Split Ergativity in Pashto

Naoko TAKAHASHI

1. Introduction

This paper examines the split ergativity in Pashto by employing locative alternation constructions in that language.[1,2,3.] First, Section 2 summarizes the split ergativity and the locative alternation in Pashoto. Section 3 analyzes verb agreement in the locative alternation in terms of the split ergativity. Section 4 examines the locative alternation in two kinds of operations, relativization and passivization, and it discusses the affectedness of NP arguments. Finally, this paper concludes that the split ergativity in Pashto is not a clear-cut split, rather it serves as a continuum between accusativity and ergativity.

2. Background information
2.1 Introduction to the split ergativity in Pashto

Pashto is an Iranian language spoken mainly in Afghanistan. This paper employs Dixon's SAO terms (1994) to examine the split ergativity in Pashto. Dixon argues for an SAO analysis which sets up three primitive relations; S is the single argument (subject) of an intransitive clause, A is the agent-like argument (subject) of a transitive verb, and O is the patient-like argument (object) of a transitive verb. When S and A arguments are treated the same morphologically and syntactically in a language, the language is considered

to be an accusative language whereas S and O arguments are in the case, the language is considered as an ergative language.

On the other hand, split ergativity is defined as "a combination of ergative-absolutive and nominative-accusative case marking (O'Grady 1997:73)." Thus, if a language shows both ergativity and accusativity, the language is considered to be a split ergative language. DeLancey (1981) and Dixon (1994), among others, argue that split ergativity is manifested in several ways across languages. For instance, DeLancey proposes empathy hierarchy split, aspect split, and active/stative split as the main types of split ergativity.

Babrakzai (1999) argues that Pashto displays its split ergativity in terms of tense.[4] It means that the language shows the split in the contrast between the present tense and the past tense within verb agreement, verb stems, and morphology of NP arguments (Babrakzai 1999 from a class handout in LING 750X at the University of Hawaii.) The sentences in (1) and (2) show examples of the split ergativity in Pashto (Babrakzai 1999:103):

(1)   day   ḍere   kise-una lwəl-i. [5]
        he-nom many-fp stories-fp read-3
        'He reads many stories.'

(2)   də   ḍere   kise-una lwəl-ə.
        he-erg many-fp stories-fp read-3fp
        'He read many stories.'

Thus, the agreement between the A argument <u>day</u> 'he' and the verb <u>lwəl</u> 'read' is marked by the suffix <u>i</u> in the present tense while the agreement between the O argument <u>ḍere kise</u> 'many stories' and the verb is marked by the suffix <u>ə</u> in the past tense.

In order to examine the split ergativity more closely, this paper utilizes the locative alternation in the language, which will be discussed in the next section.

2.2 Locative alternation in Pashto

Locative alternation verbs, such as *load*, *spray*, *smear*, and *clear* in English, are verbs which involve the action of putting objects onto surfaces or into containers, or removing objects from surfaces or containers (Levin 1993:50). These verbs allow alternation of the O arguments and oblique arguments (Fukui, Miyagawa, and Tenny 1985; Dowty 1991; and Levin 1993, among others.) For instance, in English it occurs with the change of prepositions. This type of alternation was pointed out by Hall in 1965, and since then, a great deal of literature has examined this phenomenon. One example of the locative alternation in English is shown in (3):

(3) a. I sprayed paint onto the wall.

  b. I sprayed the wall with paint.

Paint in (3a) changes from the O argument to the oblique argument in (3b), and the wall in (3a) changes from the oblique argument to the O argument in (3b). Rappaport and Levin (1988) and Tenny (1992) argue that the phenomenon of locative alternation is observed across languages.

According to Farooq Babrakzai (1999 personal communication), locative alternation can be also found in Pashto. One example with b̄ar 'load' is shown below (The agreement marker '-i' is used for third person [masculine/feminine] singular/plural arguments):

(4) a. Bill larəy də-bus-o-na   b̄ar-aw-i. [6]
      Bill wagon of-hay-obl-from load-caus-3
      'Bill is loading (loads) the wagon with hay.'

  b. Bill bus pə-larəy b̄ar-aw-i.
      Bill hay at-wagon load-caus-3
      'Bill is loading (loads) hay onto the wagon.'

Larəy 'wagon' in (4a) changes from the O argument to the oblique argument in (4b), and bus 'hay' in (4a) changes from the oblique argument to

the O argument in (4b).

In fact, locative alternation in ergative-related languages has not been widely discussed in the research on ergativity. Since locative alternation involves some kind of a mapping relation between O arguments and oblique arguments, the alternation in ergative-related languages might provide unique aspects of ergativity. Therefore, this paper demonstrates how locative alternation appears in the split ergativity in Pashto by examining two kinds of grammatical operations; relativization and passivization. Moreover, this paper discusses the semantic affectedness of O arguments in the locative alternation.

3. Verb agreement in locative alternation and split ergativity

This section examines basic structures involving the locative alternation in Pashto and the verb agreement. First, the example in the previous section with the verb b̲ā̲r̲ 'load' in the present tense is repeated below with some additional English morphemes (Bill = 3ms, hay = 3mp, wagon = 3fs):

(5) **Present**
    a. Bill   larəy   də-bus-o-na   bār-aw-i.
        Bill-3ms wagon-3fs of-hay-obl-from load-caus-3
        'Bill is loading (loads) the wagon with hay.'

    b. Bill   bus   pə-larəy bār-aw-i.
        Bill-3ms hay-3mp at-wagon load-caus-3
        'Bill is loading (loads) hay onto the wagon.'

In (5), the verb b̲ā̲r̲ 'load' agrees with the A argument B̲i̲l̲l̲. Although the O arguments undergo the alternation with oblique arguments, it does not affect the verb agreement in the present tense.

In contrast, (6) and (7) illustrate the locative alternation in the past tense. (6) shows a perfective sentence and (7) illustrates an imperfective sentence. In these sentences, either l̲a̲y̲ə̲y̲ 'wagon' or b̲u̲s̲ 'hay' trigger the agreement

with the verb b<u>ā</u>r 'load' only when they are the O arguments:

(6) **Past perfective**
    a. Bill   larəy   də-bus-o-na   bār   kɽ-a. [7]
        Bill-3ms wagon-3fs of-hay-obl-from loaded did-3fs
        'Bill loaded the wagon with hay.'

    b. Bill   bus   pə-larəy bār   kɽ-əl.
        Bill-3ms hay-3mp at-wagon loaded did-3mp
        'Bill loaded hay onto the wagon.'

(7) **Past imperfective**
    a. Bill   larəy   də-bus-o-na   bār-aw-a.
        Bill-3ms wagon-3fs of-hay-obl-from load-caus-3fs
        'Bill was loading the wagon with hay.'

    b. Bill   bus   pə-larəy bār-aw-əl.
        Bill-3ms hay-3mp at-wagon load-caus-3mp
        'Bill was loading hay onto the wagon.'

In addition, the verb la<u>ɽ</u> 'smear' also undergoes the locative alternation as shown in (8) to (10) (Nancy = 3fs, wall = 3ms (walls = 3mp), paint = 3ms):

(8) **Present**
    a. Nancy   dewāl-una pə-rang laɽ-i.
        Nancy-3fs wall-3mp at-paint smear-3
        'Nancy is smearing (smears) the walls with paint.'

    b. Nancy   rang   pə-dewāl-un-o laɽ-i.
        Nancy-3fs paint-3ms at-wall-pl-obl   smear-3
        'Nancy is smearing (smears) paint onto the walls.'

(9) **Past perfective**
    a. Nancy   dewāl-una pə-rang wə-laɽ-əl.
        Nancy-3fs wall-3mp   at-paint perf-smear-3mp
        'Nancy smeared the walls with paint.'

    b. Nancy   rang   pə-dewāl-un-o wə-laɽ-ə.
        Nancy-3fs paint-3ms at-wall-pl-obl   perf-smear-3ms
        'Nancy smeared paint onto the walls.'

(10) **Past imperfective**
    a. Nancy   dewāl-una pə-rang laɽ-əl.
        Nancy-3fs wall-3mp   at-paint smear-3mp
        'Nancy was smearing the walls with paint.'

b. Nancy   rang   pə-dewāl-un-o laɽ-ə.
    Nancy-3fs paint-3ms at-wall-pl-obl smear-3ms
    'Nancy was smearing paint onto the walls.'

In (9), the prefix w<u>ə</u> is used to mark the perfective aspect on the verb <u>laɽ</u>

'smear.' These sentences in the locative alternation also show a tense split

in Pashto; the verb <u>laɽ</u> agrees with the A argument <u>Nancy</u> 'Nancy' by the

agreement marker <u>-i</u> in the present tense whereas the verb agreement is

triggered by the O arguments in the past tense in spite of the alternation

<u>dewāl-un</u> 'walls' and <u>rang</u> 'paint.'

   Moreover, some light verbs, such as 'spray,' also undergo the locative

alternation. The data (11) shows the locative alternation with <u>spray</u> 'spray'

(a loan word from English) in the present tense.

(11) **Present**
     a. Bill   hara wrəz dewāl-una pə-rang spray-kaw-i.
         Bill-3ms every day wall-3mp   at-paint spray-do-3
         'Bill sprays the walls with paint every day.'

     b. Bill   hara wrəz rang   pə-dewāl-un-o spray-kaw-i.
         Bill-3ms every day paint-3ms at-wall-pl-obl   spray-do-3
         'Bill sprays paint on the walls every day.'

In both (11a) and (11b), the verb <u>spray</u> 'spray' agrees with the A argument

<u>Bill</u> 'Bill' and this shows the nominative-accusative line agreement. On the

other hand, the verb agrees with the O arguments in the past tense:

(12) **Past perfective**
     a. Bill   dewāl-una pə-rang spray-kɽ-əl.
         Bill-3ms wall-3mp   at-paint spray-did-3mp
         'Bill sprayed the walls with paint.'

     b. Bill   rang   pə-dewāl-un-o spray-kər.
         Bill-3ms paint-3ms at-wall-pl-obl   spray-did-3ms
         'Bill sprayed paint on the walls.'

(13) **Past imperfective**
     a. Bill   dewāl-una pə-rang spray-kaw-əl.
         Bill-3ms wall-3mp   at-paint spray-do-3mp
         'Bill was spraying the walls with paint.'

b. Bill   rang   pə-dewāl-un-o spray-kaw-ə.
   Bill-3ms paint-3ms at-wall-pl-obl   spray-did-3ms
   'Bill was spraying paint on the walls.'

Thus, the locative alternation in Pashto exhibits a tense split ergativity. This paper will further examine the split ergativity in the next section.

4. Locative alternation in relativization and passivization

4.1 Relativization

Babrakzai (1999:236) explains that two strategies are used in the relativization processes in Pashto; a gap strategy and a pronoun strategy. First, A arguments in the locative alternation are relativized in the present tense as shown in (14):

(14) **Present: A argument relativization with a gap strategy** [8]
   a. aɣa saɽay   [ce ∅ larəy   də-bus-o-na   bār-aw-i] [9]
      the man-nom cm   wagon-acc of-hay-obl-from load-caus-3
      'the man who is loading (loads) the wagon with hay'

   b. aɣa saɽay   [ce ∅ bus   pə-larəy bār-aw-i]
      the man-nom cm   hay-acc at-wagon load-caus-3
      'the man who is loading (loads) hay onto the wagon'

This relativization adapts a gap strategy. Each clause contains a gap in the A argument position after a clause marker. In addition, regarding the agreement, the verb bār 'load' agrees with the A argument aɣa saɽay 'the man' which is a relativized element. On the other hand, a pronoun strategy is used when the A argument is relativized in both the perfective and imperfective aspect in the past tense:

(15) **Past perfective: A argument relativization with a pronoun strategy**
   a. aɣa   saɽay   [ce larəy-ye   də-bus-o-na   bār-kɽ-a]
      that-abs man-abs cm wagon-abs-he of-hay-obl-from loaded-
                                                 did-3fs
      'the man who loaded the wagon with hay'

a'. *aɣə   saɽi   [ce larəy-ye   də-bus-o-na   bār-
                                                          kɽ-a]
       that-erg man-erg cm wagon-abs-he of-hay-obl-from loaded-
                                                          did-3fs
       'the man who loaded the wagon with hay'

b. aɣa   saɽay   [ce bus-ye   pə-larəy bār   kɽ-əl]
      that-abs man-abs cm hay-abs-he at-wagon loaded did-3mp
      'the man who loaded hay onto the wagon'

b'. *aɣə   saɽi   [ce bus-ye   pə-larəy bār   kɽ-əl]
       that-erg man-erg cm hay-abs-he at-wagon loaded did-3mp
       'the man who loaded hay onto the wagon'

As illustrated above, the A arguments have to be absolutive forms, not ergative forms when they are heads of their relative clauses. The A arguments can be relativized in the same way in the past imperfective aspect:

(16) **Past imperfective: A argument relativization with a pronoun strategy**
    a. aɣa   saɽay   [ce larəy-ye   də-bus-o-na   bārawəl-a]
          that-abs man-abs cm wagon-abs-he of-hay-obl-from load-3fs
          'the man who was loading the wagon with hay'

    a'. *aɣa   saɽi   [ce larəy-ye   də-bus-o-na   bārwəl-a]
           that-erg man-erg cm wagon-abs-he of-hay-obl-from load-3fs
           'the man who was loading the wagon with hay'

    b. aɣa   saɽay   [ce bus-ye   pə-larəy bāraw-əl]
          that-abs man-abs cm hay-abs-he at-wagon load-3mp
          'the man who was loading hay onto the wagon'

    b'. *aɣa   saɽi   [ce bus-ye   pə-larəy bāraw-əl]
           that-erg man-erg cm hay-abs-he at-wagon load-3mp
           'the man who was loading hay onto the wagon'

Thus, the A elements in the past tense as the head of a relative clause has to be marked as absolutive, and the relativization involves the attachment of the pronoun clitic -ye to O arguments.

In addition, the A relativization with laɽ 'smear' undergoing the locative alternation shows the same result as illustrated in (17) to (19). To relativized the A arguments, a gap strategy is used in the present tense while a pronoun

strategy is employed in the past tense:

(17) **Present tense: A argument relativization with a gap strategy**

    a. aɣa   xəza   [ce ∅ dewāl-una pə-rang laɽ-i]
        that-nom woman-nom cm   wall-acc-pl at-paint smear-3
        'the woman who is smearing (smears) the walls with paint'

    b. aɣa   xəza   [ce rang   ∅ pə-dewāl-un-o laɽ-i]
        that-nom woman-nom cm paint-acc-she at-wall-pl-obl smear-3
        'the woman who is smearing (smears) the walls with paint'

(18) **Past perfective: A argument relativization with a pronoun strategy**

    a. aɣa   xəza   [ce dewāl-una-ye   pə-rang wə-laɽ-əl]
        that-abs woman-abs cm wall-pl-abs-she at-paint perf-smear-3mp
        'the woman who smeared the walls with paint'

    a'. *aɣə   xəze   [ce dewāl-una-ye   pə-rang wə-laɽ-əl]
         that-erg woman-erg cm wall-pl-abs-she at-paint perf-smear-3mp
        'the woman who smeared the walls with paint'

    b. aɣa   xəza   [ce rang-ye   pə-dewāl-un-o
                                          wə-laɽ-ə]
        that-abs woman-abs cm paint-abs-she at-wall-pl-obl
                                               perf-smear-3ms
        'the woman who smeared paint on the walls'

    b'. *aɣə   xəze   [ce rang-ye   pə-dewāl-un-o
                                          wə-laɽ-ə]
        that-erg woman-erg cm paint-abs-she at-wall-pl-obl
                                               perf-smear-3ms
        'the woman who smeared paint on the walls'

(19) **Past imperfective: A argument relativization with a pronoun strategy**

    a. aɣa   xəza   [ce dewāl-una-ye pə-rang laɽ-əl]
        that-abs woman-abs cm wall-pl-abs-he at-paint smear-3mp
        'the woman who was smearing the walls with paint'

    a'. *aɣe   xəze   [ce dewāl-una-ye pə-rang laɽ-əl]
         that-erg woman-erg cm wall-pl-abs-he at-paint smear-3mp
        'the woman who was smearing the walls with paint'

    b. aɣa   xəza   [ce rang-ye   pə-dewāl-un-o laɽ-ə]
        that-abs woman-abs cm paint-abs-she at-wall-pl-obl smear-3ms
        'the woman who was smearing paint on the walls'

b'. *aɣe   xəze   [ce rang-ye   pə-dewāl-un-o laɽ-ə]
    that-erg woman-erg cm paint-abs-she at-wall-pl-obl   smear-3ms
    'the woman who was smearing paint on the walls'

Thus, although the locative alternation involves the changes of O arguments and oblique arguments, and it does not affect the verb agreement in relative clauses when A arguments are relativized.

However, when O arguments are relativized, the strategies have to be reversed between in the present tense and in the past tense. The data in (20) shows the relativization of the O arguments in the locative alternation in the present tense.

(20) **Present tense: O argument relativization with a pronoun strategy**
    a.   larəy [ce Bill-ye de-bus-o-na   bār-aw-i]
        wagon cm Bill-it of-hay-obl-from load-caus-3 [10]
        'the wagon which Bill loads with hay'

    b.   bus [ce Bill-ye pə-larəy bār-aw-i]
        hay cm Bill-it   at-wagon load-caus-3
        'the hay which Bill loads onto the wagon'

The morpheme -ye is a clitic meaning 'he,' 'she,' and 'it' (Babrakzai 1999:44). As shown above, the pronoun strategy is used to relativize the O arguments. However, the positions of the clitics are different from those in the A argument relativization. In the O argument relativization, -ye has to attach to the A arguments in relative clauses whereas it attached to O arguments in the A argument relativization.

The relativization with another locative verb laɽ 'smear' shows the same result in the present tense as illustrated below:

(21) **Present tense: O argument relativization with a pronoun strategy**
    a.   dewāl-una [ce Nancy-ye pə-rang laɽ-i]
        wall-pl   cm Nancy-it at-paint smear-3
        'the walls which Nancy smears with paint'

b. rang [ce Nancy-ye pə-dewāl-un-o laɽ-i]
    paint cm Nancy-it at-wall-pl-obl smear-3
    'the paint which Nancy smears on the walls'

While a pronoun strategy is used in the present tense, a gap strategy is
used when O arguments are relativized in the past tense:

(22) **Past perfective: O argument relativization with a gap strategy**
    a. larəy [ce Bill ∅ də-bus-o-na   bār   kɽ-a]
        wagon cm Bill   of-hay-obl-from loaded did-3fs
        'the wagon which Bill loaded with hay'

    b. bus [ce Bill ∅ pə-larəy bār   kɽ-əl]
        hay cm Bill   at-wagon loaded did-3mp
        'the hay which Bill loaded on the wagon'

(23) **Past imperfective: O argument relativization with a gap
    strategy**
    a. larəy [ce Bill ∅ də-bus-o-na   bārawəl-a]
        wagon cm Bill   of-hay-obl-from loaded-3fs
        'the wagon which Bill was loading with hay'

    b. bus [ce Bill ∅ pə-larəy bār-aw-əl]
        hay cm Bill   at-wagon load-caus-3mp
        'the hay which Bill was loading on the wagon'

With laɽ 'smear' showing both perfective and imperfective in the past
tense, we can see the same result:

(24) **Past perfective: O argument relativization with a gap strategy**
    a. dewāl-una [ce Nancy ∅ pə-rang pə-laɽ-əl]
        wall-pl   cm Nancy   at paint perf-smear-3mp
        'the walls which Nancy smeared with paint'

    b. rang [ce Nancy ∅ pə-dewāl-un-o pə-laɽ-ə]
        paint cm Nancy   at-wall-pl-obl perf-smear-3ms
        'the paint which Nancy smeared on the walls'

(25) **Past imperfective: O argument relativization with a gap
    strategy**
    a. dewāl-una [ce Nancy ∅ pə-rang laɽ-əl]
        wall-pl   cm Nancy   at paint smear-3mp
        'the walls which Nancy was smearing with paint'

    b. rang [ce Nancy ∅ pə-dewāl-un-o laɽ-ə]
        paint cm Nancy   at-wall-pl-obl smear-3ms

'the paint which Nancy was smearing on the walls'

The data in (26) shows the relativization of obliques with <u>bar</u> 'load':

(26) **Present tense: Oblique argument relativization with a pronoun strategy**
    a.   larəy [ce Bill bus pre bāraw-i]
           wagon cm Bill hay at-it load-3
           'the wagon which Bill loads hay onto'

    b.   bus [ce Bill larəy tre   bār-aw-i]
           hay cm Bill-wagon from-it load-caus-3
           'the hay which Bill loads the wagon with'

<u>Tre</u> is a clitic form which is a combination of <u>tər</u> 'from' and <u>ye</u> 'it.' In addition, <u>pre</u> is another clitic which is combined <u>ər</u> 'at' with <u>ye</u> 'it' (Babrakzai 1999:44). Thus, the pronoun strategy is applied to the oblique argument relativization accompanied by the use of clitics, such as <u>tre</u> or <u>pre</u>:

(27) **Present tense: Oblique argument relativization with a pronoun strategy**
    a.   rang [ce Nancy dewāl-una pre laɽ-i]
           paint cm Nancy wall-pl   at-it smear-3
           'the paint which Nancy smears the walls with'

    b.   dewāl-una [ce Nancy rang pre laɽ-i]
           walls-pl   cm Nancy paint at-it smear-3
           'the walls which Nancy smears paint on'

The relativization process in the present tense is generally the same as that in the past tense, except the process of the verb agreement. When obliques are relativized, A arguments trigger agreement with the verb in the clause in the present tense whereas O arguments do so in the past tense:

(28) **Past perfective: Oblique relativization with a pronoun strategy**
    a.   bus [ce Bill larəy tre   bār   kɽ-a]
           hay cm Bill wagon from-it loaded did-3fs
           'the hay which Bill loaded the wagon with'

b. larəy [ce Bill bus pre bār kɽ-əl]
wagon cm Bill hay at-it load did-3mp
'the wagon which Bill loaded hay onto'

(29) **Past imperfective: Oblique relativization with a pronoun strategy**
a. bus [ce Bill larəy tre   bārawəl-a]
hay cm Bill wagon from-it load-3fs
'the hay which Bill was loading the wagon with'

b. larəy   [ce Bill bus pre bār-aw-əl]
wagon cm Bill hay at-it load-caus-3mp
'the wagon which Bill was loading hay onto'

(30) **Past perfective: Oblique relativization with a pronoun strategy**
a. rang [ce Nancy dewāl-una pre pə-laɽ-əl]
paint cm Nancy wall-pl   at-it perf-smear-3mp
'the paint which Nancy smeared the walls with'

b. dewāl-una [ce Nancy rang pre pə-laɽ-ə]
wall-pl   cm Nancy paint at-it perf-smear-3ms
'the walls which Nancy smeared paint on'

(31) **Past imperfective: Oblique relativization with a pronoun strategy**
a. rang [ce Nancy dewāl-una pre laɽ-əl]
paint cm Nancy wall-pl   at-it smear-3mp
'the paint which Nancy was smearing the walls with'

b. dewāl-una [ce Nancy rang pre laɽ-ə]
wall-pl   cm Nancy paint at-it smear-3ms
'the walls which Nancy was smearing paint on'

The relativization processes are summarized as follows (RCs = Relative Clauses):

Summary of relativization within the locative alternation in Pashto

[Present]			
Relativized element	A	O	Oblique
Strategy	gap strategy	pronoun strategy attaching -ye to A arguments	pronoun strategy occurring with pre and tre
Agreement in RCs	A	A	A

[Past]			
Relativized element	A	O	Oblique
Strategy	pronoun strategy attaching -ye to O arguments	gap strategy	pronoun strategy occurring pre or tre
Agreement in RCs	O	O	O

This result is consistent with Babrakzai's claim (1999:108–110), which points out that a gap strategy is used only when verbs agree with the nominals that are being relativized, otherwise a pronoun strategy has to be employed.

There are some remarkable points. First, as mentioned above, A arguments (maybe also O and oblique arguments) have to have absolutive case forms, not ergative forms, and the relative clauses could contain two absolutive NPs. If absolutive, nominative, and accusative forms of common nouns and pronouns are morphologically identical (or zero) in Pashto, this analysis might be possible. Second, regarding the positions that can be relativized in the locative alternation constructions, the accessibility in the present tense is the same as that in the past tense; A, O, and oblique arguments can be relativized. Third, in order to relativize oblique arguments, the same strategy, which is a pronoun strategy, is used in both tenses.

Thus, we can conclude that these similarities between relativization in the present tense and in the past tense could be evidence that the split between accusativity and ergativity in Pashto does not have straight-forward relations. In order to examine this point, passivization will be examined in the next section.

4.2 Passivization

This section discusses the locative alternation with another grammatical form, passives. Babrakzai (1999:188) points out that three forms are involved in voice systems in Pashto; active, passive, and middle. This section focuses on the passive among them. O'Grady (1997:107) defines passivization as "an operation that restructures the mapping relations between thematic roles and grammatical relations, 'downgrading' the element that would otherwise have been the subject and (usually) upgrading the element that would otherwise have been the direct object." This section examines how this operation is applied to the sentences in the locative alternation in Pashto.

The passives in Pashto are of the periphrastic type (O'Grady 1997:109), and each form is composed of a participle form of a verb and one or more intransitive auxiliary forms which carry the tense, aspect, and agreement features of the sentence (Babrakzai 1999:195). In addition, when a sentence undergoes passivization, the inflected forms are used for the imperfective aspect and the suppletive stems are utilized for the perfective aspect. The inflected auxiliary forms and the suppletive stems are shown as follows (Babrakzai 1999:192):

Inflected auxiliary forms and the suppletive stems[11]

	-perf	+perf
Present	keg-/-eg-	-š-
Past	ked-/-ed-	-šw-

Furthermore, Babrakzai claims that either the accusative (in the present tense) or the absolutive may be passivized (1999 from a class handout in LING 750 at the University of Hawaii).

First, this section examines the sentences in the locative alternation in

the present tense. (33a) and (33b) show passivized sentences derived from (32a) and (32b), respectively:[12]

Present perfective with b̲ār 'load'

(32) a. Bill larəy də-bus-o-na   bār-aw-i.
        Bill wagon of-hay-obl-from load-caus-3
        'Bill is loading (loads) the wagon with hay.'

     b. Bill bus pə-larəy   bār-aw-i.
        Bill hay at-wagon load-caus-3
        'Bill is loading (loads) hay onto the wagon.'

(33) a. Larəy də-Bill-laxwā pə-bus-o   bār   šew-i   dā.
        wagon of-Bill-from   at-hay-obl loaded become-3 be-3fs
        'The wagon has been loaded with hay by Bill.'

     b. Bus də-Bill-laxwā pə-larəy bār   šew-i   di.
        hay of-Bill-from   at-wagon loaded become-3 be-3mp
        'The hay has been loaded onto the wagon by Bill.'

In the present perfective aspect with in (33), the verb b̲ār 'load' employs the participle form, which has the same shape as its base form, the sentence requires two additional auxiliaries. In addition, the O arguments are upgraded and become the S arguments, and ambipositions are attached to the A arguments (absolutive NPs) to make them downgrade.

One important point is that the operation from (32) to (33) is not antipassivization but passivization. As O'Grady (1997:121) defines, the antipassvization is "an operation that applies to a transitive verb to downgrade the direct object by converting it into an oblique," and this is not the case.

In addition, the sentences in (32) can be passivized in the present imperfective aspect as shown in (34). The data in (34) shows that the detransitive marker -eg- is used in the passivization process to make the sentence intransitive.

(34) **Present imperfective with b̲ār 'load'**
     a. Larəy də-Bill-laxwā pə-bus-o   bār-eg-i.
        wagon of-Bill-from   at-hay-obl loaded-detr-3

— 144 —

'The wagon is being loaded with hay by Bill.'

b. Bus də-Bill-laxwā pə-larəy bār-eg-i.
hay of-Bill-from at-wagon loaded-detr-3
"the hay is being loaded onto the wagon by Bill.'

The locative alternation with lāɽ 'smear' undergoes another type of passivization. In the present perfective aspect, another suppletive form of the auxiliary wə- is used as the perfective marker prefixing to the main verb. The sentence in (35a) and (35b) are passivized in (36a) and (36b), respectively. (Laɽəlay is the perfective form of laɽ.)

Present Perfective with laɽ 'smear'
(35) a. Nancy dewāl-uma pə-rang laɽ-i.
Nancy wall-pl   at-paint smear-3
'Nancy is smearing (smears) the walls with paint.'

b. Nancy rang pə-dewāl-un-o laɽ-i.
Nancy paint at-wall-pl-obl smear-3
'Nancy is smearing (smears) the paint onto the walls.'

(36) a. Dewāl-una de-Nancy-laxwā pə-rang wə-laɽəlay   šw-əl.
wall-pl   of-Nancy-from at-paint perf-smeared become-3mp
'The walls have been smeared with paint by Nancy.'

b. Rang de-Nancy-laxwā pə-dewāl-un-o wə-laɽəlay   š-ə.
paint of-Nancy-from at-wall-pl-obl perf-smeared become-3ms
'The paint has been smeared on the walls by Nancy.'

In addition, an auxiliary keg- 'become' is employed in the passivization with laɽ 'smear' in the present imperfective aspect:

(37) **Present imperfective with laɽ 'smear'**
a. Dewāl-una de-Nancy-laxwā pə-rang laɽəlay keg-i.
wall-pl   of-Nancy-from at-paint smeared become-3
'The walls are being smeared with paint by Nancy.'

b. Rang de-Nancy-laxwā pə-dewāl-un-o laɽəlay keg-i.
paint of-Nancy-from at-wall-pl-obl smeared become-3
'The paint is being smeared on the walls by Nancy.'

Thus, although one can see the complexity of the usage of the auxiliaries and stems, the sentences in the locative alternation simply undergo their

passivization in terms of the mapping between two arguments: A arguments are downgraded and O arguments are upgraded.

Next, this section analyses passivization in the past tense. First, passives in the past perfective aspect are examined. The sentences (38a) and (38b) are passivized in (39a) and (39b), respectively:

Past perfective with b̲ār 'load'

(38) a. Bill larəy də-bus-o-na   bār   kɽ-a.
        Bill wagon of-hay-obl-from loaded did-3fs
        'Bill loaded the wagon with hay.'

     b. Bill bus pə-larəy bār   kɽ-əl.
        Bill hay at-wagon loaded did-3mp
        'Bill loaded hay onto the wagon.'

(39) a. Larəy də-Bill-laxwā pə-bus-o   bār   šw-a.
        wagon of-Bill-from   at-hay-obl loaded become-3fs
        'The wagon was loaded with hay by Bill.'

     b. Bus də-Bill-laxwā pə-larəy bār   šw-əl.
        hay of-Bill-from   at-wagon loaded become-3mp
        'The hay was loaded onto the wagon by Bill.'

As shown in (39a) and (39b), the passivization in the past tense sentences undergo the same process as that in the present tense sentences. A arguments are downgraded and O arguments are upgraded. Moreover, (41a) and (41b) illustrate the passive sentences which are derived from (40a) and (40b), respectively.

Past perfective with la̲ɽ 'smear'

(40) a. Nancy dewāl-una pə-rang wə-laɽ-əl.
        Nancy wall-pl   at-paint perf-smear-3mp
        'Nancy smeared the walls with paint.'

     b. Nancy rang pə-dewāl-un-o wə-laɽ-ə.
        Nancy paint at-wall-pl-obl   perf-smear-3ms
        'Nancy smeared paint on the walls.'

(41) a. Dewāl-una de-Nancy-laxwā pə-rang wə-laɽəl-ay   šw-əl.
        wall-pl   of-Nancy-from   at-paint perf-smeared-part become-
                                                            3mp
        'The walls were smeared with paint by Nancy.'

b. Rang de-Nancy-laxwā pə-dewāl-un-o wə-la[əl-ay   š-ə.
   paint of-Nancy-from at-wall-pl-obl perf-smeared-part become-
                                                          3ms
   'The paint was smeared on the walls by Nancy.'

Furthermore, (42a) and (42b) are passivized in (43a) and (43b), respectively:

Past imperfective with b̲ār 'load'

(42) a. Bill larəy de-bus-o-na   bār-aw-əl-a.
        Bill wagon of-hay-obl-from load-caus-3fs
        'Bill was loading the wagon with hay.'

     b. Bill bus pə-larəy bār-aw-əl.
        Bill hay at-wagon load-caus-3mp
        'Bill was loading hay onto the wagon.'

(43) a. Larəy də-Bill-laxwā pə-bus-o bār-ed-a.
        wagon of-Bill-from   at-hay-obl loaded-detr-3fs
        'The wagon was being loaded with hay by Bill.'

     b. Bus də-Bill laxwā pə-larəy bār-ed-əl.
        hay of-Bill-from   at-wagon loaded-detr-3mp
        'The hay was being loaded onto the wagon by Bill.'

Finally, (44a) and (44b) with lar 'smear' are passivized in (45a) and (45b), respectively:

Past imperfective with la['smear'

(44) a. Nancy dewāl-una pə-rang la[-əl.
        Nancy wall-pl   at-paint smear-3mp
        'Nancy was smearing the walls with paint.'

     b. Nancy rang pə-dewāl-un-o la[-ə.
        Nancy paint at-wall-pl-obl smear-3ms
        'Nancy was smearing paint onto the walls.'

(45) a. Dewāl-una de-Nancy-laxwā pə-rang la[əl-ay   ked-əl.
        wall-pl   of-Nancy-from   at-paint smeared-part become-3mp
        'The walls were being smeared with paint by Nancy.'

     b. Rang de-Nancy-laxwā pə-dewāl-un-o la[əl-ay   ked-ə.
        paint of-Nancy-from at-wall-pl-obl smeared-part become-3ms
        'The paint was being smeared on the walls by Nancy.'

Thus, although the forms of the passive sentences are differentiated in

the present tense and in the past tense, or in the perfective aspect and in the imperfective aspect, the passivization operations are the same in all examples: A arguments in active sentences are downgraded and become oblique arguments in their passive counterparts; on the other hand, O arguments are upgraded and become S arguments.

Hence, the operations in the present tense are not distinguished from those in the past tense. This point also leads to the question how crisp the split ergativity in Pashto is. If the split also appears clearly in the passivization, we could conclude that Pashto exhibits the strong split ergativity; however, the data shows that it is not the case.

4.3 Affectedness of O arguments and locative alternation

Finally, this section discusses the affectedness of O arguments in the locative alternation in Pashto. In one semantic perspective regarding locative alternation, researchers such as Anderson (1971), Tenny (1992), and Dowty (1991), discuss affected interpretations of O arguments of locative verbs, distinguishing between the semantic interpretations of the two VP frames, such as NP-PP and NP-with-NP in English. They explain that the direct objects of locative verbs undergo a definite change of the state which the verbs describe. For instance, Tenny (1992) discusses this affectedness of direct object NPs with her terms, "measure out the event" or "delimit events." She explains that direct object NPs are affected such that the action is measured out by the event which the verb describes. This analysis is valid when applied to locative alternating verbs (Tenny 1992:15):

(46) a. I sprayed the paint in the hole.

　　 b. I sprayed the hole with the paint.

Tenny argues that *the paint* in (46a) is affected by the delimited action in which all of the paint is sprayed into the hole, and that *the hole* in (46b)

is affected by the delimited action such that the paint is spread around on the surface or the wall of the hole.

Regarding the affectedness of O elements in the locative alternation in Pashto, Farooq Babrakzai (1999 personal communication) points out that only O elements are semantically affected in the locative alternation in both the present tense and the past tense (except the imperfective interpretations). For instance, in (47a) and (48a), the wagon is (was) completely covered with hay by the event, and in (47b) and (48b), the hay is (was) used completely although the wagon is (was) not necessary covered with hay completely:

(47) a. Bill hara wrəz larəy də-bus-o-na   bār-aw-i.
         Bill every day   wagon of-hay-obl-from load-caus-3
         'Bill is loading (loads) the wagon with hay every day.'

    b.   Bill hara   wrəz bus pə-larəy bār-aw-i.
         Bill every day   hay at-wagon load-caus-3
         'Bill is loading (loads) hay onto the wagon every day.'

(48) a. Bill larəy də-bus-o-na   bār   kɽ-a.
         Bill wagon of-hay-obl-from loaded did-3fs
         'Bill loaded the wagon with hay.'

    b.   Bill bus pə-larəy bār   kr-əl.
         Bill hay at-wagon loaded did-3mp
         'Bill loaded hay onto the wagon.'

In addition, according to Farooq Babrakzai (1999 personal communication), the same interpretation remains even if O arguments are passivized or relativized in the locative alternation. This semantic interpretation also yields the same question discussed in the previous sections, which is concerning the degree of the split ergativity in Pashto. Regarding the affectedness of O arguments, the split ergativity in the language does not show any differences between the present tense and the past tense. Again, this result shows the accusative-ergative split in Pashto is not distinct, rather ambiguous.

5. Conclusion

This paper examined the split ergativity in Pashto by employing the locative alternation. It has discussed the topic in two grammatical processes, relativization and passivization. Moreover, it argued the affectedness of the O arguments in the locative alternation. It concludes that the split does not appear in a distinct way although the tense split appears somehow in the locative alternation in Pashto. Thus, the split ergativity in Pashto is still not defined. Rather, we could argue that the split ergativity could be a continuum to connect ergativity and accusativity in the language. It is hoped that future research will cover a wider range of data to examine split ergativity across languages.

Notes

1. This paper was originally written in the course of Linguistics 750X at the University of Hawaii at Manoa in 1999 and this is a revised version. I thank Dr. Stanley Starosta and Dr. William O'Grady for their valuable comments.
2. The list of abbreviations is as follows:

1	first person	caus	causative	nom	nominative
2	second person	cm	clause marker	obl	oblique
3	third person	detr	detransitive	part	participle
acc	accusative	erg	ergative	perf	perfective
abs	absolutive	f	feminine	p	plural
		m	masculine	s	singular

3. All of the data was received from Farooq Babrakzai (1999 personal communication). In addition, this paper presupposes that verbs in the locative alternation in the present tense in Pashto are transitive verbs, not intransitive in spite of the discussion in the Linguistics 750X class. In addition, only common nouns or proper nouns are used in this paper.
4. Babrakzai (1999) further discusses whether Pashto shows both the morphological and syntactic ergativity. He concludes that Pashto has its morpho-syntactic ergativity. However, we do not discuss the issue in this paper.

5. All of the phonetic descriptions in this paper are adopted from Babrakzai (1999). The symbols [ɖ] and [ə] show a voiced retroflex stop consonant and a mid central lax vowel, respectively.

6. Aw indicates a causative morpheme, which makes the verb a transitive one. Most transitive verbs are derived by a process of causativization in Pashto (Babrakzai 1999:138). Moreover, Farooq Babrakzai (1999 personal communication) points out that there is no distinction between perfective (or habitual) and imperfective interpretations in the present tense regarding the locative alternation. In addition, the symbol [ā] shows a open-mid central lax vowel.

7. The symbol [ɽ] shows a voiced retroflex liquid consonant.

8. In Babarakzai's data, he adapts both nominative and absolutive for the marking of O arguments in the past tense (1999: 109, 238). However, since nominatives, absolutives, and accusatives are identical (or zero forms), this paper considers O arguments as an accusative in the present tense and as an absolutive in the past tense. Farooq Babrakzai (1999 personal communication) argues that one could adapt this analysis in Pashto. Thus, the interpretation of case forms in Pashto is not straightforward.

9. The symbol [ɣ] shows a voiced velar fricative consonant.

10. Glosses for case marking are not shown in the data in the rest of the paper.

11. The symbol [š] shows a voiceless palatal fricative consonant.

12. Farooq Babrakzai (personal communication) also points out that all of the data regarding passives could be considered as middle voice constructions. However, this paper treats the data as passive sentences, and it does not discuss the similarities and differences between passives and middles in Pashto.

References

Anderson, Stephen R. 1971. The role of deep structure in semantic interpretations. Foundation of Language 6. 387–396.

Babrakzai, Farooq. 1999. Topics in Pashto syntax. Ph.D. dissertation. The University of Hawaii at Manoa.

DeLancey, Scott. 1981. An interpretation of split ergativity and related patterns. Language 57, 629–657.

Dixon R.M.W. 1994. Ergativity. Cambridge: Cambridge University Press.

Dowty, David. 1991. Thematic proto-roles and argument selection. Language 67 (3), 547–619.

Fukui, Naoki, Shigeru Miyagawa, and Carol Tenny. 1985. Verb classes in English and Japanese: A case study in the interaction of syntax, morphology and semantics. Lexicon project working papers 3. Cambridge, MA: MIT Center for Cognitive Science.

Hall Barbara. 1965. Subject and object in modern English. Ph.D. dissertation. MIT.

Levin, Beth. 1993. English verb classes and alternations. Chicago: The University of Chicago Press.

Manning, Christopher D. 1996. Ergativity: Argument structure and grammatical relations. Stanford, CA: CSLI publications.

O'Grady, William. 1997. They syntax files. Honolulu: The University of Hawaii at Manoa.

Rappaport M. and B. Levin. 1988. What to do with theta-roles. In Wendy Wilkins (eds.), Syntax and semantics 21, 7–37. New York: Academic Press.

Tenny, Carol. 1987. Grammaticalizing aspect and affectedness. Ph.D. dissertation. MIT.

Tenny, Carol. 1992. The aspectual interface hypothesis. In Sag, Ivan A. and A Szabolcsi (eds.), Lexical matter, 1–27. Stanford, CA: CSLI publications.