

Figure-Ground Alignment Patterns in Indonesian

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Abstract—This paper investigates the syntax and semantics of two verbal suffixes in Indonesian. The two verbal suffixes are the suffix *-kan* and *-i*. Many linguists have studied the verbal suffix *-kan*, whereas the verbal suffix *-i* got less attention. This paper discusses the suffix *-kan* in conjunction with the suffix *-i*. The suffix *-kan* marks a causative verb, and the suffix *-i* a locative verb. A causative verb has A FIGURE object, whereas a locative verb has a GROUND object. The proposed analysis employing causative and locative alignment patterns showed a more revealing result of the main functions of the suffix *-kan* and *-i*.

Index Terms—causative pattern, figure object, ground object, locative pattern

I. INTRODUCTION

Indonesian has two verbal suffixes. The two verbal suffixes are the suffix *-kan* and *-i*. The verbal suffix *-kan* has been studied over the last four decades. Some journal and conference papers have discussed this verbal suffix. The verbal suffix *-i* gets less attention from linguists. There is no specific paper discussing the uses of this verbal suffix. It is only occasionally mentioned in the discussion of the suffix *-kan*. In this paper, we propose that the uses of the suffix *-kan* should be discussed in conjunction with the suffix *-i* to get a more revealing analysis. It is impractical to discuss them separately. In this proposed analysis, we employ two basic constructions: a causative and a locative. This analysis gives a better understanding of other meanings of these verbal suffixes. The uses of these suffixes are illustrated in (2) and (3).

- (1) *Anak itu melompat*
Child that jump
'The child jumped.'
- (2) *Dia melompat-i anak itu*
She/he AV.jump-LOC child that
'He jumped over the child.'
- (3) *Dia melompat-kan anak itu*
She/he AV.jump-CAUS child that
'He made the child jump, or he helped the child to jump.'

Example (1) is an intransitive clause. Examples in (2) and (3) are transitive clauses. These examples show that the verb in (1) is a monovalent verb, while in (2) and (3) are bivalent verbs. Valency theory states that a verb occupies a central position in the sentence. It determines how many elements must occur with a particular verb to form a grammatical sentence. The examples in (2) and (3) show that the attachment of suffix *-kan* and *-i* to the verb *melompat* 'jump' increases the verb's valency. For our analysis, the sentence in (2) in which the verb is marked by *-i* is called a locative construction with a GROUND object, while the sentence in (3) in which the verb is marked by *-kan* is called a causative construction with a FIGURE object. It is a new approach to analyzing the functions of the suffix *-kan* and *-i*. Here we propose two types of locative constructions: basic locative and derived locative patterns. A similar proposal for the causative constructions: basic causative pattern and derived causative pattern.

The present study focuses on describing and discussing the alternation of the suffix *-kan* and *-i* in Indonesian clause structures. The paper is organized as follows. We provide a brief description of previous studies in section two. The data analysis procedure is described in section three. Brief morphosyntax of Indonesian is given in section four. The valency pattern alignments are provided in section five, and the conclusion is provided in section six.

II. REVIEW OF RELATED LITERATURE

This section reviews previous studies on the uses of the suffix *-kan* and *-i*. The review is done based on the descriptive grammar of Indonesian and journal articles. This review is an important starting point for the proposed analysis for the uses of these suffixes in this paper. Slametmulyana (1969) stated that the general function of the suffix *-i* is to show a relation between a verb and its second argument. The second argument is semantically indicating a location. He provided a list of examples showing this function as in the verbs *memasuk-i* 'to enter' and *menduduk-i* 'to sit on.' The second argument of the verb with the suffix *-i* is called a locative object. The main function of the suffix *-kan* is also to show a relation between a verb and its second argument. However, the action does not terminate in the second argument but moves further from the second argument to another direction. This second argument is called a patient object. It differentiates the verb marked by *-i* from the verb marked by *-kan*.

Sitindoan (1984) stated that the main function of the suffix *-i* is to give or put something on something else, as indicated by the base verb meaning. For instance, the verb *menggarami* 'to put salt on,' *membatui* 'to put stones on' are examples that indicate the object of these verbs is a locative object. The suffix *-kan* expresses several meanings based on the class of the bases from which the verb is derived. One of the core meanings is to convey a causative meaning. The verbs *menjalankan* 'to move' and *melepaskan* 'to set free' have a causative meaning with a patient object.

Alwi et al. (1998) stated that the suffix *-kan* is a verbalizer. It can derive a verb from other word classes, for instance, from an adjective and a noun. The examples are the verb *menguningkan* 'make yellow' and the verb *memenjarakan* 'to send to a jail'. This suffix can be added to an intransitive verb to form a transitive verb, as in *menidurkan* 'to put into a sleep' which is derived from the intransitive verb, *tidur* 'sleep.' When it is added to a transitive verb, it produces a ditransitive verb with an applicative meaning with a beneficiary argument. They also point out that the suffix *-i* can be attached to an adjective and a noun base to form a transitive verb. It can also be attached to an intransitive and transitive verb. The suffix *-i* is used to expressing a locative meaning and the object that comes after it is a locative object.

Ramlan (1983) also stated that both suffixes could form a verb from different word classes. The suffix *-i* and *-kan* can be added to an adjective, a noun, and other verbs. Ramlan stated the suffix *-i* is used to indicate a repeated action when it is attached to a transitive verb, as in the verb *memukuli* 'to hit repeatedly. The base form is *pukul* 'punch/hit.' When it is used to form a verb from an intransitive base, it indicates that the object that follows the verb is semantically locative. To show this, he compared two sentences: *Orang itu menduduki kursiku* 'That man sit on my chair' with *Orang itu mendudukkan anaknya di kursiku* 'That man sat his child on my chair'. The object *kursiku* in the first sentence is a locative object, while the object of the second sentence, *anaknya*, is a patient object. The verb marked by the *-kan* suffix has a causative meaning. When this *-kan* is added to a transitive verb, it can encode that an object is a benefactive object.

Sneddon (1996) also stated that all verbs with the suffix *-kan* are transitive. This suffix has two basic functions. It marks the object as patient and marks the object as beneficiary. With non-benefactive verbs, *-kan* usually marks the object as the patient of the action. The action manipulates, acts on, or moves the thing. He also stated that the *-i* suffix has two main functions. Those functions indicate that an object is the location of the action and an indicator of repeated action. In general, the suffix *-i* is used as an indicator of the object is the location where the action happens or the person or location to which the action is aimed. When action is aimed at a person, that participant is known as the recipient. That participant is the location when it is located or aimed at a place.

Verhaar (1984) described that using the suffix *-kan* shows at least five semantic types: benefactive, instrumental, dative-causative, accusative-causative, and non-causative. The benefactive, instrumental, and dative-causative *-kan* constructions have three-place verbs. The accusative-causative constructions are either three-place or two-place verbs, and the non-causative *-kan* construction is two-place verbs. For the benefactive *-kan*, the advancement of the beneficiary is optional; with the other types, the promotion is obligatory. Regarding the function of the suffix *-i*, Verhaar stated that most transitive verbs marked by the suffix *-i* have an aspectual meaning indicating an iterative meaning. In addition to this function, he noted that the suffix *-i* also function as "a locative role marker; that is to say, the NP in Direct Object position is the locative NP."

Cole and Son (2004) summarized the uses of the *-kan* suffix in three cases: (i) when it is attached to intransitive clauses, the affix appears to license the addition to the argument structure of a causer as the highest argument in the argument structure; (ii) with monotransitive clauses, *-kan* appears to license the incorporation of an adjunct into the argument structure without, however, promoting that adjunct to the status of primary object or subject, and (iii) in the third class of cases *-kan* seems to provide syntactic licensing for the theme as the primary object of the sentence and not to have either a causative or a benefactive interpretation". They argued that Indonesian *-kan* has a unitary syntactic function, that of licensing an argument in the argument structure. Valency changes observed in causatives are due to the interaction of *-kan* with the thematic structure of the clause inserted into it. Arka et al. (2009) stated that verbs affixed with *-i* have a locative/goal object, whereas those with *-kan* have a patient object. Shiohara (2012) stated that in Standard Indonesian, the suffix *-i* and *-kan* are used to mark an applicative and causative construction. This brief review serves as a background that strongly supports our proposal to analyze the uses of the *-kan* and *-i* as markers of the FIGURE-GROUND alignment patterns in Indonesian.

III. METHOD

The data of this study were collected using the database questionnaire developed for the Leipzig Valency Classes Project by Andrej Malchukov and Bernard Comrie (2015). This questionnaire has been applied to collect data cross-linguistically. It consists of 70 verb meanings, each of which has a role frame and typical context.

The basic clause structure in English represents the typical context here. Thus, there are seventy clauses formed by using seventy verb meanings. The following steps were taken to obtain the Indonesian data to analyze the valency patterns. The questionnaire was filled by translating the seventy English clauses into Indonesian. This translation process was done by considering Indonesian's most appropriate equivalent meanings. As a result of this translation process, we got 70 equivalent clauses in Indonesian. Indonesian has a basic verb and derived verb form. The derived verbs are obtained through verbal morphological derivational processes from nonverbal classes, like adjectives, nouns, and bound forms (precatatorial roots). The 70 clauses are divided into verbal clauses and nonverbal clauses. There are 46 verbal clauses with a transitive verb. There are 17 intransitive clauses, whereas, in the nonverbal clauses, there are six clauses with adjectives as a predicator and one clause with a noun as its predicator, as shown in Table 1.

TABLE 1
VERBAL AND NONVERBAL CLAUSES

Transitive	Intransitive	Adjective	Noun
46	17	6	1

The transitive verbs consist of 31 basic and 15 derived transitive verbs. The analysis of locative-causative alternation was carried out based on the types of basic clause structures. The predicator of the basic clause was attached with the *-kan* suffix or the *-i* suffix to see which verb can take which suffix and what meaning it has due to this suffixation process. The meaning can be causative or locative. The verbs of intransitive clauses are reaffixed by *-kan* or *-i* to see the possible alignment patterns. Whether all intransitive verbs behave the same way with the attachment of these suffixes, or they have a different alignment pattern.

IV. FINDING AND DISCUSSION

A. Basic Morphosyntax of Indonesian

The Indonesian language is known as an agglutinating language. It uses affixation to form its words, and the basic order is SOV. In the Indonesian language, there is no case-marking system. It does not mark the noun phrase that functions as the core argument of a verb. In contrast, a non-core argument and a non-argument function are marked by a preposition. The sentence in (1) is an intransitive clause, while the sentence in (2) is a transitive clause.

(4) *Dia menangis*

He/she cry

'She cried.'

(5) *Dia membeli topi itu*

He/she AV.buy hat that

'She bought the hat.'

From the examples, the subject (*dia*) in (4) and in (5) precedes the verb, and the object (*topi itu*) comes after the verb. Those examples show that a preposition does not mark the subject and the object NP. The sentence in (6) below demonstrates that the verb's non-argument function (*di toko itu*) is marked by a preposition *di*.

(6) *Dia membeli topi itu di toko itu*

She/he AV.buy hat that in shop that

'She bought the hat in that shop'

(7) *Topi itu dibeli olehnya di toko itu*

hat that PASS.buy by-3SG in shop that

'The hat was bought by her in that shop'

(8) *Topi itu dia beli di toko itu*

hat that he/she buy in shop that

'That hat she bought in that shop'

Traditionally, the examples in (5) and (6) are active sentences. Examples in (7) are called passive sentences: the *di*-passive and pronominal passive, respectively. In this paper, the active sentence is called an actor's voice. The pronominal passive, as in (8), is called an undergoer voice. Indonesian has actor voice, undergoer voice, and passive voice. The Indonesian language also possesses a non-verbal clause structure, a clause whose predicate is filled by categories other than a verb.

Morphologically, the Indonesian language has two types of verbs. They are basic (affixless verb) and derived (affixed verb). As an agglutinative language, Indonesian has some affixes that can derive verbs from other word classes. Transitive verbs in Indonesian can be formed by the suffix *-kan* and *-i*. These suffixes can be added to the bases of different categories. The following are examples of how to form derived verbs in Indonesian using the suffix *-kan*.

TABLE 2
DERIVED VERB WITH THE SUFFIX *-KAN*

Base	Derived verb
<i>besar</i> 'big'	<i>besar-kan</i> 'to enlarge'
<i>penjara</i> 'prison'	<i>penjara-kan</i> 'to send to prison'
<i>duduk</i> 'to sit'	<i>duduk-kan</i> 'cause to sit'
<i>sewa</i> 'to hire'	<i>sewa-kan</i> 'to have something hired by x.'

The suffix *-i* can derive a transitive verb from an adjective or a noun and can also be added to a verb.

TABLE 3
DERIVED VERB WITH THE SUFFIX *-I*

Base	Derived verb
<i>panas</i> 'hot'	<i>panas-i</i> 'to heat'
<i>gula</i> 'sugar'	<i>gula-i</i> 'to put sugar on'
<i>datang</i> 'to come'	<i>datang-i</i> 'to visit'
<i>kirim</i> 'to send'	<i>kirim-i</i> 'to send'

Indonesian intransitive verbs can be disguised into basic intransitive and derived intransitive verbs. The derived intransitive verb is formed by either the prefix *meng-* or *ber-*. Some examples of unaffixed intransitive are *jatuh*, 'fall', *bangun* 'get up', *lari* 'run', *terbang* 'fly', *tiba* 'arrive', *duduk* 'sit', etc. The following are some examples of *ber-* intransitive and *meng-* intransitive verbs.

TABLE 4
INTRANSITIVE VERB FORMATION

<i>ber-</i> verb	<i>meng-</i> verb
<i>berdiri</i> 'stand'	<i>menari</i> 'dance'
<i>berenang</i> 'swim'	<i>melapor</i> 'report'
<i>berjalan</i> 'walk'	<i>menagis</i> 'cry'

The crucial thing that needs to be explained in Indonesian verb morphology is its base nature. It consists of two categories: a free base and a bound base/root. This bound form is usually considered a precategorial. It refers to a base that its category cannot be identified yet. That condition makes the base not able to be used in syntax. Therefore, it constantly occurs with affixation. For instance, the form *sodor* 'offer'. It should have a suffix *-i* or *-kan* to function syntactically.

Underived verb

- (9) **Saya sodor solusi itu ke staf senior saya*
I offer solution that to staff senior I
'I offered the solution to my senior staff.'

-i derived pattern

- (10) *Saya menyodori-i staf senior saya solusi itu*
I AV.offer-LOC staff senior I solution that
'I gave my senior staff the solution'

-kan derived verb

- (11) *Saya menyodor-kan solusi itu ke staf senior saya*
I AV.offer-CAUS solution that to staff senior I
'I offer the solution to my senior staff.'

The description of the bound form (a precategorial form) in Indonesian verbal morphology becomes relevant to identifying valency patterns. The precategorial base cannot be used syntactically without affixation, as shown in (9). The verb in a sentence (10) is a transitive verb, directly derived from a precategorial base by adding the suffix *-i*. The verb in (11) shows a similar phenomenon. This transitive verb is directly formed by adding the suffix *-kan* to the verb. In this case, the precategorial *sodor* 'offer' does not have a basic valency pattern shown by the ungrammaticality of the example (9). Only by adding the suffix *-kan* or *-i*, it becomes a trivalent verb.

B. Alternation of Alignment Patterns

The possible valency pattern alternations in Indonesian can be fully described using the perceptual construct of the figure-ground distinction suggested by some linguists in their reports of the argument realization in several languages (Croft, 1991; Talmy, 2000). Concerning thematic roles, the patient relates to Figure and denotes an entity placed at a location or moves from one place to a different physical space or from one state to another in construal of change-of-state as abstract motion. The Ground is the background against which a figure is delineated and related to various locative expressions in language ranging over a stationary location, a source location, a goal location, etc., concerning which the Patient expression is predicated as being located or moving. Locations may refer to physical or human. Therefore the locations can be categorized as a goal location (as in John walked to the station) and a human recipient (as in John gave Bill the book) count as instances of the Ground. The common semantic role Patient is taken

as an example of the Ground in this article, as in (12) below. The two major alignment patterns that figure significantly in the following discussion are given below.

- (11) GR= Object construction
 a. John loaded the wagon with hay.
 b. John hit the fence with the stick.
 (12) FIG= Object construction
 a. John loaded the hay onto the wagon.
 b. John hit the stick against the fence.

Considering this alignment, Indonesian exposes that *-i* derived forms align a Ground expression with the object. See the examples below.

- (13) a. *Dia tidur di sofa baru-nya*
 She/he sleep at sofa new-3SG.POSS
 'He slept on his new sofa'
 b. *Dia men-tidur-i sofa baru-nya*
 She/he AV.sleep-LOC sofa new=3SG.POSS
 'He slept on his new sofa'
 c. *Dia menidur-kan adik-nya di sofa baru-nya*
 She/he AV.sleep-CAUS younger sibling-3POSS at sofa new= 3SG.POSS
 'He slept his sister on his new sofa.'
 (14) a. *Saya menulis huruf Bali di tembok itu*
 I AV.write character Bali on wall that
 'I wrote a Balinese character on the wall.'
 b. *Saya menulis-i tembok itu (dengan) huruf Bali*
 I AV.write-LOC wall that with letter Bali
 'I wrote a Balinese letter on the wall.'

The *-i* derivation aligns a Ground expression with the object, and the *-kan* derivation aligns a Figure expression with the object. The figure object alternation is called a causative pattern, whereas the ground object alternation is called a locative pattern—two Figure types involved in this derivation. The typical causative construction aligns with the object, the Patient Figure of a caused-motion, as in *I pushed the chair across the room* and *I made him roll down the hill*. The other type of Figure included here is an instrument that moves and typically comes into contact with a Ground element. Indonesian uses these two types of Figures together and aligns them with an object using the suffix *-kan*. It means that this suffix unifies the causative and the instrumental applicative construction.

- (15) a. *Anak kecil itu naik ke bus itu*
 person small that AV.climb to bus that
 'The child climbed onto the bus'
 b. *Saya menaik-kan anak itu ke bus itu*
 I AV.climb-CAUS child that to bus that
 'I made the child climb onto the truck'
 (16) a. *Dia memeluk adik-nya*
 She/he AV.hug younger.sibling=3.POSS
 'She/he hugged his/her younger sibling'
 b. *Saya memeluk-kan dia pada adik-nya*
 I AV.hug-CAUS she/he to younger.sibling=3.POSS
 'I made him/her hug his/her younger sibling'

When *-kan* derives a causative from an action verb, the associated meaning is associative causation, including the assistive and join-action subtypes. Sentence (10b), for instance, means either forcing him/her to hug the younger sibling by moving his/her hands close to his/her younger brother/sister or assisting him/her in hugging the younger sibling by allowing him/her come closer to his/her younger brother/sister. The examples below describe the typical use of *-kan* aligning an instrumental expression with the object.

- (17) a. *Dia membalut luka-nya dengan kain putih*
 She/he AV, bandage wound-3POSS with cloth white
 'He bandaged his wound with the white cloth.'
 b. *Dia membalut-kan kain putih pada lukanya*
 She/he AV-bandage-CAUS cloth white on wound-3POSS
 'He bandaged his wound with the white cloth.'

The use of *-kan* is commonly studied as a case of instrumental applicative. Nevertheless, evaluating the alignment patterns of this instrumental applicative in (18b) with the following causative pattern shows that both the Figure expressions are aligned with the object, and the Ground expressions are coded as a prepositional phrase. The instrumental applicative in Indonesian is interpreted as causing motion, where an instrument travels in space and comes to contact with a Ground where the action implied by the verb culminates. It means the *-kan* construction

denotes a conceptualization of a condition as a triggered motion, including a Patient Figure and a location Ground to which the prior shifts. For instance, the use of *-kan* in (19) is a derived causative pattern, and (20) is a derived locative pattern that indicates that Ground is the object. The base of the verb in and (20) is a precategorial *ajar* 'teach.'

(19) *-kan* causative pattern

Saya mengajar-kan matematika kepada anak itu
I AV-teach-CAUS math to person that
'I teach math to the child.'

(20) *-i* locative pattern

Saya mengajar-i anak itu matematika
I AV-teach-LOC person that math
'I teach the child math.'

(a). *Transitive-Ditransitive Alignment Patterns*

As described in the previous examples, causative *-kan* and the locative *-i* suffixes have an essential role in the valency structures of Indonesian verbs, causing it impractical to separate the valency patterns related to underived basic verbs and those revealed by the derived forms of precategorial verbs exclusive of integral valency value. Certainly, the precategorial/non-precategorial distinction has an essential proposition to the study of the valency pattern alignments. When semantically bi-/trivalent verbs are precategorial, they normally accept *-i* and *-kan* derivations and their attendant alignment patterns as in (10) and (11). Still, when verbs are non-precategorial, the basic, non-derived forms normally denote the alignment pattern of either *-i* or *-kan* derived forms. Thus, they usually have only one derivation in *-i* or *-kan*.

The Indonesian transitive/ditransitive alignment patterns reflect the three groups of derivational options, as shown in Table 5 below.

TABLE 5
VERB CLASSES AND ALIGNMENT PATTERNS

alignment	locative pattern	causative pattern
Basic verb class (A):	basic forms	<i>-kan</i> forms
Basic verb class (B):	<i>-i</i> forms	basic forms
Basic verb class (C):	* <i>-i</i> forms	basic forms

As in Table 5 above, the basic (i.e., underived) transitive verbs in Indonesian are largely divided into four groups along the two alignment patterns discussed above. Basic verb class (A) involves those underived verbs demonstrating the two alignment patterns with no derivation. Basic verb class (B) has verbs whose basic forms have the locative pattern and derived *-kan* creates a causative pattern, while basic verb class (C) reverses the derivation pattern such that the basic forms expose the causative pattern and derived *-i* form the locative pattern. Besides, a group of verbs (D) whose basic valency patterns correspond to either the *-i* derived forms or the *-kan* derived forms, with their derived partners revealing another pattern.

1. *Basic Verb Class (A): Basic Locative Pattern -kan Derived Causative Pattern*

Verbs that belong to this class take the locative pattern as basic. They get the causative pattern through the *-kan* derivation. Verbs of this class have the meaning of an action directed toward a Ground co-occurring with an instrument as a Figure. Let us consider the verb *memukul*, 'hit.'

(21) a. Basic locative pattern: GR = OBJ > FIG = OBL

Anak itu memukul ular itu dengan tongkat
child that AV.hit-LOC snake that with stick
'The child hit the snake with a stick.'

b. *-kan* derived causative pattern: FIG = OBJ > GR = OBL

Anak itu memukulkan tongkat ke ular itu
child that AV.hit-CAUS stick to snake that
'The child hit the snake with a stick.'

With verbs like *memukul* 'hit/beat,' the *-kan* causative derivation counts as a case of valency increase since an instrumental element (e.g., *dengan tongkat* 'with a stick') is optional with the basic verb form, while it is made obligatory by the *-kan* derivation. Verbs belonging to this class denote surface contact actions directed to an entity affected; as such, the construal of the relevant situation as a caused-motion seems readily available where an instrument Figure moves toward the affected Ground entity.

(22) a. Basic locative pattern: GR = OBJ > FIG = OBL

Orang itu mengikat kuda itu dengan tali
person that AV.tie-LOC horse that with rope
'The man tied the horse with a rope.'

b. *-kan* derived causative pattern: FIG = OBJ > GR = OBL

Orang itu mengikatkan tali ke kuda itu

- person that AV.tie-CAUS rope to horse that
'I tied the rope to the horse'
- (23) a. Basic locative pattern: GR = OBJ > FIG = OBL
Ibu mengisi gelas itu dengan teh panas
Mother AV.fill glass that with tea hot
'Mother filled the glass with hot tea.'
- b. *-kan* derived causative pattern: FIG = OBJ > GR = OBL
Ibu mengisi teh panas ke dalam gelas itu
Mother AV.fill tea hot to inside glass that
'Mother filled the glass with hot tea.'

The verbs belonging to these alignment patterns are *memeluk* 'hug', *memandang* 'look at', *melihat* 'see', *mencium* 'kiss', *mencukur* 'shave', *menutup* 'cover', *makan* 'eat', *memanjat* 'climb up', *memukul* 'hit/beat', *menyentuh* 'touch', *mengikat* 'tie', *mengisi* 'fill', and *memotong* 'cut'

2. Basic Verb Class (B): Basic Causative Pattern and *-i* Derived Locative Pattern

The verbs that belong to this verb class are *mengirim* 'send', *memberi* 'give', *mengisi* 'fill', *menuang* 'pour', *meminta* 'ask for', *membunuh* 'kill', *melempar* 'throw'. The causative alignment is regarded as basic here because the occurrence of the *-kan* suffix that marks the causative derivation is optional.

- (24) a. Basic causative pattern: FIG = OBJ > GR = OBL
Gadis itu mengirim bunga ke nenek-nya
girl that AV.send-CAUS flower to grandmother-3POSS
'The girl sent flowers to her grandmother.'
- b. *-i* derived locative pattern: GR = OBJ > FIG = OBL
Gadis itu mengirim-i nenek-nya bunga
girl that AV.send-LOC grandmother-3POSS flower
'The girl sent her grandmother flowers.'
- (25) a. Basic causative pattern: FIG = OBJ > GR = OBL
Gadis itu menuang air ke dalam gelas
girl that AV.pour-CAUS water to inside glass
'The girl poured water into the glass.'
- b. *-i* derived locative pattern: GR = OBJ > FIG = OBL
Gadis itu menuang-i gelas (dengan) air
girl that AV.pour-LOC glass with water
'The girl poured the glass with water.'

3. Basic Verb Class (C): Basic Causative Pattern and **-i* Derived Locative Pattern

There are three verbs found from the sample list that show causative alignment, but they do not allow locative derivations. The members of this verb class are *membawa* 'bring', *mengambil* 'take', *mencari* 'look for', *merobek* 'tear', *mengambil* 'take', *menolong* 'help', *memanggil* 'call', *membangun* 'build', and *mengupas* 'peel'.

- (26) a. Basic causative pattern: FIG = OBJ > GR = OBL
Lelaki itu membawa kotak itu ke pasar
Man that AV.bring box that to market
'The man brought that box to the market.'
- b. *-i* derived locative pattern: GR = OBJ > FIG = OBL
**Lelaki itu membawa-i pasar kotak itu*
Man that AV.bring-LOC market box that
'The man brought that box to the market.'
- (27) a. Basic causative pattern: FIG = OBJ > GR = OBL
Lelaki itu mengambil uang dari teman-nya
Man that AV.take money from friend-3POSS
'The man took the money from his friend.'
- b. *-i* derived locative pattern: GR = OBJ > FIG = OBL
**Lelaki itu mengambil-i teman-nya uang*
Man that AV.take-LOC friend-3POSS money
'The man took the money from his friend.'

This subclass showed those basic causative verbs do not permit *-i* locative alignment patterns. In addition to the basic transitive verbs, there are 15 derived mono-transitive verbs. The base forms of these derived transitive verbs are of three types: (i) intransitive verbs, (ii) precatatorial bases, and (iii) adjective bases. There are nine verbs affixed with *-kan* that produce a causative pattern: FIG=OBJ, and six verbs affixed with *-i* that produce a locative pattern: GR=OBJ. The base forms of these derived transitive verbs will be taken up again in the following relevant subsection to see whether the derived verbs with *-i* can alternate with *-kan* or the verbs with *-kan* can alternate with *-i*.

(b). *Intransitive-Transitive Patterns*

In this section, the intransitive-transitive patterns found in the sample list are of three types of patterns, they are:

Basic intransitive A: *-i* derived locative pattern *-kan* derived causative pattern

Basic intransitive B: *-kan* derived causative pattern * *-i* derived locative pattern

Basic intransitive C: * *-kan* derived causative pattern

-i derived locative pattern

1. *Basic Intransitive A: -i Locative Derivation and -kan Causative Derivation*

The verbs found in the sample list that show these types of patterns are *lompat* 'jump', *duduk* 'sit', *turun* 'go down', *tertawa* 'laugh', *takut* 'be afraid', and *ikut* 'follow.'

(28) Intransitive verb *duduk* 'sit'

Anak itu duduk di bangku

Child that sit on bench

'The child sat on the bench.'

a. *-i* derived locative pattern: GR = OBJ

Anak itu menduduk-i bangku itu

Child that AV.sit-LOC bench that

'The child sat on the bench.'

b. *-kan* derived causative pattern: FIG = OBJ

Saya menduduk-kan anak itu di bangku

I AV.sit-CAUS child that on bench

'I made the child sit on the bench.'

2. *Basic Intransitive B: -kan Derived Causative Pattern and *-i Derived Locative Pattern*

The intransitive verbs are found in the sample list are *tenggelam* 'sink', *tinggal* 'live', *lapar* 'hungry', *batuk* 'cough', *main* 'play', *sembunyi* 'hide', *lari* 'run', and *mandi* 'take a bath'.

(29) Intransitive verb *tenggelam* 'sink'

Perahu itu tenggelam

Boat that sink

'The boat sank.'

a. *-kan* derived causative pattern: FIG = OBJ

Mereka menenggelam-kan perahu itu

They AV.sink-CAUS boat that

'They sank the boat.'

b. * *-i* derived locative pattern: GR=OBJ

Mereka menenggelam-i perahu itu

They AV.sink-LOC boat that

'They sank for the boat.'

3. *Basic Intransitive C: *-kan Derived Causative Pattern and -i Derived Locative Pattern*

The intransitive verbs in this pattern are *suka* 'like' and *tahu* 'know.'

(30) *Anak perempuan itu suka dengan boneka itu*

Child girl that like with doll that

'The girl likes the doll.'

a. *-kan* derived causative pattern: FIG = OBJ

**Anak perempuan itu menyukakan boneka itu*

Child girl that like doll that

'The girl likes the doll'

b. * *-i* derived locative pattern: GR=OBJ

Anak perempuan itu menyukai boneka itu

Child girl that like doll that

'The girl likes the doll'

There is one intransitive verb from the sample verb list, which is derived from a transitive verb. This verb cannot undergo further derivation. This verb is *terbakar*, 'burning.' The basic form of this verb is *bakar* 'burn.' Another intransitive verb cannot be attached with either *-kan* or *-i*. This verb is *pergi* 'go,' which is a movement verb. This verb cannot be attached by the suffix *-kan* or *-i*.

(c). *Stative-Transitive Patterns*

Six adjectives function as a predictor in the list of data. Concerning the attachment of the suffix *-kan* or *-i*, these adjectives can be classified into two groups: (i) adjectives that can take either the suffix *-kan* or *-i* and those that can only take the *-kan* suffix.

1. Adjective Class A: -i Derived Locative Pattern and -kan Derived Causative Pattern

These adjectives are *sakit* 'ill,' *kering* 'dry,' *sedih* 'sad,' and *pecah* 'broken.'

(31) Adjective *kering* 'dry'

Tanah itu kering
land that dry
'The land is dry.'

a. -i derived locative pattern: GR = OBJ

Dia mengering-i tanah itu
she/he AV.dry-LOC land that
'He dried the land.'

b. -kan derived causative pattern: FIG = OBJ

Dia mengeringkan-kan tanah itu
she/he AV,dry-CAUS land that
'He dried the land'

2. Adjectives Class B: -kan Derived Causative Pattern

*-i Derived Causative Pattern

Several adjectives can be turned into verbs using the suffix *-kan*. But the *-i* suffix cannot be used. The adjectives found from the sample list are *mati* 'dead' and *dingin* 'cold.'

(32) *Ular itu mati*

Snake that dead
'The snake is dead.'

a. -kan derived causative pattern

Dia sudah mematikan ular itu
She/he already AV.die-CAUS snake that
'She killed the snake'

b. *-i derived causative pattern

**dia sudah memati-i ular itu*
Government AV.kill-LOC snake that
'She killed the snake'

(d). Precategorical-Transitive Patterns

There are four precategorical forms found in the sample list. The forms are *temu* 'meet,' *kedip* 'blink,' *dandan* 'dress up,' and *muat* 'load.'

1. Adjective Class A: -i Derived Locative Pattern and -kan Derived Causative Pattern

(33) a. -i derived locative: FIG = OBJ

Anak itu menemui-i teman-nya
Child that AV.meet-LOC friend-3POSS
'The child met his friend.'

b. -kan derived causative pattern: FIG = OBJ

Saya menemu-kan anak itu
I AV.meet-CAUS child that
'I found the child.'

2. Precategorical Class B: -kan Derived Causative Pattern *-i Derived Locative Pattern

The precategorical forms found from the sample list are *gelinding* 'roll,' *tunjuk* 'point,' *nyanyi* 'sing,' *tinggal* 'leave,' and *letak* 'place.'

(34) a. -kan causative pattern: FIG = OBJ

Anak itu mengelindingkan bola itu
Child that AV.roll-CAUS ball that
'The child rolled the ball'

b. -i locative pattern: GR = OBJ

**Anak itu menggelinding-i bola itu*
child that AV.roll-LOC ball that
'The child rolled the ball'

V. CONCLUSION

Indonesian verbs are classified into basic verbs and derived verbs. The basic verb here refers to verbs used in sentence structure without affixation, like the verb *baca* 'read' can be used in an imperative sentence, *Baca buku itu!* 'Read the

book!. The base forms of the derived verbs can be an adjective, a noun, or a precategorial base. Morphological derivation in Indonesian restricts how derived verbs behave concerning derivations in general.

In contrast to basic verbs, the derived verbs typically do not go through other derivations. Notably, derived verbs with the same alignment pattern as basic verbs do not go through (another) derivation. In contrast, the basic verbs may undergo the appropriate derivation, indicating that the grammatical status of derived verbs is dissimilar from basic verbs. More uncommon is the existence of a precategorial base that does not have a basic valency value and that needs to be derived from functioning as a verb. Nevertheless, with precategorials, we cannot discuss valency-change for *-i* and *-kan* derivations since precategorials, by definition, do not have a basic valency value. Thus, precategorials *-i/-kan* derivations align a Ground expression with the object and the Figure expression with the object, respectively.

What Indonesian reveals with the *-i* locative and the *-kan* causative patterns do not improve valency. The significant function of these procedures is to align a Ground or a Figure expression with the object. Indonesian *-kan* derivation, for the most part, is correlated with conceptualizing an event as a caused-motion event, in which an Object-coded Figure moves in space toward a designated Ground. Both Figure and a Ground are in the speaker's perspective, and they are typically both expressed obligatorily. Because of this property of bringing both Figures and Ground into perspective, *-kan* derivation may apply to the Figure-oriented verbs whose basic valency pattern already has a Figure expression aligned with the object. *-i* derived constructions, on the other hand, focus on both affected Ground and Figure entities differently from both basic (i.e., underived) Figure-oriented constructions and *-kan* derived forms. It can be assumed that the Ground expression is more focused than that found in *-kan* constructions, in which GROUND expressions are coded as OBL.

When the suffix *-kan* is used to derive verbs from the adjective base, a noun base, or an intransitive verb, this derivation produces a causative pattern. Still, when added to basic transitive verbs, it can have a causative or benefactive pattern. The causative pattern will have a constituent structure: VERB+NP+PP and the benefactive pattern will have the structure: VERB+NP+NP as in *Saya membelikan* (V) *anak itu* (NP) *baju baru* (NP) 'I bought the child a new shirt,' *anak itu* 'the child' is a beneficiary object which is a primary object. In contrast, *baju baru* 'new shirt' is a secondary object. Only the primary object can be the subject of the corresponding passive construction. It is an applicative construction. The suffix *-i* can be added to an adjective, a noun, or an intransitive verb. It produces a locative pattern. Still, when added to a transitive verb, a basic locative pattern (not a derived locative pattern) creates an aspectual meaning indicating an iterative action or the action is thoroughly carried out.

APPENDIX. ABBREVIATIONS

GR	Ground
FIG	Figure
NP	Noun Phrase
PP	Prepositional Phrase
OBJ	Object
OBL	Oblique
CAUS	Causative
AV	Actor voice
LOC	Locative
SOV	Subject Object Verb
PAS	Passive
3SG	Third Person Singular
POSS	Possessive
PP	Prepositional Phrase
V	Verb
X	by someone
NP	noun phrase(NP)
*	ungrammatical

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