A typological gap in ditransitive constructions: no secundative case and indirective agreement

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1 Alignment in ditransitives

Outline and claims

Alignment in ditransitives

Like (in)transitives, ditransitives show different alignment patterns in case and agreement. Not all combinations are attested.

Explaining the gap

This gap is not accidental. It follows from locality, hierarchical syntactic structure and the case hierarchy.

Apparent exceptions?

Information structure (IS) and φ-features seem to allow violations of the locality of agreement.

Indirective or direct object alignment

(1) a. Lát-ja [p a kutyá-t ]
    see-3sg.sbj>3.obj the dog-acc
    ‘S/he sees the dog.’
b. \[[_{R} \text{Neked}] \quad ad-ja \quad [_{T} \text{a} \quad \text{kutyá-t}]\]  
you.SG.DAT give-3SG.SBJ>3.OBJ the dog-ACC  
'S/he gives you the dog.'

Monotransitive, (1a):

Ditransitive, (1b):

Figure 1 Indirective alignment (ICIA)

Secundative or primary object alignment

(2) a. \[\text{Ciq'aamqal-nim} \quad \text{pee-t'w'ehke'yk-se-Ø} \quad [_{P} \text{picpic-ne}]\].  
dog-ERG 3/3-chase-IPFV-PRS cat-ACC  
'The dog is chasing the cat.'  
(Deal 2013: 396)

b. \[\text{Beth-nim} \quad \text{hi-neec'-ni-Ø-ye}\]  
Beth-ERG 3.SBJ-OBJ.PL-give-PFV-REM.PST two kitten-ACC  
hipt]  
food.NOM  
'Beth gave the two kittens food.'  
(Deal 2019: 393)

Monotransitive, (2a):

Ditransitive, (2b):

Figure 2 Secundative alignment (SCSA)
Mixed alignment: neutral case, secundative agreement

(3) a. \textit{Lemma} \textit{\[p gənzəb-u-n \]} \textit{sərrək’-ə-w.} \textit{[Amharic]}
   Lemma.m money.m-DEF-ACC rob-3.m.SBJ-3.m.OBJ
   ‘Lemma stole the money.’ (Baker 2012: 261)

   b. \textit{Lemma} \textit{\[R Aster-in \]} \textit{\[T his’an-u-n \]} \textit{asaj-at.}
   Lemma.m Aster.f-ACC baby-DEF-ACC show.3.m.SBJ-3.f.OBJ
   ‘Lemma showed Aster the baby.’ (Baker 2012: 258)

Monotransitive, (3a):

Ditransitive, (3b):

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{figure3.png}
\caption{Neutral case, secundative alignment (NCSA)}
\end{figure}

Mixed alignment: indirective case and secundative agreement

(4) a. \textit{Lemma} \textit{\[p gənzəb-u-n \]} \textit{sərrək’-ə-w.}
   Lemma.m money.m-DEF-ACC rob-3.m.SBJ-3.m.OBJ
   ‘Lemma stole the money.’

   b. \textit{Lemma} \textit{\[R l-Almaz \]} \textit{\[T tarik-u-n \]} \textit{naggər-at.}
   Lemma.m DAT-Almaz.f story.m-DEF-ACC tell.3.m.SBJ-3.f.OBJ
   ‘Lemma told Almaz the story.’ (Baker 2012: 261)

Monotransitive, (4a):

Ditransitive, (4b):

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{figure4.png}
\caption{Indirective case, secundative alignment (ICSA)}
\end{figure}
Distribution of alignment in case and agreement

- Four logical ways of combining secundative/neutral and indirective case and agreement alignment in languages with one instance of object agreement
- Three types are found all over the world (Dryer 1986, Haspelmath 2005)
- One type is missing (cf. Faltz 1978, Haspelmath 2013, Bárány 2017)

<table>
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2 Explaining the gap

Assumptions about ditransitives

Assumption 1 The agreeing head c-commands both R and T

Assumption 2 R c-commands T, cf. (5) and (6) (Barss & Lasnik 1986, Harley 2002, …)

(5) WCO effect due to movement of T over R (Amharic, Baker 2012: 266)

\[ ?^* \text{Nərs-wa} \quad [_{T} \text{his}^{an}] \quad [_{R} \text{lo-innat-u}] \quad t-asaj-\text{at-all-atfif}. \]

‘The nurse showed a baby to its mother (e.g., shortly after the delivery).’

(6) R binding pronoun in T (Nez Perce, Deal 2013: 397)

\[ P.-\text{nim}_i \quad \text{pee-kiwyek-Ø-e} \quad [_{R} \text{Elwit’et-ne}_j] \quad [_{T} \text{'ip-nim}_i/\text{j hipt}] \].

‘Pinooc fed Elwit’et her/his food.’

Assumptions: Morphological case and agreement

Assumption 3 Interaction of m-case and agreement follows the case hierarchy

- In IC, if the verb cannot agree with DAT object: indirective agreement
- If the verb can agree with DAT object: secundative agreement (Table 1)
- In SC/NC, ABS/ACC must be accessible: secundative agreement (Table 2)
  → Case hierarchy: NOM/ABS > ACC/ERG > DAT > OBL > …
  → Indirective agreement, i.e. with T, should be impossible (due to locality)
EXPLAINING THE GAP

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Table 1  Variation in accessibility of r’s m-case in IC

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Table 2  No variation in accessibility of r’s m-case in SC/NC

Ruling out secundative case and indirective agreement
✓ These assumptions rule out secundative case and indirective agreement

Empirical support
• Structural explanation makes the right predictions
• Sample of 76 genera (97 languages), see Figure 5
  – ICIA: 10 Ls, ICSA: 17 Ls, SCSA: 16 Ls, NCSA: 54 Ls
✓ Secundative or neutral case always allow secundative agreement
Figure 5  Areal distribution of languages in sample
3 Apparent exceptions

Skipping accessible goals

In some languages, R is skipped under certain conditions and the verb agrees with T — even though R’s case is accessible for agreement.

- 15 of 97 languages (12 of 76 genera) in my sample show such alternations

♀ Competition between objects in person and/or information structure?

♀ Movement of T over R?

♀ Probe on Appl instead of v (cf. Bossi 2020)?

Information structure determining agreement alignment

In Itelmen (Chukotko-Kamchatkan), salience determines object agreement

(7) a. Context: My brother came. [Itelmen]
    i kma [R ənna-nk ] [T βaɬč ] t-zəl-nen.
    and I him-DAT knife 1SG.SBJ-give-3SG.OBL
    ‘And I gave the knife to him.’

(7) b. Context: Where is the knife?
    qetnu [R zlatumx-enk ] t-zəl-čen?
    really brother-DAT 1SG.SBJ-give-1SG.SBJ->3SG.OBJ
    ‘Didn’t I give it to my brother?’ (Bobaljik & Wurmbrand 2002: 17)

Person determining agreement alignment

In Alutor and Chukchi (Chukotko-Kamchatkan), person determines agreement

- give agrees with the highest object on 1 > 2 > 3 or with T if both are 3

♀ Other verbs do not agree with DAT NPs (Comrie 1980, Mel’čuk 1988)

(8) a. Secundative agreement with 1SG R [Alutor]
    əllay-a Ø-inə-jəl-i [R ənəmək-əŋ ] [T əttə ]
    father-ERG 3SG.SBJ-1SG.OBJ-give-3SG.SBJ 1SG-DAT 2SG.ABS
    ‘Father gave you as a wife to me.’

b. Indirective agreement with 1SG T
    əllay-a Ø-inə-jəl-i [R ənəmək-əŋ ] [T əməmə ]
    father-ERG 3SG.SBJ-1SG.OBJ-give-3SG.SBJ 2SG-DAT 1SG.ABS
    ‘Father gave me as a wife to you.’ (Mel’čuk 1988: 294–295)
Symmetric object agreement with interaction and satisfaction

- Symmetry can be captured with interaction and satisfaction features (Deal 2015)
  - **Interaction** (INT) features value a probe, but do not halt probing
  - **Satisfaction** (SAT) features halt a probe
  - In Itelmen, probes are sensitive to δ-/A’-features (cf. Miyagawa 2017, Baier 2018)


   ![Diagram](image)

b. Context: *Where is the knife?*

   ![Diagram](image)

(10) a. Context: *And I gave the knife to him.*

   ![Diagram](image)

b. Context: *Didn’t I give it to my brother?*

   ![Diagram](image)
“Apparent” exceptions

Why are these only apparent exceptions?
• In Itelmen, Alutor, Chukchi etc. non-local agreement is only an option
• Agreement with T across R requires something additional: φ-features, TOP, ...?

Such features introduce asymmetry
No language only allows agreement with T across an accessible R
For true indirective agreement alignment, R’s case must inaccessible

4 Analogues in monotransitives

A gap in monotransitives
Moravcsik (1978), Bobaljik (2008) point out an analogous gap in monotransitives
• In ERG-ABS languages, not all ERG subjects can agree
• In NOM-ACC languages, the subject always agrees

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</thead>
<tbody>
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<td>✓ (English, Finnish)</td>
</tr>
<tr>
<td>Ergative agreement</td>
<td>✗</td>
</tr>
</tbody>
</table>

• Bobaljik (2008), Coon (2017), Coon & Parker (2019) have analyses of the gap

Are there apparent exceptions to the monotransitive generalisation?

Exceptions to Moravcsik/Bobaljik’s generalisation: person

Verbs can agree with SBJ or OBJ, based on their person

(11) a. na-bórrū-ke vs. (unũ) a-yá-ke
    1SG.SBJ-riddle-AOR s/he 3SG.SBJ>1SG.OBJ-hit-AOR
    ‘I riddled (sth.).’ vs. ‘S/he hit me.’ (Böh 1984: 13, 14)

b. ni-wa:bm-â-ina:n vs. ni-wa:bm-igmw-ina:n
    1-see-3.OBJ-1PL 1-see-INV-1PL
    ‘We see her.’ vs. ‘She sees us.’ (Oxford 2019: 964)

Inverse agreement, generally, can represent “apparent” exceptions in person
Exceptions to Moravcsik/Bobaljik’s generalisation: IS

In Dzamba theme inversion, the verb agrees with a topical obj

(12) a. Agreement with A, SVO order

\[ \text{[A Omwana] a-tom-aki [P imukanda].} \]

\begin{tabular}{ll}
  1.child & 1.SM-send-PFV & 5.letter \\
\end{tabular}

‘The child sent a letter.’

b. Agreement with P, OVS order

\[ \text{[P Imukanda] mu-tom-aki [A omwana].} \]

\begin{tabular}{ll}
  5.letter & 5.SM-send-PFV & 1.child \\
\end{tabular}

‘The letter, the child sent it.’

(Henderson 2011: 743)

? But: theme inversion is not very productive?

? Maybe Philippine-type Austronesian languages (Chen 2020)?

5 Conclusions

Conclusions and outlook

• Case and agreement in ditransitives do not vary freely

✓ With secundative or neutral case, secundative agreement is always possible

✓ Locality, case, person, and information structure determine controllers

✓ Parallels between higher (T) and lower (v) agreement domains

✓ Solid typological evidence compatible with R c-commanding T

? “Exceptional” languages: movement? Probes on different heads?

? Are there analogous exceptions in the T domain?

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Abbreviations
References


REFERENCES


A Appendix

Modelling indirective case and indirective agreement

In ICIA languages, the verb can only agree with ACC/ABS T, not DAT R.
Modelling indirective case and secundative agreement

If DAT arguments can control agreement, the verb will agree with R rather than T.

Modelling secundative case and secundative agreement

In SC, R’s case is the same as P’s: R can control agreement, but not T.

Accessibility and the case hierarchy
Only certain (morphological) cases are accessible for agreement in each language

- Accessibility follows a hierarchy or sequence (Caha 2009, 2013, Harðarson 2016)

(13) **Cumulative case decomposition** (Caha 2009, 2013)

\[
\text{ NOM/ABS } = \{A\} \subset \text{ ACC } = \{A, B\} \subset \text{ GEN } = \{A, B, C\} \subset \text{ DAT } = \{A, B, C, D\} \subset \ldots
\]

(14) **Blocking of agreement** (Bárány 2015: 230, 2017: 161)

If a given set \( \kappa \) of case features includes a feature \([\alpha]\) which blocks agreement, any superset of \( \kappa \) will block agreement as well. Sets not including \([\alpha]\) do not block agreement.

**Alutor/Chukchi object agreement**

In Alutor and Chukchi, person determines agreement with the verb *give*

(15) a. əlləɣ-a Φ*ina-jal-i* [\( R \) yəmək-əŋ ] [\( T \) yatta] [Alutor]

father-ERG 3SG.SBJ-1SG.OBJ-give-3SG.SBJ 1SG-DAT 2SG.ABS
‘Father gave you as a wife to me.’

b. əlləɣ-a Φ*ina-jal-i* [\( R \) yənək-əŋ ] [\( T \) yəmma]

father-ERG 3SG.SBJ-1SG.OBJ-give-3SG.SBJ 2SG-DAT 1SG.ABS
‘Father gave me as a wife to you.’

c. əlləɣ-a Φ*jal-nina-wwi* [ ηənək-əŋ ] [\( T \) šininkina-wwi]

ŋavakka-wwi

father-ERG 3SG.SBJ-give-3.OBJ-PL he-DAT his-PL.ABS
‘Father gave his daughters as wives to him.’ (Mel’čuk 1988: 294–295)

(16) a. 

\[
\begin{array}{c}
\left[ u \phi \right]
\varepsilon
\end{array}
\]

\[
\begin{array}{c}
\text{App\( p \)}
\end{array}
\]

\[
\begin{array}{c}
\text{Valuation Probing,}
\end{array}
\]

\[
\begin{array}{c}
\text{DP}_R
\end{array}
\]

\[
\begin{array}{c}
\left[ \phi \right]
\end{array}
\]

\[
\begin{array}{c}
\text{App\( l \)}
\end{array}
\]

\[
\begin{array}{c}
\text{VP}
\end{array}
\]

\[
\begin{array}{c}
\text{INT } = \{ \phi \}, \text{ SAT } = \{ 1 \}
\end{array}
\]

\[
\begin{array}{c}
v \text{ probes, finds } R
\end{array}
\]

\[
\begin{array}{c}
R \text{ has } \phi \in \text{ INT}
\end{array}
\]

\[
\begin{array}{c}
v \text{ continues, probes } T
\end{array}
\]

\[
\begin{array}{c}
T \text{ has } \phi \in \text{ INT, SAT}
\end{array}
\]

\[
\begin{array}{c}
\checkmark \ 1 > 2, \ 1 \text{ values } v, (15b)
\end{array}
\]
The INT/SAT model allows probes to agree several times:

- φ-features of different arguments are ordered \( \langle \phi_R, \phi_T \rangle \) (cf. Deal 2015)
- For Alutor/Chukchi, I assume that...
  - ... either the higher φ-feature values \( v \) (1 > 2 > 3),
  - ... or the last one to value \( v \) (if both are 3)

\[ \text{v must halt after not finding goals other than } R \text{ and } T \]

An alternative is Cyclic Agree with a probe on Appl (Béjar & Rezac 2009)

- Appl probes downwards first, is valued by \( T \)
- “Cyclic expansion”: Appl probes \( R \)

\[ \text{R only values } v \text{ if it’s features are higher than } T \]

On Deal’s (2015) approach, as far as I understand, subset/superset relations between the φ-features of arguments do not determine which values are copied onto the probe. This differs from Béjar & Rezac’s (2009) Cyclic Agree, where only supersets of φ-features can value a probe that has already been valued.

These two approaches make different predictions for combinations of third person features. On the Cyclic Agree view, an Appl head that probes a third person \( T \) first will fail to be valued by a third person \( R \) (as is the case in Alutor and Chukchi). On the interaction/satisfaction view, the head will take on both third person features sets and must make a decision — in absence of a subset/superset relation between the feature sets, this decision is stipulated (e.g. the last element in the tuple of values).

Another question concerns the lexical variation: Comrie (1980), Melčuk (1988) point out that in Alutor and Chukchi only the verbs meaning ‘give’ can agree with a DAT object. One possibility, in need of independent evidence, could be that these verbs select a DP with DAT, while other verbs have PP objects that are spelled out identically.
List of languages (genera; families)

Orange languages have non-local agreement

ICIA (10 languages/10 genera) Gorwaa (Southern Cushitic; Afro-Asiatic), Hungarian (Ugric; Uralic), Khwarshi (Avar-Andic-Tsezic; Nakh-Daghestanian), Mekens (Tupari; Tupian), Moksha (Mordvin; Uralic), Puinave (Puinave; Puinave), Tiriýó (Cariban; Cariban), Ughele (Oceanic; Austronesian), Xavânte (Ge-Kaingang; Macro-Ge), Yanomama (Yanomam; Yanomam)

ICSA (17 languages/15 genera) Alutor (Northern Chukotko-Kamchatkan; Chukotko-Kamchatkan), Amharic (Semitic; Afro-Asiatic), Arramba (Tonda; Yam), Bantawa (Mahakiranti; Sino-Tibetan), Chukchi (Northern Chukotko-Kamchatkan; Chukotko-Kamchatkan), Gidar (Biu-Mandara; Afro-Asiatic), Ilke (Arhuac; Chibchan), Itelmen (Southern Chukotko-Kamchatkan; Chukotko-Kamchatkan), Jingulu (Jingulu; Mirndi), Kanuri (Western Saharan; Saharan), Komnzo (Morehead and Upper Maro Rivers; Yam), Kwomtari (Kwomtari; Kwomtari-Baibai), Mauwake (Madang; Trans-New Guinea), Menya (Angan; Trans-New Guinea), Ngkolmpu (Morehead and Upper Maro Rivers; Yam (Morehead-Maro)), Podoko (Chadic; Afro-Asiatic), Yauyos Quechua (Quechuan; Quechuan)

SCSA (16 languages/12 genera) Aguaruna (Jivaroran; Jivaroran), Awa Pit (Barbacoan; Barbacoan), Greenlandic (West) (Eskimo; Eskimo-Aleut), Jaqaru (Aymaran; Aymaran), Kham (Mahakiranti; Sino-Tibetan), Khanty (Eastern) (Ugric; Uralic), Khanty (Northern) (Ugric; Uralic), Kwaza (Kwaza; Kwaza), Mansi (Northern) (Ugric; Uralic), Nez Perce (Sahaptian; Sahaptian), Nlaka’pamux (Interior Salish; Salishan), Selkup (Samoyedic; Uralic), Squamish (Central Salish; Salishan), Tundra Nenets (Samoyedic; Uralic), Wari’ (Chapacua-Wanham; Chapacua-Wanham), Yup’ik (Central) (Eskimo; Eskimo-Aleut)

NCSA (54 languages/45 genera) Alamblak (Sepik Hill; Sepik), Apurinã (Purus; Arawakan), Bagirmi (Bongo-Bagirmi; Central Sudanic), Barai (Koian; Trans-New Guinea), Beja (Beja; Afro-Asiatic), Bembe (Bantu; Niger-Congo), Bininj Gun-Wok (Gunwinygic; Gunwinyguan), Chayahuita (Balsapuerto) (Chayahuita; Cahuapanan), Chimariko (Chimariko; Hokan?), Chintang (Mahakiranti; Sino-Tibetan), Cree (Plains) (Algonquian; Algic), Huichol (Corachol; Uto-Aztecan), Itonama (Itonama; Itonama), Jaminjung (Jaminjungan; Mirndi), Jumjun (Western Nilotic; Nilotic), Keres (Laguna/Western) (Keresan; Keresan), Ket (Yeniseian; Yeniseian), Korumù (Kesawai) (Madian; Trans-New Guinea), Kunama (Kunama; Kunama), Lango (Nilotic; Eastern Sudanic), Maba (Maban; Maban), Malakmalak (Northern Daly; Northern Daly), Mapudungun (Araucanian; Araucanian), Mawng (Iwaidjan; Iwaidjan), Miskito (Misumalpan; Misumalpan), Mooré (Gur; Niger-Congo), Mosétén (Mosetenan; Mosetanen), Motuna (East Bouganville; East Bouganville), Movima (Movima; Movima), Murle (Surmic; Eastern Sudanic), Nabak (Finisterre-Huon; Trans-New Guinea), Nahuatl (Huasteca) (Aztec; Uto-Aztecan), Nahuatl (Orizaba) (Aztec; Uto-Aztecan), Nandi (Nilotic; Eastern Sudanic), Nasioi
(East Bouganville; East Bouganville), Oaxaca Chontal (Lowland) (Tequistlatecan; Tequistlatecan) Ojibwa (Central) (Algonquian; Algic), Palauan (Palauan; Austronesian), Pima Bajo (Tepiman; Uto-Aztecan), Pipil (Nawat) (Aztecan; Uto-Aztecan), Purépecha (Tarascan; Tarascan), Sentani (Sentani; Sentani), Tauya (Madang; Trans-New Guinea), Teop (Oceanic; Austronesian), Turkana (Nilotic; Eastern Sudanic), Tzotzil (Mayan; Mayan), Wambaya (Wambayan; Mirndi), Wampis (Jivaroan; Jivaroan), Waray (Warayic; Gunwinyguan), Wichi (Mataguayo; Matacoan), Yakkha (Mahakiranti; Sino-Tibetan), Yukulta (Tangkic; Tangkic), Yurok (Yurok; Algic), Zulu (Bantu; Niger-Congo)

SCIA (0), NCIA (0)

NB: the total number of genera in the sample is smaller than summing genera per alignment type because languages from the same genera can be in different categories (e.g. Ugric in ICIA and SCSA)