What Sorani Kurdish Absolute Prepositions Tell Us about Cliticization

POLLET SAMVELIAN

1. Introduction

Sorani Kurdish dialects have independent personal pronouns, clitics pronouns and verbal personal endings.

Independent pronouns		
	Sg	Pl
1	*min*	*(h)êma*
2	*to*	*êwa*
3	*aw(a)*	*awân*

Table 1

Clitic pronouns		
	Sg	Pl
1	*-(i)m*	*-mân*
2	*-(i)t*	*-tân*
3	*-î/-y*	*-yân*

Table 2

verbal endings		
	Sg	Pl
1	*-(i)m*	*-în*
2	*-î*	*-(i)n*
3	*-ê(t)/Ø*	*-(i)n*

Table 3

Independent pronouns have exactly the same distribution as noun phrases and we will not consider them in this paper. Table (2) and (3) both contain bound forms which do not bear lexical stress and are always attached to a host, although only the former are regarded as 'clitic pronouns' because of their placement properties. Contrary to Table (3), affixes, which are always attached to a verbal host and hold a function with respect to the latter (as agreement marker or argument), the forms in Table (2) can occur in different positions in the sentence and do not exhibit any restriction with respect to their host. Furthermore, they do not occur necessarily in relation with a verbal head, but can also be located within a noun phrase or a prepositional phrase, as

a complement of the head noun or preposition. Thus, contrary to the forms in Table (3), which can be clearly identified as lexical affixes, the forms in Table (2) are reminiscent of a well-known class of special clitics, generally referred to as 'second position' (2P) clitics. Even though this is undoubtedly an oversimplification, let us assume that their cliticization domain is the VP and that they are attached to the right edge of the first constituent within this domain, as illustrated by the following examples:

(1) Narmîn u Sirwan bâng=**mân** da-ka-n
     Narmîn and Sirwan voice=1.PL AM-do.PRES-3.PL
     'Narmin and Sirwan are calling us'

(2) min ba Narmîn=**î** da-lê-m
     I   to Narmin=3.SG AM-tell.PRES-1.SG
     'I am telling it to Narmin'

(3) min ba Narmîn=**î** ba kurdî da-lê-m
     I   to Narmin=3.SG in Kurdish AM-tell.PRES-1.SG
     'I am telling it to Narmin in Kurdish'

It is beyond the scope of this paper to provide a comprehensive description of clitic placement possibilities in Sorani. Whatever the exact placement rules for clitics are, attachment to the subject NP seems to be regularly excluded for pronominal clitics, as shown by the following example:

(4) * Narmîn=**yân** da-kuj-ê
       Narmin=3.PL AM-kill.PRES-3.SG
     (putatively) 'Narmin is killing them'

Apart from differences due to their placement properties, clitic pronouns and personal verbal endings hold the same functions with respect to the verb and are in complementary distribution in the following way:

A. With transitive and intransitive verbs in the present tenses and only intransitive verbs in the past tenses, personal endings realize subject agreement and are obligatory:

(5) (min) kitêb-êk   bo Narmîn **da-kir-im**
     (I)   book-INDEF for Narmin AM-buy.PRES-1SG
     'I am buying a book for Narmin'

(6) bo çî döne   **na-hât-î**   bo mâl-î
     for what yesterday NEG-come.PAST-2.SG to house-EZ

êma ?
we

'Why didn't you come to our house yesterday ?' (Blau, 1980, p.68)

Clitics, if present, are generally interpreted as the direct object of the verb:

(7)   (min) bo Narmîn=**î**   da-kir-im
       (I)   for Narmin=3.SG AM-buy.PRES-1.SG
       'I am buying it for Narmin'

B. With transitive verbs in the past tenses, a reversed distribution is observed. Clitics realize subject agreement, and are attached to the right edge of the VP's first constituent:

(8)   (min) kitêb-êk=**im**   bo Narmîn kirî
       (I)   book-INDEF=1.SG for Narmin buy.PAST
       'I bought a book for Narmin'

(9)   bâzirgân-akân   asp-akân=**yân**   da-kirî
       merchant-DEF.PL horse-DEF.PL=3.PL AM-buy.PAST
       'The merchants were buying the horses' (Blau, 1980, p.71)

Personal verbal endings, if present, are interpreted as a direct object:

(10)   Narmin ba Sirwan=**î**   dâ-**n**
       Narmin to Sirwan=3.SG give.PAST-3.PL
       'Narmin gave them to Sirwan'

(11)   ba   dûrbîn=**mân**   dît-**in**
       with binoculars=1.PL see-3.PL
       'We saw them with binoculars'

This implies that transitive verbs in the past tenses are not necessarily followed by personal endings, as illustrated by the examples (8) and (9) above.

    This pattern is reminiscent of split ergativity, and has led Mackenzie (1961), among to analyze the transitive construction in the past tenses as an 'agential construction'. Mackenzie claims that in this construction, the noun phrase referring to the Agent argument of the verb 'is in no way equivalent to a Subject, in concord with the verbal form' (p. 107). If the Agent is not the subject, it follows that the clitic cannot

realize subject-verb agreement, but is in fact the Agent argument of the verb. That is the reason why Mackenzie uses the term 'agential suffix' to designate the clitic in this case. Though it is not explicitly claimed by the author, such an analysis implies that the grammatical subject of a transitive verb in the past tenses is in fact its Patient, or its 'Direct Affectee' in Mackenzie's terms. This would explain the use of verbal personal endings, which realize subjet-verb agreement, in a similar way as with the present tenses.

The main advantage of Mackenzie's view is that it provides a unified account for each set of personal bound morphemes: the forms in Table (3) are always regarded as inflectional verbal affixes and function as agreement-markers, while clitics realize an argument of the verb and constitute one of the options for argument realization, together with noun phrases (or prepositional phrases) and independent pronouns. In other words, they are bound pronouns, and not agreement markers. Appealing though it is, and supported by historical facts, this analysis faces serious problems.

First, in the past transitive construction, personal endings are generally in complementary distribution with overt noun phrases or overt independent pronouns. Although it is possible for the 'Direct Affectee' NP to be doubled by a personal verbal ending, as it is the case in the following example, this doubling is by no means obligatory:

(12) dû nâma=t   ba kurdî   nûsî(-n)
      two letter=2.sg in Kurdish write.past(-2.pl)
      'You wrote two letters in Kurdish'

Viewing personal endings as agreement markers in this case would amount to posit an optional subject-verb agreement in the past transitive construction. Since subject-verb agreement is obligatory in Sorani dialects, this is problematic and Mackenzie himself acknowledges that it would be an over-simplification to state that the verb agrees with the Direct Affectee.

Second, a clitic referring to the Agent is always present in the past transitive construction, irrespective of the presence of a noun phrase or an independent pronoun referring also to the Agent. Thus, the following sentence, in which the clitic referring to the Agent has been removed, is ungrammatical:

(13) * (min) kitêb-êk   bo Narmîn kirî
         (I)   book-indef for Narmin buy.past
      (putatively) 'I bought a book for Narmin'

In other words, clitic doubling is systematic in this construction. This supports the view of the clitic as a subject-verb agreement marker, rather than as one of the available options for argument realization, on par with overt noun phrases and independent pronouns.

Finally, the Agent NP displays the prototypical properties of a grammatical subject. For instance, in the following coordinate structure, the missing argument of the past transitive verb *dîtin* 'see' is interpreted as the Agent and is corefernt with the subject of the intransitif verb *hâtin* 'come':

(14) Narmin hât   u   Sirwan-î   dît
      Narmin come.PAST and Sirwan-3.SG see.PAST
      'Narmin came and saw Sirwan'

From this body of evidence, it may be concluded that the Agent in the past transitive construction is also the grammatical subject of the sentence and that the clitic referring to the Agent realizes subject-verb agreement.

Under this assumption, if clitics are viewed as syntactic items, we are committed to admit that subject-verb agreement is realized by two distinct devices in Sorani Kurdish dialects, depending on the verbal construction and its tense: in the past transitive construction, subject-verb agreement is syntactically handled and realized by a clitic, while in all other cases, it is a morphological process, realized by an affix on the verb. From a conceptual point of view, this analysis is inferior to Mackenzie's unified account, where subject-verb agreement is always a morphological matter. One way of avoiding this drawback would be to adopt the alternative view of clitics as affixes, handled in morphology, and this is indeed the analysis it will be argued for in this paper.

Such an alternative view of clitics in Sorani may seem quite surprising at first sight. Indeed, the data examined up to now supports rather the opposite view, in that clitic placement has been determined with respect to a syntactic constituent (i.e. the VP). If their placement is always defined in syntactic terms, pronominal clitics may at best be regarded as phrasal affixes, but certainly not as lexical affixes. Even though a morphological treatment of phrasal affixes is conceivable and argued for in various studies, the phrasal affix analysis of clitcis leaves us nevertheless with our initial problem, that is the realization of subject-verb agreement by two distinct categories of items: lexical affixes in the case of personal endings, and phrasal affixes in the case of clitics. The same situation stands for the pronominal realization of direct objects

Along the lines that follow, it will be first shown that pronominal

clitics are not unambiguously phrasal affixes and that in some contexts they behave very much like lexical affixes. Two contexts provide ample evidence in favor of a lexical affix analysis of clitics. The first concerns cliticization on the verbal host, the second one involves clitic complements of so-called absolute prepositions.

2.   Clitics as affixes: the case of endoclitics

The first body of evidence comes from phenomena generally referred to as 'mesocliticisis' or 'endocliticisis' (Zwicky, 1977), involving the interruption of a word by a clitic. Since clitics attach to the right edge of the first constituent of the VP, in case the latter contains only a verb, the clitic is expected to occur after the verb. However this is not what happens, as shown by the following examples:

(15)   a.   da=**m**-xwârd   b.   na=**m**-xwârd
               TM=1.SG-eat.PAST   NEG=1.SG-eat.PAST
               'I was eating'   'I did not eat'

         c.   na=**m**-da-xwârd
               NEG-1.SG-AM-eat.PAST
               'I was not eating'

In all these cases, the clitic is placed after the first prefix of the verbal inflected form. If the verbal stem is not preceded by a prefix, the clitic follows it, and thus intervenes between the latter and the personal ending:

(16)   a.   dî=**t**-în   b.   nard=**man**-in
               see.PAST-2.SG-1.PL   send.PAST-1.PL(SUBJ)-3.PL(OBJ)
               'You saw us'   'We sent them'

The generalization seems to be that the clitic is still in the second position in some sort, but "second position" is to be defined on morphological grounds, that is after the first morpheme (affix or stem) of the word. These facts pose a conceptual problem for a uniform analysis of clitics both as phrasal affixes or as syntactic items. Pronominal clitics occur within a word and are linearized with respect to other morphological items (stems or lexical affixes), including lexical affixes. Thus, if personal verbal endings are lexical affixes, pronominal clitics must also be regarded as lexical affixes in this case, and not as phrasal affixes, neither as syntactic items.

Relying on similar facts observed in Pashto, European Portuguese and Udi, Anderson (2005) assumes however that even in the case of

endoclitics, the phrasal affix analysis is the best option to retain. Anderson claims that endoclitics never interrupt genuine single lexical words and that all well-known cases of endoclitics involve in fact the placement of a clitic after the first lexical word of a morphologically complex word. One set of facts which seem to challenge Anderson's analysis is provided by the European Portuguese enclitics, which are comparable to some extent to Sorani data under discussion here. It is well-known that, in European Portuguese, when the verb is a form in the synthetic future or conditional, the clitic is located internal to the form between the stem and the ending, giving thus rise to forms such as the following:

(17) mostr-ar=ilho=emos
      show-FUT=3.SG=1.PL
      'We will show it to him'

Given the fact that the inflected future and conditional, contrary to all other tense forms, result from the relatively recent fusion of a separate auxiliary verb (a form of *haver* 'to have') with the infinitive form of the lexical verb, Anderson assumes that these forms reflect their relatively recent reanalysis from originally complex forms and that the structure of, e.g. *daríamos* '(We) would give' is that in (18).

(18)

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                        V
                       / \
              LexWord     \
                 |         \
                dar       iamos
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It is further assumed that the material in (18) is organized in a single Phonological Word, whose stress pattern is determined by that of its second element. When a clitic is added, if the verb is initial within the Intonational Phrase, the former, cannot be realized in leftmost position within the verbal domain. Given the fact that it must be positioned as close to the left edge of this domain as possible, the clitic will be positioned at the right edge of the lexical word, but preceding the conditional ending. In sum, under Anderson's account, pronominal clitics in European Portuguese are uniformly phrasal affixes positioned with respect to the VP. They do not interrupt lexical words and their placement follows from the general constraints on the second position. In other words, there are no endoclitics in European Portuguese.

   If we refer to (15) and (16) above, such an analysis can be applied to Sorani clitics. Indeed, the latter never interrupt a simple lexical unit,

and always follow the first morpheme of a morphologically complex verb. Problems arises however when further data are taken into account, which go against the generalization on second position placement of clitics within a complex verbal form.

First, when the clitic is in the 3rd singular form, it must be placed after the personal ending:

(19)   nard-in=î
         send.PAST-3.PL=3.SG
         'He sent them'

Apart from this idiosyncratic placement, which occurs in all Sorani dialects, placement variations are observed from one dialect to another. Mackenzie (1961) notes for instance that in Piždar and Mukrî dialects, the string *-im-in* 'I...you/them' alternates freely with *-in-im*.

The past participle suffix *-u/-uw* constitutes another exception. Clitics, as well as personal endings, cannot interrupt the string composed of a verbal stem and the past participle suffix. The past participle is used in the formation of perfect tenses. The suffix *-u/-uw* is directly attached to the verbal stem and precedes both clitics and verbal personal endings:

(20)   a.   nârd-uw=tân-in
              send.PAST-PP=2.PL-3.PL
              'you have sent them'
         b.   * nard=tân-uw-in
              send.PAST=PL.2-PP-3.PL

Once again, the clitic occurs in the third position. It could be objected that in this case there is a prosodic explanation to the third position placement. Indeed the lexical stress in (20) falls on the past participle suffix and not on the verbal stem. It could be assumed that the suffix and the verbal stem form a lexical word and that the clitic appears after the first lexical word, i.e. an accented unit, occurring thus in second position. The problem with this account is that it leaves unexplained the clitic placement with regard to the imperfective prefix *da-*. We saw already that when the verbal stem is preceded by an aspectual or modal prefix, the clitic intervenes between the prefix and the verbal stem. However the prefix *da-* is unaccented and the lexical stress in this case falls on the last syllable of the verbal stem: *da=m-xw**ârd*** 'I was eating'. These facts support the claim that within a complex verbal form, the placement of clitics cannot be accounted for in terms of second position, whatever the definition of such a position be. Placement idiosyncrasies,

which are characteristic of lexical affixes, challenge not only the analysis
of clitics as syntactic items but also a uniform analysis in terms of
phrasal affixes.

The last body of evidence against both the syntactic analysis and a
uniform phrasal affix analysis of endoclitics is provided by coordination.
Let us consider the following examples:

(21)   a.   bo Narmîn aw kitêb-a   da-nus-im   u
            to Narmin this book-DEF AM-write.PRES-1.SG and
            da-xwên-im
            AM-read.PRES-1.SG
            'I am writing and reading this book for Narmin'

        b.   bo Narmin=**î**   da-nus-im   u
            to Narmin=3.SG AM-write.PRES-1.SG and
            da-xwên-im
            AM-read.PRES-1.SG
            'I am writing and reading it for Narmin'

        c.   * da=y-nus-im   u   da-xwên-im
              AM=3.SG-write.PRES-1.SG and AM-read.PRES-1.SG
            (putatively) 'I am writing it and reading it'

        d.   da=y-nus-im   u   da=y-xwên-im
            AM=3.SG-write.PRES-1.SG and AM=3.SG-read.PRES-1.SG
            'I am writing it and reading it'

In (21-b), the clitic -î has large scope over the coordination of two
verbs, which supports the phrasal affix analysis. In (21-c) however,
where the clitic occurs within the word as an endoclitic, large scope
over coordination is excluded and the clitic must be repeated on each
conjunct, as is the case in (21-d). The same situation stands for the
past transitive construction, in which the clitic marking subject-verb
agreement has narrow scope over coordination of two verbs when it
occurs as an endoclitic:

(22)   a.   xwânû-kân=**m**   kirî   u   frošt
            houses-DEF.PL=1.SG buy.PAST and sell.PAST
            'I bought and sold the houses'

        b.   * kirî=**m**-in   u   frošt-in
              buy.PAST=1.SG-3.PL and sell.PAST-3.PL
            (putatively) 'I bought and sold them'

        c.   ˈkirî=**m**-in   u   frošt=**im**-in
            buy.PAST=1.SG-3.PL and sell.PAST=1.SG-3.PL
            'I bought and sold them'

If clitics were regularly phrasal affixes, only one clitic would be expected in case of coordination of two verbs.The fact that the clitic does not have large scope in this case is again characteristic of lexical rather than phrasal affixes.

The facts examined in this section leads us to the following (temporary) conclusions: (a) the analysis of Sorani clitics as syntactic items is problematic (b) but a uniform phrasal affix analysis seems untenable also, since clitics exhibit a dual behavior. When occurring on the verbal head, they act very much like lexical affixes, otherwise they behave like phrasal affixes. These conclusions agree with those of Luis and Spencer (2004) for European Portuguese: endoclicis is considered as affixation to the verbal stem (i.e. lexical affixation), while proclicis as affixation to VP (i.e. phrasal affixation).

3.   Absolute vs. simple prepositions

In addition to the facts considered up to now, the so-called 'absolute prepositions' and their clitic complements provide further significant evidence in favor of an affixal analysis of clitics in some contexts. As mentioned previously, contrary to personal endings, which exclusively occur with verbs, clitic pronouns may as well occur within a noun phrase, an adjectival phrase or a prepositional phrase, alternating with an independent pronoun or a noun phrase:

(23) a. kitêb-e   min   b. kitêb-im
          book-EZ   I   book=1.SG
          'my book'   'my book'

(24) a. bo   to   b. bo=t
          for   you   for=2.SG
          'for you'   'for you'

Certain prepositions display two different forms depending on whether the complement they combine with is realized as a noun phrase or an independent pronoun, on the one hand, or a clitic pronoun, on the other hand. The first form in referred to as 'simple' while the second is called 'absolute'. We will see that the latter class provides some crucial evidence in favor of the affixal analysis of clitic pronouns in Sorani Kurdish dialects.

Table (4) contains the list of simple and absolute prepositions of Suleymaniye Kurdish [1]. As one may notice, not all simple forms have a

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[1]Apart from these two classes, there is a third class of prepositions including forms such as *sar* 'top, head', *pišt* 'back, behind', etc. These are initially nouns which have acquired a prepositional use. We will not deal with them in this paper.

corresponding absolute form and *vice versa*. Two prepositions, *bê* and *tâ*, never take a clitic complement, and the prepositions *bo* and *lagal*, which is a compound form, have only one form whatever the realization of their complement may be. The simple preposition *-a* and the related absolute form *-ê* are enclitics, which always attach to a verbal host.

Sorani Kurdish prepositions		
Simple	Absolute	
ba	*pê*	'to, with, at'
bê	–	'without'
bo	*bo*	'for'
-a	*-ê*	'to'
la	*lê*	'of, in'
tâ	–	'until'
–	*tê*	'to, with, at'
lagal	*lagal*	'with'

Table 4

Related simple and absolute forms generally differ as far as their prosodic properties are concerned: absolute forms bear stress, while *ba* and *la* are not stressed. The absolute preposition *-ê* is exceptional with this respect, in that like its simple counterpart, it is an enclitic. Furthermore simple forms undergo elision when followed by a complement beginning with a vowel:

(25)   b-am   šaw-a
        at-this night-DEF
        'During this night'

At first sight, related absolute and simple forms seem to be allomorphs triggered respectively by the clitic versus non-clitic realization of the complement, as shown by the contrast between (a) and (b) in the following examples:

(26)   a.   ba to/*=t   da-lê-m
              to you/*=2.SG AM-say.PRES-1.SG
              'I am telling you'
        b.   pê=t/*to   da-lê-m
              to=2.SG/*you AM-say.PRES-1.SG
              'I am telling you'

(27)   a.   aw ku̲r-a   zor l'êwa/=tân   nâ-č-ê
              this child-DEF very to you/=2.PL NEG-go.PRES-3.SG

'This child does not resemble you very much'

b. aw ku<u>r</u>-a   zor lê=tân / êwa nâ-č-ê
    this child-DEF very to=2.PL / you NEG-go.PRES-3.SG
    'This child does not resemble you very much'

This is indeed what certain studies tell us about absolute prepositions: 'These forms must be used when the preposition governs a pronoun expressed as an affix' (Edmonds, 1955, p.496). However, this apparently clear picture of complementary distribution turns out to be misleading once other relevant data are taken into account.

First, when realized as a clitic, the complement of the preposition may be attached to a host different from the lexical head by which it is subcategorized for, and may come before or after it in the sentence. In examples (b) below, the clitic precedes the absolute preposition of which it is the complement.

(28) a. **pê=y** bi-lê   ka bi-rw-â
          to=3.SG AM-tell.PRES that AM-go.PRES-??

          'tell him/her to go' (Edmonds, 1955, p.498)
      b. har wuša-yak=**y**   **pê** a-lê-m
          each word-INDEF=3.SG to AM-say.PRES-1.SG
          'I shall say only one word to him'

(29) a. **lê=yân** rojbâš   a-kâ
          to=3.PL good-morning AM-say.PRES
          'He wishes them 'Good Morning' (Edmonds, 1955, p.498)
      b. rojbâš=**yân**   **lê** a-kâ
          good-morning=3.PL to AM-say.PRES
          'He wishes them 'Good Morning''

In this case, attachment to the subject NP seems possible:

(30) Şêx   Ahmad Pânke, Xwâ=**y** **lê** razî   bê
      Sheykh Ahmad Panke, God=3.SG of satisfied be.SUBJ
      'Sheykh Ahmad Panke, I wish God be satisfied with him!'
      (Bassols-Codina, 1992, p.150)
      The following examples illustrates the attachment of the clitic after the preposition:

(31) (Êwa) **pê**=tân wut-**im**
      (You) to=2.PL tell.PAST-1.SG
      'You told me'

Note that in this case, the absolute preposition can host a clitic with which it has no relation. In (31), for instance, the clitic attached to the absolute preposition realizes subject-verb agreement.

Second, absolute forms may be used in long distance dependency contexts, in relative clauses, for instance, where the 'extracted' complement of the preposition occurs in the matrix clause and has no local realization in the subordinate clause:

(32) bird-iy-a   aw sön-a=y   xoy **lê** bu
      take.PAST=3.SG=to DEM place-DEF=EZ[2] himself to be.PAST
      'He took him to the place where he himself had been'

Note that in this case, a resumptive pronoun, realized as a clitic, usually occurs in the subordinate clause. Finally, and crucially, the absolute form is used for all cases where there is no overt syntactic realization corresponding to a complement, regardless of the fact that there is an underlying argument, as in (33), or no argument at all, as in (34). In these uses, which can be qualified as 'intransitive uses' the absolute preposition acts very much like an adverb:

(33) komod-êk=im   kirî   u   kitâb-akân=im
      cupboard-INDEF=1.SG buy.PAST and book-DEF.PL=1.SG
      tê-dâ[3]   dânâ
      to-POSTP put.PAST
      'I bought a cupboard and put my books inside it'

(34) gayišt-im=**ê**
      arrive.PAST-1.SG=to
      'I arrived there' (Edmonds, 1955, p.499)

Another intransitive use of absolute prepositions occurs in compound verb formation, illustrated by the following examples:

(35) bo ci   pê=m   **pê** da-kan-î?
      for what to=1.SG to AM-dig.PRES-2.SG
      'Why are you laughing at me?'

In *pê kandin* 'to laugh at', the absolute preposition acts as a particle in conjunction with the verb and the whole sequence acts as a lexical unit, like phrasal verbs in English.

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[2]The Ezafe enclitic, noted EZ, links the head noun to its modifier, here a relative clause.

[3]*dâ* is a postposition with a locative meaning .

On the basis of the facts examined in this section, the final picture for the distribution of simple and absolute prepositions can be revised in the following way:

Prepositions	Complement
Simple	Phrase (NP, PP, independent pronoun)
Absolute	Clitic realized on the head
	Clitic realized at distance
	'Extracted' complement
	No overt complement (intransitive use)

Table 5

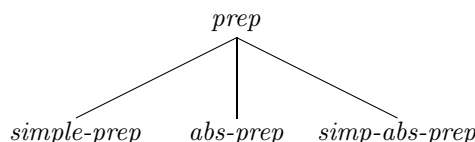## 4.   A lexicalist account of simple/absolute alternation

The fact that prepositions with a clitic complement are morphologically encoded like intransitive prepositions strongly suggests that clitics are not viewed as syntactic items. Furthermore, the fact that non-local (or 'gap') realization is treated on a par with clitic realization supports the lexicalist view of cliticization and extraction developed within HPSG (Bouma et al., 2001), where both pronominal cliticization (at least in some languages) and extraction are viewed as an instance of lexical alternation. The similarity between clitics and gaps is straightforwardly captured by the type hierarchy associated to these two types of signs: both clitics and gaps are a subtype of *non-canonical signs*. Furthermore, Sorani Kurdish seems to support the idea suggested by Miller and Sag (1997) that unexpressed complements may constitute a third subtype of *non-canonical signs*.

(36)   *Synsem* type hierarchy
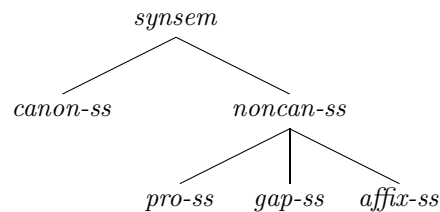
The (partial) type hierarchy associated with the prepositions is the following:

(37)   (Partial) *preposition* type hierarchy

$$
\begin{array}{c}
\textit{prep} \\
\diagup \quad | \quad \diagdown \\
\textit{simple-prep} \quad \textit{abs-prep} \quad \textit{simp-abs-prep}
\end{array}
$$

Under this view, the variation between simple and absolute forms of Sorani prepositions may be accounted for in terms of constraints on types of arguments associated with each class of preposition. Simple prepositions (*simple-prep*) take one canonical argument, while absolute prepositions (*abs-prep*) can only take one non-canonical argument. The argument structure associated to prepositions such as *bo* 'to', on the contrary, is not constrained and thus they can take either canonical or non-canonical arguments.

(38)   *abs-prep* $\Rightarrow$ [ARG-ST *list(non-canonical)*]

(39)   *simple-prep* $\Rightarrow$ [ARG-ST *list(canonical)*]

The following argument preservation rule constrains the way the preposition's argument structure is realized :

(40)   *Preposition* Argument preservation

$$
\textit{prep} \Rightarrow \left[\text{SS|CAT|LOC} \begin{bmatrix} \text{SUBJ} \langle \rangle \\ \text{COMPS} \; \boxed{1} \\ \text{ARG-ST} \; \boxed{1} + \textit{list}\big(\textit{non-canonical}\big) \end{bmatrix} \right]
$$

This means that non-canonical arguments are optional in the COMPS list. In case the clitic is realized on the preposition, the latter projects a PP and has an empty COMPS list. The non-local realization of the clitic argument occurs only if the COMPS list contains a *non-canonical* member. We will deal with this case in the following section.

5.   Non-local realization of the clitic complement

Once a lexicalist analysis is adopted, the question is how to deal with those cases where the clitic complement of the preposition is not attached to the proposition itself, but is realized at distance, occurring before or after it in the sentence, as in (29-b) and (31) above. At first sight, these examples seem to suggest that the clitic complement of an absolute preposition must be dealt with syntactically. It will be nonetheless argued that an affixal analysis is not only possible, but that it provides the most appropriate account of the data.

The first point to be mentioned is that the 'non-local' realization for

the 'clitic' complement of the absolute preposition is highly constrained and limited to two possibilities:

(a) the 'clitic' argument is attached to the verb,

(b) the 'clitic' argument is attached to the right edge of the constituent immediately preceding the preposition.

5.1 Verbal attachment

This attachment occurs only with transitive verbs in the past tenses, as shown by the contrast between the following sentences:

(41)   a.   êwa **pê**=tân wut-**im**
          You to=2.PL tell.PAST-1.SG
          'You told me'

      b.   * êwa **pê** da-**m**-lê-n
            You to AM=1.SG-tell.PRES-2.PL
          (putatively) 'You are telling me'

      c.   * êwa **pê** da-lê-**m**-in
            You to AM-tell.PRES-1.SG-2.PL
          (putatively) 'You are telling me'

Crucially, the complement of the absolute preposition in this case is not realized as a 'clitic' but as a verbal personal ending. This constraint is not obvious in (41-a) above, since both the clitic and the personal ending for the first person singular are realized by the same form *-im*. The constraint becomes clear when other forms are taken into account:

(42)   a.   rojbâš=yân   **lê** kird-**în**
          good morning=3.PL to do.PAST-1.PL
          'They wished us good morning'

      b.   * rozjbâš=yân   **lê** kird-**mân**
            good morning=3.PL to do.PAST=1.PL
          (putatively) 'They wished us good morning'

(43)   a.   pâra-yêk-î   zor=î   **lê**   war
          money-INDEF-EZ much=3.SG from back
          girt-im
          take.PAST-2.PL/3.PL
          'He received a large sum of money from you/them'

      b.   * pâra-yêk-î   zor=î   **lê**   war
            money-INDEF-EZ much=3.SG from back
          girt=tân/yân
          take.PAST=2.PL/3.PL

> (putatively) 'He received a large sum of money from you/them'

In case the direct object is also realized as a bound morpheme, the verbal stem bears two personal endings. The order in which the two affixes are placed seems to be subject to variation in different dialects and even within the same dialect. Edmonds (1955), for instance, claims that the affix corresponding to the complement of the absolute preposition precedes the affix corresponding to the direct object:

(44)   Xwâ **bo**=y   nard-**im**-î(t)
    God to=3.SG send.PAST-1.SG-2.SG
    'God sent you to me' (Edmonds, 1955, p.??)

Mackenzie (1961) gives the reverse order:

(45)   **lê**=y   sand-in-**în**
    for=3.SG take.PAST-3.PL-1.PL
    'He took them for us' (Mackenzie, 1961, p.116)

(46)   xwâ dâ=m-î-**n**=**ê**
    God give.PAST=1.SG-3.SG-2.PL=to
    'God gave me to you'

Note that in the last example, the verbal stem is followed by three bound morphemes: the personal ending -*m* refers to the direct object, the 'clitic' -*î* realizes subject-verb agreement and the personal ending -*in* is the argument of the absolute preposition -*ê*, an enclitic which is always attached to the verb.

    These facts show that in the past transitive construction, the complement of an absolute preposition displays two different forms depending on whether it is attached to the preposition or to the verb. In the former case, it is realized by a 'clitic', while in the latter case, it is realized by a personal verbal affix:

(47)   a.   **pê**=**mân**=î   dâ-n
                to=1.PL=3.SG give.PAST-3.PL
                'She/he gave them to us'
    b.   **pê**=y   dâ-n-**în**
                to=3.SG give.PAST-3.PL-1.PL
                'She/he gave them to us'

This metamorphosis constitutes a serious problem for a syntactic analysis of the clitic placement. Indeed, a 'clitic climbing' account cannot

apply in this case, since the two occurrences of the 'clitic' are not identical. An affixal analysis, on the contrary, combined with an 'argument composition' operation, provides a straightforward account of the data under discussion.

Let us assume that -*mân* and -*în* in (47-a) and (47-b) above are both affixes. Thus, instead of having a class of clitics (i.e. syntactic items) and a class of personal endings (morphological items), we have a unified class of morphological objects, which will be referred to as *personal affixes*. These are a sub-type of affixes, and include in turn two sub-types: *verbal personal affixes* and *clitic personal affixes* :

(48)   (Partial) affix type hierarchy
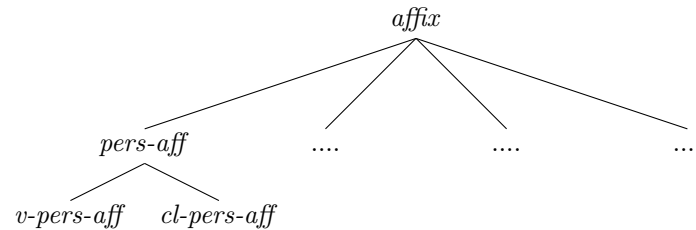
What distinguishes *verbal personal affixes* from *clitic personal affixes*, is that the former, being lexical affixes, are highly selective with regard to their host and can only be attached to a verbal stem. This attachment requirement can be warranted by a constraint on affixed words:

(49)   *v-pers-aff-wd* $\Rightarrow$ $_{word}$[HEAD *verb*]

Since clitics are considered as affixes, clitic attachment is viewed as an instance of affixation. Let us return now to those cases where the 'clitic' argument of the preposition is realized on the verb. In this case the complement of the preposition is 'reanalyzed' as an argument of the verb. This analysis can be considered as an instance of 'argument composition', an idea developed in HPSG by Hinrichs and Nakazawa (1994) for German auxiliary constructions, and applied to 'clitic movement' in French by Miller and Sag (1997). Under this account, the verb, which is a functor, combines with an unsaturated argument – the absolute preposition – and inherits the ARG-ST requirements of the latter. The affixal complement of the absolute preposition is consequently realized as a verbal affixal argument. This operation is handled by a lexical rule, formulated as follows:

(50)   Argument composition rule

$$
\begin{bmatrix} \text{HEAD} & \begin{bmatrix} verb \\ past \end{bmatrix} \\ \\ \text{ARG-ST} & \boxed{1} \left\langle ... \ \text{PP} \begin{bmatrix} \text{COMPS} & \boxed{2} \ (\textit{affix}) \end{bmatrix} ... \right\rangle \end{bmatrix} \rightarrow verb \begin{bmatrix} \text{ARG-ST} & \boxed{1} + \boxed{2} \end{bmatrix}
$$

This rule applies when a verb at the past tense that subcategoriezes for a prepositional phrase combines with a preposition that has an element on its COMPS list. The affixal account for the 'clitic' can thus be maintained, since the 'clitic' becomes a verbal ending and is indeed a lexical affix.

5.2   The 'clitic' complement precedes the preposition

This attachment possibility, illustrated in (29-b) and repeated bellow, occurs either with intransitive verbs or with transitive verbs in the present tenses:

(51)   rojbâš=**yân**   lê a-kâ
       good-morning=3.PL to AM-say.PRES
       'He wishes them 'Good Morning"

Unlike verbal attachment, these cases challenge a strict lexicalist approach, since the 'clitic' attaches to a constituent with which it has no morphological or syntactic relation. Consequently one is inclined to assume that the preposition and the clitic should be conceived of as independent terminal nodes. There is however a crucial point to be mentioned: even though the 'clitic' is not attached to the preposition, a careful survey of data shows that it always occurs adjacent to the latter. Though I will not propose a formalized treatment for these cases in this paper, the lexicalist account can nevertheless be maintained. The 'clitic' is introduced in the lexical entry of the preposition, and thus the clitic and the preposition constitute a morphological unit of some sort. Let us further assume that preposition and the clitic are not strictly ordered and that the latter can precede or follow the former, though being an enclitic, the 'clitic' must attach to the left. A mismatch arises then when the 'clitic' is placed before the preposition: from a morphological point of view, the clitic goes with the preposition, though it is phonologically attached to a preceding element. In line with Kathol (2000), Crysmann (1999) and Crysmann (2003), I will assume that word-level signs can contribute more than one domain object into syntax. As noted be Crysmann (1999), such an approach weakens the

strict notion of lexical integrity, but it nevertheless enables us to flesh out the basic intuitions behind the lexicalist hypothesis.

6. Conclusion

Relying on the behavior of the so-called 'absolute' prepositions and their clitic complements in Sorani (Central) Kurdish, I have argued in this paper that the latter are best regarded as affixes, despite their apparent syntactic transparency. It have further shown that non-local attachment possibilities can be accounted for either in terms of argument composition with the verbal head of the sentence or in terms of linearization approaches. These two possibilities are in complementary distribution. The first one occurs exclusively in the past transitive construction, where the 'clitic' complement of the preposition is in some sort 'reanalyzed' as an Object complement of the verb and is consequently realized as a lexical affix following the verbal stem. The second attachment occurs either in the intransitive or in the present transitive constructions. Since the clitic complement in this case is adjacent to the preposition, it can be introduced as an affix in the lexical entry of the preposition, where the morpheme order is underspecified. Considered as an independent domain object, it can nevertheless be attached to a host different from the preposition, which accounts for the attachment to the element preceding the preposition.

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