

**VOICE AND CONTROL STRUCTURE IN JAVANESE:
A LEXICAL-FUNCTIONAL APPROACH**

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Abstract

In Javanese control constructions, the controller can be the SUBJ or the OBJ of a matrix clause. When the control verb is transitive, then the OBJ usually becomes the controller, and when it is intransitive, the SUBJ is the controller. However, Javanese also has a construction involving the clitic tak- or kok-, which is used for a first or a second person Agent. This clitic construction raises some questions related to the termhood of the Agent and the argument structure of the verb having the clitic as one of its argument. With a lexical-functional approach, this paper aims to discuss voice selections in Javanese control constructions. In the analysis, the model of a syntacticised argument structure adopted from Arka and Manning (1998) and Arka (2003) was applied. This paper used the data of the ngoko (low) register of standard Javanese. The analysis shows that Javanese has three types of voice, which are active voice (AV), passive voice (PV) and objective voice (OV). Voice alternations in Javanese control constructions occur when the matrix verb belongs to the verbs of the influence type. In this case, a transitive matrix verb in the AV form may alternate with the PV form or the OV form. The OV form is used when the Agent is a first or a second person. The OV form and the AV form are both transitive, and so they have the same argument structure. However, these two transitive forms have different mapping in the functional structure.

Key words : voice, control structure, Javanese, lexical-functional grammar

1. Introduction

Control is a relationship in which the missing SUBJ of a subordinate clause is interpreted as being coreferential with an argument of the matrix clause (Kroeger, 2004:127). In other words, in a control construction, there is an NP that functions as an argument of both the matrix verb and an embedded one. In this context, the grammatical function of the NP can be either the SUBJ or OBJ of the matrix clause, depending on the number of core arguments needed by the matrix verb. If the matrix

verb requires SUBJ and OBJ, the NP being the controller has the OBJ function. Meanwhile, if the matrix verb needs only one core argument (i.e. SUBJ), then the controller is the SUBJ (see Kroeger, 2004:117). This argument is confirmed for the following control constructions in Javanese.

SUBJ

- (1) *Astirin_i nyoba* [_i] *mbayangake* *omah ing kutha kuwi*
 Astirin *ng-try* *ng-imagine* house in town that
 ‘Astirin tried to imagine the house in the town’

SUBJ

- (2) *Dheweke_i kepengin* [_i] *nglipur* *dhiri ing papan sepi*.
 3sg want *ng-amuse* self in place quiet
 ‘He wanted to amuse himself at a quiet place’

SUBJ

OBJ

- (3) a. *Bapakmu* *sengaja nggawe* *dheweke_i [_i] nesu*
 father-POSS.2sg intentionally *ng-make* 3sg angry
 ‘Your father intentionally made him angry’

SUBJ

- b. *Dheweke_i sengaja digawe* [_i] *nesu* *dening bapakmu*
 3sg intentionally *di-make* angry by father-POSS
 ‘He was intentionally made angry by your father’

The sentences above are control constructions. In (1) and (2), the matrix verb has one core argument (i.e. SUBJ), which controls the missing argument of the embedded verb. In sentence (3-a), the matrix verb has two core arguments (i.e. SUBJ and OBJ), and it is the OBJ of the matrix verb that controls the missing argument of the embedded verb. Meanwhile, sentence (3-b), which is the voice alternation of (3-a), has one core argument (i.e. the SUBJ), functioning as the controller of the missing SUBJ in the embedded clause.

The control constructions as in (1) to (3) are similar to those in English (see Kroeger, 2004; Dalrymple, 2001); therefore, they do not cause a problem in the theory of control. However, control constructions in Javanese involving clitic pronouns may raise some problems. Look at the following sentence.

SUBJ

?

- (4) *Dheweke_i sengaja* *{tak -/kok-}* *gawe* [_i] *ngguyu*

3sg intentionally 1sg.Cl 2sg.Cl make laugh
'I/ You intentionally made him/her laugh'
(Lit. S/He was intentionally made laugh by me/you)

In sentence (4), the matrix verb *gawe* 'make' occurs as a bare verb, which comes with the clitic *tak-* (for the first person Agen) or *kok-* (for the second person Agen). In the sentence, the SUBJ *dheweke* is the controller. The question is whether the clitics *tak-* and *kok-* are core arguments or not, and if they are, what is grammatical function of the clitics. Another question is how to represent the argument structure of the verb having the Agen in the clitic form as one of its arguments, especially in Javanese control constructions.

This paper aims to discuss voice and control structure in Javanese. In this case, a lexical-functional approach is employed, especially to discuss the argument structure of control verbs and the mapping with the functional structure and the semantic structure. The following (section 2) explains the underlying theory, followed by the data and research method (section 3). Next, in section 4, Javanese voice types are described, and in section 5 voice alternations in Javanese control constructions are presented. Section 6 discusses the argument structure and lexical mapping of Javanese control constructions, and section 7 gives the conclusion.

2. Underlying Theory

The theory applied in this study is Lexical Functional Grammar (LFG), a non-transformational theory of linguistic structure that was initially developed by Bresnan and Kaplan in 1970's. LFG is lexicalist in approach, meaning that lexical items or words are considered as important as syntactic structures in encoding grammatical information. LFG is also functional and not configurational, which means that abstract grammatical functions like subject (SUBJ) and object (OBJ) are not defined in terms of phrase structure configurations or of semantic or argument structure relations, but are primitives of the theory. LFG assumes that language is best described and modelled by parallel structures representing different facets of linguistic organization and information, related to one another by means of functional constraints (Dalrymple, 2001).

The parallel structures relevant for discussing voice alternations are functional structure (f-str), semantic structure (s-str) and argument structure (a-str). The mapping of

these three structures is governed under a lexical mapping theory (LMT), which is a part of LFG. The basic idea of LMT is argument structure (a-str), which is a representation of the syntactic arguments of a predicate. A-str is the locus of the mapping between semantic roles like Agent and Patient and grammatical functions as SUBJ and OBJ (Falk, 2001:100). In the case of voice alternations in complex predicate constructions like control structures, the use of LMT is very relevant, especially in explaining how an argument bearing the Agent or Patient is expressed as SUBJ, OBJ, or T-COMP.

3. Data dan Research Method

This paper employed the data of the *ngoko* (low) register of Javanese. The data were taken from Javanese native speakers of Surakarta dialect. The data were collected by using observation and interview methods with recording and elicitation techniques. The elicitation technique was also used to test with the informants the grammatical acceptability of control constructions with their various structures. In this research, the writer also applied reflective-introspective method (see Sudaryanto, 1993:121). In this case, as a Javanese native speaker of Central Java dialect, the writer used his linguistic intuition to create data and test the acceptability of the data. The data that the writer created were then consulted with the informants to check their grammatical acceptability.

4. Voice Types in Javanese

In Javanese, voice is marked morphologically by using a prefix attached to the verb. The nasal (*ng-*) prefix is used to mark an active voice (AV), and the *di-/ke-* prefix is used to mark a passive voice (PV). In addition to the two prefixes, Javanese has constructions involving bare verbs occurring with the clitic (*tak /kok*). In this paper this clitic construction is called an objective voice (OV). The three types of voice will be explained below.

4.1. Active Voice

Javanese active voice (AV) is marked by the use of the *ng-* prefix attached to a transitive verb. An AV construction has at least two arguments, which are the Agent occurring in the preverbal position and a Patient occurring in the postverbal position. In this transitive construction, the Agent functions as the SUBJ and the Patient functions as the OBJ. In this context, the term Agent refers not only to the agent of

volitional verbs such as the verbs of hitting and killing but also the perceiver of verbs of seeing and hearing. Meanwhile, the term Patient refers not only to the affected patient of verbs of impingement but also the unaffected patient of verbs of perception (see Andrews, 1985; Artawa, 2004). The following clauses show AV in Javanese.

- (5) a.

SUBJ		OBJ	
	<i>Dheweke</i>	<i>nggawa</i>	<i>barang-barang kuwi</i>
	3sg	ng-bring	goods that

 'S/He brought the goods'
- b.

		OBJ		SUBJ
	<i>Nggawa</i>	<i>barang-barang kuwi</i>	//	<i>dheweke</i>
	3sg	ng-bring		goods that

 'S/He brought the goods'
- c.

		OBJ		SUBJ			
	* <i>Barang-barang kuwi</i>	<i>dheweke</i>	{	<i>nggawa</i>	/	<i>gawa</i>	}
	goods	that	3sg	AV-bring		bring	

 'S/He brought the goods'

In the clauses above, the transitive verb takes the *ng-* prefix showing the AV form. The SUBJ of the AV form is the Agen, which is *dheweke* 'S/he'. The basic word order of the AV form is Agent-V-Patient, as in (5-a). In addition to this basic word order, the AV construction may have the Agent placed in the final position preceded with an intonation break (//) as in (5-b). The Patient, however, should follow the verb. The fronting of the Patient to the position before the Agent results in the ungrammatical sentence, as in (5-c).

4.2 Passive Voice

The construction called passive voice (PV) in Javanese is one in which the Patient occurs in preverbal position, the verb takes the prefix *di-* or *ke-*, and the Agent (if it is overtly expressed) occurs in the postverbal position which is optionally preceded by the preposition *dening/karo*. There is a subtle difference between the *di-* form and the *ke-* form. With the *di-* prefix, the action performed is volitional or controlled by the Agent; while with the *ke-* prefix the action is non-volitional or uncontrolled by the Agent. Syntactically, the two prefixes behave in the same way. The SUBJ of the *di-/ke-* construction is the Patient, and the Agent occurs as an adjunct

(ADJ).

	SUBJ			ADJ	
(6)	<i>Barang-barang</i>	<i>kuwi digawa</i>	((<i>dening</i>)	<i>dheweke</i>)	
	goods	that	<i>di</i> -bring	by	3sg
	'The goods were brought by him/her'				

	SUBJ			ADJ	
(7)	<i>Barang-barang</i>	<i>kuwi kegawa</i>	((<i>dening</i>)	<i>dheweke</i>)	
	goods	that	<i>ke</i> -bring	by	3sg
	'The goods were accidentally brought by him/her'				

The passive constructions above have the Patient functioning as the SUBJ; while the Agent is the ADJ. In this case, the Agent is optional. If the Agent is present in the sentence, it is optionally preceded by the preposition *dening* 'by'. This shows that the *di-/ke-* constructions behave similarly with the characteristics of the passive construction across languages (see Siewierska, 1984:2-3).

4.3. Objective Voice

The term 'objective voice (OV)' was adopted from Arka and Manning (1998), who used the term to name OBJ fronting constructions (Chung, 1976) in Indonesian. In this paper, OV is used to name the Javanese constructions with the following characteristics: 1) the Patient is placed in the SUBJ position, 2) the transitive verb is used without a prefix, and 3) the Agent occurs in the clitic form *tak-/kok-*. The *tak-* clitic is used for the first person Agent, while the *kok-* clitic is for the second person Agent. The following constructions ((8-b) and (9-b)) are in the OV form, which are the alternation of the AV form in (8-a) dan (9-a).

- (8) a. *Aku mangan roti kuwi dhek wingi*
1SG ng-eat bread that yesterday
'I ate the bread yesterday'
- b. *Roti kuwi tak-pangan dhek wingi*
bread that 1SG.CL-eat yesterday
'The bread was eaten by me yesterday'

- (9) a. *Kowe durung ngrampungake gaweanmu*
 2SG IMPERF ng-finish work-POSS.2SG
 ‘You haven’t finished your work’
- b. *Gaweanmu durung kok-rampungake*
 work-POSS.2SG IMPERF 2SG.CL-finish
 ‘Your work has not been finished by you’

To some extent, the OV construction in Javanese is similar to Chung’s (1976) Object Preposing in Indonesian, as seen in the following example.

- (10) *Buku itu ku-beli*
 book that 1SG.CL-buy
 ‘I bought the book’ or ‘The book, I bought’
 (Chung 1976:60)

In this sentence the Patient *buku itu* ‘that book’ has been moved to the preverbal position, and the Agent (the first person pronoun *aku*) cliticizes the prefixless verb *beli*. The process of Object Preposing in Indonesian is the same as the OV construction in Javanese, as in (8-b). There is, however, a subtle difference between them. Chung (1976) claims that Object Preposing in Indonesian is allowed whenever the Agent is a pronoun, that is, both in a clitic and in a free form. Therefore, the clitic pronoun *ku-* in (10) can be replaced by personal pronouns such as *aku* ‘I’, *kamu* ‘you’, *dia* ‘he/she’, *mereka* ‘they’, *kami* ‘we (Exclusive)’ or *kita* ‘we (Inclusive)’. In Javanese, on the other hand, the OV construction is used when the Agent is a first or a second person, and must occur in a clitic form. The use of first and second person free pronouns in the OV constructions will result in an ungrammatical sentence as in (11) and (12) below.

- (11) **Roti kuwi aku pangan dhek wingi*
 bread that 1SG eat yesterday
 ‘The bread I ate yesterday’
- (12) **Gaweanmu durung kowe rampungake*
 work-POSS.2SG IMPERF 2SG finish
 ‘Your work you have not finished’

The sentences above show that the use of a free pronoun before a bare verb is not acceptable in the OV construction. This is due to the fact that the OV construction in Javanese is used only with the Agent in a clitic form. The Agent, however,

functions as a core argument for at least two reasons. First, it cannot be left out as in the passive form. Second, it can be the controller of a reflexive (see Sofwan, 2000), as seen in the following examples.

(13) *Awakku_i arep tak_i- asoake dhisik*
 self-1SG.POSS FUT 1SG.Cl rest first
 ‘I will rest myself’

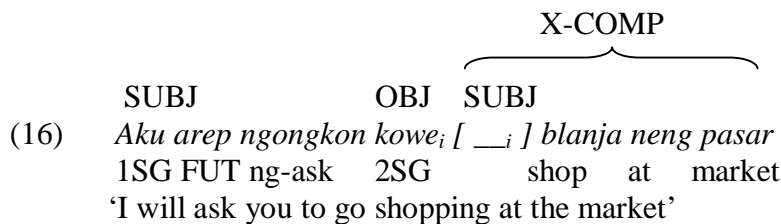
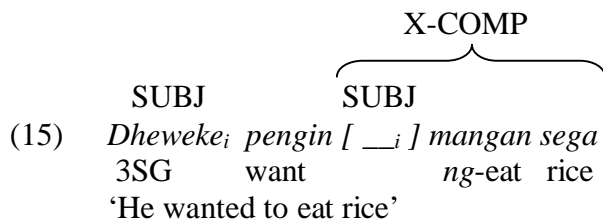
(14) *Awakmu_i ojo kok_i-salahake*
 self-2SG.POSS NEG 2SG.Cl-blame
 ‘You must not blame yourself’
 (Sofwan, 2000:108).

In the sentences above the clitic *tak-* in (13) and *kok-* in (14) control the reflexive. This indicates that the Agent in the OV construction functions as a core argument. Therefore, as in other languages in Indonesian such as Balinese (Artawa, 2000) and Indonesian (Arka, 2000), Javanese has two transitive constructions, which are the AV form and the OV form. The OV in Javanese, however, is restricted to a first and second person Agent, and the Agent occurs in the clitic form. In lexical-functional grammar, the Agent occurring in the OV construction functions as a Non-SUBJ argument or a term complement (T-COMP) (see Arka, 2003).

5. Voice Alternations in Javanese Control Constructions

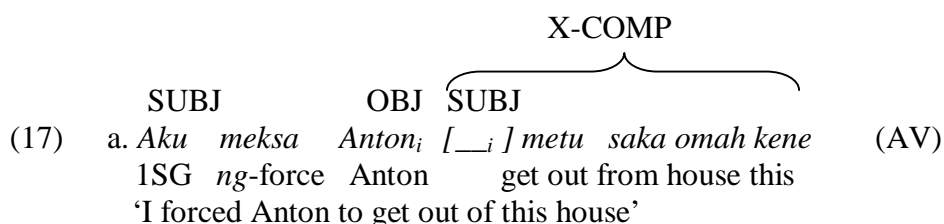
Control structure involves control verbs, functioning as the main verb, followed by a transitive or an intransitive. Control verbs are semantically divided into three types, which are the orientation type, the commitment type and the influence type (Pollard and Sag, 1994). The verbs of the orientation type, such as *pengin* ‘want’, *gelem* ‘want’, *seneng* ‘like’, have two semantic arguments: the experiencer and a state of affairs argument (SOA). In this case, the experiencer functions as the controller. The verbs of the influence type, such as *kongkon* ‘ask’, *gawe* ‘make’, *peksa* ‘force’, have three semantic arguments, which are Agent, Patient and SOA. The control structure involving the verbs of the influence type has the Patient as the controller. Meanwhile, the verbs of the commitment type such as *janji* ‘promise’ and *nyoba* ‘try’ have two semantic arguments, which are the committer and SOA. In such case, the committer is the controller.

In terms of the grammatical functions, the argument being the controller can be the SUBJ or the OBJ, and the argument being controlled is always the SUBJ. Meanwhile, SOA in a control construction functions as an X-COMP or an open complement. This is due to the fact that SOA functions as one of the arguments of the matrix verb. In an X-COMP, there is a missing argument which is controlled by an argument in the matrix clause (see Dalrymple, 2001; Kroeger, 2004). The following are some examples of Javanese control constructions with control verbs of different semantic types.



In sentence (15), the orientation verb *pengin* requires two syntactic arguments, which are SUBJ and X-COMP. In this sentence, the SUBJ of the matrix verb is the controller of the missing SUBJ of X-COMP. Meanwhile, in sentence (16), the influence verb *kongkon* ‘ask’ has three syntactic arguments, which are SUBJ, OBJ and X-COMP. Here, the OBJ of the matrix verb is the controller of the SUBJ of X-COMP.

Voice alternation in control constructions occurs when the constructions involve transitive verbs such as the verbs of the influence type. The following sentences show voice alternation in control constructions with the control verb *peksa* ‘force’ in (17) and *gawe* ‘make’ in (18).



X-COMP

SUBJ T-COMP SUBJ

b. *Anton tak-peksa [__i] metu saka omah kene* (OV)
 Anton 1SG.Cl- force get out from house this
 ‘Anton, I forced to get out of this house’

X-COMP

SUBJ OBJ SUBJ

(18) a. *Bapak sengaja nggawe dheweke [__i] nesu* (AV)
 father intentionally ng-make 3SG angry
 ‘Father intentionally made him angry’

X-COMP

SUBJ SUBJ OBL

b. *Dheweke sengaja digawe [__i] nesu ((dening) Bapak)* (PV)
 3SG intentionally di-make angry by father
 ‘He was intentionally made angry by father’

Control constructions in (15-a) and (16-a) have the AV form, as seen from the use of the *ng-* prefix attached to the transitive verb *peksa* ‘force’ in (15-a) and *gawe* ‘make’ in (16-a). These two constructions have a voice alternation. With the first person Agent, the AV construction in (15-a) has the alternation in the OV form as in (15-b). This is different from the AV form in (16-b) which has the alternation in the PV form, as the Agent is a free NP.

Voice alternations in control constructions occur because the matrix clause is transitive as happening to the verbs of the influence type. The question is whether the verbs of the orientation and commitment types are transitive or intransitive. If they are transitive, then the SOA of the verbs can be promoted to the SUBJ position (see Arka, 2003). Look at the following control constructions.

(19) a. *Aku pengen dolanan ning kebon*
 1SG want play at garden
 ‘I want to play at the garden’

b. **Dolanan ning kebon tak-pengin*
 play at garden 1SG.Cl-want
 ‘Playing at the garden is what I want’

(20) a. *Aku wis nyoba nggoleki dheweke*
 1SG PERF try ng-find 3SG

‘I have tried to find him’

- b. **Nggoleki dheweke wis tak-coba*
ng-find 3SG PERF 1SG.CI- try
‘Finding him is what I have tried’

The constructions above show that the embedded clause or the SOA of the verb *pengin* ‘want’ in (19) and the verb *nyoba* ‘try’ in (20) can not be fronted to the SUBJ position. This indicates that the SOA is not a core argument. Thus, the verb *pengin* ‘want’ and the verb *nyoba* ‘try’ are intransitive as they have only one core argument, which is SUBJ.

The following section will discuss the argument structure and lexical mapping in Javanese control structure. As previously mentioned, the model of a-str applied in the analysis is the syntacticised a-str adopted from Manning (1996) and Arka (2003).

6. Argument Structure and Lexical Mapping in Javanese Control Constructions

In LMT, a-str plays a crucial role because it is the intermediate structure that connects functional structure (f-str) and semantic structure (s-str). The model of a-str applied in this study is the syntacticised a-str adopted from Manning (1996) and Arka (2003). This model of a-str has some characteristics, which are 1) it contains information about the syntactic valency of a predicate, 2) it carries information about termhood (i.e. whether an argument is a term or not, and 3) it contains syntactic arguments having the following prominence: (i) terms outrank non-terms and (ii) within sets of terms/non-terms, prominence reflects semantic prominence. (Arka, 2003:129).

In a syntacticised a-str, grammatical functions are decomposed into term and non-term arguments. Term arguments cover SUBJ and OBJ/T-COMP, while non-term argument is oblique (OBL) (Arka, 2003:122). In this context, arguments in a-str are labelled as A-SUBJ (argument-structure SUBJ), A-OBJ (argument-structure OBJ) and A-OBL (argument-structure OBL) (Arka, 2003:122). These labels are used to differentiate them from grammatical functions in f-str such as SUBJ, OBJ and OBL.

The representation of syntacticised a-str applied in this paper was adopted from Arka (2003). In this model of a-str, an argument is represented as a slot, with the leftmost being the most prominent item (i.e. A-SUBJ), followed by the second most prominent (A-OBJ). In this case, term arguments are put in the same angle brackets (‘< >’), and non-term arguments are put in different brackets. Thus, a predicate

having two core arguments and one non-core argument will have the a-str as '<< __, __ > < __ >>'. With this model of a-str, the a-str-f and the mapping of the verb *gawa* 'bring' in the AV form *nggawa* (21), the OV form *tak-gawa* (22), and the PV form *digawa* form (23) can be described as follows.

- | | | |
|------|-----------------------------|--|
| (21) | <i>ngawa</i> 'AV-bring': | f-str SUBJ OBJ
a-str < >

s-str Agent Patient |
| (22) | <i>tak-gawa</i> 'OV-bring': | f-str SUBJ T-COMP
a-str < >

s-str Agent Patient |
| (23) | <i>digawa</i> 'PV-bring': | f-str SUBJ OBL
a-str < > < >

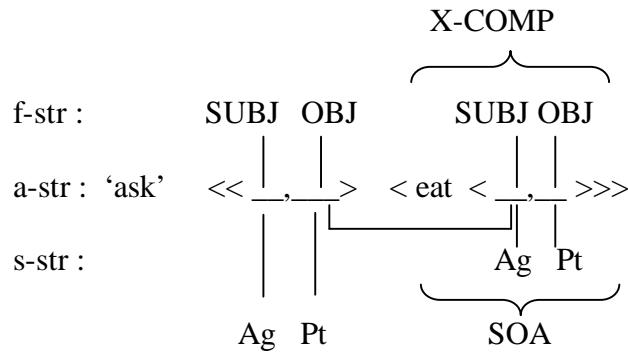
s-str Agent Patient |

The mapping above shows that the verb in the AV form and that in the OV form have the same a-str in that they both have two core arguments (A-SUBJ and A-OBJ). However, the verb in the two types of voice have different mapping, especially the mapping of a-str onto f-str. In the AV form, A-SUBJ and A-OBJ are mapped respectively onto SUBJ and OBJ. Meanwhile, in the OV form, A-SUBJ is mapped onto T-COMP and A-OBJ is mapped onto SUBJ. The a-str and the mapping of the verb in the AV form and OV form is different from that in the PV form. In the PV form, the verb has one core argument mapped onto SUBJ, and the other argument, which is non-core, is mapped onto OBL.

The a-str and its mapping with s-str and f-str as illustrated above can be applied to explain voice alternations in control constructions. In a control construction, there is a SOA that functions as an X-COMP. As explained above, X-COMP is a non-core argument, and therefore, in the a-str the predicate of the X-COMP should be put in a bracket separate from the bracket for core arguments. The following is the a-str and the mapping of control verb *kongkon* 'ask' in AV form (24-b) and its alternation in OV form (25-b).

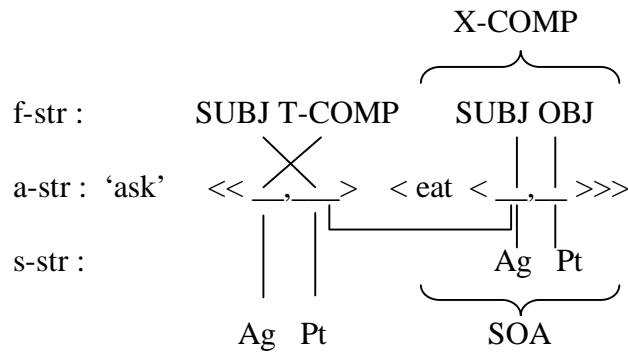
- (24) a. *Aku ngongkon anakku maem sayur*
 1SG ng-ask child-1SG.POSS eat vegetable
 ‘I asked my child to eat vegetable’

b. The a-str and mapping of the verb AV-*kongkon*:



- (25) a. *Anakku tak-kongkon maem sayur*
 child-1SG.POSS 1SG.Cl-ask eat vegetable
 ‘My child, I asked to eat vegetable’

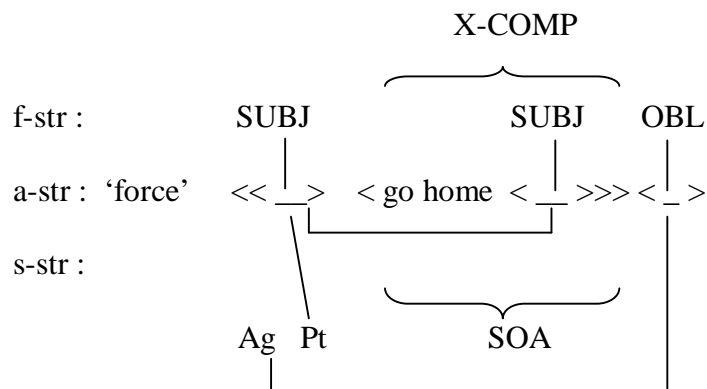
b. The a-str and mapping of the verb OV-*kongkon*:



In the control constructions above, the matrix verb *kongkon* ‘ask’ in the AV form and its alternation in OV form have the same arguments in the a-str. They have two core arguments and one non-core argument. The core arguments, which are put in the same brackets, are understood as A-SUBJ and A-OBJ, and the non-core argument, which is put in separate brackets, is SOA. Voice alternation in the constructions above is shown by different mapping, especially the mapping of a-str onto the f-str. In the AV form, as in (24-b), A-SUBJ is mapped to SUBJ and A-OBJ to OBJ, whereas in the OV form, as in (25-b), A-SUBJ is mapped to T-COMP and A-OBJ to SUBJ. The

mapping of the two transitive clauses above is different from the mapping of the control verb in PV form, as in the following.

- (26) a. *Mulyono dipeksa Ibune mulih*
 Mulyono *di*-force mother-POSS go home
 'Mulyono is forced by his mother to go home'
- c. The a-str and mapping of the verb OV-peksa



In the control construction above, the control verb *peksa* 'force' occurring in PV form has one core argument, mapped onto SUBJ, and two non-core arguments, which are mapped onto X-COMP and OBL respectively. This shows that the a-str and mapping of the control verb in PV form is different of those in AV and OV forms

7. Conclusion

Based on the description and discussion above, some conclusions can be drawn. First, Javanese has PV form and two types of transitive constructions, which are realized in AV form and OV form. In the AV form, the Agent functions as the SUBJ, whereas in the OV form it is the Patient that functions as the SUBJ. The OV form is used when the Agent is a first person or a second person. The Agent in the OV form, which is realized as clitic *tak-* (for a first person) or *kok-* (for a second person), is a core argument.

Control constructions have voice alternation when the control verb belongs to the verbs of the influence type. By applying a syntacticised a-str in lexical mapping, voice alternations in Javanese control constructions can be well explained. Control

verbs in the AV form and those in the OV form have the same a-str but they have different mapping, especially the mapping of a-str onto f-str.

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