1.1 Introduction

This study investigates various exponents of noun markers, specifically definiteness, number, and person in various syntactic environments in two Kurdish dialects. Kurdish is one of the northwestern Iranian languages spoken by Kurd people in Western Asia. Its three main dialects are Kurmanji (Northern Kurdish), Sorani (Central Kurdish) and Kalhori (Southern Kurdish). In Kurdish, like lots of other languages, NPs that code definiteness, person and number are marked by affixation and demonstratives as morphological markers to express specificity and definiteness. The markers for definiteness, number and person are diverse and show different behaviors in terms of form and placement in various noun phrases. The position of the markers in the noun phrase is seen to be dependent not just on morphology, but on the morphology and the syntax of the sentence. For instance, in Southern Kurdish (Kalhori), the common markers that code definiteness are -ægé and -ægan. They are undetachable cumulative suffixes that denote two morphosyntactic features (definiteness and number): -ægé represents both singularity and definiteness and to represent the plural definite, the singular definite marker -ægé is changed to -ægan. Neither marker can be segmented to represent each morphosyntactic property separately. In Sorani, the definite state is represented by -ækæ and -akan; these follow similar rules for number but go through some phonological changes when placed after vowels at the end of the words. In Kurmanji Kurdish, a noun in the absolute state represents both the generic sense of the noun and the definite sense. For example, a noun like miróv (man) depending on the context of the language can mean ‘man’ (in general) or ‘the man’. In Kurmanji, nouns are inflected in four cases, nominative, oblique, construct and vocative.

To investigate and exemplify the behavior of markers, different noun phrases are categorized and glossed based on Abbott’s (2004) classification of NP types. A list of NPs with markers and demonstratives will be provided to compare the distribution of definite markers in various morphotactic environments. The analysis of the definite articles is included in (1) nouns as NPs and nouns in coordination, (2) NPs with adjectival modifiers (3) some other adjuncts of an NP’s head noun e.g. possessive constructions, relative clauses, object relative and subject relative clauses.

2. Lit review: Previous research on topic

Dryer (2013) defines a definite article as “a morpheme which accompanies nouns and which codes definiteness or specificity”. Edmonds (1995), McKenzie (1961), and Yarmoradi (2005) state that -ægé and -i are used as affixes to represent definiteness and indefiniteness in Southern Kurdish. While definiteness depends on the unambiguous identification of the participants of the discourse, specificity depends on the knowledge of the speaker. In a sentence like “We don’t know who the president will be.”, the participants have a background knowledge of the discourse, but the referent is not identified. Choubsaz and Rezai (2014) have investigated the definite marker and argue that the morpheme -ægé represents specificity in Kermanshahi Kurdish (a dialect of Southern Kurdish), not definiteness. They focus on the difference between specificity and definiteness in Kermanshahi Kurdish. They draw upon the definition of specificity by Enç (1999) and Karimi (1999, 2003) to investigate -ægé as a morpheme. Based on Lyon’s classification, Kermanshahi Kurdish is placed among languages that only mark indefiniteness. The authors introduce the Kurdish morpheme -ægé as the morphological marker of noun phrases in various syntactic positions. It is notable that -ægé appears at the end of definite and some indefinite noun phrases, so it is considered as a clitic. Using collected samples and data, it is
indicated that the presence of this morpheme is obligatory not only in definite noun phrases also in indefinite noun phrases. The article concludes that unlike what has been claimed in describing this morpheme, it mainly indicates specificity and not definiteness and the morpheme -ægeæ is not a mark of definiteness but a mark for specificity. Finally, based on Lyons (1999) view, the authors conclude that Kermanshahi Kurdish only entails the indefinite morphemes.

3. Data Analysis (selected NPs for the sake of the length of the abstract)

3.1 Demonstratives

The demonstratives in Sorani Kurdish cover the noun on the edges like a circumfix. ‘this’ is represented by am... (y)á, and ‘that’ is represented by aw... (y)á. The nouns that these demonstratives surround are absolute singulars and the indefinite plurals.

<table>
<thead>
<tr>
<th>Demonstrative</th>
<th>Noun</th>
<th>Gender</th>
<th>Case</th>
<th>Definiteness</th>
</tr>
</thead>
<tbody>
<tr>
<td>am pyâw-án á</td>
<td>this man.PL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>am ktâw-á</td>
<td>this student</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>am dargâ-yân á</td>
<td>this door.PL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>aw nâm-án á</td>
<td>that letter.PL</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.1.2 Demonstratives in the coordination of nouns in an NP

<table>
<thead>
<tr>
<th>Demonstrative</th>
<th>Noun</th>
<th>Gender</th>
<th>Case</th>
<th>Definiteness</th>
</tr>
</thead>
<tbody>
<tr>
<td>am ktâw o dáftar á</td>
<td>this book and notebook</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>am kâniʃk o kor á</td>
<td>this girl and boy</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.1.3 Demonstratives in larger phrases with adjectives

<table>
<thead>
<tr>
<th>Demonstrative</th>
<th>Noun</th>
<th>Gender</th>
<th>Case</th>
<th>Definiteness</th>
</tr>
</thead>
<tbody>
<tr>
<td>am ktâw á qoy á</td>
<td>this book - big -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>am ktâw á qoy á rash á</td>
<td>this book - big - black -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>am hotel á gowra xas á</td>
<td>this hotel - big good -</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

‘this book & notebook’ ‘this girl & boy’

‘this big book’ ‘this big black book’

‘this big good hotel’
3.1.4 Adjectival modifiers

The attributive adjective is placed after the noun and is linked to the noun by the unstressed vowel $i$ (the ezafe vowel).

\begin{align*}
\text{hotel-ân} & \quad i & \quad \text{bash} & & \text{nâm-ân} & \quad i & \quad \text{drezh} \\
\text{hotel PL.} & \quad & \text{EZF good} & & \text{letter PL.} & \quad & \text{EZF long}
\end{align*}

‘(some) good hotels’ \quad ‘(some) long letters’

\begin{align*}
\text{gamal} & \quad i & \quad \text{fera} & \quad \text{zel} \\
\text{Dog} & \quad & \text{a very big}
\end{align*}

‘a very big dog’

\begin{align*}
\text{gamal} & \quad i & \quad \text{zel} & \quad i & \quad \text{zard} & \quad i & \quad \text{tarsnak} \\
\text{dog} & \quad & \text{a big - yellow - fierce}
\end{align*}

‘a big, fierce, yellow dog’

In this structure, the ezafe vowel precedes all the adjectives to modify them. The distribution of the ezafe vowel in a syntactic tree will be as follows.

\begin{center}
\begin{tikzpicture}
  \node {NP}
    child {node {$N'$}}
    child {node {AP}
      child {node {$N'$}}
      child {node {ezafe}}
      child {node {Adj}}
      child {node {$i \quad \text{tarsnak}$}}
      child {node {gamal}}
      child {node {ezafe}}
      child {node {Adj}}
      child {node {$i \quad \text{zard}$}}
      child {node {zel}}
    }
  \end{tikzpicture}
\end{center}

The $i$ vowel is indeed is the ezafe which appears in the indefinite NPs. It’s a proclitic and it precedes the head in an NP. The ezafe $i$ vowel seem to select attributive adjectival heads. On the other hand, $a$ seems to be an enclitic appearing after the head and by default it selects a predicative adjective. In the phrase, ‘this big, yellow dog’, $i$ is changed to $a$ as an enclitic.
Am- gamal a zel a zard -a
this dog EZF big yellow --
‘this big, yellow dog’

The indefinite singular and plural markers (-êk, -ân) are attached to the head noun in phrases with adjectival modifiers.

### 3.1.5 Adjectives with demonstratives and definites

When both the adjective and the noun are covered by the demonstrative, the linking vowel between the two words changes to a. Since the distribution of the vowel is very similar to the ezafe vowel i, the a seems to be the same ezafe vowel i which is changed due to vowel harmony in the phrase.

Phrases with definite markers:

- **Hotel a bash -aká**
  - hotel EZF good SG.DEF
  - ‘the good hotel’

- **Pyâw a amarîkî -aká**
  - man EZF American SG.DEF
  - ‘the American man’

- **dars -ân a âsân -aká**
  - lesson PL. EZF easy SG.DEF
  - ‘the easy lessons’

Phrases with demonstratives:

- **Am- hotel a bash -á**
  - this hotel EZF good -
  - ‘this good hotel’

- **aw- pyâw a amarîkî -á**
  - that man EZF American -
  - ‘that American man’

- **am- dars -ân a âsân -á**
  - that lesson PL. EZF easy -
  - ‘these easy lessons’

- **aw- dars -ân a sakht -á**
  - that lesson PL. EZF hard -
  - ‘those hard lessons’

In singular forms, the definite marker is placed after the adjective while the plural marker is after the head noun in the phrase. With definite nouns in plural forms, the noun and the adjective are linked with the ezafe ‘i’ vowel again but the placement of the definite suffix, in both is flexible while all the phrases express the same meaning semantically. All the following phrases mean the same:
To visualize the distribution of the morphosyntactic data, there are three kinds of syntactic trees implied by the distribution of the plural and the definite marker here. All three phrases show three various patterns of distribution. In the first phrase, the NP’s number and definiteness are expressed on the head noun; in the second, number is expressed on the head noun but definiteness is expressed at the right periphery; and in the third one, both number and definiteness are expressed at the right periphery.

Also, the data can be morphologically analyzed to see how the morphosyntactic properties that syntax associates with a word are realized in morphological rules.

Block 1. \{def\} : X \rightarrow X\aká
Block 2. \{pl\} : X \rightarrow X\ân

In the first expression, both blocks apply in succession to realize the inflection of the head noun. In the second, one block applies to the head noun but the other applies to the word at the NP’s right periphery. And in the third, both blocks apply to the peripheral word.
Rule A
Realizes definiteness \{α\}
By means of

-\textit{aká} prefixation

Rule B
Realizes plurality \{β\}
By means of

-\textit{ān} suffixation

Rule [A © B]
Realizes \{α\} ∪ \{β\}
By means of

=\textit{akān} suffixation

Rule [A © B] \{α\} ∪ \{β\} : suffix -\textit{a-b}

In the first expression, both blocks apply in sequence to realize the inflection of the head noun for both definiteness and plurality; in the second, one block applies to the head noun as the plural marker but the other block applies to the word at the NP’s right periphery to express definiteness. And in the third, both blocks apply to the peripheral word indicating both plurality and definiteness.

4. Nouns Southern Kurdish: In southern and Sorani Kurdish, the definite marker is postnominal for singular and plural nouns.

4.1.1. singular definite: Southern Kurdish marks definiteness with -\textit{ægæ} which also represents singularity. The marker is attached postnominally to the end of the nouns.

\begin{align*}
\text{kæn} & \text{iʃ} \text{ hyl} \quad \text{ægæ} \\
\text{boy} & \text{young} \quad \text{DEF.PL}
\end{align*}

In Sorani, definiteness is marked by -\textit{ækæ} which both represents singularity and definiteness.

4.1.2 Plural definite: The marker -\textit{ægan} marks both definiteness and plurality for the nouns.

\begin{align*}
\text{kæn} & \text{iʃ} \text{ hyl} \\
\text{girl} & \text{blonde} \quad \text{DEF.PL}
\end{align*}

4.1.4 Noun phrases with adjectival modifiers

When there exists a modifier as an adjective in a noun phrase, the marker attaches to the adjective. Since the adjectives are the end of the phrase in SK, the markers again behave as edge clitics.

4.1.5. Singular noun as head: In noun phrases with adjectives as modifiers, the definite marker behaves as an edge clitic and attaches to the last adjective at the end of the NP.

\begin{align*}
\text{kæn} & \text{iʃ} \text{ hyl} \\
\text{girl} & \text{blonde} \quad \text{DEF.PL}
\end{align*}

4.1.6. with a plural noun as head: both plurality and definiteness is represented by the marker -\textit{ægan}. Behaving like an edge clitic, the marker is again attached to the edge of the phrase after the adjective.

\begin{align*}
\text{kæn} & \text{iʃ} \text{ hyl} \\
\text{girl} & \text{blonde} \quad \text{DEF.PL}
\end{align*}
4.1.7. Possessive Constructions: Kurdish possessive markers are represented as inflections represented at the edge of the phrases. The possessive markers in Kurdish are -m, -æt, -øy, -eman, -etan, -ian. Behaving like an edge clitic, the possessive markers are placed at the end of the phrase. They behave like the “-s” in English. This clitic in English appears at the end of the noun to mark the possessive case. In possessive constructions, the definite marker, whether singular or plural is placed on the thing possessed. In this case, the definite markers do not behave as edge clitics. They seem to be morphemes attached to the thing possessed. In the examples below, the definite marker is not placed NP finally. In this particular instance, it’s placed before the possessive marker for person in the NP.

Bawg rafiq -ægæ -m
Father friend -DEF.SG my
‘The father of my friend’

Bawg rafiq -ægan -em
Father friend -DEF.PL my
‘The father of my friends’

saw mal -ægæ -m
owner house -DEF.SG my
‘my landlord’ (the owner of my house)

Saw mal -ægan -eman
owners house -DEF.PL our
‘our landlords’ (the owners of our houses)

rafiq bawg -em
friend father my
‘a friend of my father’

rafiq -æg -ei bawg -em
friend DEF ezafe father my
‘The friend of my father’

4.1.8. Demonstratives: When definiteness is determined by demonstratives in a phrase, both the singular and plural definite markers exhibit an unpredictable behavior. In case of demonstratives, the definite markers can be segmented. The definite marker is attached to the head noun though there is an adjective in the predicate and the definite word is distinct from the demonstrative. Here, the definite marker for both plurals and singulars is -æ and plurality is marked by -æl.

i kænifk -æ qaʃæŋ -æ
this girl -DEF.SG beautiful is
‘This girl is beautiful.’

i kænifk -æl -æ qaʃæŋ -en
this girl -PL DEF beautiful are
‘These girls are beautiful.’

i ketaw -æ qoi o kow- æ.
this book -DEF big and blue is
‘This book is big and blue.’

i ketaw -æl -æ qoi o ow -en.
this book -PL DEF big and blue are
‘These books are big and blue.’

i kænifk qaʃæŋ -æ
this girl beautiful -DEF.SG
‘this beautiful girl’

i kænifk qaʃæŋ -æl -æ
this girl beautiful -PL -DEF
‘These beautiful girls’
4.1.9. **Object relative & subject relative phrases:** A complex NP involving a relative clause does not license a definite marker at the edge of the NP. In this case, the definite marker goes with the head noun in the phrase.

\[
\text{Kæniʃk -ægæ ðyæʃo diːm qæʃæng -æ}
\]

Girl -DEF.SG last night see.PST beautiful is

‘The girl I saw last night is beautiful.’ (object related)

\[
\text{Kæniʃk -ægan ðyæʃo haten qæʃængen}
\]

Girl -DEF.SG last night come.PST beautiful are

‘The girls who came last night are beautiful.’ (subject related)

5. **References**


