Predicate-fronting in Burmese

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ABBREVIATIONS

1	first person
2	second person
3	third person
ACC	accusative
CAUS	causative
COP	copula
DAT	dative
FOC	focus
FUT	future
NEG	negation
NFUT	non-future
NML	nominalizer
NOM	nominative
PASS	passive
PAST	past
PL	plural
TOP	topic

ABSTRACT

This thesis describes and seeks a structural account for the phenomenon of predicate-fronting in Burmese in terms of restrictions on its availability. One of these restrictions is that predicate-fronting is possible stranding an indirect object but not possible stranding a direct object. The second restriction described is that predicate-fronting across subjects is available across animate subjects but not across inanimate subjects. I propose that the facts can be accounted for by a difference in the structural positions of animate and inanimate subjects. I also make the claim that predicate-fronting always involves the movement of the vP constituent and not any of its sub-constituents. Finally, I posit that indirect objects can be scrambled out of the vP before vP-fronting but this is not possible with the direct object.

CONTENTS

CHAPTER 1
THE PROBLEM

This thesis is concerned with the phenomenon of predicate-fronting in Burmese. Predicate-fronting is possible when the verb appears twice in a clause, as in a verb-doubling construction. Such predicate-fronting constructions are also attested in other head-final languages like Korean (e.g. Kang 1988) and Japanese (e.g. Tateishi 1991), and superficially similar to the so-called predicate clefts in West African languages such as Hebrew (e.g. Landau 2006) and Yiddish (e.g. Cable 2004). In predicate-fronting, the fronted verb has a focus particle attached to it whereas the other copy is pronounced sentence-finally with tense and inflectional material.

Interestingly, predicate-fronting is not always available and there are several restrictions on its availability. One of these restrictions is illustrated in the contrast in (1).

(1)   **Predicate-fronting:**

    a.   Aung-ko   cheekyu-taung sayar-ga   cheekyu-kae-dal.
          Aung-ACC praise-even   teacher-NOM praise-PAST-NFUT
          'The teacher even praised Aung.'

    b. * Aung-ko   cheekyu-taung repot-ga   cheekyu-kae-dal.
          Aung-ACC praise-even   report-NOM praise-PAST-NFUT
          'The report even praised Aung.'

Notice that the pair of sentences in (1) differ minimally in the subject argument. I argue that the relevant difference between the subjects is their animacy. I offer the following generalisation (2) for the effect of the animacy of subject on predicate-fronting in Burmese:

(2) **Subject animacy generalisation:**

When the subject of a clause is an animate entity, predicate-fronting is available across the subject. If the subject is inanimate, predicate-fronting across the subject is not available.

The main claim of this thesis is that (1) can be explained by a difference between the structural position of the animate subject and the inanimate subject.

The organisation of this thesis is as follows. In chapter 2, I give an introduction to properties of the Burmese which will lay the groundwork for our discussion. In chapter 3, I describe the various restrictions on predicate-fronting including the effect of animacy of subject in (2). I begin with the description of predicate-fronting across the subject before addressing predicate-fronting that does not front across the subject. In chapter 4, I then present my analysis which explains the restrictions on predicate-fronting. I also discuss an alternative account that has been given for a similar phenomenon in Japanese. Chapter 5 concludes.

CHAPTER 2
THE GROUNDWORK

Burmese is a head-final language belonging to the Tibeto-Burman language family. It is spoken in Myanmar, where it serves as the *lingua franca* and the only official language. The Burmese language comes in two distinct yet closely-related varieties: Colloquial Burmese and Literary Burmese (Jenny & Hnin Tun 2016: 2ff). The variety studied in this thesis is Colloquial Burmese and the data comes from original fieldwork with speakers from the capital Yangon.

Burmese exhibits many properties that are well-known of other head-final languages like Japanese and Korean. Examples include the canonical SOV word order, scrambling, pro-drop and *wh*-in-situ. In this chapter, I give an introduction to properties of the language relevant to the discussion in this thesis.

2.1 Case-marking in Burmese

Burmese follows a nominative-accusative alignment system, where the subjects of transitive verbs and the subjects of intransitive verbs are distinguished from objects of transitive objects in case morphology. Example

(3a) gives an example of a transitive clause and (3b) gives an example of an intransitive clause. Observe that the subjects *sayar* 'teacher' and *kalay* 'child' in (3a) and (3b) respectively are marked with the nominative case morpheme *-ga*. On the other hand, the object of the transitive verb in (3a) takes the accusative case *-ko*. It might be worthwhile to note that neither the nominative nor the accusative case morphemes are absolutely obligatory.

(3)   **Nominative-Accusative Alignment**

   a.   Sayar-**ga**   bolpin-**ko** wal-kae-dal.
        teacher-NOM pen-ACC   buy-PAST-NFUT
        'The teacher bought the pen.'

   b.   Kalay-**ga**   ka-kae-dal.
        child-NOM dance-PAST-NFUT
        'The child danced.'

In a ditransitive clause, there is a pattern of case-marking in which only the indirect object takes the accusative marker *-ko*. The direct object is not overtly case-marked. This has been described in the literature as a constraint allowing only one *-ko* per clause (Jenny & Hnin Tun 2016:163). For convenience of reference, I call this the ACC-ø pattern of case-marking, and I give an example in 4.

(4)   ACC-ø **case-marking:**

Aung-ga   Su-**ko**   bolpin-**(*ko)** pay-kae-dal.
Aung-NOM Su-ACC pen-(*ACC)   give-PAST-NFUT

'Aung gave a pen to Su.'

Alternatively, indirect objects may receive a range of different oblique case markers. In this case, the direct object will receive accusative case. I refer to this as the OBL-ACC pattern of case-marking. Some examples of oblique case markers are *-nae* and *-tho* given in (5a) and (6a) respectively. For comparison, (5b) and (6b) give versions with the NOM-ø case-marking. Within each pair of examples, (a) and (b) do not differ in interpretation.

(5)   a.   Aung-ga   sayar-**nae**   Su-**ko** matesat-pay-kae-dal.
           Aung-NOM teacher-OBL Su-ACC introduce-give-PAST-NFUT

      b.   Aung-ga   sayar-**ko**   Su matesat-pay-kae-dal.
           Aung-NOM teacher-ACC Su introduce-give-PAST-NFUT
           'Aung introduced Su to the teacher.'

(6)   a.   Su-ga   Aung-**tho** sabwal-**ko** yaung-kae-dal.
           Su-NOM Aung-OBL table-ACC sell-PAST-NFUT

      b.   Su-ga   Aung-**ko** sabwal yaung-kae-dal.
           Su-NOM Aung-ACC table   sell-PAST-NFUT
           'Su sold the table to Aung.'

The status of the markers *-nae* and *-tho* is unclear. It is possible that they are dative or oblique case markers, or that they are postpositions. For the purposes of this thesis, however, this is not important. As far as the topic of

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predicate-fronting is concerned, the choice of case marking does not affect the characteristic behaviour of direct objects and indirect objects[1].

2.2 Scrambling in Burmese

Although the default word order in Burmese is SOV, the surface order of arguments within the clause is relatively free. This is a property common of head-final languages and is often referred to as *scrambling* (Ross 1967). In a simple transitive construction, the subject can precede the object like in (7a) or the object can precede the subject as in (7b), with no obvious difference in meaning between the two word orders.

(7) **Scrambling in transitive clauses**

    a.   Kalay-ga   panthi-ko sar-kae-dal.
           child-NOM apple-ACC eat-PAST-NFUT
           'The child ate the apple.'

    b.   Panthi-ko kalay-ga   sar-kae-dal.
           apple-ACC child-NOM eat-PAST-NFUT
           'The child ate the apple.'

In a ditransitive, all six logical possibilities give rise to grammatical orders. This paradigm is given in (8).

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[1]I elaborate this with examples later in section 3.1.

(8)   **Scrambling in ditransitive clauses:**

    a.   Aung-ga   Su-ko sayar-nae   matesat-pay-kae-dal.
          Aung-NOM Su-ACC teacher-DAT introduce-give-PAST-NFUT

    b.   Aung-ga   sayar-nae   Su-ko matesat-pay-kae-dal.
          Aung-NOM teacher-DAT Su-ACC introduce-give-PAST-NFUT

    c.   Su-ko Aung-ga   sayar-nae   matesat-pay-kae-dal.
          Su-ACC Aung-NOM teacher-DAT introduce-give-PAST-NFUT

    d.   Su-ko sayar-nae   Aung-ga   matesat-pay-kae-dal.
          Su-ACC teacher-DAT Aung-NOM introduce-give-PAST-NFUT

    e.   Sayar-nae Aung-ga   Su-ko matesat-pay-kae-dal.
          teacher-DAT Aung-NOM Su-ACC introduce-give-PAST-NFUT

    f.   Sayar-nae Su-ko Aung-ga   matesat-pay-kae-dal.
          teacher-DAT Su-ACC Aung-NOM introduce-give-PAST-NFUT
          'Aung introduced Su to the teacher.'

I will assume with Ross (1967) that the word orders of (7b) and (8b-f) are derived from the base-generated structures (7a) and (8a) respectively via the movement operation, *scrambling*. This background on scrambling in Burmese will be relevant later in Chapter 4 where I propose an analysis for predicate-fronting.

CHAPTER 3
THE DATA

In this chapter, I describe the phenomenon of predicate-fronting in Burmese and restrictions on its availability. I begin with an introduction to verb-doubling constructions and predicate-fronting.

Burmese exhibits a verb-doubling construction that surfaces when a focus particle such as *taung* 'even', *bal* 'only' and *lal* 'also' is attached to the verb. As example (9) demonstrates, the first copy of the verb takes the focus particle, while the copy that linearly follows takes the tense and inflectional elements typically attached to the verb in other simple clauses.

(9) **Verb-doubling with transitive verbs:**

    a.   Aung-ga   panthi-ko **sar**-taung/bal/lal   **sar**-kae-dal.
          Aung-NOM apple-ACC eat-even/only/also eat-PAST-REAL
          'Aung even/only/also ate the apple.'

    b.   Kalay-ga   panol-ko **kwal**-taung/bal/lal   **kwal**-kae-dal.
          child-NOM vase-ACC break-even/only/also break-PAST-NFUT
          'The child even/only/also broke the vase.'

    c.   Sayar-ga   saroat-ko **phat**-taung/bal/lal   **phat**-kae-dal.
          teacher-NOM book-ACC read-even/also/only read-PAST-NFUT
          'The teacher even/only/also read a book.'

Where necessary throughout this thesis, I will use the term "focused verb" to refer to the 'copy' with the focus particle attached to it. The term

"tensed verb" will be used to refer to the sentence-final 'copy' of the verb with tense inflection.

The sentences in (9) can also be described as VP-focus constructions. This means that the focus particle associates with the entire VP. Thus, (9a) for instance, is most natural uttered in a context where the alternatives include Aung doing other things like bathing the cat or doing the dishes. Example (10) makes explicit such a context using the scalar focus particle *taung* 'even'.

(10)   **Focus on VP constituent:**
        <u>Context</u>: Aung woke up earlier than usual today, and therefore he had time to do many things.

        Aung-ga   [_{VP} panthi-ko sar]-**taung** sar-kae-dal.
        Aung-NOM [apple-ACC eat]-even   eat-PAST-NFUT
        'Aung even ate the apple.'

As an alternative to verb-doubling, it is possible to apply focus to the VP by replacing the tensed verb with *lote* 'do'. An example is given in (11). In the Japanese and Korean literature, equivalent constructions have been discussed and referred to as *do*-support constructions (e.g., Hagstrom 1996, Kuroda 1965).

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(11)   **VP-focus with *do*-support:**
Aung-ga   panthi-ko **sar**-taung **lote**-kae-dal.
Aung-NOM apple-ACC eat-even   do-PAST-NFUT
'Aung even ate the apple.'

I will note in passing here that in Burmese, this *do*-support strategy has a limited distribution compared to the verb-doubling strategy. For one, it seems to be unavailable in intransitive clauses. This is interesting in light of the Japanese and Korean data, where only *do*-support is available and not verb-doubling in VP-focus constructions. For the rest of this thesis, I use the verb-doubling constructions in all my examples.

What is relevant and more important for this thesis is the word order in (12) with verb-doubling. What appears to be going on in this construction is that the material indicated in square brackets, the predicate, has been fronted to the left periphery of the sentence, preceding the subject.

(12)   **Predicate-fronting in Burmese**

a.   [Panthi-ko sar-taung] Aung-ga   sar-kae-dal.
       apple-ACC eat-even   Aung-NOM eat-PAST-NFUT
     'Aung even ate the apple.'

b.   [Panol-ko kwal-taung] kalay-ga   kwal-kae-dal.
       vase-ACC break-even   child-NOM break-PASAT-NFUT
     'The child even broke the vase.'

c. [Su-ko   cheekyu-taung] sayar-ga   cheekyu-kae-dal.
   Su-ACC praise-even   teacher-NOM praise-PAST-NFUT
   'The teacher even praised Su.'

In this thesis, I refer to such constructions as *predicate-fronting*. Predicate-fronting will descriptively be diagnosed by the presence of arguments between the focused verb and tensed verb. This is in contrast to constructions without predicate-fronting, in which all arguments precede the focused verb. I illustrate this difference in (13) and (14). In my discussion, I will also refer to the arguments between the focused verb and tensed verb as *stranded* arguments.

(13)   **Without predicate-fronting:**

       . . . (arguments) . . . V-FOC   V-T

(14)   **With predicate-fronting:**

       . . . (arguments) . . . V-FOC . . . (arguments) . . . V-T

It appears that in Burmese, there are restrictions on the availability of predicate-fronting. In the subsequent sections, I present these various restrictions. In section 3.1, I describe the restrictions on which argument(s) that can be a stranded argument. In section 3.2, I present the effect of the animacy of the subject on predicate-fronting. In these first two sections, we first look at predicate-fronting that strands the subject. In section 3.3, I will

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examine, in reference to these restrictions, predicate-fronting that does not strand the subject.

3.1   The IO-DO stranding asymmetry

In this section, I will delve into describing the restrictions on what can be stranded arguments in predicate-fronting across subjects. For now, I consider only examples with animate subjects.

I start with intransitive and transitive clauses. While it is possible to front the intransitive verb alone, as shown in (15), it is not possible to front the transitive verb alone, as shown in (16). In other words, the object of the transitive verb cannot be a stranded argument.

(15) **Intransitive verbs can be fronted alone:**

a. [Ka-taung   ] Su-ga   ka-kae-dal.
    dance-even   Su-NOM dance-PAST-NFUT
    'Su even danced.'

b. [Pyaut-taung   ] thu-ga pyaut-kae-dal.
    disappear-even   3-NOM disappear-PAST-NFUT
    'He even disappeared'

c. [Orh-taung] Aung-ga   orh-kae-dal.
    shout-even   Aung-NOM shout-past-NFUT
    'Aung even shouted.'

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(16)   **Transitive verbs cannot be fronted alone:**

    a. * [Sar-taung] Aung-ga   panthi-ko sar-kae-dal.
         eat-even   Aung-ɴᴏᴍ apple-ᴀᴄᴄ eat-ᴘᴀsᴛ-ɴғᴜᴛ
         Intended: 'Aung even ate the apple.'

    b. * [Kwal-taung] kalay-ga   panol-ko kwal-kae-dal.
         break-even   child-ɴᴏᴍ vase-ᴀᴄᴄ break-ᴘᴀsᴀᴛ-ɴғᴜᴛ
         Intended: 'The child even broke the vase.'

    c. * [Phat-taung] sayar-ga   saroat-ko phat-kae-dal.
         read-even   teacher-ɴᴏᴍ book-ᴀᴄᴄ read-ᴘᴀsᴛ-ɴғᴜᴛ
         Intended: 'The teacher even read the book.'

Instead of the word order in (16), the verb must be fronted together with its internal argument. This was demonstrated before in (12) but I reproduce those examples here as (17).

(17)   **Objects of transitives must be pied-piped**   =(12)

    a. [Panthi-ko sar-taung] Aung-ga   sar-kae-dal.
         apple-ᴀᴄᴄ eat-even   Aung-ɴᴏᴍ eat-ᴘᴀsᴛ-ɴғᴜᴛ
         'Aung even ate the apple.'

    b. [Panol-ko kwal-taung] kalay-ga   kwal-kae-dal.
         vase-ᴀᴄᴄ break-even   child-ɴᴏᴍ break-ᴘᴀsᴀᴛ-ɴғᴜᴛ
         'The child even broke the vase.'

    c. [Su-ko   cheekyu-taung] sayar-ga   cheekyu-kae-dal.
         Su-ᴀᴄᴄ praise-even   teacher-ɴᴏᴍ praise-ᴘᴀsᴛ-ɴғᴜᴛ
         'The teacher even praised Su.'

At this point, a working generalisation might be that when the predicate is fronted, all internal arguments of the verb, if any, must be moved

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with it. In other words, the whole verb phrase must be fronted if the verb is fronted at all. Let's turn to examine the facts in ditransitive constructions in order to test this hypothesis. If this generalisation were true, the prediction would be that stranding either the DO or the IO will both result in ungrammaticality – both arguments must be fronted together with the verb. The ditransitive examples in (18) and (19) demonstrate that this is not the case.

(18) a. [Aung-ko bolpin pay-taung] Su-ga   pay-kae-dal.
           Aung-ACC pen   give-even   Su-NOM give-PAST-NFUT

      b. [Bolpin pay-taung] Su-ga   **Aung-ko** pay-kae-dal.
           pen   give-even   Su-NOM Aung-ACC give-PAST-NFUT

      c. * [Aung-ko pay-taung] Su-ga   **bolpin** pay-kae-dal.
            Aung-ACC give-even   Su-NOM pen   give-PAST-NFUT
           'Su even gave the pen to Aung.'

(19) a. [Sayar-ko   alane pyaw-taung] kyaungtar-ga pyaw-kae-dal.
           teacher-ACC lie   tell-even   student-NOM tell-PAST-NFUT

      b. [Alane pyaw-taung] kyaungtar-ga **sayar-ko**   pyaw-kae-dal.
           lie   tell-even   student-NOM teacher-ACC tell-PAST-NFUT

      c. * [Sayar-ko   pyaw-taung] kyaungtar-ga **alane** pyaw-kae-dal.
           teacher-ACC tell-even   student-NOM lie   tell-PAST-NFUT
           'The student even told the teacher a lie.'

Unsurprisingly, the (a) examples in (18) and (19) show that the verb with all its arguments can be fronted together. More noteworthy are the

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examples in (18b-c) and (19b-c) that involve stranding of one of the objects. Observe that while it is possible to have the IO as a stranded argument (18b/19b), it is not possible to have the DO as a stranded argument, as shown by the ungrammaticality of (18c) and (19c).

The examples in (18) and (19) have the ACC-ø pattern of case-marking. As noted earlier in section 2.1, OBL-ACC is another possible pattern. I show in (20) and (21) that the alternative pattern of case-marking does not alter the behaviour the IO and DO arguments in predicate-fronting. Even with the ACC-OBL case-marking pattern, IOs can be stranded (20b/21b) unlike DOs (20c/21c).

(20) a.   [Aung-**atwet** bolpin-**ko** pay-taung] Su-ga   pay-kae-dal.
           Aung-OBL   pen-ACC give-even   Su-NOM give-PAST-NFUT

    b.   [bolpin-**ko** pay-taung] Su-ga   Aung-**atwet** pay-kae-dal.
           pen-acc   give-even   Su-NOM Aung-OBL   give-PAST-NFUT

    c. * [Aung-**atwet** pay-taung] Su-ga   bolpin-**ko** pay-kae-dal.
           Aung-OBL   give-even   Su-NOM pen   give-PAST-NFUT
       'Su even gave the pen to Aung.'

(21) a.   [Sayar-**tho**   alane-**ko** pyaw-taung] kyaungtar-ga
           teacher-OBL lie-ACC tell-even   student-NOM
           pyaw-kae-dal.
           tell-PAST-NFUT

    b.   [alane-**ko** pyaw-taung] kyaungtar-ga sayar-**tho**
           lie-ACC   tell-even   student-NOM teacher-OBL
           pyaw-kae-dal.
           tell-PAST-NFUT

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c. * [sayar-**tho**   pyaw-taung] kyaungtar-ga alane-**ko**
      teacher-OBL tell-even   student-NOM truth-ACC
    pyaw-kae-dal.
    tell-PAST-NFUT

    'The student even told the truth to the teacher.'

A similar contrast has in fact been observed in Japanese. Yatsushiro 1999 notes this same asymmetry in IO and DO stranding, and I discuss her analysis in detail later on in section 4.5.

In sum, we have learnt in this section that intransitive verbs can be fronted alone, and transitive verbs must be fronted with their internal argument. As for ditransitive clauses, verbs can be fronted with either both of its objects or its DO alone, but not with its IO alone. Put differently, DOs cannot be stranded alone but IOs can, and this is the IO-DO stranding asymmetry.

3.2   The effect of subject animacy

In this section, we move on to another restriction on predicate-fronting. Still looking at predicate-fronting across subjects, we will see that predicate-fronting is available when the subject is an animate entity, but unavailable when the subject is inanimate.

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3.2.1 Subjects in intransitives

We will first turn our attention to intransitive clauses. When the subject of the intransitive clause is animate, the verb can be fronted across the subject. When it is inanimate, the verb cannot be fronted. This is true for both unergative and unaccusative verbs. Unergative examples are given in (22) and (23) and unaccusative examples are given in (24) and (25). Throughout the following examples (22-**??**), the (a) sentences involve an animate subject and the (b) sentences involve an inanimate subject.

(22)   **Unergative *so* 'sing':**

    a.   So-taung sayar-ga   so-kae-dal.
           sing-even teacher-NOM sing-PAST-NFUT
           'The teacher even sang'

    b. * So-taung   kasar-sayar-ga so-dal.
           sing-EVEN play-NML-NOM sing-NFUT
           Intended: 'The toy even sings.'

(23)   **Unergative *byan* 'fly':**

    a.   Byan-taung Su-ga   byan-dal.
           fly-even   Su-NOM fly-NFUT
           'Su even flies.'

    b. * Byan-taung ka-ga   byan-dal.
           fly-even   car-NOM fly-NFUT
           Intended: 'The car even flies.'

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(24) **Unaccusative *myote* 'sink'**

    a.   Myote-taung Aung-ga   myote-kae-dal.
           sink-even   Aung-NOM sink-PAST-NFUT
           'Aung even sank.'

    b. * Myote-taung hlay-ga   myote-kae-dal.
           sink-even   ship-NOM sink-PAST-NFUT.
           'The ship even sank.'

(25) **Unaccusative *tay* 'die':**

    a.   Tay-taung thu-ga   tay-kae-dal.
           die-even   he-NOM die-PAST-NFUT
           'He even died.'

    b. ?* Tay-taung titpin-ga tay-kae-dal.
           die-even   tree-NOM die-PAST-NFUT
           'The tree even died[2].'

The consistent grammaticality of (a) examples in (22-25) demonstrate that whenever the subject is an animate entity, the verb, whether unergative or unaccusative, can be fronted alone. On the other hand, the (b) examples show that inanimate subjects "block" the availability of predicate-fronting.

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[2]My language informants report that the grammaticality of this utterance is improved if the tree in question is conceived as a character in an animated film. This intuition alludes to the relevance of animacy as a property of the subject in predicate-fronting.

3.2.2   Subjects in transitives

If the animacy of the subject indeed has an effect on the availability of predicate-fronting, we would expect that it applies not just to intransitive clauses, but rather any type of clause with a subject. In this section, I will show that the effect of animacy of subjects also applies in transitive clauses.

We had already begun to look some transitive clauses before, and we found predicate-fronting available for the examples in (12), repeated here as (26) for ease of comparison. Notice that these grammatical transitive predicate-fronting examples all involve an animate subject.

(26)   **Predicate-fronting is licit with animate subjects:**   =(12)

  a.   [Panthi-ko sar-taung] **Aung-ga**   sar-kae-dal.
       apple-ACC eat-even   Aung-NOM eat-PAST-NFUT
       'Aung even ate the apple.'

  b.   [Baomote-ko yaung-taung] **yauntkyar-ga** yaung-dal.
       bread-ACC   sell-even   man-NOM   sell-NFUT
       'The man even sells bread.'

  c.   [Su-ko   cheekyu-taung] **sayar-ga**   cheekyu-kae-dal.
       Su-ACC praise-even   teacher-NOM praise-PAST-NFUT
       'The teacher even praised Su.'

Switching out the animate subjects for inanimate ones, we find that predicate-fronting becomes unavailable despite the fact that their canonical

word order with verb-doubling is perfectly grammatical. (27-28) illustrate

this.

(27) **Predicate-fronting is illicit with inanimate subjects:**

    a.   Saing-ga   baomote-ko yaung-taung yaung-dal.
           shop-NOM bread-ACC   sell-even   sell-NFUT
           'The shop even sells bread.'

    b. * [Baomote-ko yaung-taung] **saing-ga**   yaung-dal.
           bread-ACC   sell-even   shop-NOM sell-NFUT
           Intended: 'The shop even sells bread.'

(28) a.   Repot-ga   Su-ko   cheekyu-taung cheekyu-kae-dal.
           report-NOM Su-ACC praise-even   praise-PAST-NFUT
           'The report even praised Su.'

    b. * [Su-ko   cheekyu-taung] **repot-ga**   cheekyu-kae-dal.
           Su-ACC praise-even   report-NOM praise-PAST-NFUT
           Intended: 'The report even praised Su.'

The grammaticality of predicate-fronting with animate subjects (26a)

and (26b) contrasts with the ungrammaticality of predicate-fronting with

inanimate subjects (27b) and (28b). This contrast is consistent with the

behaviour of intransitives discussed above in section 3.2.1, where animate

subjects allow predicate-fronting and inanimate subjects do not.

I will also point out here that the animacy of the object does not matter

for the availability of predicate-fronting. The following examples (29) and

(30) form a minimal pair, only differing in the animacy of the object. Since

both (29b) and (30b) are grammatical, we learn that the animacy of the

object does not determine the availability of predicate-fronting.

(29)   **Predicate-fronting with animate object:**

   a.   Aung-ga   **damya-ko** kya-taung kya-kae-dal.
         Aung-NOM robber-ACC hit-even   hit-PAST-NFUT

   b.   [**damya-ko** kya-taung] Aung-ga   kya-kae-dal.
           robber-ACC hit-even   Aung-NOM hit-PAST-NFUT
         'Aung even hit the robber.'

(30)   **Predicate-fronting with inanimate object:**

   a.   Aung-ga   **nanyan-ko** kya-taung kya-kae-dal.
         Aung-NOM wall-ACC   hit-even   hit-PAST-NFUT

   b.   [**nanyan-ko** kya-taung] Aung-ga   kya-kae-dal.
           wall-ACC   hit-even   Aung-NOM hit-PAST-NFUT
         'Aung even hit the wall.'

So far, we have seen that the animacy of subjects have consistently

played a role both in intransitive and transitive clauses in determining the

availability of predicate-fronting.

3.2.3   Subjects in ditransitives

Ditransitives, too, exhibit the same behaviour. The animacy of the sub-

ject similarly determines the availability of predicate-fronting. For a start,

observe the facts in (31) and (32) where the verb is fronted with both its objects. Predicate-fronting is available when the subject is animate (31b) and unavailable when the subject is inanimate for the same ditransitive verb *pay* 'give' (32b).

(31) **Grammatical predicate-fronting with animate subject:**

    a.   Lu-ga   library-ko saroat pay-taung pay-kae-dal.
         man-NOM library-ACC book give-even give-PAST-NFUT
         'The man even gave the book to the library.'

    b.   [Library-ko saroat pay-taung] **lu-ga**   pay-kae-dal.
          library-ACC book give-even   man-NOM give-PAST-NFUT
         'The man even gave the book to the library.'

(32) **Ungrammatical predicate-fronting with inanimate subject:**

    a.   Titpin-ga gasargwin-ko   neyate pay-taung pay-kae-dal.
         tree-NOM playground-ACC shade give-even give-PAST-NFUT
         'The tree even gave shade to the playground.'

    b. * [Gasargwin-ko   neyate pay-taung] **titpin-ga** pay-kae-dal.
          playground-ACC shade give-even   tree-NOM give-PAST-NFUT
         Intended: 'The tree even gave shade to the playground.'

Recall from section 3.1 before that ditransitive verbs may be fronted along with its DO, stranding the IO. This licit word order is similarly constrained by the animacy of the subject. (33) illustrates.

(33) **IO stranding is illicit with inanimate subject:**

    a.   [Saroat pay-taung] **lu-ga**   library-ko pay-kae-dal.
          book give-even   man-NOM library-ACC give-PAST-NFUT
          'The man even gave the book to the library.'

    b. * [Neyate pay-taung] **titpin-ga** gasargwin-ko
          shade give-even   tree-NOM playground-ACC
          pay-kae-dal.
          give-PAST-NFUT
          Intended: 'The tree even gave shade to the playground.'

As with transitive clauses, it is also important to point out here that the animacy of objects does not affect the availability of predicate-fronting. So far, the ditransitive examples that have been given feature inanimate objects. The following examples give sentences which involve animate objects to demonstrate that the animacy of the objects does not interfere with predicate-fronting like the animacy of subjects does. Regardless of the animacy of the objects, predicate-fronting is always licit with an animate subject (34) and always illicit with an inanimate subject (35).

(34) **Different objects with animate subjects:**

    a.   [Aung-ko pheitsar yu-taung] Su-ga   yu-kae-dal.
          Aung-ACC invitation give-even   Su-NOM give-PAST-NFUT
          'Su even gave the invitation to Aung.'

    b.   [Ein-ko   Aung po-taung] sayar-ga   po-kae-dal.
          home-ACC Aung send-even   teacher-NOM send-PAST-NFUT
          'The teacher even sent Aung home.'

c.   [Su-tho Aung   yaung-taung] Mary-ga   yaung-kae-dal.
       Su-OBL Aung-ACC sell-even   Mary-NOM sell-PAST-NFUT

      'Mary even sold Aung to Su.'

(35)   **Different objects with inanimate subjects:**

a. * [Aung-ko   amhan pya-taung] saroat-ga   pya-kae-dal.
      Aung-ACC truth   show-even   book-NOM show-PAST-NFUT

     'The book even showed the truth to Aung.'

b. * [Yaungthu-tho phyitsee-myar-ko pay-po-taung   ] saing-ga
      seller-OBL   material-PL-ACC   give-send-even   shop-NOM
      pay-po-kae-dal.
      give-send-PAST-NFUT

     'The shop even supplied materials to the seller.'

c. * [Mainma-tho kyaung-ko yaung-taung] saing-ga
      woman-OBL cat-ACC   sell-even   shop-NOM
      yaung-kae-dal.
      sell-PAST-NFUT

     'The shop even sold the cat to the woman.'

So far, we have seen that the animacy of subjects has mattered consistently in constructions that allow predicate-fronting: animate subjects always allow predicate-fronting and inanimate subjects somehow block it. In particular, we have seen that this is true of intransitive, transitive and ditransitive clauses.

3.2.4 Subjects in passives

At this point, there are at least two ways to characterise the facts. The first is to say that it is the animacy of the grammatical subject of the sentence that matters for predicate-fronting. Another possible characterisation is that it is about the animacy of the semantic agent of the verb which happens to be the grammatical subjects of the constructions we have seen so far. I will show in the following section that the former characterisation is the right way to capture the facts, arguing from passive constructions.

By definition, passives are constructions in which the nominal argument that gets nominative case is the semantic theme or patient of the verb. Passives are crucial in teaching us if it is the animacy of subjects that matters for predicate-fronting or if it is the animacy of semantic agent that matters. If predicate-fronting is relvealed to also be sensitive to the animacy of the nominative theme of passive, we can conclude that it is the animacy of grammatical subjects that matter. Otherwise, predicate-fronting could well be related to the animacy of semantic agents.

I now furnish data to show that predicate-fronting in passives is similarly constrained by the animacy of the grammatical subject. (36a) and (37a) give the baseline examples of passives constructions with an animate subject and inanimate subject respectively. Familiarly, the fronting of the

verb is licit with an animate subject (36b) and illicit with an inanimate subject (37b).

(36) **Passive predicate-fronting is available with animate subject:**

    a. Sayar-ga   cheekyu-taung cheekyu-kae-kan-ya-dal.
        teacher-NOM praise-even   praise-PAST-receive-get-NFUT
        'The teacher was even praised.'

    b. [Cheekyu-taung] sayar-ga   cheekyu-kae-kan-ya-dal.
         praise-even   teacher-NOM praise-PAST-receive-get-NFUT
        'The teacher was even praised.'

(37) **Passive predicate-fronting is unavailable with inanimate subject:**

    a. Kek-ga   cheekyu-taung cheekyu-kae-kan-ya-dal.
        cake-NOM praise-even   praise-PAST-receive-get-NFUT
        'The cake was even praised.'

    b. * [Cheekyu-taung] kek-ga   cheekyu-kae-kan-ya-dal.
         praise-even   cake-NOM praise-PAST-receive-get-NFUT
        Intended: 'The cake was even praised.'

The passive data shows that it is the animacy of the grammatical subject that affects the availability of predicate-fronting, rather than the semantic agent of the verb. As we will see, this is important for the analysis later in chapter 4.

3.3 Predicate-fronting with preceding subject

In this section, I present an important data point that gives reason to re-fine the previous description that inanimate subjects always ban predicate-fronting. The examples we have considered so far involve stranded sub-jects. Consider word orders in (38) and (39) that show predicate-fronting with the subject not stranded, but preceding the predicate. (38) involves an animate subject and (39) involves an inanimate subject.

(38)   **Predicate-fronting with preceding animate subject:**

    a.   Su-ga   [amhan pya-taung] Aung-ko pya-kae-dal.
         Su-NOM truth   show-even Aung-ACC show-PAST-NFUT

    b. * Su-ga   [Aung-ko pya-taung] amhan pya-kae-dal.
         Su-NOM Aung-ACC show-even truth   show-PAST-NFUT

    c. * Su-ga   [pya-taung] Aung-ko amhan pya-kae-dal.
         Su-NOM show-even Aung-ACC truth   show-PAST-NFUT
         'Su even showed the truth to Aung.'

(39)   **Predicate-fronting with preceding inanimate subject:**

    a.   Saroat-ga [amhan pya-taung] Aung-ko pya-kae-dal.
         book-NOM   truth   show-even Aung-ACC show-PAST-NFUT

    b. * Saroat-ga [Aung-ko pya-taung] amhan pya-kae-dal.
         book-NOM Aung-ACC show-even truth   show-PAST-NFUT

    c.   * Saroat-ga [pya-taung] Aung-ko amhan pya-kae-dal.
        book-NOM   show-even   Aung-ACC truth   show-PAST-NFUT
        'The book even showed the truth to Aung.'

The pattern of predicate-fronting in (38) and (39) is strikingly similar to the facts about argument stranding we saw earlier in section 3.1 – the IO can be stranded (38a/39a) but not the DO (38b-c/39b-c)[3].

We have already seen that predicate-fronting is generally available in clauses with animate subjects, so the grammaticality of example (38a) that involves an animate subject is not surprising. However, the grammaticality of (39a) demonstrates an instance of predicate-fronting being available with an inanimate subject, something we have not seen before. This shows that in fact, it is not true that inanimate subjects strictly ban any sort of predicate-fronting. The animacy of the subject does not seem to interfere with the availability of predicate-fronting when the predicate is not fronted across the subject.

The hypothesis prior to this section was that inanimate subjects always block any and all forms of predicate-fronting. The data point in this section, however, teaches us that a more precise way to think about the facts is that although inanimate subjects make predicate-fronting *across the sub-*

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[3]Later in the analysis, I show that the bracketing in (38) and (39) is not an accurate representation of the moved constituent. For the sake of discussion, this suffices for now.

ject unavailable, inanimate subjects do not constitute an absolute ban on predicate-fronting. This is important for the analysis, as we will see later in Chapter 4.

3.4 Summary of data

This section attempts to give a complete overview of the data in this chapter. In this schematic summary, I use "V-FOC" to represent the focused verb and "V-T" for the tensed verb.

The schemata in (40), (41) and (42) sum up the data for predicate-fronting stranding the subject. The (a) examples give the canonical word order, and the following examples with stranded arguments. In general, the predicate-fronting possibilities are more limited with inanimate subjects than with animate subjects.

(40) **Intransitives and Passives:**

				Animate S	Inanimate S
a.	S	V-FOC	V-T	✓	✓
b.	V-FOC	S	V-T	✓	*

(41) **Transitives:**

					Animate S	Inanimate S
a.	S	O	V-FOC	V-T	✓	✓
b.	O	V-FOC	S	V-T	✓	*
b.	V-FOC	O	S	V-T	*	*

(42) **Ditransitives:**

						Animate S	Inanimate S
a.	S	IO	DO	V-FOC	V-T	✓	✓
b.	IO	DO	V-FOC	S	V-T	✓	*
c.	DO	V-FOC	S	IO	V-T	✓	*
d.	IO	V-FOC	S	DO	V-T	*	*
e.	V-FOC	S	IO	DO	V-T	*	*

One final part of the data set concerns predicate-fronting that does not strand the subject. In these cases, it is no longer true that predicate-movement is more restricted with inanimate subjects than with animate subjects.

(43)   **Predicate-fronting with preceding subject:**

						Animate S	Inanimate S
a.	S	IO	DO	V-ꜰᴏᴄ	V-T	✓	✓
b.	S	DO	V-ꜰᴏᴄ	IO	V-T	✓	✓
c.	S	IO	V-ꜰᴏᴄ	DO	V-T	*	*
d.	S	V-ꜰᴏᴄ	IO	DO	V-T	*	*
e.	S	V-ꜰᴏᴄ	O	V-T		*	*

This summary makes clear that the data in this chapter motivates two generalisations about the availability of predicate-fronting. The first is a generalisation on the effect of subject of animacy in (2), repeated below. This generalisation is applicable for all clause-types.

(2)   **Subject animacy generalisation:**

When the subject of a clause is an animate entity, predicate-fronting is available across the subject. If the subject is inanimate, predicate-fronting across the subject is not available.

The second generalisation is regarding the IO-DO standing asymmetry made clear by the ditransitive summary (42). This generalisation in (44) is also observed in predicate-fronting with preceding subject, summarised in (43).

31

(44)   **IO-DO asymmetry generalisation:**

The indirect object can be a stranded argument in predicate-fronting
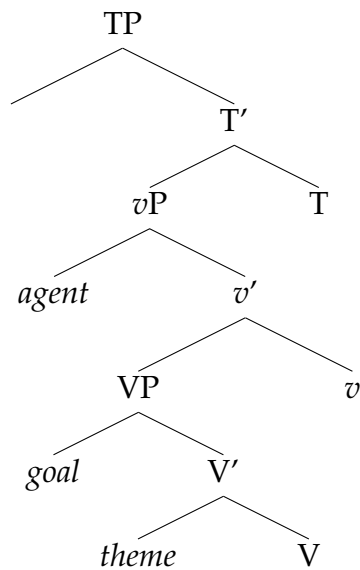
but not the direct object.

CHAPTER 4
THE PROPOSAL

In this chapter I propose an analysis for the patterns of predicate-fronting in Burmese described in Chapter 3. A key point that this analysis tries to capture is the effect of the animacy of subjects on the availability of predicate-fronting. As a preview, I suggest that in Burmese, inanimate subjects must stay within the vP in the final derivation whereas animate subjects may evacuate the vP in the final derivation. We will see that this idea, coupled with the proposal that the predicate-fronting always involves fronting the vP constituent, accounts for why inanimate subjects appear to disallow predicate-fronting across the subject.

4.1   Clause structure

I begin by giving a sketch of the vP structure. I follow Hale & Keyser 1993 and Chomsky 1995 among others in adopting VP-shells, headed by V and v. Further assuming the VP-internal subject hypothesis and the Uniformity of Thematic Alignment Hypothesis (UTAH) (Baker 1988), I propose the following structure in (45) for Burmese clauses. Crucially, (45) shows that the agent is base-generated in Spec,vP, goal in Spec,VP and theme as the

complement of V.

(45) **Basic clause structure**

```
                TP
               /  \
                   T′
                  /  \
                vP     T
               /  \
           agent   v′
                  /  \
                VP     v
               /  \
            goal   V′
                  /  \
              theme   V
```

Subjects of unergative, transitive and ditransitive clauses are agents that are generated in Spec,*v*P. On the other hand, subjects of unaccusative and passive clauses start off as themes generated as the complement of V before raising to the specifier of *v*P. I propose that the highest DP in the *v*P gets nominative case by Agree with T, whether or not it remains in that position in the final derivation. The other arguments get accusative or oblique case (overtly marked or not) but that is not important for our purposes.

For concreteness, I give a suggestion for how verb-doubling constructions are derived, although this is not crucial for my analysis. I assume that

the lexical verb is base-generated as the head of the VP before undergoing head-movement v, then to T. Normally, lower copies of head movement will be unpronounced, resulting in the entire verbal complex in T. However, when a focus particle is adjoined to vP, a copy of the verb must be pronounced in v in order to host the focus particle, and the verb will also be pronounced in T to host the tense suffixes. This follows Landau's (2006) and Cable's (2004) proposal for similar predicate-fronting constructions in Hebrew and Yiddish.

In the subsequent sections, I present my proposal in two parts corresponding to the two generalisations I try to capture. I begin in section 4.2 by accounting for the effect of animacy of subjects generalisation. In this section, I focus on the data involving the movement of the verb with *all* of its internal arguments, if any. I propose that the explanation for this is that animate subjects can raise out of the vP unlike inanimate subjects must remain in the vP. I also propose that predicate-fronting is uniformly vP-movement in Burmese.

Following that, in section 4.3, I account for the patterns of predicate-fronting in ditransitives covered in section 3.1. This is the data that shows the IO-DO stranding asymmetry generalisation. I posit in section 4.3 that the IO can scramble out of the vP before vP-fronting, but the DO cannot do

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the same.

Finally, I address an alternative analysis and discuss its limitations in section 4.5. This alternative approach adopts the Proper Binding Condition (PBC) and the idea that different sub-constituents of the vP can move in predicate-fronting.

4.2 Animacy of subject and its structural position

In this section, I give an analysis to account for the observed subject animacy generalisation in (2), repeated here:

(2) **Subject animacy generalisation:**

When the subject of a clause is an animate entity, predicate-fronting is available across the subject. If the subject is inanimate, predicate-fronting across the subject is not available.

I propose that the observed effect of animacy is the result of inanimate subjects not being able to evacuate the vP. While animate subjects can raise out of the vP into a higher position, inanimate subjects always stay low in Spec,vP. In addition, I suggest that predicate-fronting always involves the movement of the vP constituent.

To see how the proposal gets us the facts, I begin with intransitives. Recall from section 3.2.1 that for unaccusatives and unergatives alike, the

availability of predicate-fronting depends on the animacy of the subject of the clause. When the subject is animate, the verb can front alone, across the subject, to the left periphery of the clause. The derivation for clauses with animate subjects has the animate subject raise from Spec,*v*P to a higher position in the structure. (46a) shows the movement of subjects for unaccusatives and (46b) shows how it looks like for unergatives. Following the unaccusativity hypothesis (Perlmutter 1978), the subject of the unaccusative starts as a theme in the complement of V before moving to Spec,*v*P. On the other hand, the subject of the unergative starts as the agent in the Spec,*v*P.

(46) **Animate subjects evacuate the *v*P:**
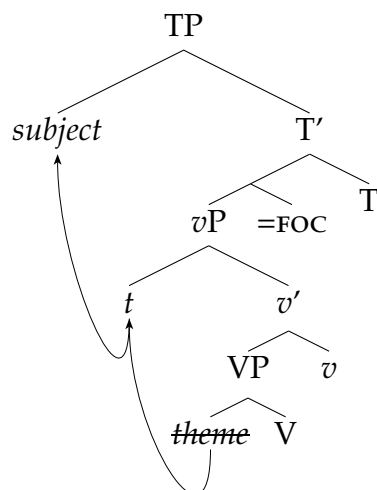
a. <u>Unaccusative:</u>   b. <u>Unergative:</u>
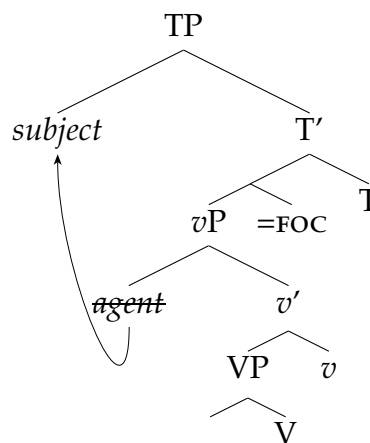
Notice that it does not matter where the subject of the intransitive is base-generated because the final destination of the animate subject in both trees is the same, and that is what matters for predicate-fronting. After the animate subject raises, the vP constituent will not contain the subject in either the unaccusative or unergative. As such, when the vP fronts, the verb linearly precedes the subject. This is shown schematically in (47) and (48).

(47)   **Fronting vP in (46a):**
       $[_{vP} \, t_{subj/th} \, [_{VP} \, t_{subj/th} \, \textbf{V} \,] \,] = \text{FOC}_i \, [_{TP} \, \textbf{Subj} \, t_i \, \textbf{T} \,]$

(48)   **Fronting vP in (46b):**
       $[_{vP} \, t_{subj/ag} \, [_{VP} \, \textbf{V} \,] \,] = \text{FOC}_i \, [_{TP} \, \textbf{Subj} \, t_i \, \textbf{T} \,]$
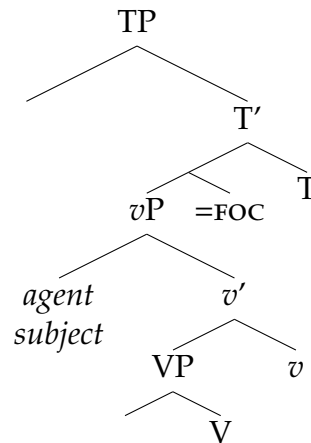
In contrast, we observed in section 3.2.1 that in both the unaccusative and the unergative clauses, fronting the verb across the inanimate subject results in ungrammaticality. This is because inanimate subjects are not allowed to raise out of the vP. (49a) shows this for the unaccusative case and (49a) shows this for the unergative case. Again, the subject of the unaccusative is base-generated as a theme and the subject of the unergative as an agent.

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(49)   **Inanimate subjects remain in the *v*P:**

a.   <u>Unaccusative:</u>   b.   <u>Unergative:</u>

```
        TP                              TP
       /  \                            /  \
          T'                              T'
         /  \   T                        /  \   T
       vP  =FOC                        vP  =FOC
      /  \                            /  \
  subject   v'                     agent    v'
          /  \                    subject  /  \
        VP    v                         VP    v
       /  \                            /  \
   theme   V                               V
```
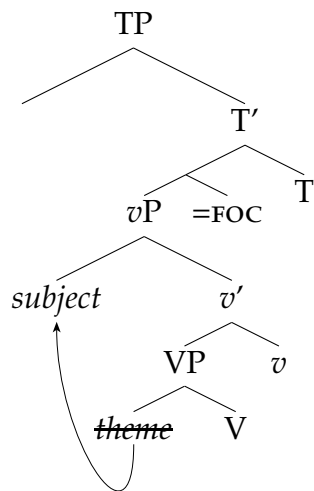
With an inanimate subject, the *v*P now necessarily contains not only the verb but the subject. If the *v*P fronts in either of the structures in (49), the subject will inevitably move together with the focused verb, resulting in an identical surface word order. This is depicted in (50) and (51). Hence, a word order in which the focused verb precedes the inanimate subject is unobtainable.

(50)   **Fronting *v*P in (49a):**

$[_{vP}$ **Subj** $[_{VP}$ $t_{subj/th}$ **V** $]$ $]$=FOC$_i$ $[_{TP}$ t_i **T** $]$

(51)   **Fronting *v*P in (49b):**

$[_{vP}$ **Subj** $[_{VP}$ **V** $]$ $]$=FOC$_i$ $[_{TP}$ t_i **T** $]$

The derivation for passives is similar to that of unaccusatives. Just like unaccusatives in (46a) and (49a), the subject of the passive is base-generated as a theme in the complement of the V head, then promoted to be the subject of the clause to be in the position of the specifier of *v*P. Then, if the theme subject is animate, it has the option to move up to Spec, TP. This explains why the behaviour of passives is aligns with intransitives: when the subject is animate, the focused verb can be fronted but when the subject is inanimate, fronting the focused verb is ungrammatical.
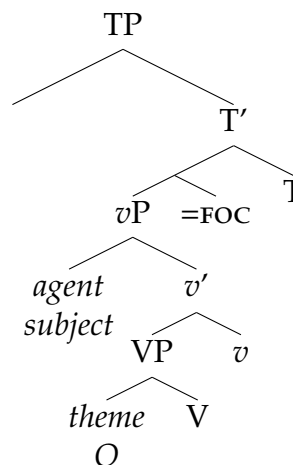
Turning to transitives now, recall from section 3.1 that objects of the verb must be fronted if the verb fronts at all. On top of that, we learnt in section 3.2.2 that inanimate subjects block the availability of predicate-fronting. All of these facts can now be explained following the proposal that animate subjects may raise out of the *v*P and inanimate subjects must stay in it. (52) shows the structure for transitives: (52a) for the case of animate subjects and (52b) for the case of inanimate subjects.

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(52) **Transitives:**

a. <u>Animate subjects:</u>

```
                TP
              /    \
        subject      T'
            ↑       /   \
                  vP =FOC  T
                 /  \
                t    v'
                    /  \
                  VP    v
                 /  \
            theme    V
              O
```

b. <u>Inanimate subjects:</u>

```
                TP
              /    \
                      T'
                    /   \
                  vP =FOC  T
                 /    \
            agent     v'
            subject  /  \
                  VP    v
                 /  \
            theme    V
              O
```
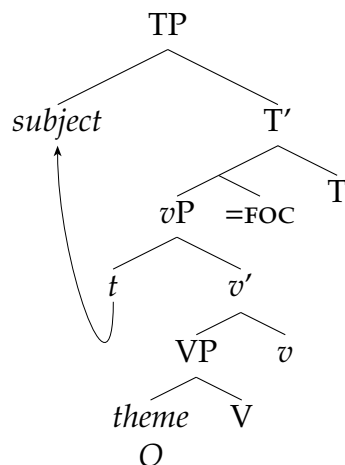
In (52a), the animate subject originates from within the *v*P but then has the option to raise to Spec,TP. If the animate subject does move out, the result of fronting the *v*P is shown in (53). The result of this derivation is the word order where the object and focused verb precede the animate subject.

(53) **Fronting *v*P in (52a):**

$[_{vP}\ t_{subj}\ [_{VP}\ \textbf{O}\ \textbf{V}\ ]\ ]$=FOC$_i$ $[_{TP}\ \textbf{Subj}\ t_i\ \textbf{T}\ ]$
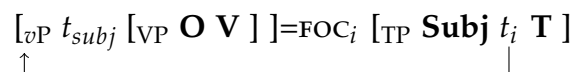
As for (52b), the inanimate subject is stuck inside the *v*P. Attempting to front the *v*P will result in the exact same surface order, as shown in (54).

A word order where the verb and object precede the inanimate subject is thus unavailable.
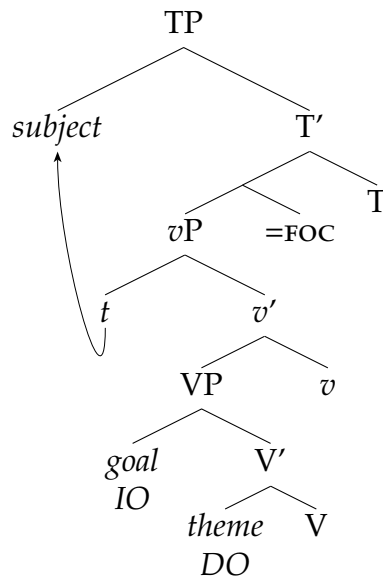
(54)   **Fronting vP in (52b):**

$[_{vP}$ **Subj** $[_{VP}$ **O V** $]$ $]$=FOC$_i$ $[_{TP}$ t_i **T** $]$

Notice also that in both (53) and (54), it is impossible to front the verb alone without its object, under the proposal that no constituent smaller than the vP can be the target of movement in predicate-fronting. This is consistent with the data in section 3.1 that shows that the verb in the transitive cannot be fronted alone as is possible in the intransitive with an animate subject.
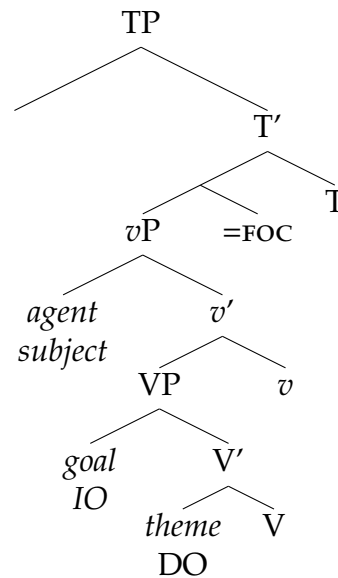
The same explanation can be extended to fronting a ditransitive verb with both its objects. Recall from section 3.2.3 that fronting the ditransitive verb with both its objects is licit across animate subjects and illicit across inanimate subjects. Again, this is because animate subjects can evacuate the vP constituent (55a), and inanimate subjects cannot (55b).
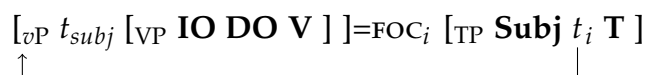
(55) **Ditransitives:**

a.   Animate subjects:

```
                    TP
            ╱              ╲
      subject              T′
         ↑            ╱          ╲
         │          vP            T
         │        ╱    ╲
         │       =FOC
         │      ╱    ╲
         │     t      v′
         │         ╱     ╲
         │       VP        v
         │     ╱    ╲
      goal       V′
       IO      ╱    ╲
          theme      V
           DO
```

b.   Inanimate subjects:

```
                    TP
            ╱              ╲
                           T′
                      ╱          ╲
                    vP            T
                  ╱    ╲
                 =FOC
             ╱         ╲
         agent          v′
        subject      ╱     ╲
                   VP        v
                 ╱    ╲
              goal      V′
               IO     ╱    ╲
                 theme      V
                  DO
```

Should the animate subject raise out of the *v*P before the *v*P fronts, we get the structure in (56). This explains the grammaticality of the word order where the verb and its objects front stranding the animate subject.

(56)   **Fronting *v*P in (55a):**

[$_{v\text{P}}$ t_{subj} [$_{\text{VP}}$ **IO DO V**]]=FOC$_i$ [$_{\text{TP}}$ **Subj** t_i **T**]

On the other hand, (57) depicts the case if the *v*P of a ditransitive with an inanimate subject is fronted. Since the inanimate subject cannot evacuate the *v*P before the *v*P fronts, there is no way to get an order in which the verb and its objects precede the inanimate subject.

(57)   **Fronting vP in (52b):**

$[_{vP}$ **Subj** $[_{VP}$ **IO DO V**]]=FOC$_i$ $[_{TP}$ t_i **T**]

Summing up, we have seen how the proposal that inanimate subjects do not evacuate the vP can account for the subject animacy generalisation. This analysis captures the facts for the variety of clause-types including the passives and unaccusatives by alluding to the position of the grammatical subject of the clause and not the position where it is base-generated.

4.3   IO-DO stranding asymmetry

The focus of the last section was the part of data that shows the verb being fronted together with all of its internal arguments. This section deals with ditransitive predicate-fronting with stranded objects. In section 3.1, we saw data for the IO-DO stranding asymmetry generalisation in (44), repeated here:

(44) **IO-DO asymmetry generalisation:**

The indirect object can be a stranded argument in predicate-fronting but not the direct object.

For predicate-fronting across the animate subject, I propose that strand-

ing the IO is possible because the IO can first scramble out of the vP before

the vP is fronted, as schematised in (58).

(58)   **IO may scramble out of vP:**

    a.   Scramble IO out of vP:

        [$_{TP}$ **Subj** [**IO** [$_{v\mathrm{P}}$ t_{subj} [$_{VP}$ t_{IO} **DO V**]]=FOC] **T**]

    b.   Front vP constituent:

        [$_{v\mathrm{P}}$ t_{subj} [$_{VP}$ t_{IO} **DO V**]]=FOC$_i$ [$_{TP}$ **Subj** [**IO** t_i] **T**]

In contrast, the same derivation of scrambling the DO out of the clause

followed by fronting the vP is ungrammatical. (59) illustrates this.

(59)   **DO may not scramble out of vP:**

    a.   Animate subject:

        * [$_{TP}$ **Subj** [**DO** [$_{v\mathrm{P}}$ t_{subj} [$_{VP}$ **IO** t_{DO} **V**]]=FOC] **T**]

    b.   Inanimate subject:

        * [$_{TP}$ [**DO** [$_{v\mathrm{P}}$ **Subj** [$_{VP}$ **IO** t_{DO} **V**]]=FOC] **T**]

The obvious question to ask is why it might be the case that (58) and

(59) are ungrammatical. Afterall, we have seen earlier in section 2.2 that

arguments are free to scramble within a clause. I do not currently have the answer. This ban on scrambling the DO, however, seems to be robust, evident also in other double object constructions like the causative. As shown in (60), causitives of transitives behave very much like ditransitive constructions. Predicate-fronting across the subject is generally available with an animate subject, to the exclusion of the case where the DO is stranded, as in (60c).

(60)   **Causatives:**

   a.   Su-ga   Aung-ko awit   shaw-khain-taung
        Su-NOM Aung-ACC clothes wash-CAUS-even
        shaw-khain-kae-dal.
        wash-CAUS-PAST-NFUT

   b.   [Aung-ko   awit   shaw-khain-taung] Su-ga
          Aung-ACC clothes wash-CAUS-even   Su-NOM
        shaw-khain-kae-dal.
        wash-CAUS-PAST-NFUT

   c.   * [Aung-ko   shaw-khain-taung] Su-ga   **awit**
          Aung-ACC wash-CAUS-even   Su-NOM clothes
        shaw-khain-kae-dal.
        wash-CAUS-PAST-NFUT

   d.   [awit   shaw-khain-taung] Su-ga   **Aung-ko**
          clothes wash-CAUS-even   Su-NOM Aung-ACC
        shaw-khain-kae-dal.
        wash-CAUS-PAST-NFUT
        'Su made Aung wash the clothes.'

I will leave this IO-DO scrambling asymmetry as an open question for

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future work as there is no straightforward account that can be given at this point. For the purpose of this thesis, I will merely posit that it is not possible to first scramble the DO out of the *v*P before *v*P-fronting.

4.4 Predicate-fronting with preceding subject

Now that we have a complete picture of the proposal, I will discuss one last bit of data we encountered in section 3.3. Thus far, the data I have accounted for involves only predicate-fronting across the subject. Section 3.3 showed the data for predicate-fronting that does not strand the subject.

The observation made in section 3.3 was that for animate and inanimate subjects alike, the word order in (61a) is grammatical and those in (61b-c) are ungrammatical.

(61) **Summary of data in section 3.3:** =**(43)**

						Animate S	Inanimate S
a.	S	DO	V-FOC	IO	V-T	✓	✓
b.	S	IO	V-FOC	DO	V-T	*	*
c.	S	V-FOC	IO	DO	V-T	*	*

(61) can be accounted for under the proposed analysis. First, the orders in (61b-c) are ruled out following the generalisation that the DO cannot

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scramble out of the *v*P before *v*P-fronting. The implication of this is that the DO cannot be a stranded argument, and this is violated in (61b-c).

As for the grammatical order in (61a), the derivations for the animate subject and inanimate subject could differ. In the case of the animate subject, there are two possibilities depending on whether the subject first raises out of the *v*P. If it does, the fronting of the *v*P excludes the subject in the moved constituent. This derivation is sketched up in (62).

(62)   **Derivation for (61a) if animate subject escapes *v*P:**
  a.   Scramble IO out of *v*P:
      [$_{TP}$ **Subj** [**IO** [$_{vP}$ t_{subj} [$_{VP}$ t_{IO} **DO V**]]=FOC] **T**]

  b.   Front *v*P:
      [$_{vP}$ t_{subj} [$_{VP}$ t_{IO} **DO V**]]=FOC$_i$ [$_{TP}$ **Subj** [**IO** t_i] **T**]

  c.   Scramble subject higher:
      [**Subj**[[$_{vP}$ t_{subj} [$_{VP}$ t_{IO} **DO V**]]=FOC$_i$ [$_{TP}$ t_{subj} [**IO** t_i] **T**]]]

In the case that the animate subject does not raise out of the *v*P, the derivation is more straightforward. In fact, this would be identical to the derivation of the inanimate subject, since the inanimate object necessarily stays in the *v*P. The IO first scrambles out of the *v*P as shown in (63a). Following this, the entire *v*P, containing the animate or inanimate subject, fronts.

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(63)   **Derivation for (61a) if animate/inanimate subject stays in vP:**

    a.   Scramble IO out of vP:

        [$_{TP}$ [**IO** [$_{vP}$ **Subj** [$_{VP}$ t_{IO} **DO V**]]=FOC] **T**]

    b.   Front vP:

        [$_{vP}$ **Subj** [$_{VP}$ t_{IO} **DO V**]]=FOC$_i$ [$_{TP}$ [**IO** t_i] **T**]

The availability of the derivation in (63) – as evidenced by the grammaticality of (61a) above with an inanimate subject – is an important prediction of my analysis. If it is true that inanimate subjects stay in the vP, it is conceivable that the vP can be fronted with the inanimate subject inside it. Under normal circumstances, this movement is not be detectable because it does not change the word order. One way to detect the movement would be if the IO first scrambles out of the vP. Subsequent predicate-fronting should be grammatical under the proposal. The grammaticality of (61a) thus supports my proposal.

At this point in the chapter, I have accounted for all of the data in chapter 3. In short, the proposal is that (a) the animate subject has the option to raise out of the vP, while the inanimate subject has to stay low within the vP constituent and (b) the target of movement for predicate-fronting in Burmese is the vP constituent. Additionally, I stipulate that vP-fronting is not to follow from scrambling the DO out of the vP.

4.5 An alternative approach: the PBC

In this final section of the chapter, I discuss an alternative analysis to account for the data. This approach follows from Yatsushiro 1999's analysis of predicate-fronting in Japanese. As we will see, the attraction of this analysis is that it can provide a satisfactory answer for the IO-DO stranding asymmetry in section 3.1, something that my proposed account has not been able to explain fully.

In section 3.1, we saw that with animate subjects, the IO can be stranded whereas the DO cannot. The basic contrast is repeated in (64). Yatsushiro (1999) observes a similar contrast in Japanese, shown in (65).

(64) **IO-DO stranding asymmetry in Burmese:**

    a.   [Bolpin pay-taung] Su-ga   Aung-ko pay-kae-dal.
          pen   give-even   Su-NOM Aung-ACC give-PAST-NFUT
          'Su even gave the pen to Aung.'   =(18b)

    b. *[Aung-ko   pay-taung] Su-ga   bolpin pay-kae-dal.
          Aung-ACC give-even   Su-NOM pen   give-PAST-NFUT
          Intended: 'Su even gave the pen to Aung.'   =(18c)

(65) **IO-DO stranding asymmetry in Japanese:**

    a.   [Erika-o   syookai-si-sae   ] Kai-ga   Uli-ni si-ta.
          Eriko-ACC introduce-do-even   Kai-NOM Uli-DAT do-PAST
          'Even introduce Erika, Kai did to Uli.'

b. * [Uli-ni   syookai-si-sae   ] Kai-ga   Erika-o   si-ta.
      Uli-DAT introduce-do-even   Kai-NOM Erika-ACC do-PAST
      Intended: 'Even introduce Erika, Kai did to Uli.'

Japanese (Yatsushiro 1999:179)

Unlike my own proposal, Yatsushiro (1999) suggests that different sized VP projections can move in predicate-fronting. This requires VP-shell proposals by Lasnik 1995 and Bobaljik 1995 among others that argue that each argument in the clause has its own corresponding verbal projection, or VP-shell. Therefore, a ditransitive clause may have a structure as in (66), and all three VPs – VP_1, VP_2 and VP_3 can possibly be fronted across the subject.

(66) **Ditransitive clause with VP-shells:**
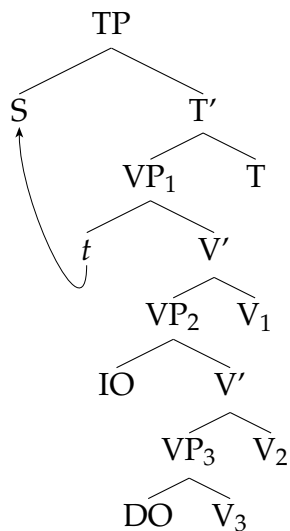
In order to get the grammatical order of (64a) and (65a) which involve predicate-fronting stranding the subject and indirect object, the VP_3 constituent is fronted. This is shown schematically in (67).

(67)   **Derivation for (64a) and (65a):**

   a. $[_{TP}$ **Subj** $[_{VP_1}$ t_{subj} $[_{VP_2}$ **IO** $[_{VP_3}$ **DO V-**FOC $]$ $]$ $]$ **T** $]$

   b. $[_{VP_3}$ **DO V-**FOC $]_i$ $[_{TP}$ **Subj** $[_{VP_1}$ t_{subj} $[_{VP_2}$ **IO** t_i $]$ $]$ **T** $]$

In contrast, fronting the IO but stranding the subject and DO is ungrammatical (64b/65b). This can be explained if we adopt the Proper Binding Condition (PBC) defined in (68), originally formulated by Fiengo (1977). Intuitively, the PBC requires that all traces be bound.

(68)   **Proper Binding Condition (PBC):**   (Fiengo 1977:45 #33)

   In surface structure S_α, if $[e]_{NPn}$ is not properly bound by $[\dots]_{NPn}$, then S_α is not grammatical.

Examples (64b) and (65b) involve fronting the IO with the focused verb. This requires the DO to first scramble out of VP_2, as shown in (69b). Following this, VP_2 is fronted across the subject as shown in (69c). This derivation is ruled out by the PBC because the trace of DO (t_{DO}) in (69c) is not

bound by its antecedent (the moved DO). The structure in (69c) that violates the PBC is also known as *remnant movement*, which refers to the movement of an XP to a position where a trace it contains is no longer bound by its antecedent.

(69)   **Ungrammatical stranding of DO in (64b) and (65b):**

a.   [$_{TP}$ **Subj** [$_{VP_1}$ t_{subj} [$_{VP_2}$ **IO** [$_{VP_3}$ **DO V**]]=FOC] **T**]

b.   [$_{TP}$ **Subj** [$_{VP_1}$ t_{subj} [**DO** [$_{VP_2}$ **IO** [$_{VP_3}$ t_{DO} **V**]]=FOC]] **T**]

c.   * [$_{VP_2}$ **IO** [$_{VP_3}$ t_{DO} **V**]]=FOC$_i$ [$_{TP}$ **Subj** [$_{VP_1}$ t_{subj} [**DO** t_i]] **T**]

Although this analysis gives a good explanation for the IO-DO stranding asymmetry, it faces several challenges, both from the Burmese data as well as in its reliance on the PBC.

From the Burmese data, an important challenge is that the PBC and remnant movement approach gets the facts wrong for unaccusatives and passives in Burmese. The prediction of the PBC approach is that the unaccusative and passive verb cannot front over subjects, since the subject has a trace as a theme in VP$_2$. As depicted in (70), the subject trace in the fronted VP$_2$ in (b) is not bound by its antecedent, resulting in PBC violation and the illicit remnant movement.

(70) **PBC violation in passive and unaccusative predicate-fronting**

a. [TP **Subj** [VP₁ $t_{subj/th}$ [VP₂ $t_{subj/th}$ **V**]=FOC] T]

b. * [VP₂ $t_{subj/th}$ **V**]=FOC$_i$ [TP **Subj** [VP₁ $t_{subj/th}$ t_i] T]

This prediction is indeed borne out in Japanese. Kishimoto 1996, Tateishi 1991 among others observe that while unergative verbs can be fronted, unaccusative verbs cannot. This contrast is shown in the Japanese examples (71), (72) and (73), taken from Tateishi 1991.

(71) **Unergative verbs can be fronted:**

a. Taro-wa hataraki-wa shi-ta.
Taro-TOP work-TOP do-PAST

b. Hataraki-wa Taro-wa shi-ta.
work-TOP Taro-TOP do-PAST
'Taro worked.'

Japanese (Tateishi 1991:109)

(72) **Unaccusative verbs cannot be fronted:**

a. Hanako-wa ki-wa shi-ta.
Hanako-TOP come-TOP do-PAST

b. * Ki-wa Hanako-wa shi-ta.
come-TOP Hanako-TOP do-PAST
'Hanako came.'

Japanese (Tateishi 1991:110)

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(73) **Passive verbs cannot be fronted:**

    a.   Sono hon-wa   minna-ni   yom-are-wa   shi-ta.
          that   book-TOP everyone-by read-PASS-TOP do-PAST

    b. * Minna-ni   yom-are-wa   sono hon-wa   shi-ta.
          everyone-by read-PASS-TOP that   book-TOP do-PAST
          'That book was read by everyone.'

                                     Japanese (Tateishi 1991:111)

However, the facts in Burmese predicate-fronting is not consistent with this prediction. In sections 3.2.1 and 3.2.4, we saw that as long as the subject is animate, the verb is free to front across the subject in unaccusatives, unergatives and passives. This is a problem for the PBC approach.

The other obvious challenge for the PBC and remnant movement approach is that it cannot account for the effect of the animacy of subjects in Burmese in a straightforward way without additional stipulation. Under the common assumption that agent arguments are base-generated in a position higher than the internal arguments of the verb, the PBC cannot be used to rule out inanimate subject stranding, yet permit IO and animate subject stranding.

Furthermore, in the syntactic literature, the validity of the PBC remains questioned. Many scholars have argued against the PBC, and remnant movement is often assumed, if not argued, to exist (see Kayne 1998, Koopman & Szabolcsi 2000, Abels 2002 and Kitahara 1997 among others).

All in all, the PBC approach does not seem to be a more attractive approach to derive the Burmese patterns of predicate-fronting. Although it gives a more satisfactory explanation for the IO-DO stranding asymmetry in ditransitives, its inability to capture the interaction with subject animacy as well as the passive and unaccusative predicate-fronting facts in Burmese render the analysis inadequate.

CHAPTER 5
THE FUTURE

Predicate-fronting has been a topic of interest in the study of several languages, albeit under different names and labels (predicate-clefting in West African languages, VP-fronting/VP-preposing in Japanese and Korean). In this thesis, I have contributed to the literature of predicate-fronting by surfacing the patterns of Burmese predicate-fronting. I have shown that the availability of predicate-fronting in Burmese can be captured by two generalisations, namely the subject animacy generalisation and the IO-DO stranding asymmetry generalisation.

To account for the restrictions on predicate-fronting, I proposed a difference in the structural positions of animate subjects and inanimate subjects in Burmese. I also proposed that the moved constituent in predicate-fronting is always the vP, and not any of its sub-constituents.

Part of my proposal also includes the suggestion that DOs, unlike IOs, cannot scramble out of the vP before vP-fronting. As highlighted in the prose, this is an open question and puzzle for future work in predicate-fronting in Burmese. In my analysis, I have tried to attribute the stranding asymmetry to an asymmetry in the interaction of vP-fronting with IO/DO scrambling. Conceivably, there are other ways to explain the stranding

asymmetry.

For instance, all the data we have seen is consistent with the generalisation that DOs necessarily precede the focused verb. We could imagine pursuing Cyclic Linearisation account (Fox & Pesetsky 2005) which suggests, roughly, that linearisation in phonology is required to be cyclically determined by syntax. A Cyclic Linearisation approach could possibly therefore explain an absolute requirement that the DO precede the focused verb.

All in all, this thesis provided a novel analysis of a comprehensive description of predicate-fronting in Burmese not previously described in the literature. However, certain facts about predicate-fronting are still puzzling under the current analysis. This necessitates future work considering alternative perspectives for the open question of object argument stranding asymmetry.

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