Ditransitive person indexing in some Semitic languages

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1. The role of person-role association and fullness-role association in ditransitive marking

1.1. person-role:

(1) French
   a. (1 Recipient, 3 Theme) \( Il \ me=le=prens\text{érer}. \)
   'He will introduce him to me.'
   
   b. (3 Recipient, 1 Theme) \( (*Il lui=me=prens\text{érer}.) \)
   \( Il \ me \ prens\text{érer} \text{ à lui}. \) (special marking)
   'He will introduce me to him.'

1.2. person-fullness:

(2) English
   a. (pro Recipient, full Theme) \( He \ gave \ me \ the \ money. \)
   
   b. (full Recipient, pro Theme) \( (*He \ gave \ his \ sister \ it.) \)
   \( He \ gave \ it \text{ to } his \ sister. \) (special marking)

Generalization:

If the person-role association or the person-fullness association is non-canonical, special marking tends to be required.

(cf. Haspelmath 2004, 2007)

Explanation: Rare expression types require more coding, frequent expression types require less coding (Zipfian economy, cf. Haspelmath 2008b)

Implementation: In diachronic change, the more elaborately coded patterns tend to be restricted to the rarer expression types (differential expansion, Haspelmath 2008a).

Example in this presentation:

The diachronic spread of the Recipient marker \( li- \) and the Theme marker \( iyyaa- \) in some Arabic languages ("dialects"), which tends to be restricted to non-canonical patterns.
2. Ditransitive object marking in older Semitic languages

2.1. Full NPs: double accusative marking

(3) Arabic
ʔaʕṭaa bnat-a-hu nītaaq-an
he.gave daughter-ACC-3SG belt-ACC

'He gave his daughter (R) a belt (T).' (Fischer 2006:171)

2.2. Pronouns: object person indexes

<table>
<thead>
<tr>
<th></th>
<th>Standard Arabic</th>
<th>Akkadian</th>
<th>Hebrew</th>
<th>Amharic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SG</strong></td>
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<tr>
<td>1</td>
<td>-nīi</td>
<td>-ni</td>
<td>-eni</td>
<td>-ńń</td>
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<td>2M</td>
<td>-ka</td>
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<td>-h</td>
</tr>
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<td>-ki</td>
<td>-ex</td>
<td>-š</td>
</tr>
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<td>-hu/-hi</td>
<td>-šu</td>
<td>-o</td>
<td>-w</td>
</tr>
<tr>
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<td>-haa</td>
<td>-ši</td>
<td>-a</td>
<td>-at</td>
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<td></td>
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</tr>
<tr>
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<td>-naa</td>
<td>-niāti</td>
<td>-enu</td>
<td>-n</td>
</tr>
<tr>
<td>2M</td>
<td>-kum(uu)</td>
<td>-kuāti</td>
<td>-xem</td>
<td>-ačč̄hu</td>
</tr>
<tr>
<td>2F</td>
<td>-kunna</td>
<td>-kuāti</td>
<td>-xen</td>
<td></td>
</tr>
<tr>
<td>3M</td>
<td>-hum(uu)</td>
<td>-šunāti</td>
<td>-am</td>
<td>-ačč̄w</td>
</tr>
<tr>
<td>3F</td>
<td>-hunna</td>
<td>-šināti</td>
<td>-an</td>
<td></td>
</tr>
</tbody>
</table>

Some examples of Semitic object suffixes in monotransitive constructions:

(4) a. Arabic (Ryding 2005:306)
ʔaškur-u-ka
1SG.SUBJ-thank-IMPF-2SG.M.OBJ
'I thank you'

b. Akkadian (Gensler 1998:237)
i-šbat-ka
3SG.SUBJ-seize-2SG.M.OBJ
'he seized you'

c. Amharic (Leslau 1995:419)
näggār-ačč-ačč̄hu
tell-3SG.F.SUBJ-2PL.OBJ
'she told you'

(note: – subject indexes may be prefixal or suffixal, object indexes always suffixal;
– object indexes always come at the end of the verb, following subject suffixes)
2.3. Ditransitive constructions with two object indexes: Recipient + Theme

(5)  
(a) Arabic (Fischer 2006:127)
ʔaʕṭa-nii-hi
he.gave-1sg(R)-3sg(T)
'he gave it to me'

(b) Akkadian (Gensler 1998:239)
atrudak-kuš-šu
I.sent-2sg.m(R)-3sg(T)
'I sent it to you'

(c) Ge'ez (= Classical Ethiopic; Gensler 1998:245; Genesis 29:21)
haba-niy-ā
give-1sg(R)-3sg.r(T)
'give her to me'

The more recent Semitic languages (Hebrew, including Biblical; modern Arabic vernacular) all make use of overt markers to some extent, especially:

– dative-marking preposition  li
– accusative-marking preposition  ʔiyyaa-

3. Canonicity in person-role and fullness-role associations

The Person Scale:  1,2 > 3
The Fullness Scale:  personal pronoun > full noun phrase
The Role Scale:  Recipient > Theme

<table>
<thead>
<tr>
<th>canonical association (= &quot;direct pattern&quot;)</th>
<th>balanced association</th>
<th>crossing association (= &quot;inverse pattern&quot;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rec 1,2 3 Thm</td>
<td>Rec 1,2 3 Thm</td>
<td>Rec 1,2 3 Thm</td>
</tr>
<tr>
<td>pro fullNP</td>
<td>pro fullNP</td>
<td>pro fullNP</td>
</tr>
</tbody>
</table>

| Rec 1,2 Thm | Rec 1,2 Thm | Rec 1,2 Thm |
| pro fullNP | pro fullNP | pro fullNP |

| Rec 1,2 Thm | Rec 1,2 Thm | Rec 1,2 Thm |
| pro fullNP | pro fullNP | pro fullNP |
Normal, frequent patterns:  
- show me it  
- give me the money

Unusual, rare patterns:  
- show me to him  
- give it to your sister

(the balancing associations are intermediate, cf. Haspelmath 2004, 2007)

Table 1: English examples of three persons and full NPs associated with two roles

<table>
<thead>
<tr>
<th>Recipient</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>full NP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theme</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>——</td>
<td>me to you</td>
<td>me to him</td>
<td>me to the mother</td>
</tr>
<tr>
<td>2</td>
<td>you to me</td>
<td>——</td>
<td>you to him</td>
<td>you to the mother</td>
</tr>
<tr>
<td>3</td>
<td>it to me</td>
<td>it to you</td>
<td>it to him</td>
<td>it to the mother</td>
</tr>
<tr>
<td>full NP</td>
<td>the boy to me</td>
<td>the boy to you</td>
<td>the boy to him</td>
<td>the boy to the mother</td>
</tr>
</tbody>
</table>

Table 2: Canonical, crossing and balanced associations of person and role

<table>
<thead>
<tr>
<th>Recipient</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>full NP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theme</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>person-balanced</td>
<td>me to you</td>
<td>me to him</td>
<td>me to the mother</td>
</tr>
<tr>
<td>2</td>
<td>person-crossing</td>
<td>you to me</td>
<td>you to him</td>
<td>you to the mother</td>
</tr>
<tr>
<td>3</td>
<td>person-balanced</td>
<td>it to me</td>
<td>it to you</td>
<td>it to him</td>
</tr>
<tr>
<td>full NP</td>
<td>person-canonical</td>
<td>the boy to me</td>
<td>the boy to you</td>
<td>the boy to him</td>
</tr>
</tbody>
</table>

Table 3: Canonical, crossing and balanced associations of person and fullness

General prediction:  
- canonical patterns should be shortest,  
- crossing patterns should be longest,  
- balanced patterns should be intermediate

(because the most frequent forms should be the shortest)
4. Classical and Standard Arabic

4.1. Classical Arabic

The double-index pattern of (5a) is restricted to person-canonical associations (Sibawayh 790, cited after Gensler 1998; Haspelmath 2004):

(6) a. (1-3) ʔaʕaًا-kumuu-haa
   we.gave-2PL.M-3SG.F
   'we gave her to you(pl)' (Fischer 2006:127)

When the association is person-balanced or person-crossing, the accusative (Theme-marking) preposition ʔiyyaa- must be used (special marking in non-canonical context):

(7) a. (3-3) biʕtu-hu ʔiyyaa-hu
   I.sold-3SG.M ACC-3SG.M
   'i sold it to him' (Reckendorf 1895:394)

b. (3-1) ʔasʕaa-haa ʔiyyaa-ya
   he.gave-3SG.F ACC-1SG
   'he gave me to her' (Fischer 2006:128)

(ʔiyyaa- only occurs with pronominal themes, never with full NPs.)

Summary table:
4.2. Modern Standard Arabic

Object indexing is even more restricted:
The association must be both person-canonical (1/2-3) and fullness-canonical (pro-fNP):

(8) (1-fNP) ʔinna-ka  lam  tušti-nii  nasl-an
       lo-2SG  not  you.gave-1SG  offspring-ACC
'You have not given me offspring.' (Genesis 15:3)

When the pattern is only person-canonical, but both objects are pronominal (= "fullness-balanced"), the accusative marker ʔiyyaa- is used:

(9) (1-3) ʔahdaa-nii  ʔiyyaa-haa
      he-presented-1SG  OBJ-3SG.F
'he presented her to me' (Ryding 2005:308)

In fullness-crossing patterns (Theme pronoun, Recipient full NP), the object index expresses the Theme, while the Recipient is expressed by li-:

(10) a. (fNP-3) wa-xalaʕa  Yuunaaəaʔaanu  jubbata-hu  wa-wahaba-haa  li-Daawuda
      and-took.off  Jonathan  robe-3SG.M  and-gave-3SG.F  to-David
      'and Jonathan took off his robe and gave it to David' (1 Sam 18:4)

      b. (fNP-3) ʔaʃṭaa-haa  li-yulaamin
      he.gave-3SG.F  to-servant
      'he gave it to a servant' (Genesis 18:7)

Summary table:

<table>
<thead>
<tr>
<th>Theme</th>
<th>Recipient</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>full NP</th>
</tr>
</thead>
<tbody>
<tr>
<td>full NP</td>
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<td></td>
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<tr>
<td>1</td>
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<td>♣</td>
<td>♣</td>
<td>♣</td>
<td>♣</td>
</tr>
<tr>
<td>2</td>
<td>ʔiyya</td>
<td></td>
<td>♣</td>
<td>♣</td>
<td>♣</td>
</tr>
<tr>
<td>3</td>
<td>♣</td>
<td>ʔiyya ♣</td>
<td>ʔiyya ♣</td>
<td>♣</td>
<td>♣</td>
</tr>
</tbody>
</table>

The construction with li- is also used when the Recipient is in focus:

(11) sa-ʔuʃṭii-haa  la-ka...
      FUT-I.give-3SG.F  to-you
      '(all the land that you see,) I will give it to you (and your offspring)'

Thus, Standard Arabic is not unlike English:

give the boy some money  vs.  give the money to a boy

give me the money  vs.  give the money TO ME

%give me it (vs. *give her me) vs.  give it to me
5. Syrian Arabic

Special marking by dative preposition li/la is extended even further (Cowel 1964): All Standard Arabic structures are possible, but in addition:

• the preposition li- can be used interchangeably with the double-object pattern with two full NPs

(12) Syrian Arabic (Cowell 1964:439)
   a. baaʕ əbν-o  l-beet
      he.sold  son-3SG.M  ART-house
      'he sold his son the house'

   b. baaʕ  l-beet  laʔbν-o
      he.sold  ART-house  to-son-3SG.M
      'he sold the house to his son'

(Actually, since the pattern in (11a-b) is not described well in grammars of Standard Arabic, it may well be that this is possible in Standard Arabic as well.)

• the preposition li- plus pronominal suffixes has been agglutinated to the verb, as a kind of "dative object suffix":

(13) qaalat-lo bunt-o  (=Standard qaalat la-hu bintu-hu)
      said-to.him  daughter-3SG
      'his daughter said to him' (Cowell 1964:482)

• these new "dative object indexes" are treated just like the old object indexes: The theme is expressed by the object marker yaa- (= Standard ʔiyaa-):

(14) a. (2-3) ʔana b-ʔab-lak  yaa
      I  FUT-bring-to.you  OBJ-3SG
      'I'll bring it to you' (Cowell 1964:545)

   b. (1-2) ʔalla  yxallii-hna  yaa-k
      God  he.keep-to.us  OBJ-2SG.M
      'God keep you for us.' (Cowell 1964:545)

(The difference between the old object suffixes and the li-based object suffixes seems to be lexically based, cf. ʕataa-nii yaa-ha 'he gave me it, p. 439.)

Summary table:

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<th>1</th>
<th>2</th>
<th>3</th>
<th>full NP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(-l) yaa</td>
<td>(-l) yaa</td>
<td>la-</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>(-l) yaa</td>
<td>(-l) yaa</td>
<td>la-</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>(-l) yaa</td>
<td>(-l) yaa</td>
<td>la-</td>
<td></td>
</tr>
<tr>
<td>full NP</td>
<td>(-l)</td>
<td>(-l)</td>
<td>(-l)</td>
<td>(la-)</td>
</tr>
</tbody>
</table>
Aleppo (and elsewhere):

Special marking of pronominal Theme in non-canonical patterns is not through an accusative preposition, but through the independent pronoun:

\[
\text{ẖæbū-lo-hūwe} \\
\text{they.brought-to.him-IT} \\
\text{'they brought it (m) to him'} \quad (\text{Retsō 1987, Correll 1974})
\]

\[
\text{ʕaṭī-yo hīye} \\
\text{give-them IT} \\
\text{'give it (r) to them'}
\]

Again, it is longer than the simple suffix form, though in a different way.

6. Northern African Arabic

In Northern African varieties of Arabic (from Egypt to Morocco, also in Maltese), the suffixed -l-forms come after the old object suffixes (clearly developed from something like ex. 11):

(15) Egyptian Arabic (Woidich 2006:42)

a. (1-3) \text{gab-hum-li} \\
\text{he.brought-3PL.M-to.me} \\
\text{'he brought them to me'}

b. (3-3) \text{gab-hu-lha} \\
\text{he.brought-3SG.M-to.her} \\
\text{'he brought him/it to her'}

But again, this construction is restricted to a canonical association: It is possible only when the Theme is 3rd person.

Otherwise, the suffixed l-form cannot be used, and special marking (a free li-form) must be used:

(16) Moroccan Arabic (Harrell 1962:139-140)

a. (2-1) \text{guddem-ni} \quad \text{li-l-ek} \\
\text{he.introduced-1SG to-2SG} \\
\text{'he introduced me to you'}

b. (3-2) \text{guddem-t-kom} \quad \text{li-l-ha} \\
\text{I.introduced-2PL to-3SG.F} \\
\text{'I introduced you(PL) to her'}
Again, person-balanced and person-crossing patterns do not allow the simple affixed forms, as in Classical Arabic, even though the -l-suffixes represent a newly grammaticalized "generation" of forms. The -l-suffixes are possible only with forms that are person-canonical or fullness-canonical, plus the 3pro-3pro pattern (which is person-balanced and fullness-balanced).

Summary table:

<table>
<thead>
<tr>
<th>Theme</th>
<th>Recipient</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>full NP</th>
</tr>
</thead>
<tbody>
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<td></td>
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<td>li-</td>
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<tr>
<td>3</td>
<td>-l</td>
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<td></td>
<td></td>
<td>li-</td>
</tr>
<tr>
<td>full NP</td>
<td>(-l)</td>
<td></td>
<td></td>
<td></td>
<td>(li-)</td>
</tr>
</tbody>
</table>

7. Baghdad Arabic and Cypriot Arabic

7.1. Baghdad

Baghdad Arabic is like Syrian Arabic in that it uses (the reflex of) ?iyyaa- for the person-balanced and person-crossing patterns.

However, Baghdad Arabic is more advanced in that this form (-yyæ) has become an affix:

(17) Baghdad Arabic (Malaika 1963:12, 63)

a. (1-3)  
dizz-li-yyæha
send-1SG.DAT-3SG.F.ACC
'send her to me!'

b. (3-3)  
ahçii-lkum-iyyæhæ
I.tell-2PL.DAT-3SG.F.ACC
'I will tell it to you(PL)'

c. (1-3)  
šawweftuu-nae-yyæ
you.showed-1PL.OBJ-3SG.M.ACC
'you(PL) showed him to us'

(Incidentally, this leads to a kind of tripartite pattern of alignment of the object indexes (cf. Haspelmath 2005 for "ditransitive alignment"):  

monotransitive Patient: old Arabic object suffixes
ditransitive Recipient: l-based suffixes
ditransitive Theme: ?iyyaa-based suffixes)
7.2. Cyprus

In Cypriot Arabic, the same development has taken place:

(18) Cypriot (Kormakiti) Arabic (Borg 1985:140)
   a. (2-3) \textit{plaki-lkon-yaxa}
      \textit{I.find-2PL.DAT-3SG.F.ACC}
      'I find it for you'
   b. (3-3) \textit{žift-il-yaxa}
      \textit{I.brought-3SG.M.DAT-3SG.F.ACC}
      'I brought it to him'

Moreover, in Cypriot it is clear from Borg's (1985:140) description that the pattern is restricted to canonical forms — only with third-person themes, like Northern African \textit{-l}-suffixes. (This is less clear for Baghdad Arabic, because Malaika's 1963 information is somewhat contradictory, cf. p. 12 vs. p. 64).

(Borg does not say how person-balanced and person-crossing patterns ('I give you to him' etc.) are expressed in Cypriot Arabic, but we can assume that some kind of new periphrastic expression is involved.)

At this stage of the language, the \textit{-l}-based "dative object suffixes" and the \textit{iyyaa}-based "accusative object suffixes" can be considered simple forms.

Summary table:

<table>
<thead>
<tr>
<th>Theme</th>
<th>Recipient</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>full NP</th>
</tr>
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<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>1</td>
<td>periphr.</td>
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<td>l-</td>
<td></td>
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<tr>
<td>2</td>
<td>periphr.</td>
<td>periphr.</td>
<td>l-</td>
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<tr>
<td>3</td>
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<td>l-</td>
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<td>full NP</td>
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<td>(l-)</td>
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</tbody>
</table>

The summary table shows a picture that is quite similar to the Classical Arabic picture: The forms that do not require special marking are the ones that are person-canonical or fullness-canonical or both (or 3pro/3pro).
12. Conclusion

- In all Arabic dialects, and in all languages in general, argument marking (and pronominal indexing in particular) is shortest with canonical patterns and longest with crossing patterns.

- In the Arabic dialects, we observe how various longer forms spread by grammaticalization and finally become agglutinated, thus becoming short forms again.

- In particular, we see the Recipient marker li- and the Theme marker ?iyyaa- spread. After they have become agglutinated, they are again restricted to the more canonical patterns.

- This development must be driven by the functional factor of frequency-based economy: The most frequent forms are expressed by the least complex forms.
References


