

## AFFIXATIONS IN JAVANESE TRANSITIVE VERBS THAT CHANGE THE CONSTITUENTS FROM DIVALENT TO TRIVALENT

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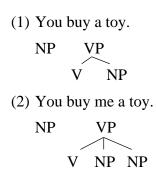
Article Info	Abstract
Article History: Received June 2023	This paper aims to describe the affixations in Javanese
Accepted September 2023 Published October 2023	transitive verbs that affect the valency of a sentence from
Keywords: Valency, Javanese, transitive verbs, affixation	divalent to trivalent. Other studies have explored the
	grammaticality of transitive verbs' valency, but none have
	investigated the details of Javanese verbs' morphological
	structure in relation to the phonemic structure. The data are
	extracted from Javanese transcription of YouTube videos
	and certain magazine articles. This paper employs a
	generative qualitative method equipped with various
	technical analyses. The analysis includes investigations of
	several forms of affixation in Javanese transitive verbs that
	result in a shift regarding a sentence's valency. The analysis
	continues by addressing similarities in the verb phonemes
	that exhibit a certain affixation. The findings show at least
	three forms of prefix, five forms of vowel modification, and
	two forms of suffixes that can add a sentence's argument
	when applied in a specific composition of phonemes.

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#### **INTRODUCTION**

A transitive clause, marked by a transitive verb, typically has two core arguments in A (transitive subject) and P (transitive object), also known as divalent. However, one additional argument can be added for certain transitive verbs. This addition results in a trivalent clause with three main arguments. The extra argument may occur when the transitive clause refers to giving, telling, and showing (Dixon & Aikhenvald, 2000).

Some languages have neither inflectional nor derivational verbal affixations to alter the number of core arguments. Simple inflectional affixations occur merely to follow a subject-verb agreement in the scope of grammatical rules, not to affect predicate arguments. In English, for instance, the transitive verb *buy* does not need any change in its morphological structure to produce both divalent and trivalent sentences.



The noun phrases in (1) and (2) are the arguments in the sentences. (1) is divalent with two arguments, and (2) is trivalent with three arguments, but the transitive verb *buy* remains unchanged. An inflectional affixation for the verb can be applied if, for example, the subject is replaced by *she*. Thus, a suffix -s is required (*buys*).

Valency-increasing process in Javanese transitive verbs is not as simple as the example above, thus making it intriguing to explore. There are several distinct forms of affixation that emerge concomitantly with certain phonemic structures in the Javanese transitive verb, some of which also involve vowel modifications. To illustrate, transitive verbs that end with a vowel must yield a glottal sound followed by suffix -no to increase the verbs' argument into trivalent. Additionally, some vowel modifications are also in place, such as [u] becomes [ɔ], and [ɔ] becomes [a]. For instance, the verb *tuku* 'buy' is divalent, but *nuko'no* 'buy' is trivalent. The same goes for *moco* 'read' to *maca'no* 'read,' where the valency is adjusted consequently. The affixations and vowel modifications vary in numerous ways concerning the verb's phonemic structure, which will be discussed further as the focus of this paper. Following the phenomena

stated above, in which there are unique morphological structures governing a verb's valency, this study provides two questions as follows:

- 1. What affixations and vowel modifications are required in Javanese transitive verbs to produce a trivalent sentence?
- 2. Are there any patterns regarding the affixations and vowel modifications concerning verbs' phonemic structure?

In line with the questions above, the purpose of this study is to serve as a foundation to establish a well-structured morphological rule concerning Javanese transitive verbs, especially in their shift in valency.

## **REVIEW OF LITERATURE**

Tesnière (2015) proposes an *actantial system* of verbs regarding a sentence's valences, where one is not complete until the verb receives all the complements it requires. To make a verb trivalent, a causative status is involved. The verb 'to show' is the causative of 'to see'.

- (3) Alfred sees an image.
- (4) Charles shows Alfred an image.

As seen above, (4) is the causative of (3) because Charles makes Alfred see an image by showing the image to him. Tesnière (2015) continues by classifying trivalent verbs into two major classes: the verbs of saying and the verbs of giving. However, the verbs presented in the research are predominantly English, abstaining from ethnical languages, and any discussion in verbal affixations.

Several other linguistic textbooks have analyzed valency changes in transitivity with data taken from various languages such as Spanish (Gazdik, 2017), Indonesian (Isodarus, 2017), Hausa (McIntyre, 2020), 2020), Lasi (Ali et al., 2021), Mahale (Muzaffar & Haroonuzzaman, 2020), and Javanese (Li, 2022; Magria & Sari, 2020; Syifa & Subiyanto, 2022; Villerius, 2021; Zuindra, 2022). The most notable one is by Dixon and Aikhenvald (2000), which comprises examples from ethnical languages such as Central Alaskan Yup'ik, Motuna, Tariana, K'iche', and Amharic. The variety of sources diversity shows a thorough discussion regarding verbal affixations and their valency alterations. The study dives further into subject-verb and verb-object concatenations in specific languages to signify a trivalent clause.

Corpus-based and corpus-driven studies of verb valency patterns have garnered many researchers' attention recently (Liu & Du, 2019; Raouf, 2022; Zhen & Yang, 2015). For example, Zhen and Yang (2015) described the verb valency in the Chinese Learner English Corpus (CLEC) by taking the verb as the focus of the study. Their analysis explored a system

of valency patterns and employed it in the observation of Chinese English learners, revealing that Chinese English learners differ from native speakers both in the valency types and numbers. Zhen (2017, quoted in Qi & Wang, 2021) examined how to describe lexical meanings and their grammatical structure together from the perspective of valency patterns. Their results exhibit the difference between valency patterns and the meanings they represent and the meaning-structure complex organized by lexical meaning and grammatical structure. However, these studies are primarily grammatical, not morphological, and far from discussing Javanese transitive verbs.

The closest study regarding Javanese verb valency is conducted by Sofwan (2010). The study focuses on applicative constructions in Javanese in which an underlying indirect object or oblique is realized as a core argument. The investigation is applied to both intransitive and transitive verbs. It is shown that the *N*- prefix on the verb, the deletion of the preposition, and the suffix -i/ni or -ake mark the advancement to a direct object. Even though the study mentions the existence of affixations in Javanese transitive verbs that affect valency, its main interest lies in the grammatical applicative constructions that explore locative, benefactive, and instrumental advancement in a sentence.

It is perceptible that most previous studies rely heavily on grammatical issues. The ones that study affixational valency on ethnic languages' transitive verbs do not include Javanese as the source. Therefore, it is essential to fill the gap in exploring how Javanese transitive verbs employ certain affixations and vowel modifications to alter valency, especially concerning the phonemic structure of the verbs.

#### METHOD

The data presented in this paper were obtained from transcriptions of YouTube videos whose content creators are native Javanese and non-Javanese people who had lived in Java for a considerable amount of years. Therefore, their Javanese-speaking proficiency is close to native. The YouTube channels from which the transcriptions are extracted include *Bayu Skak* (since 2010), *londokampung* (since 2011), and *Stanley Hao* (since 2015). Some other data were obtained from magazines and newspapers that constitute Javanese as their primary editorial language, such as *Djaka Lodang* and *Memetri*. To identify their verbs' affixation and vowel modification characteristics regarding the valency shift from divalent to trivalent, a qualitative descriptive method was extensively employed. The data were initially presented alphabetically and later arranged in a concise comprehensible affixation and vowel modification categories based on the verb's phonemic structure.

### **RESULTS AND DISCUSSIONS**

A trivalent sentence occurs when a transitive verb possesses three core arguments. To make a verb trivalent, a causative status is involved. Trivalent verbs are categorized into two major classes (Tesnière, 2015): the verbs of saying and the verbs of giving. The data presented below are organized not by the trivalent verb classes but alphabetically. The data are a mixture of excerpts from YouTube video transcriptions and magazine articles, which exhibit a trivalent characteristic of having three main arguments. The alphabetical order is based on the verb's root form.

## Analysis in An Alphabetical Order

#### A

Root	: ajar 'tead	ch'		
Trivalent sample	. <i>ujui</i> tout	511		
(5) Kowe ng	Dajari a	nakku	ngaji.	
	•		recite Qu	r'an
		•	e the Qur'ar	
Affixations	: prefix Ng		-	
Root	: ater 'deli	iver'		
Trivalent sample	:			
(6) Ibu	ngeterno	aku	seragam.	
	deliver			
'Mom del	ivers me a u	iniform.'		
Affixations	: prefix Ng	g- and suff	fix <i>–no</i>	
Vowel change	: [a] in the	first sylla	ble is chang	ed into [9]
В				
Root	: bayar 'pa	ay'		
Trivalent sample	:	-		
(7) Lanange	mbayari	sing	wedok	nonton.
Man def.	pay	det.	woman	watch.
'The man	pays the wo	oman (to)	watch a mov	vie.'
Affixations	: prefix M-	- and suffi	$\mathbf{x} - i$	
Root	: buka''o	pen'		
Trivalent sample	:			
			0	ang sekolah.
	open			school.
		-	r his friend'	
Affixations : prefi	x <i>M</i> - and su	ffix –no		
G				
Root	: garap 'de	0'		
Trivalent sample	:			

tugas

pacarku.

(9) Aku nggarapno

I assignment my girlfriend. do 'I do the assignment for my girlfriend.' : prefix Ng- and suffix -no Affixations Root : gawe 'make' Trivalent sample : (10) *Bapak* Mbak Eni BPJS. nggawe'no Father make det. Eni Health Insurance Card. 'Dad helps (making) Health Insurance Card for mbak Eni.' Affixations : prefix Ng- and suffix –no Vowel change : [e] in the second syllable is changed into  $[\varepsilon]$ , glottal [?] before suffix -no Root : gole' 'look for/search' Trivalent sample (11) Arek-arek bapakku nggole'no bojo. Friends POSS. look for my father wife. '(My) friends are looking for a wife for my dad.' : prefix Ng- and suffix -no Affixations Root : gowo 'bring' Trivalent sample (12) *Sopo* aku iso nggawa'no emak mantu. ero Who know I can bring mother daughter-in-law. 'Who knows if I can bring a daughter-in-law for my mom.' Affixations : prefix Ng- and suffix -no : both [5] sounds are changed into [a], and glottal [?] before suffix -no Vowel change Κ Root : kirim 'send' Trivalent sample (13) *Dheweke* ngirimno sopir bantuan. driver He def. send help. '(My) friends are looking for a wife for my dad.' : [k] is replaced by nasal Ng-, suffix -no Affixations Р Root : pilih 'choose/pick' Trivalent sample : (14) *Mbake* milihno aku aksesoris. pick She def. me accessories. 'She picks the accessories for me.' : [p] is replaced by nasal M-, suffix -noAffixations Т Root : tuku 'buy' Trivalent sample ٠ (15) *Ayah* nuko'no sapi Mas Aripin kanggo sangu rabi. Father det. Aripin for budget marry. buy cow

'Dad buys mas Aripin a cow for his wedding budget.'Affixations: [t] is replaced by nasal N-, suffix -noVowel change: [u] in the second syllable is changed into [5], glottal [?] before suffix -no
Root: tulis 'write'Trivalent sample:
<ul> <li>(16) Aku nulisno dheweke omongane arek-arek.</li> <li>I write him def. utterance friends.</li> <li>'I write him what his friends said.'</li> </ul>
Affixations: [t] is replaced by nasal $N$ -, suffix $-no$
U Root : umbah 'wash' Trivalent sample : (17) Adik ngumbahno ibu karpet. Sister POSS. wash mother carpet 'My sister is washing the carpet for mom' Affixations : prefix Ng-, suffix -no
WRoot: woco 'read/recite'Trivalent sample:
<ul> <li>(18) Anakku maca'no aku Qur'an kanggo dalanku nang akherat.</li> <li>My son recite me Qur'an for my path to hereafter.</li> <li>'My son recites me Qur'an for my path to the Hereafter.'</li> </ul>
Affixations: [w] is replaced by nasal M- , suffix -noVowel change: both [ɔ] sounds are changed into [a], and glottal [?] before suffix -no

## Characteristics and Classification of The Affixations and Vowel Modifications

After analyzing the data, specific morphological patterns can be made based on the phonemic structure of a verb to shift its valency from divalent to trivalent. The patterns of the affixations are separated into the prefix area and the suffix area. The prefix area is organized in the table below:

## **Table 1. Prefix Patterns**

Affixation	Phonemic structure	Root	<b>Trivalent</b> form	Notes
D. C. N	Verbs that start with voiced velar sound [g]	garap, gawe, gole', gowo	nggarapno, nggawe'no, nggole'no, nggawa'no	
Prefix Ng-	Verbs that start with voiceless velar sound [k]	kirim	ngirimno	[k] is replaced by the prefix <i>Ng</i> -
	Verbs that start with vowels	ajar, ater, umbah	ngajari, ngeterno, ngumbahno	
	Verbs that start with voiced bilabial sound [b]	bayar, buka'	mbayari, mbuka'no	
Prefix M-	Verbs that start with voiceless bilabial sound [p]	pilih	milihno	[p] is replaced by the prefix <i>M</i> -

	Verbs that start with voiced bilabial glide [w]	WOCO	maca'no	[w] is replaced by the prefix <i>M</i> -
Prefix N-	Verbs that start with voiceless alveolar sound [t]	tuku, tulis	nuko'no, nulisno	[t] is replaced by the prefix N-

The analysis finds three forms of prefixes in order to shift a verb's valency from divalent to trivalent. The prefixes are Ng-, M-, and N-. The table above shows that the prefix occurrence is consistently governed by the place of articulation that marks a verb's beginning. The prefix Ng- always precedes verbs that start with velar sounds and vowels. The prefix M- predates bilabial sounds. Lastly, the prefix N- replaces the voiceless alveolar sound.

Additionally, another consistency is shown in how every voiceless sound at the beginning of the verb is always replaced by the prefix, regardless of the prefix. The only anomaly is the voiced bilabial glide [w] that the prefix M replaces. However, this does not remove the fact that prefix-voiceless replacement remains firm.

The following table elucidates the morphological patterns' suffix area regarding the verb's valency.

Affixation	Phonemic structure	Root	Trivalent form
Suffix -i	Verbs whose last syllable comprises an open mid-unrounded vowel [a] and ends with a trill [r]	ajar, bayar	ngajari, mbayari
	Verbs that end with vowels	gawe, gowo, woco, tuku	nggawe'no, nggawa'no, maca'no, nuko'no
Suffix -no	Verbs that end with any consonant as long as it's not [ar]	ater, buka', garap, gole', kirim, pilih, tulis, umbah	ngeterno, mbuka'no, nggarapno, nggole'no, ngirimno, milihno, nulisno, ngumbahno

## Table 2. Suffix Patterns

The analysis only finds two suffix forms, -i and -no. Similar to the prefixes in Table 1, the suffixes are also governed by the sound in the verbs, albeit this time, the sounds are located at the end. Despite the similarity, sound-governing suffix rules in the data are much simpler than the prefix ones. Most of the verbs use the suffix -no. The only visible difference is when the verbs end with [ar]; hence, the suffix -i is effective, as shown in (5) and (7). However, These oversimplified findings need to be tested further; thus, future research is needed using more data.

Lastly, the vowel modification patterns are illustrated below:

Phonemic structure	Root	Vowel modification	Trivalent form
Vowel-ending verbs	gawe, gowo, woco, tuku	Add glottal [?] sound before the suffix.	nggawe'no, nggawa'no, maca'no, nuko'no
[ɔ] in all syllables	gowo, woco	Replace all [ɔ] with [a].	nggawa 'no, maca 'no

## Table 3. Vowel Modification Patterns

Only one [a], located at the beginning	ater	Replace [a] with [9]	ngeterno
[e] in the second syllable	Gawe	Replace [e] with [ɛ]	nggawe 'no
[u] in the second syllable	Tuku	Replace [u] with [o]	nuko 'no

The data shows five forms of vowel modification concerning shifting a verb's valency from divalent to trivalent. The modifications are fluctuating between the first and the second syllable. The only consistent patterns are in two verbal phonemic structures when the verb moves to a trivalent form. First, a glottal sound always emerges in a vowel-ending verb regardless of what vowel it is. Secondly, when a verb has [ɔ] in all of its syllables, the [ɔ] is replaced by [a], as shown in (12) and (18). Similar to the suffix findings, the vowel modifications in Javanese trivalent verbs have the potential to yield more patterns when extensive research is conducted with a more considerable corpus.

A study by Sofwan (2010, p. 2) presents similar results of affixation and vowel modifications, where the trivalent form of the verb *tuku* 'buy' is *nukokake*. However, there is a difference in the suffix. Sofwan does not mention the source of his data, but it is evident that the suffix *-ake* is used uniformly as the equivalent form of the suffix *-no* that appears in the data of this study. Poedjasoedarma, in Badruddin (2021), states that the Javanese Language is divided into three basic styles, namely *Ngoko* (informal), *Kromo* (intermediate formality), and *Kromo Inggil* (the highest level of formality and respect). The suffix *-ake* in Sofwan (2010) is one of the suffixes in the *Kromo* style, whereas the suffix *-no* in this study represents the *Ngoko* style. The Javanese informal style is imminent in this study due to the nature of its sources, where the YouTube videos are made to entertain viewers using a simple and informal style of Javanese.

#### CONCLUSION

Each language has transitive verbs that can possess three core arguments, but the verbal morphological structures to direct such valency differ from one language to another. Javanese transitive verbs are especially intriguing since adding an argument to a verb, from divalent to trivalent, applies several morphological rules. Apart from the applicative and causative constructions of the trivalent verbs, which have been discussed in previous studies, this paper focuses on the affixations that govern a verb's valency, consequently finding vowel modifications alongside the affixations. This research paper found that when transitive verbs move to trivalent forms, the morphological process involves three forms of prefix, two forms of suffix, and five forms of vowel modification. The affixations and vowel modifications are strictly directed by specific verb phonemic structures. However, this paper extracts a limited

number of data. Therefore, the consistency of its findings can be tested more extensively in the future. The improvement can be explicitly made by testing more Javanese transitive verbs and extracting data from real-time conversations instead of production-ready videos and articles. As for now, the findings can serve as a foundation to establish a well-structured morphological rule concerning Javanese transitive verbs, especially in their shift in valency.

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