1 Introduction

• We examine the system of argument indexation patterns in Garmian (GK), a variety of Sorani Kurdish spoken in Iraq, with comparisons to Standard (Sulimaniyah) Sorani (SSK).

• Our analysis of these patterns identifies a hitherto understudied Oblique/Oblique alignment system, and has a number of implications for how $\varphi$-features are realized:
  – Of these, we focus on arguments against both a substantive “clitic versus agreement” dichotomy, and a “big DP” analysis of clitic doubling.

Main analytical points:

• Alignment patterns $\times$ argument indexation: morphophonological “clitic” versus “agreement”; syntactic movement versus Agree

Main theoretical implications:

• Primary point: “Agreement” forms are sometimes moved clitics; “clitic” forms are sometimes the result of Agree.

• Secondary point: Potentially a window on Agree-based versus “big DP” analyses.

2 Alignment and Indexation in Standard Sorani Kurdish

The Standard variety of Sorani, analyzed in Thackston 2006, Samvelian 2007, Haig 2008, Karimi 2013, Kareem 2016, a.o.. We’ll be concentrating below on two types of argument indexation:

* Thanks to Julie Anne Legate, and the audience at FMART for valuable feedback. We are grateful to our consultants, Dea Ali and Ali Rahman (SSK); Mohammed Salih and Ako Mohammed (GK) for the judgments. GK is spoken in parts of Kalar, Bawanour, Chamchamal.
2.1 Points to be developed
Three things to attend to:

1. Form-type of argument indexer:

   (a) Morphological “agreement”: occurs on verbs;
   (b) Morphological “clitic”: mobile placement with “second-position” type distribution.

(1) Forms of pronouns, argument indexers (SSK, based on Kareem 2016:95)

<table>
<thead>
<tr>
<th>p/n</th>
<th>pronoun</th>
<th>“m. clitic”</th>
<th>“m. agreement”</th>
</tr>
</thead>
<tbody>
<tr>
<td>1s</td>
<td>min</td>
<td>=(i)m</td>
<td>-(i)m</td>
</tr>
<tr>
<td>2s</td>
<td>to</td>
<td>=(i)t</td>
<td>i(t)/-∅/-e</td>
</tr>
<tr>
<td>3s</td>
<td>ew</td>
<td>=i</td>
<td>ē(t)/-a(t)/-∅</td>
</tr>
<tr>
<td>1p</td>
<td>ēme</td>
<td>=man</td>
<td>-in</td>
</tr>
<tr>
<td>2p</td>
<td>ēwe</td>
<td>=tan</td>
<td>-(i)n</td>
</tr>
<tr>
<td>3p</td>
<td>ewan</td>
<td>=yan</td>
<td>-(i)n</td>
</tr>
</tbody>
</table>

2. Which argument is the indexer associated with? This depends on aspect:

(2) SSK transitive patterns

<table>
<thead>
<tr>
<th></th>
<th>“CLITIC”</th>
<th>“AGREEMENT”</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMPERFECTIVE</td>
<td>DO</td>
<td>Subject</td>
</tr>
<tr>
<td>PERFECTIVE</td>
<td>Subject</td>
<td>DO</td>
</tr>
</tbody>
</table>

3. What is the relation between the indexer and the full DP argument? This depends on grammatical relation:

   (a) Subject indexers can always co-occur with an overt DP argument ⇒ Subject indexers behave like syntactic “agreement”
   (b) DO/IO indexers never co-occur with an overt DP argument ⇒ DO/IO indexers behave like syntactic “clitics” (=pronominals)

2.2 Alignment in SSK
Split alignment system (inherited from earlier Iranian) determined by aspect (e.g., Haig 2008; Legate 2017; Atlamaz and Baker 2016, to appear; Akkuş 2017, to appear).

- We take it (along with Holmberg and Odden 2004) that “agreement” forms index a relation with a DIR(ect) argument, while “clitic” forms index a relation with an OBL(ique) argument.¹

¹Note that the varieties that have case show the same pattern. See section 4.1.
• It will be seen that in terms of alignment, Sorani shows a split in which the non-perfective aspects have Direct Agents and Oblique patients (DIR-OBL); perfectives, on the other hand, show OBL-DIR alignment, the erstwhile ergative part of older Iranian.

Concentrating on transitive patterns;

**Imperfective:** Agents are indexed by agreement on the verb, while DOs (or IOs) can be realized in clitic form, with a kind of “second position” distribution (forms in (3) - (4)).

(3)  **clitic/agreement**
   a. de=y*an*  be-*m*  
      IND=3PL.CL take.PRS-1SG  
      ‘I will take them.’  (Kareem 2016:103)
   b. de=y*an*  bin-*i*n  
      IND=3PL.CL see.PRS-1PL  
      ‘We see them.’

(4)  a. Azad name-(y)êk bo min de-nêr-êt  
      A letter-a to me IND-send.PRS-3SG  
      ‘Azad sends a letter to me.’  (Kareem 2016:98)
   b. Azad name-(y)êk=im bo de-nêr-êt  
      A letter-a=1SG.CL to IND-send.PRS-3SG  
      ‘Azad sends a letter to me.’  (Kareem 2016:99)

**Note:** Only one of DO or IO can be realized as the clitic (we will ignore IOs in this talk).

**Perfective:** In the perfective aspect, conversely, the Agreement on the verb relates to DO or IO, while the mobile clitic indexes the Agent, (forms in (5) - (8)).

(5)  a. xward=**man-in**  
      eat.PST=1PL.CL-PL  
      ‘We ate them.’  (Kareem 2016:104)
   b. ne=**man**  xward-*in*  
      NEG=1PL.CL eat.PST-PL  
      ‘We didn’t eat them.’  

**Aside:** Our SSK consultants consistently generate the reverse order for similar constructions, the details of which we leave aside. Thus,

(6)  ême bini-*n=***man**  
      we see.PST-PL=1PL.CL  
      ‘We saw them.’
(7)  xward-*in=***man**  
      eat.PST-PL=1PL.CL  
      ‘We ate them.’

(8)  a. (min) çareser=**im**  kird-*in*  
      I treatment=1SG.CL do.PST-PL  
      ‘I treated them.’
Importantly, realization of \( \varphi \)-features in “agreement” or “clitic” form in SSK does not correlate directly with cooccurrence patterns. In particular, in terms of cooccurrence with an argument,

\begin{itemize}
  \item (i) “m. clitics” behave like pronouns in the present system (9b), but like syntactic agreement in the past (9a);\(^2\)

  \item (ii) “m. agreement” on the verb behaves like syntactic agreement in the present system (10a), but like a pronoun in the past (10b). (cp. Samvelian 2007; Haig 2008; Jügel 2009).
\end{itemize}

\textbf{(9)}

\begin{enumerate}
  \item a. \( (\text{to}) \quad \text{de}=\text{I} \quad \text{bin-ıın} \quad \rightarrow \text{agent clitic can be doubled} \)

2SG.pro PROG=2SG.CL see.PST-1PL

‘You were seeing us.’

  \item b. *to \( \text{ême} \quad \text{de}=\text{man} \quad \text{bin-ııt} \quad \rightarrow \text{object clitic can’t be doubled} \)

2SG.pro 1PL.pro IND=1PL.CL see.PRS-2SG

‘You see us.’
\end{enumerate}

\textbf{(10)}

\begin{enumerate}
  \item a. \( (\text{to}) \quad \text{de=man} \quad \text{bin-ııt} \quad \rightarrow \text{agent agr can be doubled} \)

2SG.pro IND=1PL.CL see.PRS-2SG

‘You see us.’

  \item b. *\( \text{ême}=t \quad \text{de-bin-ıın} \quad \rightarrow \text{object agr can’t be doubled} \)

1PL.pro=2SG.CL PROG-see.PST-1PL

‘You were seeing us.’
\end{enumerate}

\begin{itemize}
  \item (9b) and (10b) show that we are not dealing with “clitic doubling”, at least for the object (à la Anagnostopoulou 2006; Harizanov 2014, the condition for which is the base-generation of the associate in an argument position).

  \item Regarding the subject, first, based on the generalization by Woolford (2002, 2006), we also take it that “clitic doubling” cannot be limited to subjects to the exclusion of objects.

    - Empirically, in clitic doubling languages, the clitics are optional (Kramer 2014), as in (11).

\end{itemize}

\textbf{(11)}

\( (\text{Lo}) \quad \text{vimos} \quad \text{a Guille}. \)

3M.SG saw.1PL to Guille

‘We saw Guille.’ (Rioplatense Spanish; Jaeggli 1982:14)

\begin{itemize}
  \item Turning to SSK, we see that the subject clitic or agreement is not optional.
\end{itemize}

\(^2\)In line with Blake 1994; Woolford 2002, 2006; Preminger 2009; Kramer 2014, a.o., according to which pronominal clitics may also function as an agreement-like device when they double arguments.
(12) **no clitic doubling**

a. 
\[
\begin{array}{c}
\text{de=} \#(t) \\
\text{bin-}\hat{\text{in}}
\end{array}
\rightarrow \text{agent clitic is not optional}
\]

2SG.pro prog=2SG.CL see.PST-1PL

'You were seeing us.'

b. 
\[
\begin{array}{c}
\text{de=} \text{man} \\
\text{bin-}* (\text{it})
\end{array}
\rightarrow \text{agent agr is not optional}
\]

2SG.pro IND=1PL.CL see.PRS-2SG

'You see us.'

**Main puzzle:** the mismatch between morphological clitic/agreement forms and syntactic clitic/agreement functions.

### 2.3 Assumptions

**Clause structure** The syntax of a negated main clause, showing a number of morphemes in the heads in which they are realized, is given in (13b) for the sentence (13a):

(13) a. ne=m de-xward-in

\[
\begin{array}{c}
\text{neg=}1\text{SG.CL} \\
\text{prog=eat.PST-PL}
\end{array}
\]

'I was not eating them.'

\[^{3}\text{cf. The variety Samvelian (2007:268, 12) discusses, in which in the past transitive construction the ‘direct affectee’ NP can be optionally doubled by a personal verbal ending, as in (1).}
\]

(1) 
\[
\begin{array}{c}
\text{du nâmê=t} \\
\text{be kûrdî nûsî)-(n)
\end{array}
\]

two letter=2SG.CL in Kurdish write.PST-PL

'You wrote two letters in Kurdish.'

Based on the definitions above, this variety can be considered an instance of clitic doubling (or object agreement). We put such instances aside.
In outline:

- Heads (see Appendix 1 for the motivations):
  - \( v \) categorizer; involved in Case with Voice (licenses Agent semantics);
  - \( \exists \exists \exists \) Perfective Aspect (Asp\(_{\text{perf}}\)); involved in alignment split (present only in perfectives; cf. identical to Stem\( P \) in \( \text{Akkuş (to appear)} \) for Kurmanji Kurdish and Zazaki);\(^4\)
  - Asp\(_{\text{prog}}\) defines ongoing (progressive) aspect (present only in progressives);
  - Tense— actual Tense morphology appears to be suffixal and found only in the Perfect (see below);
  - The \( \Sigma \) head is the locus of affirmative/negative features (cf. Laka 1990);
  - \( \Theta /\text{Obl} \) is the locus of Oblique (cf. Legate 2008 for a similar high functional head for clitics in Warlpiri).

- Concerning the syntax of arguments:
  - Subjects move to a position higher than any of the ones seen here (perhaps a Topic positions);
  - The highest \( vP \) internal argument that is not a pronominal clitic moves to \( \Theta \).

\(^4\)\( \exists \exists \exists \) (Old Persian /\( \text{ta/} \)), on account of its origins (Indo-European *-to, -\( \text{ta} \) in Old Persian).
“Object Shift” Objects appear to be moving out of the vP.\(^5\) Essentially, the objects appear to be higher than $\mathcal{O}$, which, in turn, appears to be higher than $\Sigma$.

Examples with different types of objects hosting $=\text{cl}$:

(14) a. (ew) sêw-ek-an=$\hat{i}$ xward
    s/he apple-the-pl=$3\text{SG.CL}$ eat.PST
    ‘S/he ate the apples.’

b. çi=$\hat{i}$ xward?
   what=$3\text{SG.CL}$ eat.PST
   ‘What did he eat?’ (Kareem 2016:170, 40)

c. (min) naxoş-ek-an=$\textbf{im}$ çareser kird
    I patient-the-pl-1SG.CL treatment do.PST
    ‘I treated the patients.’

d. (min) çareser=$\textbf{im}$ kird-in
    I treatment-1SG.CL do.PST-PL
    ‘I treated them.’

e. name-(e)k(e)-an=$\hat{i}$ bo ewan ne-nard.
    letter-the-pl=$3\text{SG.CL}$ to them NEG-send.PST
    ‘He did not send the letters to them.’ (Kareem 2016:102, 13a)

f. bo ewan=$\hat{i}$ ne-nard-in.
   to they=$3\text{SG.CL}$ NEG-send.PST-PL
   ‘He did not send them to them.’ (Kareem 2016:102, 13b)

g. (to) bo Nermín=$\textbf{it}$ kIRR-$\hat{i}$
   (you) for Nermín=$2\text{SG.CL}$ buy-PST.3SG
   ‘You bought it for Nermín.’

We have hosts there that are a standard DO, DO in a light verb situation, the nominal part of the light verb, DO in a ditransitive, and IO in a ditransitive with a cliticized DO.

2.4 Analysis

In summary, SSK alignment indexing patterns are as follows:

(15) SSK transitive patterns

<table>
<thead>
<tr>
<th></th>
<th>“CLITIC”</th>
<th>“AGREEMENT”</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMPERFECTIVE</td>
<td>DO</td>
<td>Subject</td>
</tr>
<tr>
<td>PERFECTIVE</td>
<td>Subject</td>
<td>DO</td>
</tr>
</tbody>
</table>

$\Rightarrow$ In the trees below: dashed lines are for Agree; solid lines are for movement.

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\(^{5}\)For arguments evacuating vP crosslinguistically, Wood (2017) for Icelandic, Shibata (2015a,b) for Japanese.
Imperfective (DIR/OBL): In the imperfective

(I1) [The Agent receives DIR case from T]
Tense agrees with the Agent and realizes these features as “agreement”.

(I2) [The DO receives structural OBL case from Voice]
DO– if a pronominal clitic– moves to the oblique head $\sigma$, where it is realized as a “clitic”.

(16)

(17) OBL O as structural in SSK
a. (min) de=yan kuj-im
   I IND=3PL.CL kill.PRS-1SG
   ‘I will kill them.’

b. (ewan) de-kuj-rê-[n]
   they IND-kill.PRS-PASS.PRS-3PL
   ‘They will be killed.’

Perfective (OBL/DIR): In perfectives, the situation is reversed:

(P1) [The Agent receives (inherent) ergative OBL case from Voice] (cf. Akkus to appear for Case assignment mechanism)]
The oblique $\sigma$ targets the oblique argument– the Agent– and has its $\varphi$-features transmitted to it, where the are realized as a “clitic”.

(P2) [The DO receives DIR case from T.]
Tense attracts DOs if they are pronominal clitics; they are realized there as “agreement”.

8
We can explain the behavior of the higher heads $\theta$ or $T$ in two connected ways:

(i) *abstract Case*, as such $T$ cannot agree with inherently case-marked arguments, and thus the pattern in perfectives. It can agree with DIR case-marked arguments (Atlamaz and Baker to appear; Akkuş to appear). $\theta$ enters into Agree with the Agent, as such its features are realized on the $\theta$ head.

(ii) *presence or absence of $\Phi P$*, which connects to point above, since it assigns ergative in tandem with Voice.

3 Garmiani

A key aspect of the SSK system is that— with respect to Subjects and Direct Objects— the imperfective and perfective aspects are mirror images: Dir/Obl and Obl/Dir. Now:

- Our research on the Garmiani variety of Sorani reveals a distinct but related pattern: Dir/Obl imperfectives paired with Obl/Obl perfectives.

- The mechanics of the SSK analysis would produce *two oblique clitics* if both Agent and Direct Object are Oblique— This is exactly what we find in Garmiani.

For starters, Garmiani has the slightly different set of argument indexers and pronouns seen in (19)$^6$:

---

$^6$Moreover, indicative/progressive *de-* in SSk is realized as *e-* for our Garmiani speakers, and there are various lexical differences between the varieties as well, e.g. $pê\dot{ș}ani$ 'show' $\rightarrow$ nîșani.
(19) Forms of pronouns, argument indexers (Garmiani)

<table>
<thead>
<tr>
<th>p/n</th>
<th>pronoun</th>
<th>“m. clitic”</th>
<th>“m. agreement”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Set 1 (Present)</td>
<td>Set 2 (Past)</td>
</tr>
<tr>
<td>1s</td>
<td>min</td>
<td>= (i) m</td>
<td>- (i) m</td>
</tr>
<tr>
<td>2s</td>
<td>to</td>
<td>= (i) t</td>
<td>i (t) / -y (t)</td>
</tr>
<tr>
<td>3s</td>
<td>ew</td>
<td>= i</td>
<td>é (t)</td>
</tr>
<tr>
<td>1p</td>
<td>éme</td>
<td>= man</td>
<td>- in / yn</td>
</tr>
<tr>
<td>2p</td>
<td>éwe</td>
<td>= tan</td>
<td>- (i) n</td>
</tr>
<tr>
<td>3p</td>
<td>ewan</td>
<td>= yan</td>
<td>- (i) n</td>
</tr>
</tbody>
</table>

GK shows the same patterns of indexer/overt argument cooccurrence as SSK, (9-12). But:

★ While its non-perfective aspects behave identically to SSK, its perfectives show a striking difference with the Standard pattern: both Agent and DO/IO arguments are realized with the “mobile”; moreover both realizations take the clitic form, thoughout the perfective system.⁷

(20) a. éme bini=yan=man
    we see.PST=3PL.CL=1PL.CL
    ‘We saw them.’

b. éme ne=yan=man bini
    we NEG=3PL.CL=1PL.CL see.PST
    ‘We didn’t see them.’

(21) ne=yan=man de-bíni
    NEG=3PL.CL=1PL.CL PROG-see.PST
    ‘We were not seeing you.pl.’

(22) a. (min) çareser=iyan=im kird (cp. (8a))
    I treatment=3PL.CL=1PL.CL do.PST
    ‘I treated them.’

b. (éme) çareser=iyan=man ne-kird (cp. (8b))
    we treatment=3PL.CL=1PL.CL NEG-do.PST
    ‘We didn’t treat them.’

(23) (min) maç=yan=im kird
    I kiss=3PL.CL=1PL.CL do.PST
    ‘I kissed them.’

---

⁷In fact, Kareem (2016) reports of this variety with the sentence in (i), but mistakenly assumes -im to be a verbal agreement marker. We believe this to be because certain agreement markers are identical to the pronominal clitics. The plural persons, however, make it clear that both arguments are pronominal clitics.

(i) kuş-im=yan
    kill.PST-1SG=3PL.CL
    ‘They killed me.’ (Kareem 2016:105)
• Below are instances with multiple internal arguments realized as clitics in addition to the external argument.

(24) a. to nişan=yan=it da we ême → IO realized as full pronoun
    you show=3pl.CL=2sg.CL gave to us
    ‘You showed them to us.’

b. to nişan=yan=man=it da
    you show=3pl.CL=1pl.CL=2sg.CL give.PST
    ‘You showed them to us.’

c. cp. to nişan=yan=it da-yn → SSK; IO realized as agr
    you show=3pl.CL=2sg.CL gave-1PL

(25) ew nard=iyan=i bo qutabiy-ek-an
    he send.PST-3pl.CL-3sg.CL to student-the-pl
    ‘He sent them to the students.’

Our analysis concentrates on two primary points.

3.1 Garmiani: Analysis

(26) Garmiani transitive patterns

<table>
<thead>
<tr>
<th>IMPERFECTIVE</th>
<th>“CLITIC”</th>
<th>“AGREEMENT”</th>
</tr>
</thead>
<tbody>
<tr>
<td>DO</td>
<td>×</td>
<td>Subject</td>
</tr>
<tr>
<td>PERFECTIVE</td>
<td>Subject; DO</td>
<td>–</td>
</tr>
</tbody>
</table>

**Imperfective (DIR/OBL): In the imperfective**

(I1) [The Agent receives DIR case from T]
    Tense agrees with the Agent and realizes these features as “agreement”,

(I2) [The DO receives structural OBL case from Voice]
    DO– if a pronominal clitic– moves to the oblique head θ, where it is realized as a “clitic”.

11
**Perfective (OBL/OBL):** In perfectives, the situation is reversed:

(P1) [The Agent receives (inherent) *ergative* OBL case from Voice/\(\varphi\)]

The oblique \(\varnothing\) targets the oblique argument– the Agent– and has its \(\varphi\)-features transmitted to it, where they are realized as a “clitic”.

(P2) [The DO pronominal clitic receives *structural* OBL case from Voice]

\(\varnothing\) also attracts DO pronominal clitics; they are moved to it and realized in “clitic” form.

⇒ The proposal that both Agent and DO are oblique in the perfective explains why they are both realized in the position associated with \(\varnothing\), as “clitics”.
4 Implications

4.1 Alignment patterns

Typologically, our analyses of SSK and GK point to alignment splits beyond Nom/Acc versus Erg/Abs (cp. Haig (2008, 2017); Akkuş (to appear); Doron and Khan (2012); Kalin and van Urk (2015); Coghill (2016), for Iranian and Aramaic respectively; cp. also Coon and Preminger (2017)).

- SSK resembles the Erg/Abs alignment observed in Kurmanji/Adıyaman Kurdish (AK, Atlamaz 2012) and Standard Zazaki (Todd 2002), where agreement tracks the DIR case bearing argument, as in (29).

\[(29)\]  
a. ez \(\overline{rivi}\-m\)  
1SG.DIR run.PST.1SG  
'I ran.' (AK, Baker and Atlamaz 2014:3a)  
b. mı \(\overline{t\text{ı}}\) di-yi  
1SG.OBL 2SG.DIR see.PST-2SG  
'I saw you.' (AK, Baker and Atlamaz 2014:4a)

- The pattern is summarized in Table 1.

<table>
<thead>
<tr>
<th>Case Marking</th>
<th>Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIR</td>
<td>S, A</td>
</tr>
<tr>
<td>OBL</td>
<td>S, O</td>
</tr>
</tbody>
</table>

Table 1: Alignment in Adıyaman Kurdish

- For Obl/Obl alignment in particular, we note similar patterns in Mutki Zazaki (Akkuş to appear) and Muş Kurdish (MK, Gündoğdu 2011; Akkuş to appear).

- In these varieties, double oblique realization is seen in pronominal (or DP) forms, not in indexation patterns.

  - Moreover, the verb shows default 3rd singular agreement, as in (30).

\[(30)\]  
a. ez te di-bin-im  
1SG.DIR 2SG.OBL IMPF-see.PRS-1SG  
'I see you' (MK, Songül Gündoğdu, p.c.)  
b. ez ket-im  
1SG.DIR fall.PST-1SG  
'I fell down.' (MK, Gündoğdu 2011:77)  
c. min te di\(\overline{d}\)  
1SG.OBL 2SG.OBL see.PST.3SG  
'I saw you.' (MK, Gündoğdu 2011:81)

- The pattern is summarized in Table 2.
<table>
<thead>
<tr>
<th>Present</th>
<th>S, A</th>
<th>O</th>
<th>S, A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past</td>
<td>S</td>
<td>A, O</td>
<td>S</td>
</tr>
</tbody>
</table>

Table 2: Alignment in Muş Kurdish

Note also that the clitic on the O argument behaves like *structural* oblique, in that when passivized it raises to grammatical subject, and shows verbal agreement (similar to the pattern in Muş Kurdish).

(31) Garmiani
   a. kūšt=\[\text{man}\]=yan
      kill.pst=1pl.cl=3pl.cl
      ‘They killed us.’
   b. kūj-ra-[\text{yn}]
      (lā layan ewan-ewe)
      kill.prs-pass.pst-1pl (from side them-ITER)
      ‘We were killed (by them).’

(32) Muş Kurdish
   a. te \[\text{min}\] kūšt
      2sg.obl 1sg.obl kill.pst.3sg
      ‘You killed me.’
   b. ez \[ji ali-ye te\] hat-im kūšt-in
      1sg.dir (prep side-ez 2sg.obl) come.pst-1sg kill.pst-ptcp
      ‘I was killed (by you).’

4.2 Argument Indexation

According to the analysis that is presented above, SSK has

(I) Syntactic clitics that are realized morphophonologically as what appear to be “agreement”; and

(II) Features transmitted by a syntactic agreement operation that are realized morphophonologically as “clitics”.

- Type (I) has been discussed in the recent literature, with Preminger (2009); Kramer (2014) and others.
- Type (II) effects are also discussed in the literature; they figure, for example, in discussions of clitic doubling Anagnostopoulou (2006, 2014), Di Tullio et al. (to appear).

Prior arguments against a strict clitic/agreement distinction have been made both on morphophonological (e.g. Halpern 1992; Embick 1995) and morphosyntactic (e.g. Preminger 2009; Kramer 2014) grounds.
Our analysis provides further evidence that the grammatical mechanics for argument indexation relations (Agree versus Move) are independent from the packaging of \(\varphi\)-features as morphophonological “clitics” versus “affixes”.

Mechanically, the “clitic” realization of requires some comment.

- Some head \(X\) acquires features \(\varphi_i\) via an agreement operation with a DP\(_i\) that possesses said features inherently.
- The features \(\varphi_i\) are packaged as a morpheme. We might think that there are two possibilities here:

  - **possibility 1** \(\varphi_i\) is packaged as a ‘garden variety’ agreement morpheme; in which case (we would hope) it is realized in some immediate relation to \(X\). Graphically, with \(Z\) and \(Y\) heads included to stress the locality part:

    \[
    \begin{align*}
    \text{(33) Stage 1} & \\
    & Y \\
    Z & \left[X, \varphi_i\right] \\
    \end{align*}
    \]

    \[
    \begin{align*}
    \text{(34) Stage 2} & \\
    & Y \\
    X & \left[\varphi_i\right] \\
    Z & \left[\varphi_i\right] \\
    \end{align*}
    \]

    (Maybe \(\varphi\) could be realized immediately higher/lower (left/right) of \(X\); this is important for Agree/agreement (cp. Case/case), but not for our main points).

  - **possibility 2** \(\varphi_i\) is packaged as a ‘clitic’— for this, what we have in mind is that \(\varphi_i\) is realized “outermost” in a complex head.

    \[
    \begin{align*}
    \text{(35) Stage 2 (dashed line for “clitic attachment”) } \\
    & Y \\
    \varphi_i & \\
    Z & X \\
    \end{align*}
    \]

    This is what “clitics moving to heads” might typically wind up doing. That is, it is possible that the same morphophonological “clitic” is the realization of either a

15
moved pronoun, or of a set of features produced via Agree. For morphophonology (the dotted line...) see for clitics getting realized as affixes etc.

4.3 Comparison with a “Big DP” analysis

An alternative to the Agree-based treatment of Agent clitics is to treat the clitic-doubling effect with a “big DP” analysis (e.g. Uriagereka 1995; Nevins 2011; Harizanov 2014), with the clitic originating with the Agent and moving to $\theta$.

It is often difficult to distinguish the predictions of big-DP analysis of clitics from other treatments of it. One aspect of the GK pattern argues against this kind of analysis.

1. “Doubling” in both SSK and GK is restricted to Agents, as noted above: Agent clitics can co-occur with an overt DP; DO/IO cannot.

A big-DP analysis could encode this restriction, perhaps by restricting big-DPs so that they must have certain case features. But in GK, the $\theta$ head attracts both Agent and DO clitics in the perfective. This makes the restriction of big-DPs to those with particular case features a stipulation, since they behave identically in terms of moving to $\theta$.

⇒ One could try to insist on a big-DP analysis here, but the arbitrariness of the stipulation that is required to make this work suggests that the agreement-with-clitic-packaging analysis is on the right track.

5 Further Directions

• Our analysis of SSK and GK make several predictions about non-transitive morphosyntax including unergative/unaccusative differences, light-verb structures.

• It also has several implications for ditransitives, and their interaction with clitic/agreement.

• We aim to further investigate these patterns and outline the questions that they raise for further research.

6 Conclusions

We have analyzed argument indexation patterns in SSK and GK.

• The two varieties differ in their alignment pattern in the perfective.
  – In the non-perfective, both SSK and GK have DIR/OBL alignment system.
  – In the perfective, SSK has OBL/DIR alignment, whereas GK has OBL/OBL alignment system.

• These patterns are similar to varieties with overt case, e.g. Adıyaman Kurdish versus Muş Kurdish.

• Morphological clitics/agreement forms do not always align with syntactic notion of clitic/agreement.
References


Wood, Jim. 2017. Everything out! Evacuating the Icelandic vP. *Poster at the 48th Meeting of the North East Linguistic Society (NELS 48)*.


7 Appendix 1: Motivation for Clause Structure

Some things are difficult to determine. The language looks like it is SOV. It looks like internal arguments are moved out of the vP (we’ll say “object shift” as a cover term). Additional
complexities from

1. the whole Split thing;
2. the presence of a number of prefixes; and
3. relatively limited expression of finite Tense.

Nevertheless, we have a number of inferences that can be drawn from clitic and other interactions. We proceed by reasoning through a working structure of the clause, involving a number of projections; and show where the clitic must start off in the clause relative to other things.

7.1 Voice and $v$

We’ll make use of $v$ and Voice heads:

- $v$ is the categorizer; involved in Case with Voice (licenses Agent semantics).

\[(36)\] VoiceP

\[
\text{VoiceP} \\
\ \ \ \ \ \text{DP} \\
\ | \\
\text{agent} \ \ \ \text{Voice} \\
\ | \\
\text{vP} \\
\ | \\
\text{DP} \ \ \sqrt{\text{ROOT}} \ \ v
\]

- Note that we have made the vP head-final (in line with the standard assumption about Iranian languages; Karimi 2013; Atlamaz 2012; Gündoğdu 2011; Karimi 2019, i.a.). There seems to be object shift making this difficult to determine.

7.1.1 Voice/Passive

Voice is realized overtly in the form of the passive \(-r\dot{e}/-ra\), seen in the following examples:

\[(37)\] de-kuj-r\dot{e}-m.
\text{IND-killPRS-PASS.PRS-1SG}
‘I will be killed.’

\[(38)\] kuj-ra-n.
\text{killPRS-PASS.PST-3PL}
‘They were killed.’

Importantly, the example (38) is past tense, but does not show the expected past stem form (in terms of the Split); this has been noticed:

- Passive and past stem forms do not cooccur.
7.1.2 The \( \text{t} \) morpheme

What is a “past” stem form? We posit an additional head that we give as \( \text{t} \) (Old Persian /\( ta/\)), on account of its origins (Indo-European *-to, -\( ta/\) in Old Persian).

* If we were focussing only on alignment (i.e., on the Split), we would have to specify what \( \text{t} \) does to create Ergative agents in the past tense, and so on. There are a number of options...

For right now, assume that \( \text{t} \) plays a role in making transitive Agents “oblique” when it is present. Structurally:

(39) \( \text{t} \) P

\[
\begin{array}{c}
\text{t} P \\
\text{t} \quad \text{VoiceP} \\
\text{DP} \quad \text{Voice} \\
\text{agent} \quad \text{Voice} \quad vP \\
\text{DP} \quad v \\
\text{patient} \quad \sqrt{\text{ROOT}} \quad v
\end{array}
\]

Important: \( \text{t} \) is only present in the past system (not in the present system).

Continuing with past system verbs, the verb moves up to \( \text{t} \) (at least):

(40) verb movement

\[
\begin{array}{c}
\text{t} P \\
\text{t} \quad \text{VoiceP} \\
\text{Voice} \quad \text{t} \quad \text{DP} \quad \text{Voice} \\
v \quad \text{Voice} \quad \text{agent} \quad \text{Voice} \quad vP \\
\sqrt{\text{ROOT}} \quad v \\
\text{patient} \quad \sqrt{\text{ROOT}} \quad v
\end{array}
\]

When \( v/\text{Voice} \) are not overt, \( \text{t} \) conditions allomorphic changes to the Root that are referred to as “past stem forms”:
We are now in a position to understand why passives only occur with present stems (even when the meaning is that found with a typical past stem distribution): the passive morpheme intervenes:

(42) Root\textsuperscript{\textasciitilde}[pass], [pass]\textsuperscript{\textasciitilde} [\textasciitilde]

Two effects:

1. Default non-past realization of “stem”;
2. Passive is conditioned by [\textasciitilde]: -ra versus -rê

We note that passive allomorphy is determined by [\textasciitilde], not by Tense per se. This is seen in perfects, which show overt Tense—present -ê versus past -bê— and both of these require the past stem:

(43) perfects (present and plusquam)
   a. xward-ê=m-in  
      eat.PST-PERF=1SG.CL-PL
      ‘I have eaten them’
   b. xward-bê=m-in  
      eat.PST-be.PST=1SG.CL-PL
      ‘I had eaten them’

In perfect passives, the present stem is used—however, the passive morpheme is invariant -ra, reflecting presence of [\textasciitilde]:

(44) a. kuj-ra-ê-m  
    kill.PRS-PASS.PST-PERF-1SG
    ‘I have been killed’
   b. kuj-ra-bê-m  
    kill.PRS-PASS.PST-be.PST-PERF-1SG
    ‘I had been killed’

7.1.3 Progressive Aspect

The past stem cooccurs with a prefix de- to produce progressive meanings:

(45) (to) de=t  
    bini-n  
    2SG.pro PROG-2SG.CL see.PST-PL
    ‘You were seeing us.’

As far as we can tell this is immediately above [\textasciitilde]:

21
Important: We are not moving the verb up to Asp; this is going to be part of the analysis of clitic placement.

7.2 Heads whose status wrt Tense is difficult to determine
We could put a few additional heads above or below Tense, with some different interactions with clitic placement that we’ll most likely not get to. We have in mind:

1. A head Σ (cf. Laka 1990), for affirmation/negation
2. A head O, which we are using to cover
   
   (a) The target of Object Shift
   
   (b) The locus of “oblique” (= Ergative or DO/IO, depending on Split) clitics.

For Σ, present system verb forms obligatorily show a de- prefix (glossed IND for ‘indicative’) that is in complementary distribution with ne-/na-, the negative morpheme:

(47) a. (min) de=i śıkên-im.  
    I  IND=3SG.CL break.PRS-1SG  
    ‘I (will) break it.’

b. (min) ne=i śıkên-im.  
    I  NEG=3SG.CL break.PRS-1SG  
    ‘I (will) not break it.’

There’s also a subjunctive prefix be- that is found where de- is realized (hence ‘indicative’ for the latter). Note that indicative de- is only found in the present system.
7.3 Tense
The only overt realization of finite Tense we have found is in perfects, repeated here:

\[(48)\]
\[\begin{align*}
\text{a. } & \text{xward-} \hat{\text{u}}=\text{m-in} \\
& \text{eat.pst-perf=1sg.cl-pl} \\
& \text{‘I have eaten them’}
\end{align*}\]
\[\begin{align*}
\text{b. } & \text{xward-} \text{b} \hat{\text{u}}=\text{m-in} \\
& \text{eat.pst-be.pst=1sg.cl-pl} \\
& \text{‘I had eaten them’}
\end{align*}\]

We’ll have Tense on the right, for reasons we can discuss. [Mostly– we do not believe that
the verbal complex moves that high– this would create issues for the placement of the clitic
inside of prefixes].

Assume that the object moves to $\theta$, and that the subject moves higher than that.

\[(49)\] clause structure

8 Appendix 2: Full Paradigms
8.1 Central Sorani (=∼Sulaymaniah dialect)
Here and below, $\mathfrak{S}$ is where the verb “stem” appears– note that the actual form will differ by
the perfective imperfective distinction.

For the verb $\mathfrak{S}$ ‘see’
(50) Present tense

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<th>3s</th>
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(51) Simple past

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(52) Past Progressive

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8.2 Garmiani

(53) Present tense

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(54) Simple past

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(55) Past progressive

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