Inflection Classes in Laki; a Lexeme-based or a Stem-based Classification?

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Inflectional class is defined as a class-system 'in which the same morphosyntactic property sets are realized differently in the inflection of stems belonging to the same syntactic category' (Stump, 2016: 84). However, Aronoff (1994: 64), Corbett and Baerman (2006), and Corbett (2009: 1) defines inflectional class as 'a set of lexemes whose members each selects the same set of inflectional realization'. In this definition, lexemes belonging to the same syntactic category are supposed to inflect in the same way. What these two definitions are in common with is the same set of members that shares the same form realizing morphosyntactic property sets. In Stump's definition the same set of members refers to the 'same set of stems' in particular, while in Aronoff's definition the notion of membership is highly bound to lexeme class. In this study, I examine verbal inflectional classes in Laki. This language based on Windfuhr (2009) and Anonby (2004) belongs to the Southern branch of Kurdish Language, as one of the northwestern Iranian languages. In this language, the properties of person and number of subject are marked differently on verbs based on the form of the stem. For this reason, I pick Stump's (2016) definition of inflectional class, and argue that the verbal inflectional classes in Laki are distinguished based on the stem formation. The following paradigm represents the simple present and simple past conjugation of the verb *warden* 'to eat' in Laki.

Table 1. Simple Present and Simple Past Conjugation of *warden* 'to eat'

		Simple Present	Simple Past
SG	1	*mar**em*** 'I eat'	*ward**em*** 'I ate'
	2	*mar**in*** 'You eat'	*ward**et*** 'You ate'
	3	*mar**i*** 'He/She eats'	*ward**i*** 'He/She ate'
PL	1	*mar**imen*** 'We eat'	*ward**man*** 'We ate'
	2	*mar**inan*** 'You eat'	*ward**tan*** 'You ate'
	3	*mar**en*** 'They eat'	*ward**an*** 'They ate'

Based on the data given in Table 1, if the criterion of the inflection-class systems in this language were based on lexical classes, we would expect to see the same morphosyntactic property set {SUBJ: $\propto$ $person\ \beta\ Number$} realized by the same exponent throughout its paradigm; because cells in both of the columns in this paradigm are the inflection of the same lexeme which is *warden.* Contrary to this expectation, we observe that words inflecting for subject agreement marking in the cells of simple present are different from those that are inflecting for the same property set but in the column of simple past. This should be regarded as a counter-evidence for what Aronoff (1994), Corbett (2009), and Carstairs-McCarthy (2000) think as a criterion for inflection class distinction.

Aronoff (1994) shapes the notion of inflection classes based on morphomic distinctions. That said, this distinction is highly bound to the morphology of the language, and other grammatical components are blind to this distinction. What is happening in the verbal paradigm of Laki is a distinction that verbs have based on their subject agreement pattern. And this distinction is based on two morphosyntactic properties. These properties are {trans} vs. {intrans} and {past} vs. {prs}. Tense as a morphosyntactic property is realized by the stem alternation in Laki, and stem forms determine how the {PER} and {NUM} properties are realized. Stem alternation can have various forms, such as total suppletion, partial suppletion, and affixation (Mahmoudveysi et al. 2012 and Ariyaee 2017). Discussing the details of stem alternation as a morphological marking of tense realization is beyond the scope of this discussion. What is prominent here

is all of these concatenative and nonconcatenative morphological operations for tense marking take place in stems, and the form of the stem determines the way verbs mark subject agreement.

On the other hand, if we put aside the property of transitivity, we will not be able to explain why subject agreement is marked differently in the paradigm of past transitive and past intransitive verbs as it is illustrated bellow. As the result, it seems quite obvious that putting aside the morphosyntactic properties in defining Laki inflection classes does not lead us to a satisfactory result.

Table 2. Simple Past Conjugation of *haten* 'to come' and *warden* 'to eat'

		haten 'to come'	*warden* 'to eat'
SG	1	*hat**em*** 'I came'	*ward**em*** 'I ate'
	2	*hat**in*** 'You came'	*ward**in*** 'You ate'
	3	*hat* 'He/She came'	*ward**i*** 'He/She ate'
PL	1	*hat**imen*** 'We came'	*ward**man*** 'We ate'
	2	*hat**inan*** 'You came'	*ward**tan*** 'You ate'
	3	*hat**en*** 'They came'	*ward**an*** 'They ate'

So transitivity and tense are two morphosyntactic properties that work hand in hand in determining how {PER} and {NUM} properties are marked. Tafakkori and Omidi (2014: 43-44) and Moradi (2015: 7-8) classify Laki verbal paradigms into three different groups based on the subject agreement patterns they exhibit. Moradi discusses that this classification is based on two properties; one is transitivity and the other is tense. Based on this assumption she considers the following classes of verbs in this language:

Group 1: suffixes for the present tense

1sg	2sg	3sg	1pl	2pl	3pl
em/m	in/n	i/e	im/men	inon/non	en/n

Group 2: suffixes for the intransitive past tense

1sg	2sg	3sg	1pl	2pl	3pl
em/m	in/n	-	im/men	inon/non	en/n

Group 3: enclitics for the transitive past tense

1sg	2sg	3sg	1pl	2pl	3pl
im/m	it/t	te/e	imon/mon	iton/ton	won/on

The suffixes listed in group 1, mark subject agreement in present verbs. In the paradigm that follows, they are marking subject agreement in the conjugation of *warden* 'to eat' in the present paradigm. In this paradigm simple and progressive present conjugations are extracted.

Table 3. Simple and progressive Present Conjugation of *warden* 'to eat'

		Present	
		Simple	progressive
SG	1	*mar**em***	*derem mar**em***
	2	*mar**in***	*derin mar**in***
	3	*mar**i***	*deri mar**i***
PL	1	*mar**imen***	*derim mar**imen***
	2	*mar**inan***	*derin mar**inan***
	3	*mar**en***	*deren mar**en***

The suffixes listed in group 2, mark subject agreement in past intransitive verbs. In the paradigm that follows, they are marking subject agreement in the conjugation of *haten* 'to come'. In this paradigm the simple past conjugation is extracted.

Table 4. Simple Past Conjugation of *haten* 'to come'

		Simple Past
SG	1	*hat**em***
	2	*hat**in***
	3	*hat*
PL	1	*hat**imen***
	2	*hat**inan***
	3	*hat**en***

The suffixes listed in group 3, mark subject agreement in past transitive verbs (in the conjugation of *warden* 'to eat, Table 2). Based on 6 tests suggested by Pullum and Zwicky (1983), Moradi considers all of these markers as enclitics, except the marker of {3 sg}, which she believes based on distributional evidence should be regarded as a suffix. I follow her reasoning, and consider the subject marker of the {3rd sg} as a suffix. However, it seems that Moradi's classification does not explain everything in verbal inflectional classes in this language. The problematic case in her classification is how transitive verbs are conjugated in the present perfect paradigm in contrast with the conjugation of other verbs in present paradigm. All present verbs choose class one markers presented in Table 1. While verbs in the present perfect paradigm as a subset of the present paradigm in total, choose past stem and consequently they choose markers presented in group 3.

Table 5. Simple Present, Present Subjunctive, and Present Perfect Conjugation of *warden* 'to eat'

		Simple Present	Present Subjunctive	Present Perfect
SG	1	*mar**em***	*bar**em***	*ward**em**a*
	2	*mar**in***	*bar**in***	*ward**et**a*
	3	*mar**i***	*bar**i***	*ward**iy**asi*
PL	1	*mar**imen***	*bar**imen***	*ward**man**a*
	2	*mar**inan***	*barinan*	*ward**etan**a*
	3	*mar**en***	*bar**en***	*ward**an**a*

If I accept what Moradi (2015) has suggested in terms of the inflectional distinctions in Laki verbal paradigms, I should add the notion of non-canonical inflectional classes in which inflectional paradigms do

not conform to canonical features. In this case, present verbs represent a segregated inflectional class (Finkle and Stump: 2007) in which the membership does not determine the realization of every cell of it. In this case, we are facing heteroclisis. In this circumstance a lexical item is truly divided between inflectional classes (Hippisley: 2016). As it is illustrated in Table 5, present verbs depending on having perfect or non-perfect property, choose two distinct stem forms and consequently we observe that in the present paradigm verbs use the inventory of subject markers of two distinct inflectional classes.

Tafakkori and Omidi (2014) provided another explanation. They believe that what distinguishes verbal classes in Laki in terms of their subject agreement marking is based on the form of the stem used in the conjugation of verbs in a paradigm. In this regard they argue that there are two types of stems in Laki: present and past. Other scholars in Iranian linguistics (Kalbasi: 2005, Haig: 2008, Dabir-moghaddam: 2015) discussed the same idea with respect to stem forms in most of the Iranian languages. What Tafakkori and Omidi argue is, the inflectional distinctions in subject agreement patterns in Laki verbal paradigms originate from the form of the stems that the lexeme selects. As it is evident in Table 5, subject agreement of present perfect verbs differs from that of other verbs in the same present paradigm. In present perfect verbs, subject agreement is marked by enclitic illustrated in group 3. In contrast other verbs in Table 5 take suffixes in group 1. This evidence proves the adequacy of their explanation in considering the present and past stem forms as a criterion to distinguish how verbs are inflected for person and number properties.

Their idea seems more congenial with mine; because I am going to argue that the distinction in Laki verbs in marking subject agreement is based on stem forms. However, my explanation differs form theirs because they don't provide an explanation for the mismatch existing between the form of the stems (past and present) and the content (semantics) that stem forms carry in different conjugations. The problem in their classification arises from the lack of distinction between past perfect and present perfect since they both use the same stem form, which is past stem. Yet, these two verbs should be differentiated from each other in the degree of being {past}. The trace of present perfect verbs is perceived in present, but it doesn't hold true for past perfect verbs.

Thus, I propose another possibility, and that is to draw the distinction between perfect and non-perfect stem forms. This distinction works pretty well with respect to the semantics of the stems in the paradigms of simple past and perfect verbs (present and past). In this classification, it is claimed that all the verbs in the past paradigm and present perfect paradigm have the perfect stem form, and all of them carry the semantics of perfectivity, which indicates the action is completed and perfectly done regardless of its tense. And they all inflect for person and number properties by the enclitics listed in group 3. However, it seems that this classification does not work for the semantics of all verbal stems and the agreement markers. The stem form used in transitive past habitual, and past progressive verbs for instance, carries the semantics of past, but not perfect. Yet, they inflect for person and number with the same set of enclitics illustrated in group 3. In Table 6 you see how they are inflected.

Table 6. Past Habitual and Past Progressive Conjugation of *warden* 'to eat'

		Habitual	Progressive
SG	1	*mawarde**m***	*daʃte**m** mawarde**m***
	2	*mawarde**t***	*daʃte**t** mawarde**t***
	3	*mawarde**i***	*daʃte**i** mawarde**i***
PL	1	*mawarde**man***	*daʃte**man** mawarde**man***
	2	*mawarde**tan***	*daʃte**tan** mawarde**tan***
	3	*mawarde**an***	*daʃte**an** mawarde**an***

It looks that inflection class distinction based on the the semantics of the stems as being perfect or non-perfect cannot explain the same pattern of subject agreement marking in past habitual and past progressive forms as non-perfect verbs, and other perfect verbs (Simple past, past subjunctive and past passive, past perfect, and present perfect). Then, another possibility for stem classification is based on preterite or non-preterite property. This classification aligns very well with the semantics of the present perfect and all the past verbs; because all of these verbs indicate an action that has happened in a point in the past time prior to the time of the utterance. However, there is still one form for which the preterite ~ non-preterite distinction cannot account; and that is, the present perfect forms in the context in which there is the semantics of future, for anticipation of the occurrence of an event (1).

1. Ta so ʃowaki darselam tamam kerd=em-a
'I will be done with my lessons by tomorrow morning.'

So, it seems that although the preterite ~ non-preterite distinction seems to be the most optimal classification in terms of the the correspondence between form and content, it also fails to account for all existing forms. So, I claim that stem distinction in Laki is mainly morphomic (Aronoff: 1994), which means they are 'orthogonal' to all components of the grammar, except to morphology.

Conclusion

In this study I argue that Laki verbal stems should be distinguished based on having the semantics of preterite and non-preterite. This classification works better than the previous proposed classifications (past vs. present and perfect vs. non-perfect stem forms); because it seems that for the majority of verbs, this distinction aligns with the semantics they carry, and the problematic cases of present perfect, habitual and past progressive in previous classifications, do not challenge this classification. Furthermore, I argue that Laki inflectional classes should be distinguished based on another criterion which is transitivity, and they both work hand in hand in inflection class distinctions of this language. Following Tafakori and Omidi (2014) and Moradi (2015), I classify Laki subject agreement markers as three different groups (1-3) that were presented earlier. I propose that verbal inflectional classes are distinguished based on the realization of the subject agreement feature by either of these three groups of markers. Moreover, by looking at the present perfect forms in the the context of future anticipation (in 1), I argued that verbal stem classification in Laki is a purely morphological classification to which the syntax and semantics of this language are blind.

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