

WORD ORDER: CASE STUDY OF SCRAMBLING & OBJECT SHIFT IN
INDONESIAN

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WORD ORDER: CASE STUDY OF SCRAMBLING & OBJECT SHIFT IN
INDONESIAN

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This thesis explores the flexible word order of Jakarta Indonesian (JI), a variety of spoken Indonesian used in the capital Jakarta area, but also widely used in the Indonesian media. JI is largely an SVO language, but this research sets out to describe non-canonical object positions outside of the base generated SVO order. Two non-canonical object positions are of special interest: (i) the sentence-initial object position that frequently alternates with the SVO order; and (ii) the medial object position within the vP projection that requires movement of the verb to accompany this phase-bound short object movement.

In this thesis, I show that non-passive object-initial constructions share many similarities with characteristics of Scrambling, especially as described for Japanese Scrambling, namely: (i) mixed A/A' properties (Mahajan 1990, 1994); (ii) sensitivity to islands (Saito 1985); and (iii) introduction of scope ambiguity (Kuno 1973, Hoji 1985, Hayashishita 2000). The medial object position that requires short object movement within the vP is interesting because this movement must be followed by verb movement (unlike Scrambling that can apply freely); this is similar to what has been described for Object Shift in Germanic languages (Holmberg 1986).

Thus, this work is significant in showing that the contrast whereby long-distance object movement that crosses a phase boundary (Scrambling) does not require verb movement, while short distance object movement within a phase (Object Shift) does, can exist within the grammar of one language. This lends support to the proposal that the verb movement requirement on short object movement is a result of shape preservation where the VO base generated order must be maintained. Crucially though, this linearization rule must apply cyclically by phase to explain why Scrambling does not have to follow this requirement (Fox & Pesetsky 2005, Müller 2007).

BIOGRAPHICAL SKETCH

Ekarina was born in Jakarta, Indonesia on the 25th of August 1986, but has since grown up and studied in Singapore, Malaysia, Germany and the U.S.A. She earned her B.A. in Economics with a minor in foreign languages from Georgia State University in Atlanta, GA, and her M.A. in German Studies with a concentration in Linguistics from the University of Georgia in Athens, GA.

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Teaching has been an inspiration and life-changing experience throughout my Ph.D. pursuit. I have to thank my teaching mentors Gunhild Lischke, Grit Matthias-Phelps, Nick Admussen and Nate Lindbergh for taking me under their wings and training me as their teaching assistant. Grit worked with me when I was most inexperienced and taught me many teaching techniques and principles that I hold dear today. Gunhild has always been kind and always had nothing but good things to say about me. I learned from her example how to balance giving clear instructions while still leaving enough room for students to grow. I was impressed with how much time Nick was willing to spend to train his teaching assistants. His emphasis on inclusivity and equality with

students left a deep impression on me; I will always remember to implement these values as an educator in the future. Working under Nate, I was able to explore the possibilities of applied linguistics, of how I am able to translate my research and theories into something useful for a lot of students who are not even interested in Linguistics. I am forever grateful that he opened another world of possibilities for me.

Outside of teaching and academia, a large part of my time at Cornell was spent on student advocacy with shared governance. In this work, I learned and was helped a lot by the former Graduate School Dean Barbara Knuth and her wonderful team members: Janna Lamey, Jan Allen and Sara Hernandez. Working together with me, Manisha Munasinghe and Nate Rogers were my gateway to taking on greater leadership responsibilities and they trusted in my ability to affect change more than anyone else, including myself. Thank you also to everyone else I have worked with within shared governance, staff from Student Life, University Relations, the President's Office and other comrades: Alexa Cohn, Andy Barrientos-Gomez, Katherine Quinn, Elena Michel, Kavya Krishnan, Aravind Natarajan. I am honored to have worked with you; and am very happy that we have kept our friendships alive even long after we are done with our terms in shared governance.

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CHAPTER 1

INTRODUCTION

Languages of the world have different ways of ordering subjects, objects and verbs to form complete, neutral, declarative sentences. For English, this is the Subject-Verb-Object (SVO) word order as demonstrated in the sentence below.

(1) The cat ate my fish.
 S V O

Permuting these three elements (S,V and O) gives us 6 possible word orders. The table below from *The World Atlas of Language Structures Online (WALS)* (wals.info) shows the different possible word orders and their distribution in languages of the world. The most common word orders are SOV and SVO, and object-initial word orders are rare. Interestingly, there are quite a lot of languages that lack a dominant word order, which will be discussed in depth in this work.

Word Order	Languages
Subject-Object-Verb (SOV)	564
Subject-Verb-Object (SVO)	488
Verb-Subject-Object (VSO)	95
Verb-Object-Subject (VOS)	25
Object-Verb-Subject (OVS)	11
Object-Subject-Verb (OSV)	4
Lacking a dominant word order	198

Table 1.1: WALS – possible word orders and their distribution.

Below are examples of these attested word orders:

(2) Japanese (Kuno 1973 : 10)

John-ga tegami-o yon-da.

John letter read

S O V

‘John read the letter.’

(3) Irish (Dillon and Ó Cróinín 1961 : 166)

Léann [na sagairt][na leabhair].

Read the priest the book

V S O

‘The priests are reading the books.’

(4) Nias (Brown 2001 : 538)

i-rino vakhe ina-gu.

cook rice mother-my

V O S

‘My mother cooked the rice.’

(5) Hixkaryana (Derbyshire 1979 : 87)

Toto y-ahosi-ye kamara.

man grab jaguar

O V S

‘The jaguar grabbed the man.’

(6) Nadëb (Weir 1994 : 309)

Awad kalapéé hapáh.

jaguar child see

O S V

‘The child sees the jaguar.’

While all these word orders are attested in languages of the world, the object-initial orders OVS and OSV are particularly rare¹. Some languages (like English) can be easily and straightforwardly categorized into one of the six types of word orders. In the case of English, non SVO word orders in a declarative sentence are either ungrammatical or infrequently used, only in special semantic and/or pragmatic contexts. Languages like this are said to have a **rigid word order** (Dryer 2013).

Many languages, however, are not as rigid in their word order. There are many languages that would allow all these 6 possible word orders, and do mix them frequently, albeit with different pragmatic contexts (coined **flexible word order languages** by Dryer 2013). The language under study in this dissertation, Jakarta Indonesian (JI), is an example of such a language. While SVO word order is the most neutral word order, all the 6 different word order possibilities discussed above are frequently used with different pragmatic contexts.

(7) Ibu masak nasi.

mother cook rice

S V O

(8) Ibu nasi masak.

mother rice cook

S O V

¹ Some have excluded OSV word order from this typology (Baker 2001) and have claimed that this is actually an ergative pattern (Whitman 2008).

- | | | | |
|------|-------|--------|--------|
| (9) | Masak | ibu | nasi. |
| | cook | mother | rice |
| | V | S | O |
| (10) | Masak | nasi | ibu. |
| | cook | rice | mother |
| | V | O | S |
| (11) | Nasi | ibu | masak. |
| | rice | mother | cook |
| | O | S | V |
| (12) | Nasi | masak | ibu. |
| | rice | cook | mother |
| | O | V | S |

‘Mother cooked (some) rice.’

This property of Jakarta Indonesian (JI) is not unique, as many other closely related languages have been described as having such flexible word order (Javanese – Uhlenbeck 1975; Riau Indonesian – Gil 1994, 2004, 2005; Standard Indonesian – Stack 2005, et al). This dissertation investigates in-depth the nature of this flexible word order and will tackle the following two questions:

1. Q 1: How free is the word order in Jakarta Indonesian (JI)? Are there restrictions on the word order and what are they?
2. Q 2: Can JI word order flexibility and any restrictions on it be explained by existing accounts within the broad framework of generative grammar?

To answer these questions, I will first provide an in-depth background description of JI in Chapter 2. In it, I will discuss both the sociolinguistic context, as well as relevant grammatical

structures of the language. In Chapter 3, I move on to discuss theories of word order flexibility within generative grammar. I am specifically interested in two different types of object movement typically studied in relation to Germanic languages such as West Germanic German and Dutch, as well as Scandinavian languages: Scrambling and Object Shift. While most studies on these Germanic languages divide them into Scrambling or Object Shift languages, I will show that JI has both operations. In Chapter 4, I explore in depth Object Shift in JI and argue that restrictions that govern Object Shift in the far better-studied Germanic languages are also present in JI, limiting its otherwise highly flexible word order. In Chapter 5, I explore Scrambling in JI and argue that Object-initial constructions in the language that have been mostly categorized in the literature as either a passive construction or topicalization, are actually Scrambling. Finally, in Chapter 6, I elaborate on the syntactic details of both Object Shift and Scrambling in Indonesian. In it, I explore Fox and Pesetsky's (2005) cyclic linearization and Müller's (2007) relativized cyclic linearization to explain Object Shift in the JI data. Finally, in my conclusion, I revisit the two research questions presented in this chapter and summarize how my exploration of both the JI data and theories on object movement can answer these questions.

CHAPTER 2

JAKARTA INDONESIAN

2.0 Introduction

Jakarta Indonesian (JI) is a colloquial variety of Indonesian that originates in the capital city of Indonesia, Jakarta. Its sphere of influence, though, extends beyond the geographic region of Jakarta due to its perceived prestige. In this chapter, I describe the emergence of JI and its relationship to Standard Indonesian (also simply called Indonesian), as well as Betawi, another local language native to the Jakarta area. Crucially, I also describe important JI syntactic and morphological features that will become important for our theoretical discussions in Chapters 3,4,5 and 6.

2.1 Language Situation in Indonesia and Jakarta

Jakarta is the capital city of Indonesia, the largest island nation in the world with over 13,000 islands and a population of over 270 million (of which about 10 million resides in Jakarta). The islands that comprise Indonesia extend all the way between the Pacific and Indian Oceans, sandwiched between mainland Southeast Asia and Australia (Wikipedia). Florey (2010) claims that there are currently more than 700 languages spoken in Indonesia. This represents about 10% of the world's languages. As such, Indonesia is the second most linguistically diverse country in the world, just behind Papua New Guinea (Ethnologue).

The national language of Indonesia is called Indonesian or *Bahasa Indonesia* locally. Indonesian developed from the Malay language, an Austronesian language that was widely used as the lingua franca of trade throughout the region comprised today of Malaysia, Singapore, Indonesia, Brunei and Southern Thailand. Today, vernacular varieties of Malay are also spoken in large areas of Kalimantan, Sumatra, Riau and Papua in Indonesia (Sneddon 2003).



Figure 2.1: Map of Indonesia.

Locally in Indonesia, Malay language schools started to be established during the Dutch colonial period. During colonial times, the language was standardized based largely on the Malay dialects spoken in Riau. Later, after Indonesia's independence in 1945, the Indonesian government continued this effort, declaring Indonesian the national language and establishing the *Pusat Bahasa* (National Language Center). This center standardized the grammar and vocabulary of Indonesian; and continues to have a strong influence on the development of Standard Indonesian today. The successful spread of Indonesian usage and mastery in the country can be attributed to the rapid development of education programs such as the *wajib belajar enam tahun* 'compulsory six years of education,' that flourished because former President Suharto made a commitment to lower the barriers to educational access nationwide (Sneddon 2003, Kurniawan 2018).

The spread of Standard Indonesian, though rapid and successful, did not happen overnight. In many parts of the country, the language, acquired through formal education in school by the local population, often slowly displaces existing local languages in formal contexts. A famous

example of this comes from the current state of Javanese, a language spoken mainly in Central and East Java with around 98 million native speakers (Indonesian Central Bureau of Statistics 2011). While there is an impressively large number of native speakers currently still speaking the language, Indonesian has largely replaced the use of *Krama Javanese*, the polite, high register of the language, in formal situations. Moreover, Ravinandrath and Cohn (2014) report that “big” languages like Javanese are not safe from endangerment as the young population use them less and less compared to their parents. Some parents are even making the conscious decision to not teach their children the local language because of the perceived prestige of Standard Indonesian. My personal experience aligns with this observation as neither of my Javanese-speaking parents actively taught me Javanese. In fact, they do not use Javanese at all when conversing with each other at home, even though they still use the language with their own siblings. Increased use of both formal and informal Standard Indonesian forms has also been followed by an increased use of Colloquial Indonesian (CI), but this happened more organically and less overtly.

The spread of Standard Indonesian as a national language, however, has not only threatened local languages; it has also given rise to many new local varieties. The effect of language contact between Indonesian and Javanese in different areas of Java has been discussed in detail by Wolff and Poedjosoedarmo (1982), as well as by Adisasmito-Smith (2004). Sneddon (2006), however, reports that the government is not keen on documenting these new varieties. Additionally, there has been very little research on local varieties of Indonesian (Gil 1994 on Riau Indonesian, Ewing 2005 on colloquial Indonesian and Englebretson 2003 on colloquial Indonesian in Central Java); and the JI variety is definitely in this same understudied group (See Wallace 1976 for naturalistic speech data of JI and Kurniawan 2018 for a thorough description on the phonology of JI).

In the capital region of Jakarta, Betawi was spoken by the indigenous population before the Indonesian independence in 1945. As the political and economic center of the country, though,

Jakarta attracted many immigrants. Kurniawan (2018) reports that more than half of the population of Jakarta are children of immigrants from different ethnicities today. As a melting pot of sorts, Jakarta has become a place where the local language Betawi comes in constant contact with Indonesian as the national language that serves as a lingua franca amongst immigrants to the capital city. Unsurprisingly, this has given rise to a local Indonesian variety that is heavily influenced by Betawi; and that is what I am calling Jakarta Indonesian (JI) for the purposes of this dissertation. The influence of Betawi in JI is most pronounced in the vocabulary. As is expected with most cases of language contact, the influence of Betawi on the syntax itself is less immediately obvious, but it is present.

Complicating the language situation is the diglossia present in Indonesian (Ferguson 1959, Sneddon 2003). Standard Indonesian as formally taught in school mostly stays in the form of writing or in very formal situations; for most everyday interactions, the colloquial form of Indonesian is used. This variety, which I will refer to as Colloquial Indonesian (CI) in general has a much more “permissive grammar,” especially in terms of word order flexibility, but Colloquial Indonesian has never been standardized and it is not taught explicitly in schools. This makes it difficult in specific situations to distinguish JI from Colloquial Indonesian. For the purposes of this dissertation, JI will be defined as the variety of CI spoken by the Jakarta middle class; and associated with certain phonological traits (see Kurniawan 2018) as described in Section 2.3, as well as with a specifically Jakarta lexicon. I concur with Sneddon (2003) that Jakarta Indonesian (JI) is basically acquiring the status of the “standard” colloquial Indonesian due to its prestige and wide-spread media use. JI is also often a symbol of higher education attainment and of membership in the middle class today (Sneddon 2006). This is different from the situation of other local Indonesian varieties like Riau- and Papuan Malay whose sphere of influence do not extend beyond their respective local areas. This situation makes it almost impossible to fully separate the syntax of JI and colloquial Indonesian, especially when talking about the syntax of word order.

However, since there is at this point in time no official standard version of the general colloquial Indonesian, and there might be slight varieties in different areas, I will utilize typically Jakarta Indonesian vocabulary in my example sentences to make sure that I am not overgeneralizing my claims in this project.² At the same time, it is important to note that the data presented here mostly reflect what is true for colloquial Indonesian too, as they are corroborated by consultants from other parts of Indonesia.³ Background information and theoretical discussions of both Indonesian and colloquial Indonesian will also be presented here whenever the facts overlap with JI, or when needed to highlight what is different in JI. Examples in this work are all from JI unless otherwise stated.

2.2 Structure of JI

In this section, I elaborate on the basic structure of JI, focusing on basic or unmarked word order, which is similar to the SVO found in Indonesian and colloquial Indonesian, to establish the basic assumptions I make regarding JI syntactic structure. I discuss at length the syntax of Aspect markers and Modals, both of which are important markers of the boundary of vP; they are crucial in indicating the position of the subject and the object in non-neutral sentences in JI. Finally, I also elaborate on the morpho-syntax of optional verb prefixes in JI. This is an important and much discussed aspect of non-neutral word order in colloquial Indonesian and Indonesian as object movement out of the vP is accompanied by only bare verbs. As such, this serves as another important marker of the object position in non-neutral sentences.

² Please note that this is not always possible, as JI vocabulary is often the same as Indonesian vocabulary.

³ I have consultants who are from Sumatra, Bali, and other parts of Java, but they all belong to the educated and/or middle class.

2.2.1 *Jl basic word order*

Jl shares the Indonesian neutral word order of SVO. In the context of Austronesian, this represents a new invention as the Proto-Austronesian language is reconstructed to be verb-initial. Most Formosan and Philippine languages today are still verb-initial with the exception of some auxiliaries and negative marker allowed to precede the verb. A small number of Formosan languages like Thao and Saisiyat have SVO word order due to contact influence from the Mandarin spoken in Taiwan today, and some languages in Eastern Indonesia are SOV due to contact influence from Papuan languages. Additionally, Malagasy and Polynesian languages including Fijian are also all still verb initial today. Languages spoken in Western Indonesia and the Pacific, however, are now mostly SVO, although some like Toba Batak still retain the Proto-Austronesian verb-initial word order. Cole and Hermon (2008) argue that both the SVO and VOS word orders are attested in Toba Batak.

Toba Batak

- (13) Mangallang kue dakdanak-i.
eat cake child-DEF
V O S

‘The child is eating a cake.’ (Silitonga 1973)

- (14) Dakdanak-on mang-atuk biang-i.
child-this hit dog-DEF
S V O

‘This child hit the dog.’ (Cole & Hermon 2008)

To account for this, Cole and Hermon (2008) argues that Toba Batak VOS word order is the result of VP-raising to Spec,TP; and they argue that the subject may then optionally raise over

the raised VP for Information Structural purposes. This second optional movement is how SVO structures are formed in the language.

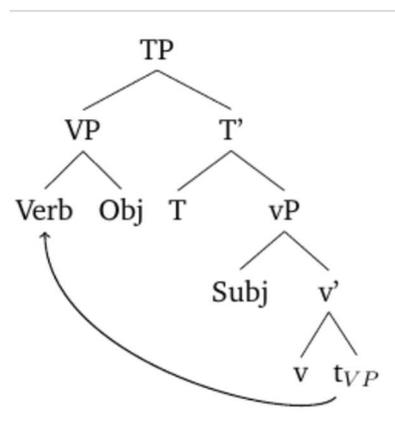


Figure 2.2: VP-Raising in Toba Batak (Cole & Hermon 2008).

In light of this data and analysis, it is crucial to determine what kind of SVO structure JI has. Chung (2008) took this VP-fronting analysis of Toba Batak and considered the following important questions: is it possible that the JI SVO order is similar to SVO in Toba Batak, whereby the VP always raises to Spec,TP? Where is the subject position then?

Chung (2008) argues that Standard Indonesian SVO order is similar to the English SVO system; in that the subject raises to Spec, TP due to an EPP feature while the verb stays in its low base generated position. I adopt this basic view of Standard Indonesian for JI in this work. Chung's most solid argument for this comes from the scope of *hanya* 'only' in Standard Indonesian. *Hanya* is one of the adverbs that typically precede the vP and can only scope over constituents that they c-command. The equivalent of the Indonesian *hanya* is *cuma* in JI. Below, I show how *cuma* can only scope over the predicate of the in-situ object in a JI sentence.

(15) Wulan cuma [_{vP} makan sayur].
 Wulan only eat vegetable
 S V O
 ‘Wulan only eats vegetables.’

(16) Wulan cuma [_{vP} ngajak anjing-nya jalan di-belakang rumah].
 Wulan only bring dog-her walk PREP-behind house
 S V O
 ‘Wulan is only walking her dog in her backyard.’

Sentence (15) cannot mean ‘Only Wulan eats vegetables’ and sentence (16) cannot mean ‘Only Wulan is walking her dog in her backyard.’ This shows that the subject ‘Wulan’ has escaped the scope of ‘only.’ The predicates ‘eats vegetables’ and ‘walking her dog in the backyard,’ on the other hand, are both within the scope of ‘only.’ This contrast means that the VP stays low, thus, c-commanded by ‘only’ that precedes the vP, while the subject moves to a position above the vP. This is to be expected in a standard SVO structure like English, as similarly demonstrated by Chung for Standard Indonesian

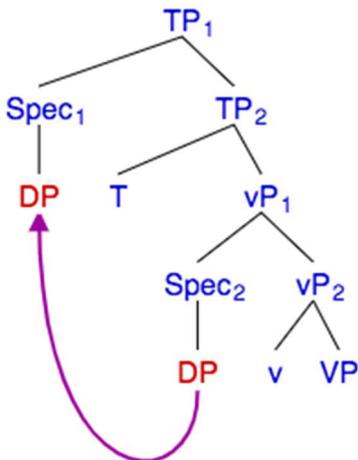


Figure 2.3: Standard SVO structure; Subject raised to Spec,TP; Verb stays in vP.

As mentioned in the previous chapter, JI has rather flexible word order, so the subject does not always have to move to Spec,TP and can stay low in Spec,vP. Below, I show briefly how the *cuma* test similar to the one above, applies when the subject stays low.

- (17) Sayur cuma bakal dia makan.
 Vegetable only Asp he eat
 ‘Only he would eat the vegetables.’

Unlike in examples (15)-(16), *cuma* can scope over the subject in (17), suggesting that the subject does stay low in this sentence; and that the subject does not always move outside of the vP (Contra Chung 2008⁴). This is crucial to note since this is unusual for a language that superficially appears to behave like English SVO order. It has been suggested that the ability of the subject to stay inside vP might be the syntactic remnant of the non-accusative alignment found at earlier diachronic stages of the Austronesian language family generally (Aldridge 2008).

Similarly, just because JI has an underlying, neutral SVO structure comparable to English, it doesn't mean that the VP never raises above the vP. In a non-neutral sentence with VOS word order, the VP may raise up to a position above vP, most likely into Spec,CP for information structural reasons (18 – see Chapter 4 for more detailed discussion on this). Sentence (18) is not a neutral sentence, and can only be felicitous when ‘liking to eat vegetables’ has been mentioned before in the discourse; this is akin to topicalization of old information.

⁴ Predictably so, as Chung's (2008) work was based on Standard Indonesian data where this particular sentence would be ungrammatical.

- (18) Suka makan sayur Wulan.
 like eat vegetables Wulan
 ‘Wulan **likes to eat vegetables.**’

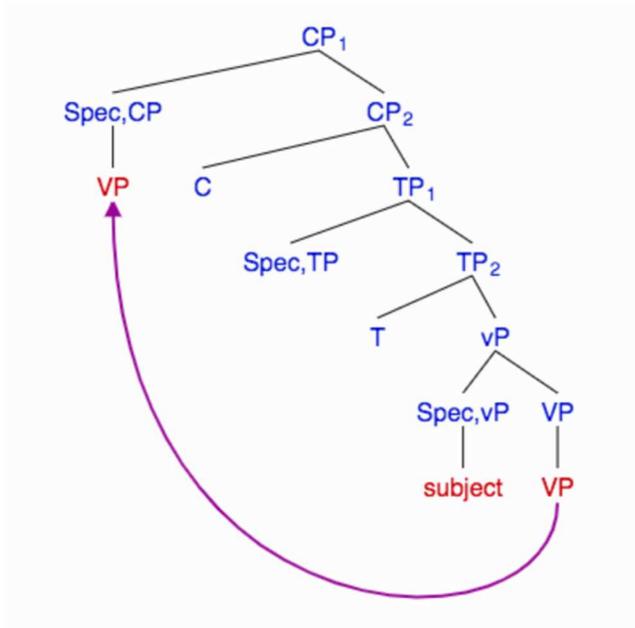


Figure 2.4: VP-raising in JI.

Thus, while JI also has both SVO and VOS like Batak Toba, they have very different syntactic derivations. As elaborated here, the Batak Toba SVO is a result of VP movement to Spec,TP, followed by Subject movement above the landing site of the VP movement (Figure 2 above), but the JI SVO is a result of just the subject moving up to Spec,TP while the verb and object stay low in their base generated positions. Based on the pragmatics of verb-initial sentences in JI such as given in (18), it is also likely that the landing site of the VP movement is Spec,CP.

2.2.2 Auxiliaries that precede the vP in JI

With a language that has a flexible word order like JI, it is often difficult to determine what has moved where in non-neutral SVO sentences. Fortunately, there are auxiliaries that have been

traditionally described as preceding the vP and marking its boundary, like the adverb *cuma* above. These auxiliaries will be very important in the detailed discussion of JI word order in Chapters 4 and 5, especially when determining the position of the subject (Spec,vP or Spec,TP) and/or the position of the object (in the vP or outside the vP). These auxiliaries can be generally categorized into (i) Aspect markers, and (iii) Modal verbs.

Chung (1976, 2008), McCune (1979), Arka & Manning (1998), Aldridge (2008, 2011), Sneddon (1996, 2012), Alwi (2014), Cole and Hermon (2005), Guilfyole, Hung, and Travis (1992), Musgrave (2001), among others have all described a famous phenomenon in Standard Indonesian and Colloquial Indonesian where sentences are often object initial, followed by an aspect marker (Asp) and then the subject. A comparable JI example is given below.

- (19) Anjing itu udah dia kasih makan.
 dog that PERF 3rd give food
 O Asp S V
 ‘He/she fed that dog.’

Colloquial Indonesian and JI, however, also have another OSV pattern where the Asp comes after the Subject (S) (Cole & Hermon 2006, Sneddon 2003, 2006).

- (20) Anjing itu dia udah kasih makan.
 dog that 3rd PERF give food
 O S Asp V
 ‘He/she fed that dog.’

In the cases where the subject comes after the Asp, such as shown in (19), there is a consensus in the literature that the subject is in a low position, staying in Spec,vP. In cases where the subject

comes before the Asp morpheme, such as shown in (20), however, the standard assumption is that the subject has moved out of the vP into Spec,TP. It is interesting to note, that while the (19) pattern is grammatical in Standard Indonesian, Colloquial Indonesian and JI, the pattern in (20) is only grammatical in colloquial Indonesian and JI. This thus serves as an archtypical example differentiating Standard Indonesian from its less formal, colloquial versions. More detailed discussion on these different object-initial patterns will be presented in Chapter 5.

Below, I discuss further the properties of the Asp morphemes that motivate describing them as demarcating the vP boundary, along with Modals (Mod) that behave similarly. This is important for subsequent syntactic arguments in the dissertation. While their syntactic position turns out to be relatively clear, the fundamental issue of whether they are auxiliary heads or adverbs have been much less studied, and there is currently no consensus on the matter. This question is important for the purpose of this research as I describe the movement of constituents and heads in non-neutral JI sentences later in Chapters 4 and 5. If Asp and Mod in JI are auxiliary heads, then they would allow movement into their Spec position. Traditionally, auxiliary modals in English like *could*, *might*, etc cannot co-occur with each other, but we will see that this is possible in JI.

Jl, just like Standard Indonesian, does not mark verbs for tense, but aspectual markers are often used in sentences to denote how an action or event extends over time. In table 2.1 below, I have modified data from Sneddon (1996) and categorized aspectual markers in JI into 6 categories.

perfective	udah
recent perfective	baru
long-past perfective	pernah
imperfective	lagi
long-ongoing imperfective	masih
future	bakal

Table 2.1: Aspectual Markers in JI

Interestingly, these different categories of aspectual markers are generally able to co-occur with each other. Both the perfectives and the imperfectives, for example, can co-occur with the future marker.

- (21) Icha baru bakal beli buku Harry Potter.
 Icha rec-PERF FUT buy book Harry Potter
 ‘Icha is just about to buy the Harry Potter book.’

- (22) Icha lagi bakal beli buku Harry Potter.
 Icha IMP FUT buy book Harry Potter
 ‘Icha is going to buy the Harry Potter book.’

Temporal markers from the same categories can also co-occur. Changing the ordering of the temporal markers such as in (23), and (24), however, does change the meaning of the sentence. In fact, the first temporal marker seems to modify the second one.

(23) Angga masih lagi makan.
 Angga long-IMP IMP eat
 ‘Angga is still eating.’

(24) Angga lagi masih makan.
 Angga IMP long-IMP eat
 ‘Angga is still eating’

Even some imperfectives can co-occur with some perfectives. In (25), *Angga* is just recently in a situation where he is eating some chicken; whereas in (26), *Angga* is still in a situation where he just finished eating some chicken. Again, we see here a change in meaning where the first aspectual marker modifies the second one.

(25) Angga baru lagi makan ayam.
 Angga rec-PERF IMP eat chicken.
 ‘Angga just started eating his chicken.’

(26) Angga lagi baru makan ayam.
 Angga IMP rec-PERF eat chicken
 ‘Angga just started eating his chicken.’

All the imperfectives, perfectives and future markers can also appear together in a sentence.

(27) Angga masih baru bakal makan.
 Angga long-IMP rec-PERF FUT eat
 ‘Angga is just about to eat.’

The ordering of these aspectual markers can be reversed, like in the case of (21); the position of the future marker *bakal* and the recent perfective *baru* is reversed in (28) below, but this inversion of the aspectual markers does change the pragmatics of the sentence. Whereas (21) can be used to answer a neutral question about when Icha is buying the book, sentence (28) has the added assumption that Icha should have done this earlier, but is only getting to it tomorrow.

(28) Icha bakal baru beli buku Harry Potter besok.
 Icha FUT rec-PERF buy book Harry Potter tomorrow
 ‘Icha is only about to buy the Harry Potter book tomorrow.’

If we consider all possible combinations in sets of two amongst the aspectual markers, however, not all combination/ordering are permitted. So, the co-occurrence possibilities are limited, mostly by the meaning that can be derived by the combination of the different aspectual markers.

Udah baru	Baru udah	Pernah udah	Lagi udah	Masih udah	Bakal udah
Udah pernah	Baru pernah	Pernah baru	Lagi baru	Masih baru	Bakal baru
Udah lagi	Baru lagi	Pernah lagi	Lagi pernah	Masih pernah	Bakal pernah
Udah masih	Baru masih	Pernah masih	Lagi masih	Masih lagi	Bakal lagi
Udah bakal	Baru bakal	Pernah bakal	Lagi bakal	Masih bakal	Bakal masih

Table 2.2: possible combinations (set of 2) of aspectual markers in JI

Ji also has several modal verbs (Mods) that are similar to Standard Indonesian.

The following are some modal verbs in JI:

bisa	can; be able to
bisa/boleh	may; have permission
harus	must
perlu	must
mampu/sanggup	able, have the capacity
sempat/sempet	able, have the time, have the opportunity

Table 2.3: Modal verbs in JI

Similar to the Asp morphemes, the different Modals can co-occur with each other; reversing their ordering as seen below also changes the meaning of the sentence, similar to what we see in above for the aspectual markers.

- (29) Syahid harus sempat main monopoli.
 Syahid must have time play monopoly
 ‘Syahid must have time to play monopoly.’

- (30) Syahid sempat harus main monopoli.
 Syahid have time must play monopoly
 ‘There was a time when Syahid must play monopoly.’

Additionally, modals in Indonesian can be modified. Lassiter (2011) has argued that all modals, including modal auxiliaries are inherently scalar so this is not surprising.

- (31) Rina lebih bisa main piano daripada main biola.
 Rina more able play piano compare play violin
 ‘Rina is able to play the piano better than the violin.’

(32) Kamu sangat perlu belajar bahasa Inggris.
you very must learn language English
'You really should learn English.'

(33) Kamu ke pasar-nya lebih sempat besok atau hari ini?
you to market-DEF more able tomorrow or day this
'Are you more able to go to the market today or tomorrow?'

It looks like Asp and Mods in Indonesian have flexible co-occurrence possibilities and they are also flexible in terms of their placement, although different orderings do change the meaning. While this is quite different from Standard English, many English varieties have in fact been reported as having double modal constructions (Labov 1972, Di Paolo 1989, Boertien 1986, Mishoe & Montgomery 1994, Whitley 1975, Feagin 1979, et al); the most common cited double modal construction involves the double usage *might could*. In light of this data, Labov (1972) argues that the first modal in a double modal construction is an adverb. In this account, the second modal is the head of an independent auxiliary projection (above vP), with the first adverbial modal modifying it in its Spec position. This contrasts with the Standard English account of modals as a head base generated in T, which would constraint its position in the structure and the co-occurrence of any other modals.

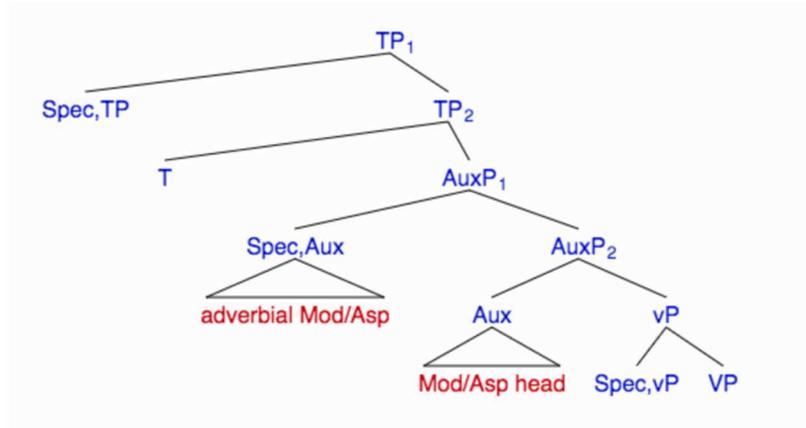


Figure 2.5: Structure of Modal auxiliaries based on Labov’s 1972 account.

I adopt Labov’s framework for this project and expand this assumption to include Aspect markers (Asp). This means that both Asp and Mods in JI can be adverbs or auxiliary heads. As such, their co-occurrence possibilities and ordering flexibility described above is not a problem. However, as we have seen these co-occurrence possibilities are not limitless; and appear to be limited by the meaning that can be derived from the different combinations, as to be expected if they are to function as modifying adverbs.

Here, I also show that JI Asp and Mod can indeed be true auxiliary heads through data from Ellipsis. Ellipsis is said to be triggered by a functional head which licenses the ellipsis (deletion) of its complement in the PF. For English VP Ellipsis, these functional heads are typically auxiliaries like Tense (Chao 1987, Johnson 2001, Lobeck 1995, Merchant 2001, Zagona 1982, 1988).

Ellipsis data from JI below show that while ellipsis is allowed with modals and aspect markers (see 35 and 36), it is ungrammatical with “true” adverbs like *tomorrow* (see 34). This shows that unlike pure adverbs, modals, and aspect markers can indeed function as heads of auxiliary

projections above the vP⁵. This fact will be important as we discuss different types of object-initial word orders in Indonesian in the following chapters.

- (34) *Angga **kemarin** beli baju batik di Sarinah,
 Angga yesterday buy clothes batik in Sarinah
 dan Tiwi **kemarin** juga.
 and Tiwi yesterday too
 ‘Angga bought some batik clothes in Sarinah yesterday, and Tiwi did too.’

- (35) Angga **belum pernah** beli baju batik di Sarinah,
 Angga NEG PERF buy clothes batik in Sarinah,
 dan Tiwi **belum pernah** juga.
 and Tiwi NEG-ASP PERF too
 ‘Angga has never bought batik clothes in Sarinah, and Tiwi never did too.’

- (36) Angga masih beli baju batik di Sarinah,
 Angga IMPF buy clothes batik in Sarinah
 dan Tiwi masih juga.
 And Tiwi IMPF too
 ‘Angga is still buying batik clothes in Sarinah, and Tiwi is still doing that too.’

⁵ Of course, as illustrated in sentences (23), (24), (25) and (26), the aspectual markers can also serve as modifiers, but their exact function as modifiers is outside the scope of this thesis, and is less important for the core discussion of this work.

- (37) Angga **harus** beli baju batik di Sarinah,
 Angga must buy clothes batik in Sarinah
 dan Tiwi **harus** juga.
 and Tiwi must too.
 ‘Angga has to buy batik clothes in Sarinah, and Tiwi must too.’

In this section, I have presented facts about the position of Aspect markers (Asp) and Modals (Mods) as the vP boundary in JI, and that they may be auxiliary heads or adverbs in the language.

2.2.3 JI Morphology and Its Relationship to Object Movement

Nouns in Standard Indonesian, colloquial Indonesian and JI are not marked for case, and as mentioned in the previous section, verbs are also not marked for tense. There are, however, several verb suffixes in Indonesian with different functions such as nominalization, question, applicatives, etc. See Sneddon 1996 for a detailed description. In general, verb suffixes and circumfixes are not optional in Indonesian, but some prefixes are optional in colloquial Indonesian and JI. It is also generally much more difficult to pinpoint the exact function of many verb prefixes in all varieties of Indonesian.

For example, the most discussed verb prefix in the literature on Indonesian grammar is the *meN-* prefix. In the Standard Indonesian version, this prefix morphologically has an underspecified nasal that assimilates in place of articulation with the following sound. This results in five possible variations of the prefix: *me-*, *mem-*, *men-*, *meng-* and *meny-*⁶.

⁶ /ŋ/ is orthographically represented by *ng*, and /ɲ/ is orthographically represented by *ny* in Standard Indonesian.

Root	Root + <i>meN</i> -	
beri	memberi	‘to give’
cari	mencari	‘to find’
gambar	menggambar	‘to draw’
serang	menyerang	‘to attack’
lamar	melamar	‘to propose’

Table 2.4: *meN*- nasal assimilation in Standard Indonesian.

In JI, this prefix has been reduced to just the underlying *N*- nasal consonant, but still behaves otherwise similarly to the Standard Indonesian prefix. Thus, in JI we get the following 4 possibilities: *m*-, *n*-, *nge*-, and *ny*-⁷.

Root	Root + <i>N</i> -	
potong	motong	‘to cut’
tebang	nebang	‘to cut down’
gambar	ngegambar/nggambar	‘to draw’
serang	nyerang	‘to attack’

Table 2.5: *N*- nasal assimilation in JI.

Arka (2011), Sneddon (2006), et al. claim that the Standard Indonesian *meN*- prefix is the active voice marker. In previous descriptions of Standard Indonesian, *meN*- is often contrasted with the passive marker *di*-. In the following table I present some examples of the distribution of both prefixes in JI, where *N*- represents the JI allomorphs of *meN*-.

⁷ In some cases, it is also realized as *nge*- or *ngə*- but this alternation is not of concern here. See Kurniawan 2018 for discussion.

Active Voice	Passive Voice
<i>nyapu</i> ‘to sweep’	<i>disapu</i> ‘to be swept’
<i>nggunting</i> ‘to cut’	<i>digunting</i> ‘to be cut’
<i>mborgol</i> ‘to handcuff’	<i>diborgol</i> ‘to be handcuffed’
<i>ngecat</i> ‘to paint’	<i>dicat</i> ‘to be painted’
<i>mbuka</i> ‘to open’	<i>dibuka</i> ‘to be opened’
<i>nyuri</i> ‘to steal’	<i>dicuri</i> ‘to be stolen’
<i>mbeli</i> ‘to buy’	<i>dibeli</i> ‘to be bought’
<i>ndenger</i> ‘to listen’	<i>didengar</i> ‘to be listened to’
<i>nangkis</i> ‘to block’	<i>ditangkis</i> ‘to be blocked’
<i>ngejek</i> ‘to make fun’	<i>diejek</i> ‘looked down upon’

Table 2.6: *N-* as active voice marker in JI.

meN- has also been said to be the marker for transitive verbs (Sato 2010, Arka 2011, Sneddon 1996), but this prefix can also occur with intransitive verbs. Below I present examples of this in JI, with the *N-* prefix.

<i>N-</i> + intransitive verbs		<i>N-</i> + transitive verbs	
<i>ngelaut</i> ‘to go to sea’	<i>laut</i> N	<i>nanya</i> ‘to ask’	<i>tanya</i> V
<i>ndarat</i> ‘to land’.	<i>darat</i> N	<i>mbunuh</i> ‘to kill’	<i>bunuh</i> V
<i>mbatu</i> ‘to be quiet.	<i>batu</i> N	<i>ngasih</i> ‘to give’	<i>kasih</i> N
<i>nangis</i> ‘to cry’	<i>tangis</i> N	<i>ngirim</i> ‘to send’	<i>irim</i> V
<i>nyerah</i> ‘to surrender’	<i>serah</i> V	<i>ngontrak</i> ‘to contract someone’	<i>kontrak</i> N

Table 2.7: *N-* as marker of transitive and intransitive verbs in JI.

The discussion of the exact function and nature of *meN-* (in Indonesian) and *N-* (in JI) is beyond the scope of this dissertation. What is more interesting for us here, however, is how this prefix behaves in regard to object movement out of the vP. Standard Indonesian does not allow *meN-* optionality, but CI does, and the *N-* prefix in JI is also optional. However, whenever the object of a sentence has moved out of the vP, the verb must be bare and no prefix is allowed (including both *meN-* (in Standard Indonesian) and *N-* (in JI)).

(38) **Standard Indonesian**

Meja itu baru Ali (*mem-)beli kemaren.
 O Asp S V
 table that Asp Ali buy yesterday
 ‘Ali just bought that table yesterday.’

(39) **JI**

Meja itu baru Ali (*m-)beli kemaren.
 O Asp S V
 table that Asp Ali buy yesterday
 ‘Ali just bought that table yesterday.’

Here in (38) and (39), the object ‘that table’ precedes the Aspect marker *baru*, signaling that it has moved out of the vP. Consequently, the verb ‘buy’ must be bare in Indonesian, colloquial Indonesian and JI.

In fact, any kind of movement of the object out of the vP in both Standard Indonesian and JI (also in colloquial Indonesian) must have the bare verb form. In question formation, for example, when the object question is moved sentence initially, the verbs must be bare in (40) and (41). Similarly, when the object is relativized and moved to the beginning of the sentence, or when the

object is focused and moved to the beginning of the sentence, the verbs must all be bare (see examples below).

Question Formation

(40) **Standard Indonesian**

Apa yang sedang Ali (*mem-)buat?

O Asp S V

Q that Asp Ali make

‘What is Ali making?’

(41) **JI**

Apa yang lagi Ali (*m-)bikin?

O Asp S V

Q that Asp Ali make

‘What is Ali making?’

Relativization

(42) **Standard Indonesian**

Pakaian yang Ali (*mem-)beli itu bagus.

O REL S V

clothes that Ali buy that good

‘The clothes that Ali bought are good.’

(43) **JI**

Pakean yang Ali (*m-)beli itu bagus.

O REL S V

(i) that JI has an SVO structure similar to English; (ii) that JI Aspect markers and Modals are markers of the vP boundary and that they can be heads of auxiliary projections above vP; and (iii) that a compulsory bare verb is an indicator of object movement out of the vP. In the next chapter, I will discuss from a crosslinguistic perspective the different types of flexible word orders that will be the basis for the discussion of the flexible word order in JI in Chapters 4 and 5.

CHAPTER 3
SCRAMBLING AND OBJECT SHIFT

3.0 Introduction

I discussed briefly in Chapter 1 how languages tend to have a neutral declarative word order in sentences. It is to be noted, however, that even in those languages where the dominant word order is well established, there are many instances where this neutral word order is not adhered to. In English, for example, when we ask a question, we place the question wh-word sentence initially and flip the order of the auxiliary and the subject.

(46) When **are you** going to buy your textbooks?

When we are expressing a command or request in the imperative form, we place the verb sentence initially, and omit the subject.

(47) **Go** buy your textbooks now!

Moreover, when conversing in context, speakers react to the information structure mandated by the discourse of the conversation which shifts topichood and focus to different matters at different times. This often necessitates a “violation” of the dominant word order to fit the context of the conversation. The object, for example, can be placed sentence initially to give it contrastive emphasis, or if it has topic status due to mention in previous discourse.

(48) A:I haven’t read your review of **Mary’s latest movie**; what do you think about it?

B: Well, **that movie**, I haven’t seen, but I’ve seen Lisa’s movie.

A: **Oh! Lisa’s movie**, I haven’t had the time to review because I’ve been busy.

In the cases shown above, though, it is clear that the word order where the object is placed sentence initially is not neutral and would not make a lot of sense if uttered out of context. The exact semantics and pragmatics of these departures from unmarked word order is beyond the scope of this dissertation, but this work aims to look at the syntactic mechanics of similar patterns in Jakarta Indonesian (JI).

While these types of constructions are rather marked in English, such is not the case for many other languages. East Asian languages like Japanese and Korean, as well as Germanic languages like German, Icelandic and the Scandinavian languages utilize these non-neutral word orders with much higher frequency than English. For word order flexibility in closely related languages, see, among others, Javanese – Uhlenbeck 1975; Riau Indonesian – Gil 1994, 2004, 2005; Standard Indonesian – Stack 2005; the relationship between such structures and the semantics and/or pragmatics of such usage is much less studied than is the case in English.

To illustrate this contrast between the semantic effect of word order in English and JI, I replicate here some example sentences that I used while giving a guest lecture at Krida Wacana Christian University in Jakarta, Indonesia recently. Undergraduate students majoring in English were presented with the following sentences in English:

- (49) I just saw that guy at the theater yesterday.
- (50) That guy, I just saw at the theater yesterday.

Students in this Semantics & Pragmatics class were able to recognize that (50) is distinctively marked, and that *that guy* must have been prominently previously mentioned in the discourse. When presented with similar JI sentences, students agree that the semantic effect seen in English is not present:

(51) Aku baru liat orang itu di bioskop kemaren.
I ASP see person that at cinema yesterday
'I just saw that person at the cinema yesterday.'

(52) Orang itu aku baru liat di bioskop kemaren.
person that I ASP see at cinema yesterday
'I just saw that person at the cinema yesterday.'

(53) Orang itu baru aku liat di bioskop kemaren.
person that ASP I see at cinema yesterday
'I just saw that person at the cinema yesterday.'

When asked if putting the object sentence-initially (52&53) presents a contrast with the neutral SVO sentence in JI (51), students commented that these are all just alternatives of saying the same thing, almost like a stylistic variation that could be used without a noticeable semantic or pragmatic difference.

If we consider several tests for topichood, we can also see the contrast between non-canonical English sentences and their counterparts in JI. Gundel (1974, 1985, *inter alia*), for example, proposes two tests for topichood:

- *As-for X* test: Can a variant of the Topicalized sentence, where the Topicalized constituent is the object of an initial *as for* phrase, appear felicitously in the original context?
- *What about X* test: Could the hearer have felicitously injected a question of the form *What about X?*, where X is the Topicalized constituent of the immediately following sentence?

The JI data does not pass either one of these tests⁸. We see that while the object-initial pattern is grammatical following an independent, neutral SVO order, we cannot add the *as for* phrase or a question of the form *what about X?* This indicates that such object-initial constructions are not always cases of topicalization.

- (54) Aku tiap hari dapat ratusan email.
 I every day receive hundreds email.
 Beberapa email-nya aku sering kelewatan baca.
 Some email-DEF I often miss reading.
 ‘I get a few hundred emails a day. Some of those emails, I often miss reading.’
 # Kalo untuk beberapa email-nya aku sering kelewatan baca.
 As for some email-DEF I often miss read
 ‘As for some of those emails, I often missed reading them’
 # Gimana dengan beberapa email-nya?
 What about some email-DEF
 Aku sering kelewatan baca.
 I often miss read
 ‘What about some of the emails? I often miss them’

Similarly, Reinhart (1981) proposes the following test for topichood:

⁸ Sentence (54) seems to be fulfilling Halliday’s (1976, 1985) notion of connectivity where a constituent in immediately preceding discourse can be moved closer to its antecedent. In this case, we see the object *beberapa email-nya* fronted to be closer to its antecedent in the preceding sentence.

- *Say about X that S* test: Could someone felicitously report someone else's Topicalization as *She said about X that S*, where corresponds to the original Topicalized constituent and S to the full sentence in canonical form?

The JI data also does not pass this topichood test:

(55) Aku tiap hari dapet ratusan email.

I every day receive hundreds email.

Beberapa email-nya aku sering kelewatan baca.

Some email-DEF I often miss reading.

Dia bilang tentang beberapa email-nya kalo dia sering kelewatan baca

She say about some email-DEF that she often miss read

‘She said about some of the emails that she missed them’

Thus, we have established here that non-canonical word order in JI does not necessarily indicate a marked shift with topic focus, when compared to the neutral SVO order. In the rest of this chapter, I go over two types of such non-canonical word order variation commonly discussed in the literature: Object Shift and Scrambling.

3.1 Object Shift and Scrambling

Most of the literature written on non-canonical word order in East Asian languages like Japanese and Korean is generally concerned with a linguistic phenomenon first named *Scrambling* by Ross (1967) (Whitman 1979, Saito 1985, 1989, Miyagawa 1995, 1997, inter alia). For these languages with canonical neutral SOV word order, non-canonical word order is considered an instance of *Scrambling*, where non-subjects have moved to the left out of their base generated position.

There are generally three kinds of scrambling discussed in the crosslinguistic literature: (a) clause bounded (intermediate) scrambling, (b) long distance scrambling that is not clause bounded (that is, which crosses at least one CP boundary) and (c) short scrambling within the vP. Different languages that have been identified as having scrambling have different possibilities in terms of the kind of scrambling they allow. Japanese, Korean and Hindi, for example, have been described to allow both clause bounded and long-distance scrambling (Mahajan 1990, Saito 1985, 1989, Miyagawa 1995, 1997), while German has been described by most to only allow clause bounded scrambling (Webelhuth 1989). Below is an example of short, intermediate and long-distance scrambling in Japanese:

(56) **SOV – canonical word order [Japanese]**

Mary-ga sono hon-o yonda.

Mary-NOM that book-ACC read.

‘Mary read that book’

(57) **Short Scrambling [Japanese]**

Sono hon-o Mary-ga yonda.

That book-ACC Mary-NOM read.

‘Mary read that book’

(58) **Intermediate Scrambling [Japanese]**

[Miyagawa 1997 : 1]

Piza-o John-ga Mary-ni ageta.

pizza-ACC John-NOM Mary-DAT gave

‘John gave Mary the pizza.’

- (59) **Long-distance Scrambling [Japanese]** [Miyagawa 1997 : 22]
 [TP Hon-wa_i [TP Mary-ga [TP John-ga isoide t_i katta to]]] itta.
 book-CONTRAST_i Mary-NOM John-NOM quickly ti bought Comp said
 'THE BOOK, Mary said that John bought quickly.'

The literature on non-canonical word order in Germanic languages, on the other hand, generally differentiates two types of object movement that result in non-canonical word orders: (1) *Scrambling* in the same general sense as described for Japanese and Korean; and (2) *Object Shift*. Both scrambling and object shift require movement of the object from its base generated position in the VP to a higher position outside of the VP. The most important difference between the two types of movement was observed and formalized by Holmberg (1986).

Holmberg's Generalization: Object Shift is dependent on V-movement.

What this means is that in the object shift type of movement, the verb must also move to a position outside of the VP, alongside the object. This verb movement requirement is absent for the Scrambling type of movement. Much discussion on object shift in the literature conflates⁹ it with what I have defined as short scrambling (see among others Vanden Wijngaerd (1989), Neeleman (1994b: 408), and Bobaljik (1995: 85)). However, the discussion of object movement undertaken in this dissertation will adhere to the strict definition used traditionally in Germanic language literature, as originally defined by Holmberg (1986).

⁹ Mostly this is due to the fact that the languages being discussed do not have V2 or V-to-T-movement that is closely tied to Holmberg's Generalization (HG). Early accounts of HG relies on the notion that the verb movement is what motivates Object Shift, so discussions of HG in the context of Object Shift is traditionally limited to Scandinavian languages.

In the Germanic language literature, languages are divided between scrambling languages like German and Dutch, and object shift languages like Icelandic and the Scandinavian languages (Thrainsson 2001, Vikner 2005). In Chapters 4 and 5, I will discuss in greater detail how JI has both operations within the same language. Below are some examples from German, Icelandic and Danish that exemplifies this complementary distribution (Vikner 2005 : 393):

(60) **German (Scrambling)**

- a. Peter hat_v ohne Zweifel nie [VP Bücher gelesen] t_v.
 Peter has without doubt never books read
- b. Peter las_v die Bücher_i ohne Zweifel nie [VP t_i t_v].
 Peter read the books without doubt never
- c. Peter las_v sie_i ohne Zweifel nie [VP t_i t_v].
 Peter read them without doubt never
 ‘Peter doubtlessly never read the books/them.’

(61) **Icelandic (Object Shift)**

- a. Pétur hefur_v eflaust aldrei t_v [VP lesið bækur].
 Peter has doubtlessly never read books
- b. Pétur las_v bækurnar_i eflaust aldrei [VP t_v t_i].
 Peter read books-the doubtlessly never
- c. Pétur las_v þær_i eflaust aldrei [VP t_v t_i].
 Peter read them doubtlessly never
 ‘Peter doubtlessly never read the books/them.’

(62) **Danish (Object Shift)**

- a. Peter har_v uden tvivl aldrig t_v [VP læst bøger].
 Peter has without doubt never read books

- b. *Peter læste_v bøgerne_i uden tvivl aldrig [VP t_v t_i].
 Peter read books-the without doubt never
- c. Peter læste_v dem_i uden tvivl aldrig [VP t_v t_i].
 Peter read them without doubt never
 ‘Peter doubtlessly never read the books/them.’

It is interesting to note that even within the general phenomenon of Germanic object shift, there are variations as observed in the data above. While both full DP objects and pronouns can undergo object shift in Icelandic, only pronouns can undergo object shift in Danish.

Scandinavian languages are all V2 languages, so in cases where the main verb is also a finite verb, the verb moves out of its base position; and this is the context where object movement out of the VP in concert with verb raising results in object shift. This object movement following movement of the finite main verb is compulsory with pronouns in Icelandic and Danish, while Josefsson (2003) has shown that it is optional in Swedish. Below are examples showing that object shift for an object pronoun is compulsory when the finite main verb has moved in Danish (Vikner 2005 : 394):

(63) **Danish object shift – finite main verb.**

- a. *Hvorfor læste_v Peter aldrig [VP t_v den]?
 Why read Peter never it
- b. Hvorfor læste_v Peter den_i aldrig [VP t_v t_i]?
 Why read Peter it never
 ‘Why hasn’t Peter read it?’

In sentences where the auxiliary verb is in the finite form, on the other hand, the main verb is nonfinite and stays in its base position. As a result, object shift may not take place. Below are more examples from Danish to exemplify this (Vikner 2005 : 395):

(64) **Danish object shift – infinite main verb**

- a. Hvorfor har_v Peter aldrig t_v [VP læst den]?
 why has Peter never read it
- b. *Hvorfor har_v Peter den_i aldrig t_v [VP læst t_i]?
 why has Peter it never read
 ‘Why has Peter never read it?’

There are more variations in embedded sentences, but this is outside the scope of this thesis. What is interesting, however, is the fact that object shift and Holmberg’s generalization seem to be closely connected to V-to-T movement in V2 languages. JI is an SVO, but not a V2 language (just like English), the kind of verb movement observed is different from the head movement we see in these Scandinavian languages, as we saw in Chapter 2. Holmberg (1999 : 7), however, has observed that VP remnant movement is enough to satisfy Holmberg’s Generalization in Swedish as seen in the examples below:

(65) **Swedish**

- *Jag har [A_{groP} henne_i [VP kysst t_i]]
 I have her kissed
 ‘I have kissed her.’

This is ungrammatical because *her* is shifted, but verb+aux isn't moved. But then, if the past participle ‘kissed’ moves up, the sentence is grammatical, as shown below:

(66) **Swedish**

Kysst har jag henne inte (bara hållit henne i handen).
kissed have I her not only held her by the hand
'Kissed her I haven't (only held her by the hand).'

Based on this data, we can conclude that Holmberg's generalization can be satisfied with various types of verb movement – not just head movement, and this is also how JI satisfies Holmberg's generalization for low object movement.

When we consider data from Pollock (1989) in (67) below who argues that there is no V-to-T movement to English, JI shows patterns similar to the English data. In (68), having the verb move to a position preceding/above the negation is ungrammatical, but auxiliaries and *do* can grammatically occupy that position between the subject and the negation because they are base generated there, above vP. The same pattern can be observed in JI in (68), where the verb cannot precede the negation, contra the auxiliaries, showing that the verb does not move to T.

(67) John does/will/must (*speak) not speak French.

(68) Rina bisa /harus (*ngomong) gak ngomong Perancis.
Rina can must speak NEG speak French

The verb in JI, however, can escape the vP and precede, for example, the subject. However, this verb-subject inversion is also not proof of verb movement to C, which has been proposed for Germanic V2 pattern. This is because verb-subject inversion cannot be used to ask a neutral yes/no question in JI (unlike in German). Something like (69), can only be grammatical when there's presupposition that the person being asked does not like chicken, so it's not felicitous as a neutral, out-of-the-blue question. As such, this cannot be explained by head V movement to C. Instead, the pattern we see in (69) is a result of topicalization to the C domain; and should be

analyzed as a VP movement. In light of these facts, I propose that there is no V head movement in JI, so any Holmberg's Generalization effect we see in the language can only be linked with VP movement as seen in (34) above. This will be discussed in greater detail in the next chapter.

- (69) Makan kamu ayam?
 eat you chicken
 'Do you eat chicken?'

Moving on with the object shift and scrambling dichotomy, unlike object shift, scrambling is not subject to Holmberg's generalization, so object movement can happen independent from verb movement.

- (70) **German scrambling** [Vikner 2005 : 396]
- a. Warum liest_v Peter dieses Buch_i oft [VP t_i t_v] ?
 why reads Peter this book often
- b. Warum hat_v Peter dieses Buch_i oft [VP t_i gelesen] t_v?
 Why has Peter this book often read

It is to be noted that because Germanic languages are generally V2 (except for English), or at least have some V2 grammar, it is much easier to observe verb movement. East Asian languages like Japanese and Korean that have scrambling, on the other hand, are generally verb-final languages. In such languages verb movement outside the VP is not as easily observable, so short scrambling and object shift are not easily distinguishable. JI, on the other hand allows us to observe this division clearly and provides a valuable typological perspective.

3.2 Differences between Scrambling and Object Shift

I have elaborated on one of the main feature differences between Scrambling and Object Shift in the preceding section. However, there are other observable differences between the two types of movement that have been discussed in the literature (Vikner 2005, Thráinsson 2001, et al). This section will tackle some of these major differences.

3.2.1 What can undergo Scrambling or Object Shift?

Typically, scrambling can move both DPs and PPs, while object shift moves only DPs. Within Germanic, most North Germanic languages like Icelandic, Norwegian, Swedish and Danish have object shift. Below is **Icelandic** data showing **object shift** from (Thráinsson 2001 : 151, 168) that shows the ungrammaticality of PP movement (72) to the landing site of Object Shift:

Icelandic

(71) Ég skilaði [manninum] ekki bókinni t
I returned the man-DAT not the book-DAT
'I did not return the book to the man'

(72) *Jon talaði [við Maríu] ekki t
John spoke to Mary not
'John did not speak to Mary'

In contrast, **scrambling in German** may move both DPs (73&74) and PPs (75&76).

German

(73) dass Wolfgang die Filme nicht gesehen hat.
that Wolfgang the movie NEG saw has

(74) dass Wolfgang nicht die Filme gesehen hat.
that Wolfgang NEG the movie saw has
'that Wolfgang hasn't seen the movie'

(75) dass Wolfgang kaum zur Vorlesung gekommen ist.
that Wolfgang seldomto lecture came is

(76) dass Wolfgang zur Vorlesung kaum gekommen ist.
that Wolfgang to lecture seldom came is.
'that Wolfgang seldom came to lecture.'

3.2.2 What is the landing site for Scrambling or Object Shift?

As with all movements, it is important to determine the landing site of the moved constituent. While there is no consensus in the literature on the exact landing site of object shift, it is agreed upon that this position is generally low, at the edge of vP, as can be seen from the **Icelandic** data below (Thráinsson 2001: 153) where the shifted object is immediately to the left of sentential adverbs (78). When the shifted object is put in a higher position above the subject, the sentence is ungrammatical (79).

Icelandic

- (77) Þá máluðuallir strákarstrákarnir stundum bílana rauða
then paintedall the boys sometimes cars red
- (78) Þá máluðuallir strákarstrákarnir bílana stundum t
then paintedall the boys cars sometimes
rauða
red
- (79) *Þá máluðu bílana allir strákarstrákarnir stundum t
then painted cars all the boys sometimes
rauða
red
- ‘then all the boys painted the cars red sometimes.’

On the other hand, Intermediate Scrambling targets higher landing sites (in the TP domain), as demonstrated by movement of objects across subjects in German (81) (Thráinsson 2001: 157).

German

- (80) dass der Schüler den Lehrer nicht t
that the student-NOM the teacher-ACC NEG
überzeugt.
convince
- (81) dass den Lehrer der Schüler nicht t
that the teacher-ACC the student-NOM NEG
überzeugt.
convince
- ‘that the student does not convince the teacher’

3.2.3 What can block either Scrambling or Object Shift?

We have established in the previous section that the verb blocks object movement, that is, object movement must be accompanied by verb movement. Object shift is generally also not allowed to cross over a c-commanding preposition or verb particle.

(82) **Danish – moving over preposition** [Vikner 2005 : 394]

- a. Hvorfor læste_v Peter aldrig t_v [PP i den]?
 why read Peter never in it
- b. *Hvorfor læste_v Peter den_i aldrig t_v [PP i t_i]?
 why read Peter it never in
 ‘Why has Peter never read in it?’

(83) **Swedish – moving over verb particle** [Vikner 2005 : 398]

- a. Peter har_v inte t_v kastat bort mattan.
 Peter has not thrown away carpet-the
- b. *Peter har_v inte t_v kastat mattan_i bort t_i.
 Peter has not thrown carpet-the away
 ‘Peter has not thrown away the carpet.’

Object shift of a direct object is also blocked by an indirect object, as can be seen from the Icelandic data below (84b). But if the indirect object is moved, then the direct object can also undergo object shift (84c).

(84) **Icelandic** [Collins and Thráinsson 1993 : 149, 154, 143, 154]

- a. Ég lána_v ekki t_v Maríu bækurnar.
 I lend not Maria.dat books-the.acc

- b. *Ég lána_v bækurnar_i ekki t_v Maríu t_i .
 I lend books-the.acc not Maria.dat
- c. Ég lána_v Maríu_j bækurnar_i ekki t_v t_j t_i .
 I lend Maria.dat books-the.acc not
- d. Ég lána_v Maríu_j ekki t_v t_j bækurnar.
 I lend Maria.dat not books-the.acc

3.2.4 What type of movement is involved in Scrambling or Object Shift?

Holmberg 1986, and Vikner 1989 among others, have claimed that object shift is A-movement, while Scrambling is A'-movement. Others have argued that Scrambling may manifest properties of both A- and A'-movement (this will be elaborated further in Chapter 4 and 5 of this dissertation). Even the notion that object shift is A-movement has been questioned by Holmberg and Platzack (1995)¹⁰ and Holmberg (1999). However, I will demonstrate in this section the generally accepted A movement properties of object shift, using examples of parasitic gap to show the difference in movement type between Object Shift and Scrambling.

Chomsky (1982) describes parasitic gap construction as a pattern that can only occur in a structure where A'-movement has taken place. Below is an example of a parasitic gap in a wh-construction in German.

¹⁰ Many arguments laid out in these papers such as object shift not being motivated by case have not been adapted and reconstrued in the Minimalism framework. Other more reliable evidence such as the ungrammaticality of parasitic gaps shows clearly that object shift involves A-movement.

German

(85) Welches Buch_i haben alle [ohne e_i zu lesen] t_i
which book have all without to read
ins Regal gestellt?
into bookcase put

‘which book did everyone put on the shelf without reading first?’

[Müller 1995 : 172]

This same parasitic gap construction is only possible with intermediate Scrambling, but not with Object shift. As the wh-construction above is considered A'-movement, the fact that Scrambling too allows parasitic gaps indicates that it also has A'-properties. This can be seen in the German example below where the parasitic gap is only allowed when word order is rearranged by Scrambling.

(86) **German** [Müller 1995 : 173]

a. **Scrambling**

... , daß alle dieses Buch_i [ohne e_i zu lesen] t_i
that all this book without to read
ins Regal gestellt haben.
into-the bookcase put have

b. **No-Scrambling**

*... , daß alle [ohne e_i zu lesen] dieses Buch_i
that all without to read this book
ins Regal gestellt haben.
into-the bookcase put have

‘...that everyone put this book on the shelf without reading (it) first.’

When we turn to cases of object shift, on the other hand, parasitic gaps are not allowed, suggesting that object shift involves A-movement (see the contrast between (86a) and (87a)).

(87) **Danish** [Holmberg 1986 : 225]

a. **Object Shift**

*Alle stillede_v den_i straks t_v t_i hen på reolen
 All put it at once onto bookcase_{the}
 [uden at læse e_i først]
 without to read first

b. **No Object Shift**

*...at alle straks stillede den hen på reolen
 that all at once put it onto bookcase-the [uden
 at læse e_i først]
 without to read first

‘...that everyone put this book on the shelf without reading (it) first.’

3.2.5 Summary – Object Shift vs. Scrambling

The table below summarizes the differences between Scrambling and Object Shift discussed above, which will be the basis of discussion for the rest of this work.

	Scrambling	Object Shift
Verb movement		✓
Only object DP movement		✓
Low landing site		✓
Blocked by preposition, verb particle and indirect object.		✓
A'-movement	✓	

Table 3.1: Differences between Scrambling and Object Shift.

3.3 Chapter Summary

In this chapter, I have introduced two types of object movements that contribute to the flexible word order in JI: scrambling and object shift. In the following chapters, I will discuss both types of object movement and present the JI case study in detail.

CHAPTER 4

OBJECT SHIFT IN JAKARTA INDONESIAN

4.0 Introduction

In this chapter, I examine all possible word order combinations in JI in greater detail, and discuss at length several ungrammatical combinations, shedding light to the existence of object shift as originally characterized by Holmberg (1986) in the language, as elaborated in the previous chapter.

Holmberg's Generalization: Object Shift is dependent on V-movement¹¹.

4.1 Word Order in Jakarta Indonesian

Below I explore the 24 possible combinations of Subject (S), Object (O), Verb (V) and an auxiliary (AUX). It is to be noted that not all of these possible sentences are neutral sentences, but even allowing for markedness, topic, or focus, we will see that some combinations are still ruled out¹². In describing these combinations, I present the most plausible derivations given standard assumptions about head and phrasal movement; in some cases more than one derivation could be considered. (88) below is the most neutral S-AUX-V-O word order:

¹¹ Traditionally, this verb movement is understood as head movement with T as its landing site. This is because this generalization was first discovered amongst Germanic languages where this V-to-T movement is common.

¹² There is considerable variability in grammaticality judgments, but this does not affect this set of data because even allowing for variability, the ungrammatical judgements hold true for all language consultants; and it is these ungrammatical examples that I will zoom in on to discuss object shift in JI.

(88) Icha udah beli buku Harry Potter.

Icha PERF buy book Harry Potter.

S Asp V O

‘Icha bought the Harry Potter book.’

Focusing first on the subject-initial construction, we can get all other possible combinations below (89) - (92), except for the combination in (93), where the order S-AUX-O-V is ruled out.

(89) [TP Icha_i [AuxP [beli t_j]_{VP} udah]_{VP} t_i buku Harry Potter_j t_{VP}]].

Icha buy PERF book Harry Potter.

‘Icha already bought the Harry Potter book.’

In this sentence, the object stays low in-situ, while the subject raises up to Spec,TP motivated by EPP (Chung 2009 – as elaborated earlier in Chapter 2). The verb, on the other hand, has undergone remnant VP movement to the Spec, AuxP position.

(90) [CP [Icha beli buku Harry Potter]_{VP} [TP udah t_{VP}]].

Icha buy book Harry Potter PERF

‘Icha already bought the Harry Potter book.’

In this sentence, we see the whole vP moving up and around the perfective marker to a position in the CP domain.

(91) [CP Icha_i [TP buku Harry Potter_j udah [vP t_i t_j [VP beli t_j]]]]

Icha book Harry Potter PERF buy

‘Icha already bought the Harry Potter book.’

Here, since both the subject and object are above the perfective auxiliary projection, the subject has presumably moved to a position on the left periphery. I will analyze this as movement to Spec,CP position (motivated by some informational structure feature), while the object has occupied the Spec, TP position (or is adjoined to TP- depending on the kind of movement it has undergone), leaving the verb in-situ. This high position of the object (outside of the vP) indicates Scrambling has likely taken place; and this is grammatical even with the verb in-situ.

- (92) [CP [Icha]_i [TP [buku Harry Potter]_j [AuxP[beli t_j]_{VP} udah [vP t_i t_j t_{VP}]]]]
 Icha book Harry Potter buy PERF
 ‘Icha already bought the Harry Potter book.’

Here, we have a combination of what we have seen happening in (89) and (91) where the subject has moved up to Spec,CP, the object to Spec, TP (or adjoined to TP) and the verb has undergone VP-remnant movement to the Spec of AuxP.

- (93) *[TP Icha_i [AuxP udah [vP t_i buku Harry Potter]_j [vP beli t_j]]].
 Icha PERF book Harry Potter buy
 ‘Icha already bought the Harry Potter book.’

This example is important as it is the only ungrammatical one amongst the subject-initial word order possibilities. Here, crucially, the object has not moved into Spec,TP, as signaled by its post-perfective position. This position is a typical landing site of object shift, as demonstrated in the previous chapter. This is distinct from the higher landing sites above the auxiliary, as seen in (91) and (92). Importantly, the verb stays low in (93), as it is to the right of the auxiliary; the most straightforward assumption is that the verb remains in situ. Object shift with no verb movement is clearly a violation of Holmberg’s generalization as originally stated. As we will see again from the examples that follow, this combination - a verb in situ and an object NP moved to

a landing site below T - is unacceptable in JI, precisely as predicted by Holmberg's generalization.

From the contrast in (91) and (93), therefore, we can see that (91) is an instance of Scrambling, while (93) is an instance of object shift. Below are the different structures that demonstrates the different positions of the object and verb. With Scrambling the object is in the Spec of TP (or adjoined to TP), while with Object Shift, the object is in a Spec of vP.

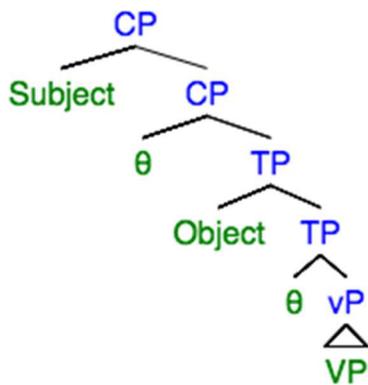


Figure 4.1: Sentence structure for Scrambling.

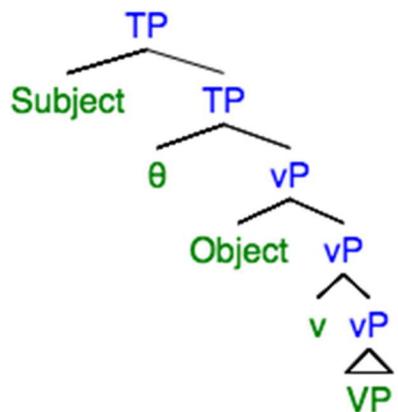


Figure 4.2: Sentence structure for Object Shift.

Now, moving on to Aspect marker-initial positions, the orders in (94)-(96) are all acceptable, but the orders in (97), (98) and (99) are not.

- (94) [AuxP_{Udah} [vP_{Icha} [vP_{beli buku Harry Potter}]]].
 PERF Icha buy book Harry Potter.
 ‘Icha already bought the Harry Potter book.’

Here, I assume that everything stays in its base generated position, and that even the subject has not moved up to Spec,TP. This is an option in Standard Indonesian that has been widely discussed in Passive Type 2 constructions (Arka&Manning 1998, Aldridge 2008, et al for details see the next chapter).

- (95) [TP_{Udah} [AuxP [beli t_j]VP_{t_{perf}} [vP_{Icha buku Harry Potter} t_{VP}]]]
 PERF buy Icha book Harry Potter.
 ‘Icha already bought the Harry Potter book.’

Here, I assume that both the subject and the object are in the inner and outer Spec,vP positions respectively, while the VP remnant moves up to the Spec of AuxP above vP; and the perfective marker has also moved to T. This way, while the object has undergone short object shift, the verb has moved away from its base generated position. This sentence, therefore, is not a violation of the Holmberg Generalization.

- (96) [AuxP_{Udah} [vP_{t_i} [VP_{beli buku Harry Potter}]]]Icha_i.
 PERF buy book Harry Potter Icha.
 ‘Icha already bought the Harry Potter book.’

Here, I assume that the subject is right dislocated while other elements in the sentence are in their base generated positions, because we can have a resumptive pronoun at the beginning of the sentence¹³. So, the sentence final *Icha* is simply a copy operation, not movement.

- (97) *_[AuxP]Udah _[vP]buku Harry Potter_j Icha _[vP]beli t_j]].
 PERF book Harry Potter Icha buy
 ‘Icha already bought the Harry Potter book.’

Here, just as in (93), there is a Holmberg’s Generalization violation. The object is post-perfective, again signaling a low shifted position, but we see that the verb *beli* is still in-situ.

- (98) *_[AuxP]Udah _[vP]Icha buku Harry Potter_j _[vP]beli t_j]].
 ASP Icha book Harry Potter buy
 ‘Icha already bought the Harry Potter book.’

Here, again we see that the object has shifted in front of the verb; but is still positioned low post-subject. I assume here that the vP has multiple specifiers, and that the object has been shifted to the lower specifier of the vP. Since the verb is in-situ, we see another violation of Holmberg’s Generalization.

- (99) *_[AuxP]Udah _[vP]buku Harry Potter_j _[vP]beli t_j]] Icha.
 PERF book Harry Potter buy Icha
 ‘Icha already bought the Harry Potter book.’

¹³ (96’) _[AuxP] Dia udah _[vP] _[vP] beli buku Harry Potter]] Icha_i.
 she PERF buy book Harry Potter Icha.
 ‘Icha already bought the Harry Potter book.’

In (99), the subject has been right-dislocated as in (96). We also see that the object has moved over the verb to a Spec vP position, as in (97) and (98) while the verb remains in-situ, which again shows a violation of the Holmberg's generalization.

So far, we have seen that while JI word order is quite free, and Scrambling and Object shift appear to apply freely, all word orders resulting from Object Shift that violate Holmberg's generalization are ungrammatical. With verb-initial constructions, since the verb has moved from its base generated position, we expect all possible combinations to be grammatical. This is confirmed in the data below:

(100) Beli Icha udah buku Harry Potter.
buy Icha PERF book Harry Potter
'Icha already bought the Harry Potter book.'

(101) Beli udah Icha buku Harry Potter.
buy PERF Icha book Harry Potter
'Icha already bought the Harry Potter book.'

(102) Beli udah buku Harry Potter Icha.
buy PERF book Harry Potter Icha
'Icha already bought the Harry Potter book.'

(103) Beli Icha buku Harry Potter udah.
Buy Icha book Harry Potter PERF
'Icha already bought the Harry Potter book.'

(104) Beli buku Harry Potter Icha udah.

buy book Harry Potter Icha PERF
'Icha already bought the Harry Potter book.'

(105) Beli buku Harry Potter udah Icha.
buy book Harry Potter PERF Icha
'Icha already bought the Harry Potter book.'

Similarly, in object initial positions, we know that the object has moved to a position that is high, either in Spec,TP or in the CP domain. This would mean that the object has “escaped” the domain of object shift and Holmberg’s Generalization, giving grammaticality to every combination below, regardless of the verb position.

(106) Buku Harry Potter Icha udah beli.
book Harry Potter Icha PERF buy
'Icha already bought the Harry Potter book.'

(107) Buku Harry Potter udah Icha beli.
book Harry Potter PERF Icha buy
'Icha already bought the Harry Potter book.'

(108) Buku Harry Potter udah beli Icha.
book Harry Potter PERF buy Icha
'Icha already bought the Harry Potter book.'

(109) Buku Harry Potter Icha beli udah.
book Harry Potter Icha buy PERF
'Icha already bought the Harry Potter book.'

(110) Buku Harry Potter beli udah Icha.
book Harry Potter buy PERF Icha
'Icha already bought the Harry Potter book.'

(111) Buku Harry Potter beli Icha udah.
book Harry Potter buy Icha PERF
'Icha already bought the Harry Potter book.'

From the 24 possible combinations, we see that 4 are ruled out by the grammar (93), (97), (98) and (99):

(93) *S-AUX-Obj-V

(97) *AUX-Obj-S-V

(98) *AUX-S-Obj-V

(99) *AUX-Obj-V-S

As I have elaborated, all of these orders violate Holmberg's Generalization.

4.2 Explaining Holmberg's Generalization

Over the years, there have been many explanations proposed to account for this generalization. Some of these are not straightforwardly statable in the latest iterations of the Minimalist Program, but still important in illustrating how puzzling this generalization is. In the following sections, I will go through some of the major accounts for this phenomenon.

4.2.1 Case-dependent accounts of Holmberg's Generalization

Holmberg (1986), Vikner (1994b) and Holmberg and Platzack (1995) all assume that the verb assigns case to its object obligatorily, while a verb trace does so only optionally. In this version of Chomsky's Government & Binding theory that they assumed (Chomsky 1981), case assignment is an important motivator for movement (A-movement). Since a verb obligatorily assigns case to its object, the object is unable to move to get case when the verb stays in place in the VP. In contrast, when the verb has moved, leaving only a trace in the VP, the trace only assigns case to the object optionally. This makes it possible for the object to move out of the VP to get case assignment. The literature varies significantly on how this shifted object then gets its case.

In Holmberg's original proposal (1986), the moved object does not have to be assigned case syntactically, because it already has morphological case. This predicts that only morphologically case-marked DPs may undergo object shift, which is true only for some data in several Scandinavian languages. Since Icelandic has morphological markings on all DPs, for example, it allows all DPs to undergo optional object shift. However, this is not the case with Swedish that only allows pronouns to undergo compulsory object shift, which is in line with the fact that non-pronoun DPs in the language are not morphologically marked. If we look more closely at other Scandinavian languages though, morphological case markings in all DPs are observed not only in Icelandic, but also in Faroese.

the book	Icelandic	Faroese	Danish	Swedish	Norwegian
nominative	bókin	bókin	bogen	boken	boka/boken
accusative	bókina	bókina	bogen	boken	boka/boken
dative	bókinni	bókini	bogen	boken	boka/boken

Table 4.1: Morphological case markings in non-pronouns [Vikner 1994b].

But, Faroese object shift follows the Swedish pattern of only allowing pronouns to undergo object shift, not the freer pattern seen in Icelandic. In (112), we see an example of a morphologically marked DP in **Faroese** unable to undergo object shift.

- (112) a. Jógván keypti_v ikki [VP t_v bókina].
 Jógván bought not book-the.acc
 b. *Jógván keypti_v bókina_i ikki [VP t_v t_i].
 Jógván bought book-the.acc not

[Barnes 1992: 92]

Another proposal put forth by Vikner (1994b), and Holmberg and Platzack (1995), suggests that the shifted object should get its case from I. Additionally, Vikner proposes that a head X cannot assign both nominative and non-nominative case (e.g. C in V2 languages and I in non-V2 languages). This implies that object shift preceding the verb cannot occur when C is already assigning nominative case to the subject in V2 languages; and object shift should not occur at all in non-V2 languages where the I assigns nominative case to the subject. JI is obviously a counter example to this assertion. Early modern English is another non-V2 language that exhibits object shift and is thus, a counter example to this (Vikner 2005).

Yet another line of thought, is to reduce object shift to cases of pronominal cliticization. The two previous accounts of case assignment discussed in this section have the fatal weakness of lumping pronouns and full DPs together in regard to object shift: Either all objects undergo object shift, or none do. However, the data we have on object shift does not support this, as any kind of object may undergo object shift in Icelandic, while only pronouns may do so in other

Scandinavian languages like Danish, Faroese, Norwegian and Swedish. In the Danish example below, we see that while the full DP cannot shift (113), the pronoun must shift in (114).

(113) **Danish full DPs**

- a. Hvorfor læste_v Peter aldrig [VP t_v den her bog]?
 Why read Peter never this book
- b. *Hvorfor læste_v Peter den her bog_i aldrig [VP t_v t_i]?
 why read Peter this book never

(114) **Danish pronoun**

- a. *Hvorfor læste_v Peter aldrig [VP t_v den]?
 Why read Peter never it
- b. Hvorfor læste_v Peter den_i aldrig [VP t_v t_i]?
 why read Peter it never

[Vikner 2005: 394]

In contrast, **full DP shift is possible, but not compulsory in Icelandic (115)**, while **pronoun shift is compulsory (116), just like in Danish.**

- (115) a. Af hverju las_v Pétur aldrei [VP t_v ¶essa bók]?
 why read Peter never this book
- b. Af hverju las_v Pétur ¶essa bók_i aldrei [VP t_v t_i]?
 why read Peter this book never

- (116) a. *Af hverju las_v Pétur aldrei [VP t_v hana]?
 why read Peter never it
- b. Af hverju las_v Pétur hana_i aldrei [VP t_v t_i]?
 why read Peter it never

[Vikner 2005: 394]

It is important to note, that while Icelandic and Danish differ in their object shift pattern concerning full DPs, they both require the pronoun to shift. This is why it is very tempting to lump pronominal object shift together with cliticization in Romance languages (Holmberg 1991; Josefsson 1992, 1993; Déprez 1994; Bobaljik and Jonas 1996; Diesing 1996, 1997). Crucially, though, Vikner (1994b, 2005) and Holmberg and Platzack (1995) argue that pronominal object shift is different from cliticization in Romance languages. If we compare the Danish and French examples below, we see that the pronoun in Danish cannot follow the verb up to the C projection (117). The cliticization data in French (118) shows the exact opposite pattern where the pronoun must follow the verb into the C projection.

(117) **Danish**

- a. *Hvorfor [C° læste- den_v] Peter [I° t_v] aldrig [VP t_v t_i]?
 why read it Peter never
- b. Hvorfor [C° læstev] Peter [I° t_v - den_i] aldrig [VP t_v t_i]?
 why read Peter it never

‘Why did Peter never read it.’

[Vikner 2005: 418]

(118) **French**

- a. Où [C° li ’ avait_v] - il [I° t_v] [VP t_v [VP acheté t_i]]?
 Where it- had he bought
- b. *Où [C° avait_v] - il [I° lei t_v] [VP t_v [VP acheté t_i]]?
 where had he it bought

‘Where had he bought it?’

[Vikner 2005 : 419]

So, the question about the real identity of this object shift and why it is connected to verb movement remains. Especially for the case of JI, the DPs are not morphologically marked, and object shift does not differentiate between full DPs and pronouns either.

4.2.2 Chomsky's Equidistance Theory

Chomsky's (1993) equidistance theory offers a different explanation for the generalization observed by Holmberg. In Chomsky's theory, object shift is not possible without verb movement because the verb movement is necessary to allow the object to move across the subject that is base generated in Spec,VP. In this version of Generative grammar, Chomsky has posited an AgrOP layer between the VP and the TP. By moving the verb into the AgrOP layer, Spec,AgrOP and Spec,VP would be in the same minimal domain. As such, the object is then free to move into either Spec,VP or Spec, AgrOP. This allows the object then, to move into Spec,AgrOP over the subject that occupies Spec,VP.

- (119) a. [VP Subject [V° Verb] Object]
 b. [AgrOP [AgrO° Verb] [VP Subject [V° t_{verb}] Object]]
 c. [AgrOP Object [AgrO° Verb] [VP Subject [V° t_{verb}] t_{obj}]]

With this analysis, Chomsky solves not only the problem of Holmberg's Generalization, but also the problem of relativized minimality or shortest move. In the next stage of the derivation, the verb would move into T, which makes both Spec,TP and Spec,AgrOP fall into the same minimal domain (they become equidistant). This time, the subject is then free to move into Spec,TP, moving over the object in Spec,AgrOP.

- (120) a. [TP [T° Verb] [AgrOP Object [AgrO° t_{verb}] [VP Subject [V° t_{verb}] t_{obj}]]]
 b. [TP Subject [T° Verb] [AgrOP Object [AgrO° t_{verb}] [VP t_{subj} [V° t_{verb}] t_{obj}]]]

Chomsky (1995) eliminates the Agr categories and introduces the notion of multiple specifiers. Therefore, the Spec,VP and Spec,AgrOP positions mentioned earlier would be different specifiers of the same VP projection, rendering them to be equidistant in the first place anyway. This way, the object can move without the verb moving anyway, so the Holmberg's Generalization previously captured with the Equidistance theory becomes moot. Additionally, Holmberg (1999) also argues that Chomsky's Equidistance account only works for cases where the verb has moved into the next higher head position. However, there are also cases where the verb undergoes remnant movement to satisfy Holmberg's Generalization instead (See previous chapter 3 for examples). This is especially the case in JI (see 88 above). In these cases, the verb movement wouldn't really put Spec,VP and Spec,AgrOP in the same minimal domain, so this account cannot fully solve this phenomenon in the first place.

4.2.3 *Semantic-driven accounts of Holmberg's Generalization*

Another popular explanation for the Holmberg's Generalization phenomenon revolves around the semantics of the shifted object. Diesing and Jelinek (1995) and Diesing (1996) put the burden of object shift wholly on the semantics, and lump both Scrambling and Object shift together as being motivated by semantic interpretation.

- (121) **German Scrambling**
- a. ,weil ich selten die kleinste Katze streichle
 because I rarely the smallest cat pet
- b. ,weil ich die kleinste Katzei selten t_i streichle
 because I the smallest cat rarely pet

[Diesing and Jelinek 1995 : 130]

(122) **Icelandic Object Shift**

- a. Hann les sjaldan lengstu bókina.
he read rarely longest book-the
- b. Hann les lengstu bókinai sjaldan t_i.
he read longest book-the rarely

[Vikner 2001a: 325-326]

In (121a), the situation is such that the speaker seldom pets the smallest cat in any group of cats, while in (121b), the situation is such that the speaker is talking about a specific cat, that is the smaller in a particular group. Similarly, in (122a), the speaker rarely reads the longest book in any particular group of books they see, and in (122b), the speaker rarely reads a particular book that happens to be the longest book in a particular group of books. So, moving the object out of the VP gives it a more specific interpretation.

Diesing (1996) and Diesing and Jelinek (1996) further argue that claiming pronominal object shift to be compulsory (thus, leading to several scholars relating it to cliticization as mentioned in a previous section) doesn't capture all the facts. They argue that indefinite pronouns cannot be shifted (Diesing 1996 : 76).

(123) **Icelandic**

- a. Ég á ekki regnhlíf, áttu ekki eina?
I have not umbrella have-you not one
- b. *Ég á ekki regnhlíf, áttu einai ekki t_i?
I have not umbrella have-you one not

Holmberg (1999) argues that objects in object shift languages carry the feature [-Focus], while other elements like verbs and indirect objects carry the feature [+Focus]. In this account, something with a [-Focus] feature must be licensed by being c-commanded by a category (X or XP) with a [+Focus] feature. As such, when the verb or indirect object stays in-situ, the object is already correctly c-commanded by a category with a [+Focus] feature, and therefore, does not have any reason to shift out of its position. This approach builds on the earlier case-dependent theories (see 4.2.1 above); but aims to substitute case for the focus feature.

4.2.4 Preserving the VP order to explain for Holmberg's Generalization

Most recent accounts for the Holmberg's Generalization have relied heavily on the generalization that VP-internal order must be preserved. Williams (1999), for example, has proposed a syntactic constraint named Shape Conservation (SC).

Shape Conservation: Feature checking in the domain of a head Y must not change the linear order of lexical items established in vP within YP.

More recently, Fox & Pesetsky (2003, 2005) build on this notion for their theory of cyclic linearization of syntactic structure. At the core of their theory is the following principle:

Order Preservation: Information about linearization, once established at the end of a given Spellout domain, is never deleted at the course of a derivation

Let us illustrate this as it pertains to Object shift. Here, Fox and Pesetsky (2005) assume a spell-out domain VP that contains the elements V and O

Spellout Domain VP

[_{VP} V O]

The ordering established here is such that $V < O$, and we can now merge A with VP.

A [_{VP} V O]

Now, let us move O over V, as part of the construction of the next Spell out Domain vP.

Spellout Domain vP

[_{vP} O A [_{VP} V t_O]]

Now, we have an ordering of $O < V$ which clashes with the previous ordering spelled out with VP. Since the Order Preservation principle never deletes linearization information after any Spell-Out, this presents a problem for the derivation. Fox & Pesetsky argue that this is the best explanation for Holmberg's Generalization¹⁴. So, in their theory, object movement in object shift does not proceed through the left edge of a phase; instead, it lands at the left edge of the vP phase straight from within its base generated position in VP. In the case of Scrambling, on the other hand, object movement passes through the left edge of a phase, thus already breaking the VO order established in the VP at the first instance of linearization. Let us now go through the Scrambling process.

Spell Out Domain vP

[_{vP} O V t_O]

Here, we see that the object has moved over the verb to the left edge of the Spell Out Domain before the first linearization process, and the linear order established is $O < V$. As such, the object may move further left as part of the process of building the next Spell Out Domain while the verb may stay in its base generated position, unlike the Object Shift example.

¹⁴ They also argue that this is the motivation behind cyclic A-movements like the wh-movement.

Spell Out Domain TP

[_{TP} O [_{VP} t_O V t_O]

We see here that the earlier **O** < **V** linear order is still preserved. It is important to note that this theory is the only one discussed so far that is concerned with differentiating Object Shift from Scrambling syntactically, by making reference to the verb movement requirement. Note here though, that this theory necessitates stipulating VP as a Spell-Out domain in object shift languages, as opposed to the commonly assumed vP. However, for Scrambling languages, vP is still stipulated as the Spell-Out domain. This presents a problem for languages like JI where both object shift and scrambling are present.

Wallenberg (2009) provides yet another order preservation account of the Holmberg Generalization in his Generalized Holmberg Constraint with the following principle at its core.

Conservation of C-Command: Adjunction cannot subtract a c-command relation holding between a head and a non-head

This generally means that a verb V must retain the c-commanding relationship it has with its object DP. Unfortunately, this theory relies heavily on Kayne's Antisymmetry theory (1994) for head-final structures. Though, since JI is generally not a head-final language, this could be considered without making strong assumptions about antisymmetry.

I will discuss in more details this account of Holmberg's Generalization based on the notion of order preservation/linearization in Chapter 6, where I take Fox and Pesetsky's (2005) ideas and develop an improved linearization theory to explain the data observed in JI, as opposed to the

Spellout domain parametrization needed for scrambling vs. object shift languages in Fox and Pesetsky's account.

4.2.5 Summary of the different accounts for Holmberg's Generalization

In this section, I have elaborated some of the major theories that have been claimed to account for the syntactic requirement of verbs movement with object shift. While an account like Chomsky's Equidistance is difficult to apply to the Minimalist program in its current form (section 4.2.2), and purely semantic accounts (section 4.2.3) are inadequate to account for the syntactic facts we have observed. Other theories like the ones based on case assignment (see section 4.2.1), or even Holmberg's (1999) feature checking are also not formulatable in today's Minimalism Program where case assignment is generally separate from movement (Chomsky 2000, 2001), but they do capture the fact that Holmberg's Generalization applies only to DPs, and no other possible constituents like the PP (see previous Chapter 3 for more discussion on this). In JI, for example, Holmberg's Generalization does not apply when the PP is shifted to a low position outside of the VP. These combinations below have been established to be ungrammatical in JI when the object is a DP.

(93) *S-AUX-Obj-V

(97) *AUX-Obj-S-V

(98) *AUX-S-Obj-V

(99) *AUX-Obj-V-S

However, they are all grammatical when the object is a PP. I assume here then, that the PPs have undergone short Scrambling, not Object Shift.

- (126) JI
- a. Dia udah makan sama mama-nya.
 he PERF eat with mom-his
- b. Udah, sama mama-nya, dia makan.
 PERF with mom-his he eat
- c. Udah dia, sama mama-nya, makan.
 PERF he with mom-his eat
- ‘He already are with his mom.’

Theories based on linearization (section 4.2.4), on the other hand, also provides plausible explanations for Holmberg’s Generalization. We will revisit these accounts in Chapter 6 where I develop my own theory to account for the Object Shift and Scrambling facts in JI.

4.3 Jakarta Indonesian Object Shift – further remarks

If we return to the defining characteristics of Object Shift as laid out in the previous chapter, we know that with object shift (i) verb movement must accompany it, (ii) it can only apply to DPs, (iii) it has a low landing site, (iv) it is blocked by things like the direct object and (v) it is an A-movement. For the JI case, we have talked so far about the verb movement that accompanies object shift and the DP only requirement. In this section, I would like to touch upon the other characteristics of Object Shift in JI.

As traditionally defined for Object Shift in Germanic, this movement is blocked by an unmoved indirect object. In (100 b-c), the object ‘a lot of food’ cannot shift over the indirect object ‘his mother.’

- (127) JI
- a. Dia udah kasih mama-nya banyak makanan.
 He PERF give mother-his much food
- b. *Udah kasih banyak makanan dia mama-nya.
 PERF give much food he mother-his
- c. ?Udah kasih dia banyak makanan mama-nya.
 PERF give he much food mother-his
- ‘He already gave his mother a lot of food.’

Also, when we look at binding relations, we see that object shift builds comparable binding relations to the passive construction, indicating that they involve A-movement. In (128b), we see an example of ungrammaticality when the ‘self’ object has been passivized (A-movement). Similarly, in (128c), we see ungrammaticality that results from shifting the ‘self’ object out of the VP. Both sentences in (128 b&c) are ungrammatical because they violate Binding Condition A as the ‘self’ anaphor isn’t bound by an antecedent. We will see in the next chapter that this is not the case with A’-Scrambling.

- (128) JI
- a. Susan_i selalu me-nyukai dirinya_i sendiri.
 Susan always ACT-love self
- b. *Dirinya_i sendiri selalu di-sukai (ama)Susan.
 Self always PASS-like (by)Susan
- c. *[TP Selalu [_{AuxP} [suka t_{dirinya}]_{VP} [_{VP} Susan_i dirinya_i sendirit_{VP}]]].
 Always like Susan self
- ‘Susan always likes herself.’

Additionally, we know that landing site for Object shift is low. If we consider the three projections that can be generated between the TP and the vP, there is Negation, Aspect and Modality, in this order from higher to lowest (see previous chapter for more details). In subject-initial sentences, the object cannot go between the negation and aspect (130) or between the aspect and modal verb (131). In other words, the only landing site available is the Spec of vP.

(129) Gua gak bakal bisa baca buku-nya.
 I NEG ASP MOD read book-DEF
 ‘I will not be able to read the book.’

(130) *Gua gak buku-nya bakal bisa baca.
 I NEG book-DEF ASP MOD read
 ‘I will not be able to read the book.’

(131) *Gua gak bakal buku-nya bisa baca.
 I NEG ASP book-DEF MOD read
 ‘I will not be able to read the book.’

However, the object can move into a position immediately following the subject (105). Here, I assume that the object is in Spec, TP, while the subject *gua* is in a position higher than TP, possibly as topic or focus. As will be elaborated in the next chapter, this is a position that is the target for Scrambling. The fact that (132) is grammatical despite the fact that the verb has stayed in-situ also means that this is not an example of object shift.

(132) Gua buku-nya gak bakal bisa baca.
 I book-DEF NEG ASP MOD read
 ‘I will not be able to read the book.’

In contrast, when we try to shift the object into a position immediately following the modal which marks the leftmost edge of the vP, without moving the verb as in (133), we clearly get an ungrammatical example. This shows a clear example of object shift.

- (133) *Gua gak bakal bisa buku-nya baca.
 I NEG ASP MOD book-DEF read
 ‘I will not be able to read the book.’

To illustrate a grammatical example of object shift, we can turn to sentence (134) where the object has moved out of the VP but stayed low, while the VP undergoes remnant movement to a position higher than the in-situ subject.

- (134) [_{NegP}Gak [_{AspP}bakal [_{ModP}bisa [baca t_{obj}]_{VP} [_{VP}gua buku-nya t_{VP}]]]].
 NEG ASP MOD read I book-DEF
 ‘I will not be able to read the book.’

Interestingly the same restriction does not apply to subjects in JI [contrast with 136 and 137 below].

- (135) Buku-nya gua gak bakal bisa baca.
 book-DEF I NEG ASP MOD read
 ‘I will not be able to read the book’

- (136) Buku-nya gak gua bakal bisa baca.
 book-DEF NEG I ASP MOD read
 ‘I will not be able to read the book’

- (137) Bukunya gak bakal gua bisa baca.
 book-DEF NEG ASP I MOD read
 ‘I will not be able to read the book’

I have established here that the landing site of object shift is low, somewhere still within the vP domain in JI. The literature, however, is split on the exact landing site of object shift in the vP domain. Early analysis (Holmberg 1986, Pollock 1989, Vikner 1989, 1994b, Holmberg and Platzack 1995) propose that object shift is an adjoining operation to the highest vP projection. Subsequent analysis (Deprez 1989, Johnson 1991, Chomsky 1993, Collins and Thrainsson 1996) suggest that object shift is movement to the Spec of the highest vP projection. Some other analysis (Holmberg 1999, Chomsky 1995c, 2001b) leave this question open and do not commit to either position.

If we look concretely at the data in JI, it is much more straightforward to pinpoint the landing site for object shift, as the subject in JI may stay low in Spec,vP. The data below is a repetition of examples (89) and (95) above, where we get grammatical object shift in JI. Here, we see that since the verbal aspects, including the aspect marker precede the subject, we know that the subject has indeed stayed low in Spec,vP. As the object follows the subject in this example, there is only one possible landing site for the object: the lower Spec,vP.

(138) [TP Icha_i [AuxP [beli t_j]_{VP} udah]<sub>[vP t_i buku Harry Potter_j t_{VP}]]].
 Icha buy PERF book Harry Potter.
 ‘Icha already bought the Harry Potter book.’</sub>

(139) [TP Udah [AuxP [**beli** t_j]_{VP} t_{perf} [_{vP} Icha buku Harry Potter_j t_{VP}]]]
 PERF buy Icha book Harry Potter.
 ‘Icha already bought the Harry Potter book.’

4.4 Chapter Summary

In this chapter, we have established that JI has Object Shift that obeys Holmberg's Generalization as defined for West Germanic languages. We have also confirmed that JI Object Shift fulfills other requirements such as DP-only movement, A-movement and low landing site. Moreover, we have discussed in detail the major accounts of Holmberg's Generalization.

- (141) Buku itu John udah baca [Scrambling/Topicalization]
 book that John PERF read
 ‘That book, John has read’

In cases of P2, the aspectual marker is to the left of the subject (140), while in cases of “Topicalization,” the aspectual marker is to the right of the subject (141). From a syntactic perspective, in the P2 sentence in (140), the agentive subject can be analyzed as staying low in its base position (Spec, vP); it is not promoted to a “true” or theta-bar subject position in Spec,TP. In the case of “topicalization” as seen in (141), the agentive subject does appear to move out of Spec,vP; followed by the movement of the topicalized object to a position in the left periphery. This accounts for the different positioning of the aspectual markers **vis-à-vis the subject**. The derivations for (140) and (141) are given in Figures (1) and (2).

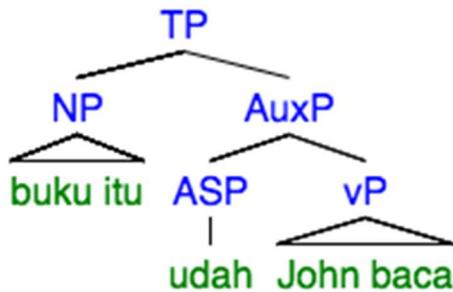


Figure 5.1: Tree derivation of sentence (140) – P2 construction.

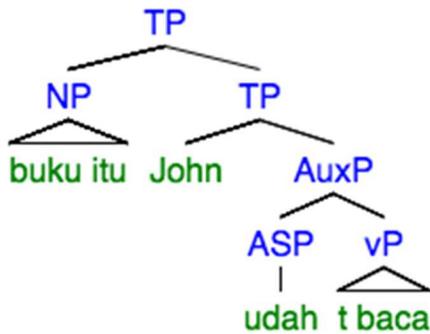


Figure 5.2: Tree derivation of sentence (141) – Topicalization/Scrambling.

The P2 construction in (140) is very different from the “traditional” English passive construction or the passive derived with a *di-* prefix on the verb in JI (P1).

- (142) Buku itu udah di-baca (ama Rina) [P1]
 book that PERF PASS-read by Rina
 ‘That book has been read (by Rina)’

The contrast between (140) and (142) is obvious in that the agent has clearly been “demoted” in (142), rendering it optional. If the agent is expressed, it must be accompanied by the preposition *ama* ‘by’. In the P2 construction (140), however, the agent is obligatory (143a) and cannot be expressed in an *ama*-phrase (143b).

- (143) a. *Buku itu udah baca
 book that PERF read
 b. *Buku itu udah ama John baca
 book that PERF by John read

The P2 construction in (140) requires the subject to stay low, to the right of auxiliaries, and has been claimed to be similar to the ergative pattern present in Philippine languages such as Tagalog (Aldridge 2008, inter alia). The pattern (141), on the other hand, where the external argument is to the left of all auxiliaries, appears superficially similar to Topicalization in English and other languages, and has been referred to as “topicalization” in the syntactic literature (Arka & Manning 1998, Cole & Hermon 1998, 2000, inter alia).

As I have demonstrated so far, there is a 3-way distinction among object-initial constructions in JI:

(1) P1 constructions:

- Verb is prefixed with *di-*
- Agent is demoted, in a *by*-phrase, and optional
- Word order: negation or aspectual markers precede the verb

(2) P2 constructions:

- Bare verb
- Agent is not demoted and are obligatory
- Word order: negation or aspectual markers precede the subject

(3) Topicalization/Scrambling constructions:

- Bare verb
- Agent can be pronominal or a full NP
- Word order: negation or aspectual markers must come between the agent and the verb

5.2 Scrambling as a category for Jakarta Indonesian object-initial construction

In this chapter, I argue that the third type of object initial construction traditionally called “topicalization” is actually the operation that has come to be known cross-linguistically as Scrambling. Specifically, in this section, I give a short background on scrambling and its properties; and show that Indonesian “topicalization” fits into this pattern.

5.2.1 Scrambling

Scrambling, a term coined by Ross (1967), describes the process that derives non-canonical word order in languages commonly seen as having “freer” word order like German, Japanese, Russian, Hindi, Korean and others. In these languages, it is hard to determine the basic, neutral word order, as several combinations of subject, object and verb orders are common and acceptable in

neutral declarative sentences, much as we saw in the previous chapter for JI. The following is an example of such variation in Japanese:

Japanese

(144) Mary-ga sono hon-o yonda.
Mary-NOM that book-ACC read.
'Mary read that book'

(145) Sono hon-o Mary-ga yonda.
That book-ACC Mary-NOM read.
'Mary read that book'

In JI, as we saw in the previous section, word order variation resulting from fronting non-subject DPs is also possible while remaining neutral with respect to information structure:

(146) Budi udah beli buku itu kemaren.
Budi PERF buy book that yesterday
'Budi bought that book yesterday'

(147) Buku itu Budi udah beli kemaren.
Book that Budi PERF buy yesterday
'Budi bought that book yesterday'

There are generally three kinds of scrambling discussed in the crosslinguistic literature: (a) clause bounded (sometimes called intermediate scrambling), (b) long distance scrambling that is not clause bounded (that is, which crosses at least one CP boundary) and (c) short scrambling within the *v*P. Different languages that have been identified as having scrambling have different

possibilities in terms of the kind of scrambling they allow. Japanese, Korean and Hindi, for example, have been described to allow both clause bounded and long-distance scrambling (Mahajan 1990, Saito, Miyagawa 1997, 1998), while German has been described by most to only allow clause bounded scrambling (Webelhuth 1989). In this section, I will mostly talk about clause-bounded intermediate scrambling, with some reference to long distance scrambling in JI. Short scrambling in JI, as mentioned in the previous chapter, behaves more like object shift in that it is dependent on verb movement, unlike scrambling which is independent of verb movement.

To understand the basic properties of scrambling, it is extremely important to tackle the following fundamental questions:

- (i) Are the different word order possibilities simply base generated or do they involve movements?
- (ii) If they involve movement, what kind of movement is involved? (A or A')¹⁶?

5.2.1.1 Scrambling and sensitivity to islands

It is widely reported that Scrambling as a phenomenon is generally sensitive to islands. The following are examples of island sensitivity in Scrambling for German:

German

- (148) **,weil Wolfgang_i jemand_{[t_i} und Anne] gesehen hat.*
 Because Wolfgang someone and Anne seen has
 ‘Because someone saw Wolfgang and Anne’

¹⁶ I am not committed to a specific theoretical account of the A/A' distinction; but use it here as a heuristic diagnostic.

- (149) **,weil Frauenrechte; viele Leute [für t_i] lange gekämpft haben.*
 Because women's rights many people for long fought have
 'because many have long fought for women's rights'

Similarly, scrambling in Japanese is also sensitive to islands (Saito 1985: 185).

Japanese

- (150) **sono hon-o_i John-ga [_{NP}[_{CP}Mary-ga ti katta to]] siraseta(koto)*
 that book-A John-N Mary-N bought C told fact

Scrambling also appears to be sensitive to islands in JI.

- (151) **Buku itu gua gak kenal orang yang tulis.*
 book that I NEG know person REL write
 'I don't know the person who wrote that book'

A base-generation approach would have difficulty explaining why scrambling is sensitive to islands in JI (see Boskovic and Takahashi 1998 for a base-generation approach, which has been argued against by Bailyn 2001, among others). Below, I provide the alternative to (151) that would be grammatical. In contrast to (151), sentence (152) below has a relative clause (RC)-internal verb that carries the "N-" prefix, indicating that there is no movement of the internal object out of the relative clause-internal *vP*, so (152) is likely an instance of left dislocation, where *buku itu* is base generated in the left periphery.

- (152) *Buku itu gua gak kenal orang yang n-ulis.*
 book that I NEG know person REL N-write
 'I don't know the person who wrote that book'

Here, I would like to highlight previous discussion from Chapter 2 (section 2.2.3) where I elaborated how the N- verb prefix in JI is optional, but that verbs must be bare when the object has moved away from the vP¹⁷. The dichotomy in (151) and (152) is jarring because just looking at the surface object position, we would expect the bare verb to be grammatical, since the object is sentence initial. However, the bare verb in (151) indicates that the verb has moved to its sentence initial position from within the RC, violating island condition. In (152), on the other hand, the verb bares the N- prefix, indicating that no object movement from within the RC has happened. This suggests that the sentence initial object in (152) is base generated in this position; this is an instance of left dislocation.

Also, applying Gundel’s (1974, 1985) “As for X” test, as exemplified in Chapter 3 (section 3.0), this left dislocation example passes this topichood test, as can be seen in the example below. This is in contrast to the Scrambling examples shown in section 3.0 earlier.

- (153) Gua kenal banyak penulis buku.
 I know many writer book
 ‘I know many authors.’
- Buku itu gua juga kenal orang yang nulis.
 Book that I also know person who write
 ‘I also know the person who wrote that book.’
- Kalo buku itu gua juga kenal orang yang nulis.
 As for book that I also know person who write
 ‘As for that book, I also know the person who wrote it.’

¹⁷ It is to be noted that Kurniawan (2018) also reports that the bare verbs are the most used verb form for JI.

As discussed in the previous chapters (3 & 4), unlike with object shift, scrambling can move both DPs and PPs (see below for JI data):

(154) Hadiah itu Rina udah beli buat adek-nya.
 present that Rina PERF buy for younger sibling-POSS

(155) Buat adek-nya Rina udah beli hadiah itu.
 for younger sibling-POSS Rina PERF buy present that
 ‘Rina already bought that present for her younger brother’

Moreover, we also know that the landing site for scrambling is much higher than object shift (refer to more detailed discussion in Chapters 3 & 4). Below, we see this with JI where the scrambled object comes before the subject and the aspectual marker¹⁸.

(156) Baju itu gua udah pake ke kantor kemaren.
 clothes that I PERF wear to office yesterday
 ‘I already wore those clothes to the office yesterday’

Most importantly, in (156) above, the verb has stayed low in-situ, yet the object is able to move to a sentence-initial position. So, movement of the object in the pattern we have identified as Scrambling is indeed not dependent on verb movement.

¹⁸ This is in contrast to what have been discussed for Object Shift in the previous chapter, namely that the landing site for Object shift is much lower, on the left edge of the vP. Comparatively, below is an example of sentence (167) with object shift instead of Scrambling:

(167’) Udah pakai saya baju itu kemarin.
 PERF wear I clothes that yesterday
 ‘I already wore those clothes yesterday.’

Assuming that scrambling is truly different from object shift, the question remains as to what type of movement is involved. There are 3 different possibilities: (1) scrambling can be A-movement; (2) A'-movement; or (3) a third type of mixed A/A' movement.

5.2.1.2 Scrambling and its mixed A/A' properties

Mahajan (1990, 1994) argues that scrambling can be either A- or A' movement; more precisely, clause bound scrambling is said to have A- or A' properties, while long distance scrambling is claimed to only have A' properties. Thus, in Hindi, A- movement scrambling can override weak crossover (WCO) effects.

Hindi

(157) ???uske_i maalik-ne kOn sii kitaab_i pheNk dii.
 Its author-ERG which book threw away
 'Which book did its author throw away?'

(158) kOn sii kitaab_i uske_i maalik-ne t_i pheNk dii.
 which book its author-ERG threw away
 'Which book did its author throw away?'

Hindi A-scrambling can also alter anaphor binding possibilities (Mahajan 1994, as presented in Anagnostopoulou & Fox 2007: 5).

Hindi

(159) *apne_i maalik-ne ek naukar naukarise nikaal diyaa.
 self's boss-ERG a servant service from dismissed
 'Self's boss dismissed a servant'

- (160) ?ek naukar_i apne_i maalik-ne t_i naukarise nikaal diyaa.
 A servant self's boss-ERG service fromdismissed

Hindi A-scrambling also does not undergo reconstruction (Mahajan 1994, as presented in Anagnostopoulou & Fox 2007: 6).

Hindi

- (161) raam-ne_i mohan-ko_j apnii_{i/j} kitaab IOTaaii.
 Ram-Sub Mohan-IO self's book-F-DO return-PERF-F
 'Ram returned self's book to Mohan'

- (162) raam-ne_i apnii_{i/*j} kitaab mohan-ko_j t IOTaaii.
 Ram-sub self's book Mohan-IO return-PERF-F

In contrast, long distance scrambling in Hindi doesn't overcome WCO effects and doesn't alter binding possibilities (Mahajan 1994, as presented in Anagnostopoulou & Fox 2007: 6).

Hindi

- (163) *konsaa aadmii_i uskii_i/apnii_i bahin-ne socaa [CP ki
 which man-DO his/self's sister-Sub thought that
 raam-ne t_i dekhaa thaa]
 Ram-Sub seen be-Past
 'Which man did his/self's sister think that Ram has seen?'

A'-scrambling in Hindi also undergoes reconstruction (Mahajan 1994, as presented in Anagnostopoulou & Fox 2007: 6).

Hindi

- (164) ek duusre-koraam Or siitaa t pasandkare Hen
each other-DO-Ram and Sita like
'Ram and Sita like each other.'
- (165) ek duusre-ko kamlaa soctii ki raam Or siitaa t
each other-DO Kamla think that Ram and Sita
Pasandkare Hen
Like
'Kamla thinks that Ram and Sita like each other'

It is to be noted that the reconstruction effect in (164) appears with clause bound scrambling (contrast with (162) that is also clause bound scrambling but with no reconstruction, signaling A-movement), giving us a clear reason why clause bound scrambling can be either A or A'; while long distance scrambling has to be A'.

Webelhuth (1989) argues that German scrambling even shows both A and A' movement properties within the same construction.

German

- (166) ?Peter hat jeden Gast_i [ohne t anzuschauen] seinem_i
Peter has every guest-ACC without to look at his
Nachbar t vorgestellt.
Neighbor introduced.
'Peter introduced every guest to his neighbor without looking at him.'

(167) ?Peter hat die Gäste_i [ohne t_i anzuschauen] einander_i
Peter has the guests without to look at each other
t_i vorgestellt.
t_i introduced
‘Peter introduced every guest to his neighbor without looking at him.’
[Webelhuth 1989 as presented in Mahajan 1990: 56-57]

Here, we see that on the one hand, scrambling licenses a parasitic gap (166) which is a property of A'-movement. On the other hand, scrambling also does not trigger WCO effects in (167), which is a property of A-movement.

Mahajan (1990), however, argues that Webelhuth's characterization is not exactly right, as constructions (166) and (167) can be explained if the scrambling movement happens in two phases: first to an A-position that is higher than the pronoun to bind the pronoun, and then to an adjoined position above it that license the parasitic gap. Below are his representations for Webelhuth's examples:

German

(168) ?Peter hat jeden Gast_i [ohne t_i anzuschauen] t_i seinem_i
Peter has every guest without to-look-at his
Nachbarn t_i' vorgestellt.
neighbor introduced

(169) ?Peter hat die Gäste [ohne t_i anzuschauen] einander
Peter has the guests without to-look-at each other
t_i vorgestellt.
Introduced
[Mahajan 1990: 57-58]

In fact, Mahajan argues that with the right examples, it can be clearly shown that a moved NP cannot simultaneously show both A- and A' properties.

German

(170) ?Peter hat jeden Gast ohne anzuschauen seinem Nachbarn
Peter has every guest withoutto-look-at his neighbor
vorgestellt.
introduced

(171) *Peter hat jeden Gast seinem Nachbarn ohne anzuschauen
Peter has every guest his neighbor withoutto-look-at
vorgestellt.
introduced.

[Mahajan 1990: 60]

In example (170), the sentence is okay because the pronoun is bound by *jeden Gast* below the parasitic gap adjunct. The parasitic gap itself is then licensed by further movement of *jeden Gast* to a position above the parasitic gap itself. In (171), in contrast, *jeden Gast* must be in an A-position to be able to bind the pronoun in *seinem Nachbarn*; and as such is not able to license the parasitic gap. This shows that a moved NP cannot bind while also reconstructing at the same time. Thus, while scrambling may sometimes show A- properties and A' properties at distinct stages in the derivation, it is not the case that scrambling presents a third type of movement with mixed properties.

Saito (1992,1994b) also argues that clause-internal scrambling in Japanese can either be A- or A' movement (in line with Miyagawa 1995, 1997, Mahajan 1990, contra Webelhuth 1989). Similar

to the A-properties shown in Hindi, clause-internal scrambling in Japanese can also neutralize weak crossover effects:

Japanese

- (172) (a) ?*[[Soitu_i-no hahaoya]-ga [dare_i-o aisiteru]] no
 the guy-Gen mother -Nom who -Acc love Q
 'His_i mother loves who_i'
- (b) ?Dare_i-o [[soitu-no hahaoya]-ga [t_i aisiteru]] no
 who -Acc the guy-Gen mother -Nom love Q
 'Who_i, his_i mother loves t_i'
- [Saito 1992: 73]

(172a) is a classic example of a weak crossover effect. If scrambling is strictly A', then we would expect (172b) to be as bad, but that is not the case in Japanese.

Saito (1992) also provides evidence from anaphor binding that shows A- properties in Japanese scrambling. Examples (173a-b) show a violation of Condition A of the Binding Theory because the anaphors are not locally A-bound.

Japanese

- (173) a. ?*[Masao-ga[[otagai_i-no sensei]-ni [karera_i-o syookaisita]]] (koto)
 Masao-Nom each other-Gen teacher-to they -Acc introduce fact
 'Masao introduced them_i to each other's_i teachers'
- b. ?*[[Otagai_i -no sensei]-ga [karera_i-o hihansita]] (koto)
 each other-Gen teacher-Nom they -Acc criticized fact
 'Each other's_i teachers criticized them_i'
- [Saito 1992: 74-75]

Examples (174 a-b), on the other hand, show grammaticality with the minimal difference from (173) being the scrambled accusative object, showing that local A- binding relations are fixed by Scrambling here.

Japanese

- (174) a. [Karera-o_i [Masao-ga[[otagai_i -no sensei]-ni[t_i syookaisita]]]] (koto)
 they -Acc Masao -Nom each other-Gen teacher-to introduced fact
 'Them_i, Masao introduced t_i to each other's_i teachers'
- b.?[Karera-o_i [[otagai_i -no sensei]-ga t_i hihansita]]] (koto)
 they -Acc each other-Gen teacher-Nom criticized fact
 'Them_i, each other's_i teachers criticized t_i'
- [Saito 1992: 74-75]

Additionally, from examples provided by Saito (1992) below, we also see that long distance scrambling cannot establish A-binding relations (as opposed to the examples above in (174)); and are therefore always A' movement.

Japanese

- (175) a. *[Karera-o_i [Masao-ga [otagai_i -no sensei]-ni[CP [TP Hanako-ga
 they -ACC Masao-Nom each other-Gen teacher-to[CP [TP Hanako-Nom
 t_i hihansita] to] itta]]] (koto)
 Criticized COMP said fact
 'Them_i, Masao said to each other's teachers that Hanako criticized t_i

b. *[[Karera-o_i [[otagai_i -no sensei]-ga [CP [TP Hanako-ga
they -Acc each other-Gen teacher-Nom [CP [TP Hanako-Nom
t_i hihansita] to] itta]] (koto)
criticized COMP said fact
'Them_i, each other's_i teachers said that Hanako criticized t_i'
[Saito 1992: 76]

In Hindi, clause-bound scrambling can also show A' properties, and Saito (1992) corroborates this for Japanese by providing the example below. If *zibunzisin* were in an A-position, (176) would be ungrammatical because of the violation of Condition C of the Binding Theory.

Japanese

(176) Zibunzisin-o_i [Hanako-ga t_i hihansita] (koto)
self -Acc Hanako -Nom criticized fact
'Herself_i, Hanako_i criticized t_i'
[Saito 1992: 76]

So far, we have seen that medial, clause-bound Scrambling has mixed A/A' properties. While this is a general consensus in the literature (Saito 1985, 1989, Saito & Hoji 1983, Mahajan 1990, Webelhuth 1989, Miyagawa 1996,1997, et al), Webelhuth believes that the same scrambling construction can be both A- and A', while Saito, Mahajan and Miyagawa argue that a specific construction must be either A- or A'. This is closely tied into their respective analysis of the Scrambling movement, to be discussed in more detail later in this chapter.

5.2.1.3 Scrambling and scope ambiguity

Crucially, Scrambling is one of the ways in which scope ambiguity can arise (Kuno 1973, Hoji 1985, among many others; Hayashishita 2000, Miyagawa 2012 for possible scope flexibility). Like Japanese, JI exhibits scope rigidity in sentences that contain multiple quantifiers.

Japanese

- (177) Dareka-ga daremo-o syootaisimasita.
Someone-NOM everyone-ACC invited
'Someone invited everyone'
Someone > everyone
[Hoji 1985: 269]

- (178) Dua orang murid udah baca semua buku -nya
two CL student PERF read all book-DEF
'Two students read all the books'
2 > All

We see something comparable in Japanese below:

Japanese

- (179) Daremo_i-o dareka-ga t_i syootaisimasita.
Everyone-ACC someone-NOM invited
'Someone invited everyone'
Someone > everyone; everyone > someone
[Hoji 1985: 269]

- (180) Semua buku –nya dua orang murid udah baca
 all book-DEF two CL student PERF read
 ‘All books have been read by two students’
 2 > all; all > 2

In sentence (178), the only possible reading is the one where only 2 students have read all the books. In sentence (180) there is an ambiguity; we get the reading that we have in (178) or the other reading, where for every book, there are 2 students who have read it.

In languages that have no scrambling, in contrast, it appears to be the case that no scope reconstruction happens with Topicalization. Below is an example from Mandarin.

Mandarin

- (181) 很 这些书, 我们 过。
 Hěnduō zhèxiē shu, wǒmen dōu kan-guo t.
 Many these book we all read-exp
 ‘Many of these books, all of us have read.’ (many > all)
 [Kuno, Takami and Wu 2001: 138]

In a language closely related to Indonesian, Balinese, that does not exhibit the Scrambling pattern under discussion present in Indonesian, scope ambiguity is also not present. This gives us more evidence that what has been called JI “topicalization” actually behaves much more like Scrambling. Below is an example in Balinese¹⁹ where I have laid out the paradigm:

¹⁹ I thank my language consultant, I Kadek Purnawan for all the Balinese data presented in this work.

Balinese

(182) Dua murid-e sube maca makejang buku-ne. [SVO]
student-DEF PERF read all book-DEF

‘Two students read all the books’

two>all

(183) makejang buku-ne sube ka-baca dua murid-e. [P1]
all book-DEF PERF PASS-read student-DEF

‘All the books were read by the two students’

all>two

(184) makejang buku-ne sube dua murid-e maca. [P2]
all book-DEF PERF student-DEF read

‘All the books were read by the two students’

all>two

We see in the Balinese paradigm (193-195) that scope rigidity is preserved (similar to Mandarin in (181) above). Since the scrambling structure is ungrammatical in Balinese, there is no way of introducing scope ambiguity in the language.

Having established the fact that clause-bound scrambling in Japanese, Hindi and German can generally exhibit both A and A’ properties with two kinds of distinct movements, while long distance scrambling is generally A’, we turn to data in JI. As has been established for both Japanese and German, clause-bound scrambling in JI can also generally be either A or A’ movement.

5.2.2 Jakarta Indonesian scrambling and its mixed A/A' properties

Revisiting data on Object-initial word order in JI below, I show in this section that the construction in (185) has mixed A/A' properties, as has been described for clause bound scrambling in other languages.

- (185) Buku itu John **udah** baca [Scrambling]
book that John PERF read
'That book, John has read'

We have so far used several syntactic tests to determine A/A' properties in the Hindi, German and Japanese data above: (i) Overriding WCO violations and establishment of new binding possibilities are indicative of A-properties; while (ii) allowing parasitic gap and the possibility of reconstruction are both indicative of A'-properties. Below I will use these same tests to determine A/A'-properties in JI.

Scrambling can override WCO QR violations in JI, showing A-movement property.

- (186) *Ibu-nya_i pasti ng-ritik tiap orang_i. [SVO]
mother-POSS surely ACT-criticize every person
'His mother_i always criticized everyone_i.'

- (187) Tiap orang_i ibu-nya_i pasti kritik. [Scrambling]
Every person mother-POSS surely criticize
'His mother_i always criticized everyone_i.'

On the other hand, there are ample examples showing A'-properties of Indonesian Scrambling, the first of which comes from this contrast between the passive construction and the Scrambling construction. Sentence (188) is an example of a true passive where the semantic theme has become the subject of a sentence, which is ungrammatical since the anaphor needs to be bound by an antecedent, but *Susan* has been demoted to a by-phrase and not available for this anymore.

(188) *Dirinya_i sendiri di-benci (ama)Susan_i. [P1]
 Self.3 PASS-hate (by)Susan.
 'Susan hates herself.'

(189) Dirinya_i sendiri Susan_i selalu benci. [Scrambling]
 self.3 always hate.
 'Susan hates herself.'

In (189), however, we see that the sentence is grammatical. If the fronted reflexive expression *dirinya sendiri* occupied an A-position in this example, Condition A of the binding theory would be violated, as *dirinya sendiri* is not bound by its antecedent in this position. Moreover, the language also allows parasitic gaps with scrambling, another A' property.

(190) ?Gua taroh susu-nya di kulkas gak pake cium
 I put milk-DEF PREP fridge without smell
 'I put the milk in the fridge without smelling'

(191) Susu-nya gua taroh di kulkas gak pake cium
 milk-DEF I put PREP fridge without smell
 'The milk, I put in the fridge without smelling'

Another piece of evidence for A'-property in JI scrambling comes from binding of the anaphor *sendiri*. As seen below, scrambling does not establish new binding possibilities and can reconstruct, as to be expected from A'-movement²⁰.

(192) John_i benci orang_j yang ngritik dirinya_{i/j} sendiri
 John hate person who criticize self-POSS self
 'John hates people who criticize them/him self'

(193) Orang_j yang ngritik dirinya_{i/j} sendiri John_i gak benci
 person who criticize self-POSS self John NEG hate
 'John doesn't hate people who hate them/ him self'

I have shown here that the Indonesian "Topicalization" construction patterns like Scrambling by showing that these are not necessarily topicalization construction and that they show mixed A/A' properties, as has been described for medial clause-bound Scrambling in Japanese, Hindi and German²¹. Moreover, I have also shown that Indonesian "Topicalization" introduces ambiguity, a property that is generally attested only with scrambling.

5.2.3 Revisiting the 3-way distinction of object-initial constructions

Now that I have established the existence of Scrambling, it is time to revisit the three types of object-initial construction mentioned at the beginning of this chapter: (1) Passive Type 1 - P1, (2) Passive Type 2 - P2 and (3) Scrambling. Based on the traditional labels of these constructions, we would expect P1 and P2 to pattern together, while Scrambling should pattern differently. In

²⁰ Judgments vary across different speakers, but they stay constant with the same speaker; they find (64) and (65) (and similar sentences) either both ambiguous or both referring only to the immediate subject.

²¹ See section 3.0 for arguments that these constructions are not topicalization constructions.

terms of the movement involved, we would expect passive constructions to exhibit purely A-properties, as opposed to the mixed A/A'-properties of Scrambling. However, we will see below that P2 actually has A/A' mixed properties, as we've seen with Scrambling above.

When we consider WCO violation to check for A-properties, both P1 and P2 behave the same way as the Scrambling construction (in overcoming WCO violation), as expected from passive constructions with purely A-properties. (194) and (195) are reproduced below to illustrate this.

(194) *Ibu-nya_i pasti nge-ritik setiap orang_i. [SVO]
 mother-POSS surely ACT-criticize every person
 'His mother_i always criticized everyone_i.'

(195) Setiap orang_i ibu-nya_i pasti kritik. [Scrambling]
 Every person mother-POSS surely criticize
 'His mother_i always criticized everyone_i.'

(196) Setiap orang_i pasti ibu-nya_i kritik. [P2]
 Every person surely mother-POSS criticize
 'His mother_i always criticized everyone_i.'

(197) Setiap orang_i pasti di-kritik ibu-nya_i. [P1]
 Every person surely PASS-criticizemother-POSS
 'His mother_i always criticized everyone_i.'

However, when we look at self-binding, we see that P2 and Scrambling pattern together in showing A'-properties. Let's revisit (198) and (199) below.

(198) *Dirinya_i sendiri di-benci (ama)Susan_i. [P1]
 Self.3 PASS-hate (by)Susan.
 ‘Susan hates herself.’

(199) Dirinya_i sendiri Susan_i selalu benci. [Scrambling]
 self.3 always hate.
 ‘Susan hates herself.’

(200) Dirinya_i sendiri selalu Susan_i benci. [P2]
 self.3 always hate.
 ‘Susan hates herself.’

Since (198) is a true passive, movement of the anaphor is ungrammatical as expected, because the anaphor is not bound in its surface A position (the r-Expression *Susan* is also demoted to a by-phrase). This is also a violation of the Chain Condition as defined by Rizzi 1986 (subsequently cited by Miyagawa 1997)²². In (199) and (200), however, even though the reflexive comes before the R-expression *Susan*, they are grammatical since the movement involved is A', and the reflexives can be easily reconstructed.

Additionally, revisiting the A'-movement reconstruction data in (201) and (202), we also see the P2 construction patterning just like Scrambling, in that reconstruction is possible and there's no change to binding possibilities. In the P1 construction in (204) below this is clearly not the case.

²² Rizzi's Chain Condition: A is a binder of B iff A and B are coindexed and A c-commands B; A is the local binder of B iff A is a binder of B and there is no C such that C is a binder of B, and C is not a binder of A.

- (201) John_i benci orang_j yang ngeritik dirinya_{i/j} sendiri
 John hate person who criticize self-POSS self
 ‘John hates people who criticize them/him self’ [SVO]
- (202) Orang_j yang ngeritik dirinya_{i/j} sendiri John_i gak benci
 person who criticize self-POSS self John NEG hate
 ‘John doesn’t hate people who hate them/ him self’ [Scrambling]
- (203) Orang_j yang ngeritik dirinya_{i/j} sendiri gak John_i benci
 person who criticize self-POSS self NEG John hate
 ‘John doesn’t hate people who hate them/ him self’ [P2]
- (204) Orang_j yang ngeritik dirinya_{*i/j} sendiri gak **di-**benci John_i
 person who criticize self-POSS self NEG hate John
 ‘John doesn’t hate people who hate them/ him self’ [P1]

From this data, we can conclude that the longstanding naming conventions in Indonesian linguistics for P1 and P2 are misnomers. While P1 shows true passive properties, P2 constructions are not really a “true” passives, as it has mixed A/A’-properties, just like what I have described above for scrambling. In fact, we can consider P2 to be a subtype of scrambling where the subject has stayed low, which is a special feature of JI (contrast 202 and 203).

Therefore, I propose that instead of the traditional three-way categorization of object initial constructions in Indonesian, we only need two in JI: (1) Passive Constructions, (2) Scrambling²³.

²³ The third type can be the Topicalization/left dislocation observed in (152) above.

Passive constructions are distinguished by the following characteristics:

- (i) Morphological marking of *di-* prefix on the verb;
- (ii) Reinterpretation of the theme as the compulsory subject;
- (iii) Demotion of the agent to an optional by-phrase;
- (iv) Purely A-properties shown by the theme-subject.

(205) Film-nya udah di-tonton (ama Aji).
Movie-DEF PERF PASS-watch by Aji
'The movie was watched by Aji.'

Scrambling constructions are distinguished by the following characteristics:

- (i) Morphological bare verbs;
- (ii) Moved object does not exhibit "topichood" as defined by Gundel (1974, 1985) and Reinhart (1981);
- (iii) Moved object introduces scope ambiguity (Kuno 1973, Hoji 1985, Hayashishita 2000, Miyagawa 2012);
- (iv) Mixed A/A'-properties shown by the moved theme-object.

(206) a. Film-nya udah Aji tonton.
Movie-DEF PERF Aji watch
'Aji watched the movie.'

b. Film-nya Aji udah tonton.
Movie-DEF Aji PERF watch
'Aji watched the movie.'

Topicalization/left dislocation constructions are distinguished by the following properties:

- (1) Morphological N- prefix on the verb (showing no movement);
- (2) Moved object exhibits “topichood” as defined by Gundel (1974, 1985) and Reinhart (1981);

(207) Film-nya gua gak tau siapa yang udah nonton.
Movie-DEF I NEG know who REL PERF watch
‘The movie, I don’t know who has watched it.’

5.3 Theories of Scrambling & Landing Sites

5.3.1 Motivation for Scrambling

To account for the mixed A and A’ properties of clause-bound scrambling, Fukui (1993), Saito and Fukui (1998) have proposed an optional movement account. Following the development of the Government and Binding theory, these approaches rely heavily on different interpretations of deep structure (LF) and the surface representation (PF); or they rely on operator relations between the moved argument and its trace that can be undone. Below is an example from Saito (1992) and Tada (1993) showing that scrambled QPs cannot take scope over the matrix QP subject, indicating that scrambling does not establish an operator-variable relation and can thus, be undone in the LF.

Japanese

(208) Daremo₁-ni dareka-ga [Mary-ga t₁ atta to] omotteiru.
everyone-DAT someone-NOM Mary-NOM met that thinks

=for some x, x a person, x thinks that for every y, y a person, Mary met y ≠ for every y, y a person, there is some x, x a person, such that x thinks that Mary met y.

[Bošković and Takahashi 1998: 354]

This phenomenon is also called radical reconstruction by Saito (1992), as the data above indicates that the moved object (QP) must be reconstructed to its base position in the PF, as if the scrambling movement of the QP never took place in the first place. However, as noted by Nishigauchi (2002) and Miyagawa (2005), Saito’s (1989)²⁴ undoing analysis makes the wrong prediction in Condition C environments:

Japanese

- (209) [John_i-ni-tuite-no dono hon]-o_j kare_i-ga [Hanako-ga t_j
 [John_i-about-GEN which article]-ACC_j he_i-NOM [Hanako-NOM t_j
 ki-ni-itteiru ka] sitte-iru
 like Q] knows
 ‘He knows which article about John, Hanako likes.’

[Nishigauchi 2002: 84; Miyagawa 2005: 194]

Under the undoing analysis, this entire wh-phrase must obligatorily reconstruct. But that would incorrectly predict a Condition C violation, because *John* in the wh-phrase would end up being c-commanded by the pronoun *kare* ‘he’ in the matrix subject position. The fact that there is no Condition C violation is evidence that the wh-phrase does not get put back. This fact, along with

²⁴ Saito builds on this to flesh out his radical reconstruction and Scrambling as an optional movement analysis (Saito 1992, Saito and Fukui 1993, Tada 1993, et al).

new developments in Minimalism has brought about Miyagawa's (1995, 1997)²⁵ analysis that different kinds of scrambling follow different rules, and that they are feature-driven, not optional.

Miyagawa's feature driven scrambling (1997)

A-scrambling is triggered by a feature in T - presumably EPP

A'-scrambling is focus related

This analysis allows us to account for the data, without creating new types of movements and positions (contra Webelhuth 1989), and without making references to the LF, operators or optionality (contra Saito 1992). So, in languages like Japanese or JI with scrambling, movement of either the subject or the object can satisfy the EPP feature in T. This is a parameter that strongly divides scrambling and non-scrambling languages without making reference to the underlying word order (contra Fukui 1993²⁶). This is desirable as languages without SOV word order have been claimed to also have scrambling (Mayan, Austronesian, Algonquian, etc)²⁷.

Under this analysis, the defining parameter that differentiates scrambling and non-scrambling languages is whether or not the object can satisfy the EPP feature in T. So, in languages like English, because only the subject can satisfy this feature, even with an escape hatch in Spec vP, only the subject in a sentence can move via A-movement into Spec TP; while the object (if extracted out of the vP) must undergo A'-movement to a position higher than TP. In scrambling languages like Japanese, in contrast, once an object is moved to the edge of vP, it "competes"

²⁵ This theory is built on Mahajan's (1990) theory of Scrambling where he proposes that A-Scrambling is Scrambling to a Spec position, while A'-Scrambling is an adjunction.

²⁶ Fukui (1993) proposes the parameter value preservation (PVP) measure, which essentially states that an application of Move a is costless in a language only if it results in a structure that is compatible with the parameter value for the language.

²⁷ Fukui (1993) and others have proposed that SVO languages like English do not have Scrambling, and that Scrambling is a property that is found only in SOV languages.

with the subject to satisfy the EPP feature in T and is able to get A-moved into Spec TP. Otherwise, if the subject moves into Spec TP instead, then the object would get extracted via A'-movement. This latter option is the only option available for object movement outside of the vP for non-scrambling languages. This analysis explains the mixed A/A' properties of clause-bound scrambling.

5.3.2 Landing Site for Scrambling

Now let us look at the structure and landing site for Scrambling as proposed by Miyagawa (2001) below. First, we will discuss the case for A-Scrambling.

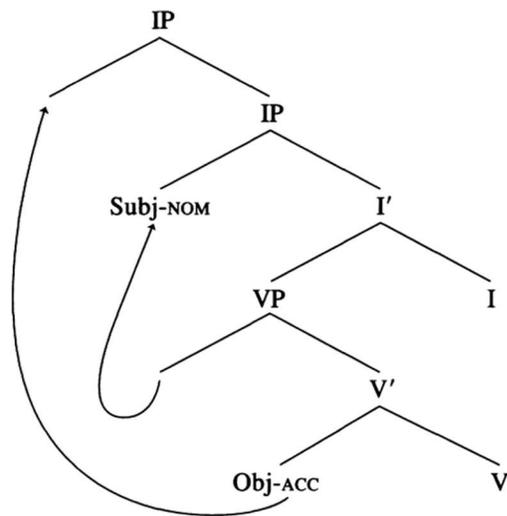


Figure 5.3: Miyagawa (2001) structure of A-movement.

As we see from the figure above, Miyagawa proposes that object A-movement is to the outer Spec of IP (=TP). Miyagawa also proposes that OSV Scrambling in Japanese involves movement of the subject into the inner Spec,TP. With this, Miyagawa proposes another stipulation to differentiate Scrambling and non-Scrambling languages, namely that Scrambling languages allow multiple Spec,TP projections while the latter don't. In the case of JI, I would

like to come back to my earlier assertions (see Chapter 1), that JI Scrambling can have low subject.

- (210) JI Scrambling.
- a. Sayur-nya udah Tiwi masak.
Vegetables-DEF PERF Tiwi cook
‘Tiwi already cooked the vegetables.’
- b. Sayur-nya Tiwi udah masak.
Vegetables-DEF Tiwi PERF cook
‘Tiwi already cooked the vegetables.’

In the previous chapter, I argued at length that these two constructions are both Scrambling. But, (210a) is a case of Scrambling where the subject stays low, while (210b) is a case of Scrambling where the subject has moved outside of the vP. Both (210a) and (b) may involve A-Scrambling. Miyagawa’s (2001) structure in Figure 1 above would explain the case of (210b), where both the object and subject have moved via A-movement to fill TP’s multiple Specs. In the case seen in (210a), on the other hand, I assume that the TP only has 1 Spec position, so the subject and object truly ‘compete’ to occupy this single Spec,TP position. Once the object occupies it, the subject must stay low in Spec,vP.

The case with A’-scrambling is much simpler. In Miyagawa’s (2001) theory, A’-scrambling is simply when the object has undergone A’-movement and is adjoined to TP, presumably for focus-related reasons. Applying this to our JI examples above, (210b) would have a structure similar to that in Figure 1, with the difference that instead of having multiple Specs, the subject has fulfilled EPP in TP and A-moved to its sole Spec,TP. The object then moves and adjoin above the TP.

For the pattern in 210a, I assume that since the subject has stayed low, the object has satisfied the EPP in TP, so it A-moves to Spec,TP; and then it moves further up to a Spec,CP position through A'-movement, for similar focus-related reasons. In this case, the TP also only has a single Spec position. Note that in the (210a) pattern where the subject stays low, the object must obligatorily fulfill the EPP in TP, by A-movement to Spec,TP. The difference, then, lies in the fact that the object can stay its Spec,TP position, or it can raise higher (by A'-movement) to a position in the CP domain (see Figure 5.4 below).

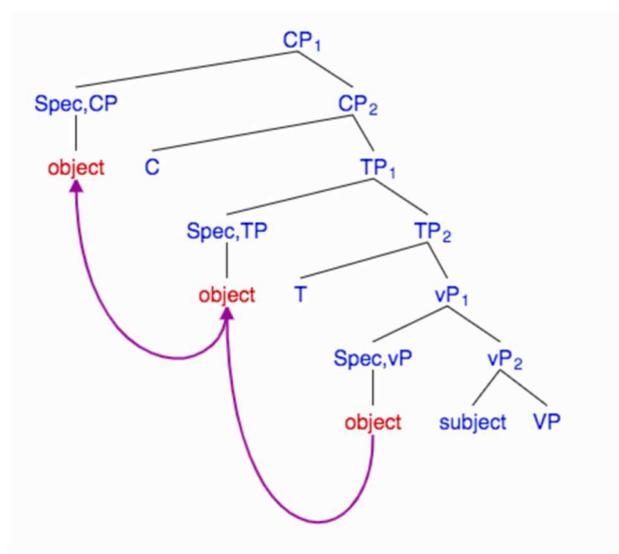


Figure 5.4: Syntax structure for A'-Scrambling.

So far then, we know that two things are crucial to differentiate Scrambling and non-Scrambling languages, especially in the case of JI Scrambling: (i) the symmetry of subject and object in terms of the ability to satisfy EPP in T²⁸, and (ii) the possibility of multiple Spec,TP. Without total symmetry in the status of subjects and objects, it is impossible to get pattern (210a) with A-movement of the object; and without multiple Spec,TP, it is impossible to get pattern (210b) with A-movement of the object.

²⁸ This gets around relativized minimality/shortest move (Miyagawa 1997, 2001)

5.4 Chapter Summary

In this chapter, I have provided the literature on Scrambling and have shown that mixed A/A' Scrambling exists in Indonesian. Crucially, I have shown that what has been called Topicalization and Passive Type 2 in Indonesian are both just different types of Scrambling in JI.

CHAPTER 6

A UNIFIED THEORY FOR OBJECT SHIFT AND SCRAMBLING

6.1 Introduction

To summarize the discussion thus far, we have established that both Scrambling and Object shift exist in JI. Low object movement in JI is similar to Germanic Object Shift (OS) in that it adheres to the Holmberg Generalization, while intermediate object movement to a sentence initial position is Scrambling and is free of the Holmberg Generalization (HG) requirement. This is interesting as it mirrors the Scrambling and Object Shift division we observe in Germanic language where Icelandic and Scandinavian languages are said to have Object Shift while German and Dutch have Scrambling (Vikner 2005, Thráinsson 2001).

The most crucial piece of data we have to illustrate this is the following:

(211) * $[_{AUXP}Udah \quad [_{VP}Icha \text{ buku } Harry \text{ Potter}_{t_j} \quad [_{VP}b\mathbf{eli} \ t_j]]]$.

ASP Icha book Harry Potter buy

‘Icha already bought the Harry Potter book.’

(212) $[_{TP}Udah \quad [_{AUXP} [\mathbf{b\mathbf{eli}} \ t_j]_{VP} \ t_{perf}] \quad [_{VP}Icha \text{ buku } Harry \text{ Potter}_{t_j} \ t_{VP}]]]$

PERF buy Icha bookHarry Potter.

‘Icha already bought the Harry Potter book.’

(213) $[_{TP}Buku \ Harry_j \ Potter \ uda \quad [_{VP}Icha \ beli \ t_j]]]$.

Book Harry Potter PERF Icha buy

‘Icha already bought the Harry Potter book.’

In (211)&(212) the object has moved out of its base generated position, but the landing site is low, within the vP; the only contrast we see between the ungrammatical (211) and grammatical (212) is the position of the verb (highlighted). We see that in the grammatical (212), the verb has moved out of its base generated position, to a position that is higher than the moved object; and in the ungrammatical (211), the verb has stayed in its base generated position. In (213), on the other hand, we see that the object has moved into a position in the TP, away from the vP, and the verb staying low does not induce any ungrammaticality (as opposed to (211)).

In this chapter, I will tackle the dichotomy between Scrambling and Object Shift (OS) in regard to its requirement for verb movement. As discussed in Chapter 4, there are several major theories that have been proposed to explain this verb movement dependence of short object movement. These can be generally categorized into the following:

a) Theories where OS & HG are attributed to information structure features

(Diesing and Jelinek 1995, Diesing 1996, Holmberg 1999, et al)

These theories argue for object movement driven by a focus feature in Spec,vP. Since Holmberg's Generalization has a syntactic component to it, these theories are inadequate to explain our data; and must be coupled with another explanation for HG, which will be address in more details in this chapter.

b) Theories where OS & HG are attributed to object movement driven by verb movement

(Holmberg 1986, Vikner 1994b, Holmberg and Platzack 1995, Holmberg 1999, et al)

These theories argue that the verb movement out of the VP necessitates the object movement observed in OS; this has been attributed to some adjacency requirement so that the object is properly governed by the verb (for case, focus feature, etc). These theories, however, are unable to explain why only certain objects move even with V-to-T verb movement in Scandinavian languages. Moreover, in cases like (212) where

Holmberg's Generalization is satisfied via remnant movement, the object movement must precede the verb movement.

c) Theories where OS & HG are described as a Linearization requirement where the base generated word order must be preserved

(Fox and Pesetsky 2005, Müller 2007)

These theories argue that the HG phenomena is simply a linearization rule where the verb-object base generated order must be preserved (shape preservation – Williams 1999). Fundamentally opposed to the previous theories described in (b) above, in these theories, the verb movement is triggered by the object movement, in an attempt to “correct” the violation to shape preservation. Since Scrambling does not have to adhere to this word order preservation, linearization must proceed cyclically. Fox and Pesetsky (2005) differs from Müller (2007) in describing how cyclic linearization works; and in this chapter, I will show that Müller's relative cyclic linearization philosophy works better in explaining the data and in capturing the generalization that short, local movement must adhere to shape conservation, while long distance movement does not have to.

6.2 Unifying Scrambling and Object Shift in JI

As mentioned in chapter 4 and in the introduction to this chapter, I am pursuing a linearization theory to account for Holmberg's Generalization in JI. As also briefly discussed in Chapter 4, Fox and Pesetsky's (2005) cyclic linearization theory provides the closest solution to the dichotomy between Scrambling and Object Shift. To briefly reiterate it here, Fox and Pesetsky propose that two things underline the difference between Scrambling and Object Shift: (i) the nature of the object movement, and (ii) what is considered a phase. Central to their theory, is the

fact that once linearization establishes the order of precedence between certain elements (like V or O), this information is preserved, such that all subsequent linearization cannot contradict this established linear order.

For Object shift, the VP is considered a phase and the object does not move through the Spec of VP. Because VP is a phase, at this stage of the linearization, the linear order of V>O is established for SVO languages (214a). When a sentence is linearized at the next phase level, this linear order of V>O must be preserved. If the object is moved over the verb without first going through the edge of VP, then we would get the order of O preceding V (214b). Since this linearization order contradicts the earlier linearization order (214a), the derivation would crash. If, the verb moves out of the VP following the object, as illustrated in 214c, then the earlier linearization order of V>O (214a) is preserved, so the sentence is grammatical.

- | | | |
|-------|--|-----|
| (214) | a. [VP V O] | V>O |
| | b. *[CP ..[VP O [VP V t _o]]] | O<V |
| | c. [CP.. [VP V O [VP t _v t _o]]] | V>O |

Fox and Pesetsky's theory necessitates that the VP is a phase because if we consider the traditional assumption of vP as a phase instead, then we will never get a contradiction in the linear order of V and O. If the first linearization happens on the vP level, then the object can move freely within the vP phase, without ever creating any problem for the linearization, so we would never get the HG effect.

Generalization” effect, where the verb is NOT allowed to move (see contrast between (216a) & (b); the verb is moved in (b), but not in (a)).

(216) **Icelandic Quantifier Movement**

a. Jón hefur ekkert [sagt Sveini ___]

Jon has nothing said Svein-DAT

b. *Jón sagði ekkert Sveini ___.

Jon said nothing Svein-DAT

‘John has told Svein nothing.’

(Rögvaldsson (1987: 41), quoted by Svenonius (2000))

Fox and Pesetsky argue that since quantifier movement is A’, it must move through the edge of VP. So, at the point when VP is linearized, O precedes V (216a & 217). If the verb moves outside of the VP, leaving the object at the edge of VP, then the linear order would contradict the earlier linear order (216b & 218), causing the derivation to crash.

(217) [CP ... [VP O V t_o]] O>V

(218) [CP .. V [VP O t_v t_o]] O>V; V>O

This way, Fox and Pesetsky differentiates A’ and A movement as either a movement that moves through the edge of a phase or not. But from our earlier discussion, we have established that Scrambling has mixed A/A’ properties. Even if we abandon the idea of both vP and VP as potential phases in JI and adopt VP as the sole phase, it is unclear why OS would proceed directly with no edge movement while Scrambling would have to move through the edge, considering Scrambling in JI cannot be clearly categorized into A or A’ movement.

Crucially, Fox and Pesetsky must stipulate another condition in their theory because OS languages can also passivize their object. This means that the object can move to Spec,TP via A-movement while the verb remains low; this should not be allowed as this is essentially identical to OS in their theory. Fox and Pesetsky (2005) stipulates that the VP is only a phase if the verb assigns accusative case to the object, but this is another stipulation in the theory that is ad-hoc and unnatural.

Additionally, in an exclusively bottom up derivation, it is unclear why linearization information that has been successfully processed and sent to Spell-Out would be saved by the system. The only way we would be able to do this seems to be ad-hoc, namely, to explain just the OS cases. Looking at the cases of object movement we have at hand, it seems that only OS requires the preservation of the base generated linear word order, while other kinds of object movements do not (wh-movement, Scrambling, passivization). Considering the local landing site of OS within the vP phase itself, as opposed to the much higher landing sites for the other movements, a much better generalization we can make here is that local movements within a phase must preserve the base generated word order, while long-distance movements outside of the phase can “escape” this requirement to preserve the base generated word order (Müller (2007), Sells (2001), and Richards (2004) have all noted this generalization that divides local and non-local movements in terms of how linear order is preserved. I propose, therefore, in line with Richards (2004) and Müller (2007), a cyclic linearization process that differentiates between short and long-distance object movement, instead of one divided along the A/A' distinction.

With that in mind, let us consider the situation at the vP level where the object has moved out of its base generated position to Spec,vP in JI. I assume that in the case of OS, as suggested by Diesing and Jelinek 1995, Diesing 1996, Holmberg 1999, et al (see chapter 4 for more details), the object movement is driven by a focus feature. We must also remember, however, the Spec,vP is also an intermediate landing site for Scrambling, as it provides an escape hatch at the edge of

the phase that would allow further movement to TP. As such, object movement to Spec,vP can be motivated by two different things: (i) a focus feature, or (ii) an edge feature. I argue that it is ultimately this difference that would play a crucial part in the local linearization of vP, such that Object Shift in JI must preserve the underlying VO word order, while Scrambling is free of such a requirement.

This aligns with Müller's (2007) notion of local vs. non-local features, where he suggests precisely this relativized cyclic linearization concept. The core of Müller's theory is built upon his notion of Phase Balance.

Phase Balance: Every phase has to be balanced: For every feature [$\bullet F \bullet$] in the numeration there must be a potentially available feature [F] at the phase level.

In this theory, availability is potentially established either by having [F] (i) in the current numeration (or in a tree waiting to be merged to the current derivation); or (ii) at the edge of the current phase. Let us now consider an abstract example where there is a [$\bullet wh \bullet$] feature in C. At the level of the creation of the vP phase, there is no local [wh] feature to balance out the [$\bullet wh \bullet$] in C. So, to balance out the phase, a wh-item like a bare wh-word (e.g. who, what) or a complex wh-phrase (e.g. which woman) must move to Spec,vP so that it can be available for [$\bullet wh \bullet$] in C. Crucially, this intermediate movement to Spec,vP is triggered by a non-local wh-feature in C; it is not prompted by a local feature, and is only temporary in nature as the system knows that this is not the final landing site.

We can note, at this point, that this view of cyclic movement is very similar to early approaches to successive cyclic movement in the Minimalist Program (Chomsky 1995, Takahashi 1994), whereby successive-cyclic movement was proposed to be driven not by local feature checking, but by a requirement that chain links established as a result of movement should be as short as

possible (minimal chain condition – Chomsky 1995). In these early proposals, movement was supposed to start only after the derivation of the last target of movement (e.g. C for wh-feature). This means, that movement to the Spec of a specific phase is triggered by a non-local feature in a higher phase, just as Müller (2007) suggests in his Phase Balance proposal.

In both the Phase Balance proposal, and the minimal Chain condition, it is clear that intermediate movement to the edge of a phase is of a different nature from feature-driven movement. Müller (2007) states this as a difference in Merge status and proposes that DPs that undergo these intermediate movements are therefore, not sent to the Spell-Out when that specific phase undergoes linearization. As such, DPs attracted to the edge of a vP via features outside of the vP are not linearized at the vP level. This allows these DPs (like in the case of Scrambling in JI) to ignore the base-generated VO ordering, and thus, circumvent the Shape Preservation requirement.

Later approaches to successive cyclic-movement (Chomsky 1995b, 2001, 2004), however, dispensed with the minimal chain condition, and treat every step of movement on its way to its landing position as separate movements satisfying a local Edge Feature. It is this later approach that I will use to explain Object Shift and Scrambling in JI.

The structure in (219) shows a potential object movement to the edge of vP.

(219) [_{vP} O V t_o]

If we consider the two different features that can potentially attract the object to Spec,vP (Focus feature in v, and an Edge Feature in v), the focus feature can be seen as a feature that is local in nature. This means that it is attracting a DP from within the same phase (locally) such that the local DP gets moved to a local Spec position and stays there permanently. The Edge feature, on

the other hand, is not local in the sense that it is attracting a DP to Spec,vP that must eventually move further to satisfy another feature in a later phase (this could be a wh- feature in C, or any other information structure feature in T or C). So, the feature that the object DP must satisfy is not local, and the Edge Feature is only an intermediary feature that provides a temporary landing site for the object DP in Spec,vP.

This distinction between a local and non-local feature is crucial in explaining the generalization we captured earlier in regard to movement and shape preservation. Assuming an efficient system, it would not make any sense for it to linearize a moved element that would be further moved. In a way, object DP movement to Spec,vP that is driven by an Edge Feature is an incomplete movement, one that is guaranteed to be followed by another movement. As such, the system does not have to linearize this moved object at the time that the vP is sent to Spell-Out. DP movement to Spec,vP that is driven by a focus feature, on the other hand, represents a complete movement. The system knows that no further movement of the DP would happen, so this information should be sent along to Spell-Out.

While the structure in (219) may seem syntactically identical on the surface and could represent both OS as well as Object DP movement to satisfy an Edge feature, the system sends differing information to the Spell-Out at this stage. Since focus-driven OS is complete at the time of the vP Spell-Out, the system sends the whole information contained in (219) to be linearized. For Edge-feature driven object movement, however, since the object DP movement is incomplete, it is not sent out for linearization at the time of vP Spell-Out, such that the object would not be linearized at all at this stage (220).

(220) [_{vP} V]

Applying this on our concrete examples from (211), (212) and (213), we can have object movement to Spec,vP either due to Edge Feature or Focus feature. In the case of movement due to Focus feature, as observed in (219), both the verb and moved object would be linearized.

(219') [[buku Harry Potter]_{focus} [beli]]
 book buy
 O_{focus} **V**

In the case of movement due to the Edge Feature, the object is not linearized.

(220') [[beli]]
 buy
 V

So, now how does the system linearize the information contained in (219) and (220)? The short answer is extremely locally. If the syntax sends the information in (219) for linearization, then the system would recognize that the order of the verb and object has been inverted within that same phase. Since this violates the shape conservation rule of the grammar, the system sends back a directive to the syntax that triggers the verb remnant movement we see in (212) as the grammar continues to build up the sentence structure. So, we see here that the verb remnant movement might be triggered by the “violation” in the shape preservation condition detected during linearization.

If the syntax sends the information in (220) for linearization, then there is just no information on the linearization of the object. In a way, the Edge Feature has then “allowed” the DP to escape linearization, such that there is no need to preserve the base generated VO order. This captures

the generalization we have seen that non-local movements that crosses over the phase boundary are not bound by the Shape Preservation Condition.

In summary, I have proposed, in line with Müller (2007), a relativized theory of cyclic linearization based on Fox and Pesetsky (2005) where the notion of shape preservation being done cyclically is preserved. Crucially, however, I differ from Fox and Pesetsky (2005) in defining the sets of elements that gets linearized at the phase level; in Fox and Pesetsky's cyclic linearization, everything in a phase, including things at the edge of the phase are linearized. In this thesis, I also differ from Müller (2007) in my proposal that differentiates between local and non-local features, wherein movements induced by non-local features like the Edge Feature do not get linearized.

To illustrate this one more time concretely with our earlier JI data, I implement what I have proposed to the sentences we have at the beginning of this chapter. In (221), the object is moved to Spec,vP by a Focus feature; since this is a local and permanent move, both the object and the verb get linearized at the vP level, where the Spell-Out apparatus detects the flipping of the base-generated V-O order, resulting in the ungrammaticality of the sentence. In (222), the same thing happens, but this time, since the verb has undergone remnant movement, the flip in the V-O base generated order is “repaired” such that the sentence is grammatical. Finally, in (223), the object DP is attracted to Spec,vP by the Edge Feature; since this movement is not final, the object is not linearized at the vP level. So, it is allowed to get the edge of vP and can move further up to TP. Since there was no linearization information of the object established in the vP-level Spell-Out, the flipping of the V-O base generated order is in this case “invisible” to the Spell-Out. As such, (223) is grammatical.

(221) *_[AuxP]Udah _[vP]Icha buku Harry Potter_j _[vP]beli t_j]].

ASP Icha book Harry Potter buy

‘Icha already bought the Harry Potter book.’

(222) _[TP]Udah _[AuxP] [beli t_j]_{VP} t_{perf} _[vP]Icha buku Harry Potter_j t_{VP}]]]

PERF buy Icha book Harry Potter.

‘Icha already bought the Harry Potter book.’

(223) _[TP]Buku Harry_j Potter uda _[vP]Icha beli t_j]].

Book Harry Potter PERF Icha buy

‘Icha already bought the Harry Potter book.’

6.3 Conclusion and Future Research

At this point, I would also like to revisit the two big questions that we started with at the beginning:

Q 1: How free is the word order in Jakarta Indonesian (JI)? Are there restrictions on the word order and what are they?

Q 2: Can JI word order flexibility and any restrictions on it be explained by existing accounts within the broad framework of generative grammar?

While we are still far from being able to answer these questions in full, our endeavors here have shown that we have at least some restrictions on the word order in JI. As we have seen in Chapter 2, while the word order is quite permissive in the language, we can observe clearly that short DP movements are only grammatical if they preserve the base-generated Verb-Object order. In much of this last chapter, I have also provided an explanation, in the form of Shape

Preservation and relativized cyclic linearization that works well within the broad framework of generative grammar that works not only to explain this restriction we have encountered, but also to explain why only this restriction exists in the data we have looked at so far.

In this section, I lay out several ways that this research needs to be expanded in the future, to get a better understanding of both word order restrictions in JI, as well as the principles and rules within generative grammar that impose these restrictions.

6.3.1 Remnant Movement

At this point, the question remains on the nature of the remnant movement that corrects the shape preservation violation observed with short object movements (object shift). Fox and Pesetsky (2005) insist that cyclic linearization is a back-end filter system. This means that they are not concerned about the syntactic dealings and motivations of movement. Under their theory, they would probably assume that object shift and the remnant movement that saves it are both independent syntactic phenomena. As such, what differentiates a grammatical sentence like (221) and an ungrammatical one like (222) would not be anything internal to the object shift operation itself, but rather something extrinsic.

Müller (2007) takes a fundamentally different route and proposes that remnant movement can be motivated by object shift. In fact, Müller (2001, 2002) proposes that there are two types of remnant movements: (i) primary – independent remnant movements, and (ii) secondary – dependent remnant movements. In Müller's theory, the secondary type of remnant movement is precisely what we see happening in (222) above in that the object shift triggers a repair mechanism in the form of a corrective remnant movement. Several characteristics of secondary remnant movement, according to Müller (2001, 2002) include the interdependence of the object

movement and the remnant movement itself, as we see in the case of object shift in JI (but also in other cases of object shift that obey the Holmberg's Generalization).

Crucially, Müller's secondary remnant movement differs from primary remnant movement because unlike in primary remnant movement, secondary remnant movement does not have the usual freezing effect. (224) and (225) below are examples of primary remnant movement, where *children* cannot be extracted from the VP that has undergone a remnant movement.

(224) a. I think that [_{CP} [_{VP2} written t_1 for children₃] those books₁ could not possibly be t_2].

(225) *Children₃ I think that [_{CP} [_{VP2} written t_1 for t_3] those books₁ could not possibly be t_2]

[Müller 2001: 6]

The data is different in JI, though. We can compare here (225) and (227). Whereas in (225), *children* cannot get extracted from the moved VP, the PP *ke gua* is easily extracted in the grammatical (227)²⁹.

(226) [_{TP}Udah [_{AuxP} [ngasih t_i ke gua]_{VP} t_{perf} [_{VP}Icha banyak banget buku t_{VP}]]]
 PERF N-give to me Icha many very book
 'Icha already gave me many books.'

(227) [_{CP} Ke gua_j [_{TP}Udah [_{AuxP} [ngasih t_i t_j]_{VP} t_{perf} [_{VP}Icha banyak banget buku t_{VP}]]]
 To me PERF N-give many very book
 'To me, Icha already gave many books.'

²⁹ The fact that the verb carries the N- prefix might be important, but this is generally a marker of verb movement to a position outside of the vP, not a marker of PP movement.

Müller (2002) also gives data from English that he claims also represents secondary remnant movement (contrast to primary remnant movement in (224-225)), where the freezing effect is not detected.

(228) Which book₃ did John [VP₂ give t₃ t₁] [PP₁ to no-one] t₂ ?

(229) About Nixon₃ John [VP₂ read t₁] [NP₁ only one book t₃] t₂

At this point, a deep dive into remnant movement is outside the scope of this dissertation. At this stage, there is some evidence that object shift in JI may indeed drive the corrective remnant movement that accompanies it, categorizing it as secondary remnant movement vis-à-vis Müller's (2002) theory. However, the exact mechanism of how a Spell-Out Linearization rule can influence the syntax is unclear; and would require more research that could shed some light into the syntax-phonology interface.

6.3.2 Long-distance Scrambling

While this thesis has tackled short object movement, and intermediate object movement, I have not elaborated on long-distance Scrambling in JI. The main reason for this is because there is no way to morphologically differentiate long distance Topicalization from Scrambling in the language. Lacking case marking on the DPs, it is unclear whether the sentence in (230) below is a case of Topicalization or Scrambling.

(230) Buku itu gua harep kalo John udah baca.
 Book that I hope that John PERF read
 'I hope that John has read that book.'

While intermediate Scrambling is generally described as having mixed A/A' properties, long distance Scrambling is purely A', a syntactic feature that is also shared by Topicalization (Mahajan 1990, Saito 1985, 1989, Miyagawa 1995, 1997), et al). As such, I am also not able to utilize syntactic diagnostics to differentiate between the two. Future research will need to explore more of the semantics and pragmatics of long-distance object movement to give us a clearer understanding of both Scrambling and Topicalization in JI.

6.3.3 Exploring more restrictions in JI word order

In this thesis, we have only looked at mainly simple, declarative sentences. To answer the questions we set out with would require other more careful study of different aspects of the language in the future. I will lay out here some other word order restrictions that should potentially be addressed before we can get a much fuller picture of word order restrictions and their explanation in JI.

On the sentence level, the first and most obvious one concerns interrogative sentences. Unlike what we have seen in Chapter 2, neutral interrogative sentences in JI follow a very strict rule in regard to wh-movement. Unlike the fully in-situ languages like Mandarin, Japanese and Korean, or the fully wh-movement languages like English and other Germanic languages, JI requires wh-adjuncts to move, while requiring wh-arguments to stay in-situ.

wh-adjuncts	wh-arguments
Kapan - when	Apa - what
Gimana - how	Siapa - who
Kenapa - why	(di /ke/dari) mana – where (at/to/from)

Figure 6.1 WH-question words in JI.

- (231) **Kenapa** lu mukul adik-lu? [wh-adjunct]
 Why you N-hit sibling-POSS
 Why do you hit your sibling?
- (232) *Lu mukul adik-lu **kenapa?**³⁰
 You N-hit sibling your why?
- (233) Ali lagi m-baca **apa?** [wh-argument]
 Ali IMPF N-read what
 What is Ali reading?
- (234) ***Apa** lagi Ali baca?³¹
 What IMPF Ali read

A detailed analysis of this pattern is beyond the scope of the current work, but there is at least some evidence pointing to wh-words simply being in-situ in JI, as the verb in the moved wh-adjunct pattern in (231) may carry the N- prefix. This signals the possibility of the wh-adjunct being base-generated sentence initially.

Looking at the patterns of smaller phrases like the PP or the DP, JI also exhibits strict word order restrictions. The preposition, for example, must always precede the DP in a PP, and it cannot be stranded.

- (235) Rina lebih tinggi dari orang itu.
 Rina more tall than person that
 ‘Rina is taller than that person.’

³⁰ Only grammatical in a non-neutral question; also indicating surprise and disbelief.

³¹ The grammatical variant would have to have the focus marker *yang* after *apa*.

- (236) *Orang itu Rina lebih tinggi dari
 person that Rina more tall from

Within the structure of the DP, elements like the article, numbers, classifiers, adjectives and the noun itself also have a strict ordering and co-occurrence possibility (See Winarto 2016 for more details). The order of adjectives within the DP, for example, is very strict.

- (237) Bola merah besar
 ball red big
 ‘big red ball’
- (238) *merah bola besar
 red ball big
- (239) ? Bola besar merah
 ball big red
 [Winarto 2016: 220]

Crucially, while JI has both classifiers and a definite article, they cannot co-occur.

- (240) Lima (*buah) buku -nya mahal sekali
 five CLASS book DEF expensive very
 ‘The five books are very expensive.’
 [Winarto 2016: 224]

Hence, what we have seen as relatively “free” word order in Chapter 1 in JI is not exactly free once we delve deeper into the different structures.

6.4 Summary

In this work I explored the flexible word order of Jakarta Indonesian (JI), a variety of spoken Indonesian used in the capital of Jakarta area. I have argued that while JI is largely an SVO language, two non-canonical object positions are of special interest: (i) the sentence-initial object position that frequently alternates with the SVO order; and (ii) the medial object position within the vP projection that requires movement of the verb to accompany this phase-bound short object movement.

The Object-initial construction in all varieties of Indonesian and closely related languages (including JI) is a much researched topic; generally, 3 patterns of object initial construction have been proposed in the literature: (A) object initial constructions where the verb carries a *di-* prefix and the subject (when present) must be in a by-phrase, (B) object initial constructions where the verb is bare and the subject is high in Spec,TP, and (C) object initial constructions where the verb is bare and the subject stays low in Spec,vP. The pattern in A is similar to the classic English passive construction, where the verb is specially marked and the subject is optional; thus, it has also been called the passive construction in all varieties of Indonesian. The patterns in (B) and (C), while sharing the object initial position with (A), fundamentally differ in that they must have the bare verb and the subject is not optional. In the (B) case where the subject has moved up to Spec,TP, the construction has been called Topicalization (Cole & Hermon 1998, 2000, et al.). In the (C) case, however, categorization has been much trickier because of the low subject position atypical of SVO languages; this pattern has been named the fake passive (Chung 1976) or Passive Type II (Dardjowidjojo 1978, Sneddon 1996) in the literature. In this thesis, I have shown that patterns (B) and (C) share many similarities with characteristics of Scrambling like: (i) mixed A/A' properties (Mahajan 1990, 1994); (ii) sensitivity to islands (Saito 1985); and (iii) introduction of scope ambiguity (Kuno 1973, Hoji 1985, Hayashishita 2000). As such, I offer a

new perspective of categorizing the 3 object-initial patterns in JI where (B) and (C) should be viewed as Scrambling, while (A) is correctly categorized as the passive.

The medial object position that requires short object movement within the vP is a much less described phenomenon, even within the larger literature of languages spoken in Indonesia. In Chapter 4, I discussed how the requirement that this movement must be followed by verb movement (unlike Scrambling that can apply freely) is similar to what has been described for Object Shift in Germanic languages (Holmberg 1986). While many have described the phenomenon of Scrambling even within the Germanic languages, Scrambling and Object Shift in Germanic are generally not observed within the same language (Vikner 2005, Thráinsson 2001). But I show in this thesis that both Scrambling and Object Shift exist in JI, even though unlike Germanic, JI is not V2 and does not require the main verb to move out of the vP. This lends support to the proposal that the verb movement requirement on short object movement is a result of shape preservation where the VO base generated order must be maintained. Crucially though, this linearization rule must apply cyclically by phase to explain why Scrambling does not have to follow this requirement (Fox & Pesetsky 2005, Müller 2007). In this chapter, I have aligned myself with Müller's version of relativized cyclic linearization, but I propose that the trigger for non-linearization is the Edge Feature, a view that is well aligned with the latest Minimalist Program in explaining cyclic movement.

In this chapter, I have also elaborated on ways that this research needs to be expanded to further understand the syntactic nature of word order flexibility in JI. Moreover, it is to be noted that I have not explored in-depth the semantic aspects of non-canonical word order in JI, which would need to be tackled in future follow-up of this work.

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