3PL=two RED-together hit Melki 3SG}  
‘Agus and John hit Melki together.’

\textit{Sama-sama} can also be used in modifying subject within a nominal or adjectival predicate, as in (56)-(59). The adverb can be placed in different position, namely between the subject and the predicate or after the predicate.

(56) \textit{Don=dwa sama-sama guru}  
\textit{3PL=two RED-together teacher}  
‘They are both teachers.’

(57) \textit{Don=dwa guru sama-sama}  
\textit{3PL=two teacher RED-together}  
‘They are both teachers.’

(58) \textit{Kam=dwa sama-sama kurus}  
\textit{2PL=two RED-together slim}  
‘Both of you are slim.’

(59) \textit{Kam=dwa kurus sama-sama}  
\textit{2PL=two slim RED-together}  
‘You are both slim.’

In (56), \textit{sama-sama} is a subject-oriented reciprocal, but it also defines the reciprocal meaning with the nominal predicate \textit{guru} ‘teacher’. However, in (57), it is purely a subject-oriented reciprocal. It only defines the mutual relation within the non-singular subject.

In the discourse, in which the background information about the (plural) subject is clear, \textit{sama-sama} can function as the subject of a nominal predicate as in (60).
When the plural subject in the discourse is known to both the speaker and the hearer, sama-sama can be used to modify both the unmarked subject and also the nominal predicate. In (61), dosen ‘lecturer’ and the sama-sama ‘RED-together’ are placed in clause-final position.

(61) ... jadi dosen sama-sama
... become lecturer RED=together
‘... become lecturer together’

6. Reciprocals as Valence Operations

Reciprocals, together with reflexives, passives, causatives, and resultatives, are identified as constructions which trigger valence-changing operations. Valence refers to how many arguments a verb can take. Reciprocals in Papuan Malay can have various effects on valence – whether arguments are increased or reduced in constructions depends on the semantic behaviour of a verb toward its arguments.

6.1 Valence Reducing Operations

A reciprocal in Papuan Malay is expressed by a valence-reducing mechanism in which one of the arguments of a prototypical transitive verb is omitted. A transitive verb is a bi-valent verb which requires two arguments – subject and object – to be present in the surface structure, as in (62).

(62) Agus de=kejar Yansen dia
Agus 3SG=chase Yansen 3SG
‘Agus chased Yansen.’

The prototypical reciprocal construction is a construction in which the valence can be reduced or increased. The reduced valence argument occurs when both the agent and the patient/goal only appear in subject position, as in (63).

(63) Agus de=deng Yansen don=dwa=baku=kejar
Agus 3SG=COM Yansen 3PL=two=REC=chase
‘Agus and Yansen chased each other.’

The construction in (63) only requires a subject argument on the structural level. Semantically, both arguments – subject and object – are still present but they are merged into the syntactic subject.

Note that the causative construction is a valency-increasing operation in which an intransitive verb as in (64a) takes an additional argument. However,
it can fall into a valency-reducing operation when it is combined within the reciprocal construction. In (64a), the construction is an intransitive sentence. However, it adds another argument to the causative construction as in (64b). Then, it undergoes a valence-reducing operation in which the sentence only has the subject argument in the reciprocal construction as in (64c).

(64) a.  Eni  de=jato  
       Eni  3SG=fall  
       ‘Eni fell.’ 

b.  Jean  de=kas=jato          Eni   dia  
    Jean 3SG=CAUS=fall   Eni  3SG  
    ‘Jean made Eni fall.’ 

c.  Jean  de=deng               Eni   baku=kas=jato  
    Jean 3SG=CAUS=fall   Eni  REC=CAUS=fall  
    ‘Jean and Eni made each other fall.’ 

Sentence (64c) shows that the object of the causative construction in (64b) is reduced. Both agent and patient are introduced as the subject when they act in a mutual relation.

6.2 Valence-Increasing Operations

The prototypical reciprocal requires the subject to include the agent and patient/goal, as in (65).

(65)  Yunus  de=deng  Manu  don=dwa=baku=dorong  
       Yunus 3SG=COM  Manu  3PL=two=REC=push  
       ‘Yunus and Manu pushed each other.’

As mentioned above, all alternative constructions of the prototypical reciprocals are valency-increasing operations. Considering alternate constructions from all prototypical reciprocal constructions, the valency-increasing operations are illustrated in (66), (67), and (68).

(66)  Yunus  de=baku=dorong  deng  Manu  dia  
       Yunus 3SG=REC=push  COM  Manu  3SG  
       ‘Yunus and Manu pushed each other.’

(67)  Sa=baku=sodara  deng  Manu  dia  
       1SG=REC=sibling  COM  Manu  3SG  
       ‘I and Manu are siblings.’

(68)  Orang  itu  de=baku=taru=lari  deng  Jon  
       man  that  3SG=REC=COMP=run  COM  John  
       ‘That man and John are competing against each other to run.’
The combination of reciprocal and causatives can also increase valency, as in (69), (70), and (71).

(69) *Orang itu de=bikin Agus de=baku=pukul deng Jon
man that 3SG=make Agus 3SG=REC=hit COM John

‘That man forced Agus and John to hit each other.’

(70) *Sa=pu=kaka de=bikin sa=baku=taru=lari deng Andi
1SG=POSS=brother 3SG=make 1SG=REC=COMP=run COM Andi

‘My big brother made Andy and me compete to run against each other.’

(71) De=baku=kas=jato deng Yosep
3SG=REC=CAU=fall.down COM Yosep

‘S/he and Yosep caused each other to fall down.’

The alternate construction requires an object to be realized in its syntactic position, that is to follow the verb. However, the object is realized here as an oblique, following a preposition. Semantically, the object of a preposition indicates that the degree of transitivity is reduced because both agent and patient have the same roles in the mutual relation. Therefore, a reciprocal sentence such as that in (72) is ungrammatical.

(72) *Yunus de=baku=dorong Manu dia
Yunus 3SG=REC=push Manu 3SG

6.3 Retaining grammatical relations of subject and object
Papuan Malay also allows a subject and a direct object appear in a reciprocal construction. In the alternate construction, the object is introduced as an oblique argument. In this construction, the object is the direct object. Semantically, both grammatical subject and object refer to the same agent and patient/goal, as in (73) and (74).

(73) Jon de=deng sa tong=dwa=baku=liat tong=dwa tadi
John 3SG=COM 1SG 1PL=two=REC=see 1PL=two just.now

‘John and I saw each other just now.’

(74) Den=dwa=dudu baku=tipu dong=dwa
3PL=two=sit REC=lie 3PL=two

‘They (two) sat and told a lie to each other.’

Both the subject and the object in (73) and (74) refer to the same agent/patient participants.

In the satu...satu construction described above, both subject and object are retained by the expression of the repetition of number satu...satu ‘one...one’. This follows the basic SVO word order in Papuan Malay, in which the number satu preceding the verb is the subject and the satu following the verb is the object.
Furthermore, the repetition of the number satu...satu refers to the topicalized participants introduced into the clause initial position, as in (75) and (76).

(75) *Jon de=deng Agus itu, satu sayang satu e*  
    John 3SG=COM Agus that one love one PART  
    ‘As for John and Agus, they love one another.’

(76) *Melki de=deng Yunus dong=dwa itu, satu mara satu*  
    Melki 3SG=COM Yunus 3PL=two that, one angry one  
    ‘As for Melki and Yunus, they are angry with each other’

7. Conclusion

Papuan Malay distinguishes prototypical from non-prototypical reciprocals. The prototypical reciprocal construction is the construction which semantically expresses a mutual relation or situation. A mutual situation is defined as a situation in which two participants (A and B) have the same relation to A and B or B and A. Semantically, A and B act as agent and patient/goal simultaneously (see Haspelmath 2007). Papuan Malay has three types of reciprocals: lexical, the *baku* construction, and the *satu...satu* construction. In terms of the argument structure, prototypical reciprocals allow the subject argument to represent both the semantic agent and the patient/goal. The mutual relation of the agent and patient/goal is established in the subject argument. The alternate reciprocal construction allows the subject and object in the syntactic structure to represent both the agent and patient/goal. However, the object argument is expressed as an oblique argument. The oblique argument reduces the degree of transitivity of the verb to accommodate the semantic expression of mutual relation.

Papuan Malay also allows various constructions which are called reciprocal-like constructions. These constructions are not like prototypical reciprocals structurally, but they still show mutual relations semantically. Such reciprocal-like constructions can occur within verbal, nominal, and adverbial predicates. The subject argument is always a plural subject which shows a mutual relation between the agent and patient/goal.

The wide ranges of variations affect the valency of the verb. Reciprocal constructions can trigger valence-reducing or valence-increasing operations. The prototypical reciprocals basically trigger valence reducing operations. In contrast, the alternate reciprocal construction triggers a valence-increasing operation. There are also constructions in which the argument structure of the subject and the object is retained.
ABBREVIATIONS

ACT Active
APPL Applicative
AVP Agent-Verb-Patient
CAUS Causative
COM Comitative
COMP Competitive
DU Dual
FOC Focus
IMP Imperative
LOC Locative
NEG Negative
OBJ Object
PART Particle
PL Plural
POSS Possessive
REC Reciprocal
RED Reduplicative
REFL Reflexive
REL Relative clause
SG Singular
SUBJ Subject
SV Subject-Verb

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