ARGUMENT ENCODING IN TWO-TERM CASE SYSTEMS:
POSSIBLE NEUTRALIZATIONS AND THEIR IMPLICATIONS

Introduction
Previous studies of 2-case systems: very scarce (cf. Arkadiev 2008a, 2008b), as well as mentions in general literature on case, e.g. Blake 2001/1994 or Mel’čuk 2006.

* a new and important field of research.

What is a 2-case system?

1. only two grammaticalized case markers (one of them may be and usually is zero): Dir(ect) and Obl(ique);
2. cases must express semantico-syntactic roles of arguments in sentences (so, Swedish with a Genitive vs. a ‘general’ case does not count);
3. less clear situations (case expressed only with pronouns; case expressed by clitics etc.; multilayered case systems like in Indo-Aryan etc.).

Two-term case systems in the world’s languages (a preliminary survey):

1. Europe: Indo-European:
   1.1. Romance: Old French, Old Provençal, Romanian
   1.2. Germanic: English (pronouns), Continental Scandinavian dialects
2. Asia: Indo-European:
   2.1. Indo-Iranian: Iranian, Dardic, Nuristani, some Indo-Aryan languages
   2.2. Burushaski
   2.3. North-West Caucasian: Adyghe, Kabardian
3. Africa:
   3.1. Semitic: Amharic, Ge’ez, Harari etc.
   3.2. Berber: Kabyle, Tamazight, Tachelhit etc.
   3.3. Cushitic: Somali, Oromo, Gidole etc.
   3.4. Nilotic: Maasai, Nandi, Päri etc.
4. America:
   4.1. Salish: Squamish, Shuswap, Halkomelem, Saanich etc;
   4.2. Tsimshianic (with proper names only)
   4.3. Chinook (?)
   4.4. Muskogeans: Choktaw
   4.5. Uto-Aztecan: Yaqui, Chemehuevi, Hopi
   4.6. Chibchan: Teribe
   4.7. Eskimo-Aleut: Aleut
   4.8. Amazonian: Movima (unclassified)
   4.9. Panoan: Matís
5. Australia & Oceania:
   5.1. Austronesian: Nias (Malayo-Polynesian, near Sumatra), probably some others
   5.2. Papuan: Yimas (Sepik-Ramu), probably some others
   5.3. Australia: Maung (Yiwaidjan)

Number of known languages: ca. 75.

* 2-case systems are quite widespread.
2. A functional typology of two-term case systems

How does a minimal case system structure the universal semantic field of case functions?

- ‘core’ functions (cf. Dixon 1994): A(gent of a transitive verb), P(atient of a transitive verb), S(ole argument of an intransitive verb); also Pred (nominal predicate), Top(ic);
- ‘peripheral’ functions: Rec(pient), Poss(essor in an NP), Loc(ation), Goal, Temp(oral extent/point), Manner, Ins(trument), Com(itative) etc.

Two principal parameters of variation:

- the case zone: the range of functions covered in a particular language by cases (and not by adpositions);
- the distribution of functions from the case zone among the two cases.

Major types of 2-case systems:

1. narrow systems, where the case zone includes only the core semantico-syntactic relations (Wakhi, Panjabi, Interior Tsimshian);
2. intermediate systems, where the case zone includes the core relations and only one or two peripheral functions (Maung, Berber, Norwegian dialects, Aleut);
3. broad systems, where the case zone includes the core relations and many peripheral functions (the overwhelming majority):
   3.1. distributing systems, where both cases have core as well as peripheral functions (Kati, Yaghnobi, Nias);
   3.2. dividing systems, where (almost) all peripheral functions are attributed to a single case (usually Oblique), which may also have some core functions (the overwhelming majority).

Minimal systems tend to express many different functions, showing no ‘reluctance’ towards polysemy or homonymy.

‘Natural’ form-function pairings: a peripheral function, e.g. Loc or Temp, is expressed by case with nouns denoting ‘matching’ concepts (locations or temporal intervals), but by other means otherwise (Aristar 1997).

A typical broad system: OLD FRENCH (Indo-European > Romance)

(1) *li chevalier-s s=en part.*
    ART:DIR knight:DIR.SG REFL=CL departs
    ‘The knight departs from there.’               S (Dir; Foulet 1970: 4)

(2) *il vit un home crucesié.*
    he:DIR saw ART:OBL.SG man(OBL.SG) crucified(OBL.SG)
    ‘He saw a crucified man.’               A (Dir) and P (Obl; Moignet 1976: 90)

(3) *il est me-s pere.*
    he:DIR is my-DIR.SG father:DIR.SG
    ‘He is my father.’               Pred (Dir; Foulet 1970: 8)

(4) *dites le roi que...*
    say:IMP.2PL the:OBL.SG king(OBL.SG) that
    ‘Tell the king that...’               Rec (Obl; Moignet 1976: 91)

(5) *la niece le duc*
    the niece the:OBL.SG duke(OBL.SG)
    ‘the niece of the duke’               Poss (Obl; Foulet 1970: 14)
(6) droit sentier qui cele part le menast.
direct(OBL.SG) road(OBL.SG) that:DIR.SG this(OBL.SG) place(OBL.SG) he.OBL would.lead
[He could not find] a direct road that would lead him to that place.’

(7) Erec dormi po cele nuit.
Eric:DIR.SG slept little this(OBL.SG) night(OBL.SG)
‘Eric slept a little this night.’

(8) s’=en part le-s gran-z galop-s.
REFL=CL departs the-OBL.PL great-OBL.PL gallop-OBL.PL
‘[And the knight] departs in great gallop.’

3. Alignment patterns in two-term case-systems

A general outline

+ core vs. peripheral: all core relations are expressed by a single case (usually the unmarked
Dir), while other semantic roles are subsumed under the marked Obl (neutral alignment);
+ nominative vs. oblique: either S/A or S/P relation is encoded by one case, while the other
core role falls together with peripheral semantic roles (accusative or ergative alignment).

Core vs. peripheral systems are common among the polysynthetic languages with rich head-
marking morphology (e.g. Salish, Yimas, Aleut), but they are not limited to this type of language
(cf. Romanian and Norwegian dialects).

YIMAS (Papuan, Papua-New Guinea; Foley 1991: 125, 193)

(9) a. panmal na-tmuk-t.
man 3SG.S-fall-PRF
‘The man fell down.’ (intransitive)

b. payum narmay na-mpu-tay.
man:PL woman 3SG.P-3PL.A-see
‘The men saw the woman.’ (monotransitive)

ROMANIAN (Indo-European > Romance, Romania; Beyrer et al. 1987: 86, 87)

(10) a. popor=ul sîntem noi.
people(DIR.SG)-ART.DIR.SG COP.1SG we
‘The people is us.’ (intransitive)

b. corb na corb nu scoate och-i=i.
crow(DIR.SG) PREP crow(DIR.SG) NEG peck.out eye-DIR.PL=ART.DIR.PL
‘A crow does not peck out the eyes of another crow.’ (monotransitive)

The ‘core’ case is not necessarily morphologically unmarked:

ALEUT (Eskimo-Aleut, USA; Bergsland 1997: 126, 138)

(11) a. tayagu-x awa-ku-x.
man-DIR.SG work-PRS-3SG
‘The man is working.’ (intransitive)

b. hla-x asxinu-x kidu-ku-x.
boy-DIR.SG girl-DIR.SG help-PRS-3SG
‘The boy is helping the girl.’ (monotransitive)
The differences emerge with ditransitive predicates (cf. Haspelmath 2006 for a typology):

**YIMAS** (Papuan, Papua-New Guinea; Foley 1991: 229): neutral alignment

(12) ŋaykum makaw payum wa-ṃpu-ŋa-r-mpun.
    woman:PL makau man:PL 3SG.O-3PL.A-give-PRF-3PL.REC
    ‘The men gave the women makau’ or ‘The women gave the men makau.’ (ditransitive)

**ROMANIAN** (Indo-European > Romance, Romania; Beyrer et al. 1987: 87): indirective alignment

(13) spunei mame=i adevār=ul.
    tell(IMP) mother:OBL.SG-ART.OBL.SG truth(DIR.SG)=ART.DIR.SG
    ‘Tell mother the truth!’ (ditransitive)

**MOVIMA** (Amazonian, unclassified, Bolivia; Haude 2006: 281, 282): secundative alignment

(14) a. usko bayacho=us as wa:so.
    he break=3SG.M ART window
    ‘He broke the window.’ (monotransitive)

   b. kaya=us os pa:ko n-os charke.
    give=3SG.M ART dog OBL-ART meat
    ‘He gave the meat to the dog.’ (ditransitive)

Nominative vs. oblique systems fall into several types according to the distribution of core relations among the two cases.

- ‘trivial’ nominative vs. accusative systems (Amharic, Persian)

**AMHARIC** (Afroasiatic > Semitic, Ethiopia; Leslau 1995: 180, 181)

(15) a. büzü sāw mātt-a.
    many man(DIR) come:PST-3SG
    ‘Many people came.’ (intransitive)

   b. wašša-w bāqlo-wa-n nākkās-ā.
    dog-ART mule-ART-OBL bite:PST-3SG
    ‘The dog bit the mule.’ (monotransitive)

- ‘marked nominative’ systems (Berber, Nilotic, Cushitic; Muskogean; Old French)

**KABYLE** (Afroasiatic > Berber, Alger; Chaker 1983: 276, 279)

(16) a. fyèn y-rgaz-n.
    left-3PL OBL-man-PL
    ‘The men left.’ (intransitive)

   b. y-wt aqšiš-ni w-rgaz-im.
    3SG-hit (DIR)boy-this OBL-man-2SG
    ‘Your husband hit this boy.’ (monotransitive)

Topicalized subjects are encoded by Dir; only rhematic subjects get Obl marking:

**TACHELHIT** (Afroasiatic > Berber, Morocco; Galand 1964: 34, 40):

(17) a. ikrz u-rgaz ıkgr.
    worked OBL-man (DIR)field
    ‘The man worked the field.’ (transitive; rhematic subject)

   b. a-rgaz ikrz ıkgr.
    DIR-man worked DIR:field
    ‘The man, he worked the field.’ (transitive; topical subject)
ergative vs. absolutive systems (Adyghe, Kabardian; Päri (Nilotic))

ADYGHE (North-West Caucasian > Circassian; my own fieldwork, 2005)

(18) a. č'ale-r me-čəje.
    boy-DIR PRS-sleep
    ‘The boy is sleeping.’

b. č'ale-m pšaše-r j-e-λεκυ-λa
    boy-OBL girl-DIR 3SG.A-PRS-see
    ‘The boy sees the girl.’

‘marked absolutive’ system (Nias: typologically unique!)

NIAS (Austronesian > Malayo-Polynesian, Western Indonesia, Brown 2001: 94)

(19) me mofanö ya, la-roro ya niha fefu.
    when left he:OBL 3SG-follow he:OBL DIR:person all
    ‘When he left, everyone followed him.’

various ‘split’ systems (Indo-Iranian, Uto-Aztecan, Tsimshianic etc.)

ZAZA (Indo-European > Indo-Iranian > Iranian, Turkey; Selcan 1998: ): tense-aspect split

(20) a. televe malum-i vinen-o.
    student(DIR.SG) teacher-OBL.SG see-PRS.3SG
    ‘The student sees the teacher’.

b. televe-y malum di.
    student-OBL.SG teacher(DIR.SG) see: PST
    ‘The student saw the teacher’.

CHEMEHUEVI (Uto-Aztecan; USA; Press 1979: 73, 108): main vs. subordinate split

(21) a. maŋ nakwi-j.
    he(DIR) run-PRS
    ‘He is running’.

b. [puŋkuc-i havitu-g] aipac ay tīka-vi.
    dog-OBL sing-SBRD boy(DIR) that eat-PST
    ‘While the dog sang, the boy ate’.

4. Argument neutralizations in two-term case systems

VAFSI (Indo-European > Indo-Iranian > Iranian, Iran; Stilo 2008)

(22) əhmāx-d-i ərgo vaar-i mahmud-i əs-b-i
    Ahmad-OBL.SG want spring-OBL.SG Mahmud-OBL.SG horse-OBL.SG
    ha-do-x jəvad-i.
    PVB-give-3SG Javad-OBL.SG
    ‘In spring Ahmad wants to give Mahmud’s horse to Javad.’

Extended case polysemy not necessarily results in ambiguity, even when, as in (22), multiple occurrences of the same case are found in one sentence.
‘Double-oblique’ alignment in Iranian: a typologically unique structure

ROSHANI (Indo-European > Indo-Iranian > Iranian, Tajikistan; Payne 1980: 155)

(23) a. dādā xawrīč-ēn=ān tār Xarakāy sat.
   these(DIR) boy-PL=3PL to Xorog go:PST
   ‘These boys went to Xorog’.
   (intransitive)

   b. duf xawrīč-ēn um kitōb xēyt.
   these(OBL) boy-PL this(OBL) book read:PST
   ‘These boys (have) read this book’.
   (monotransitive)

Both A and P marked with the same Obl case. How come?

Interaction of functionally motivated case-marking alternations.

Differential object marking (Bossong 1985, Aissen 2003): individuated P is marked w.r.t the non-individuated

VAFSI (Indo-European > Indo-Iranian > Iranian, Iran; Stilo 2004: 243)

(24) a. tae in xēr-i nē-ruš-i?
   you:DIR.SG this donkey-OBL.SG NEG-sell-2SG
   ‘Won’t you sell this donkey?’
   (accusative)

   b. bœ-ss-e yey xēr ha-gir-e.
   PFV-went-3SG one donkey(DIR.SG) PVB-take-3SG
   ‘He went to buy a donkey’.
   (neutral)

A in Past/Perfective is marked w.r.t Non-Past/Imperfective (cf. DeLancey 1981):

VAFSI (Indo-European > Indo-Iranian > Iranian, Iran; Stilo 2004: 244):

(25) a. in luti-an yey xēr=esan xē-ruτāe.
   this wise.guy-OBL.PL one donkey(DIR.SG)=3PL DUR-sell.PST
   ‘These wise guys were selling a donkey’.
   (ergative)

   b. luas-i kærg-e=s bœ-værτae.
   fox-OBL.SG chicken-OBL.SG=3SG PFV-take.PST
   ‘The fox took the chicken’.
   (double-oblique)

Table 1. Patterns of argument marking in Vafsi

<table>
<thead>
<tr>
<th>A</th>
<th>P</th>
<th>alignment</th>
<th>conditioning factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dir</td>
<td>Dir</td>
<td>neutral</td>
<td>non-past; non-individuated P</td>
</tr>
<tr>
<td>Dir</td>
<td>Obl</td>
<td>accusative</td>
<td>non-past; individuated P</td>
</tr>
<tr>
<td>Obl</td>
<td>Dir</td>
<td>ergative</td>
<td>past; non-individuated P</td>
</tr>
<tr>
<td>Obl</td>
<td>Obl</td>
<td>double-oblique</td>
<td>past; individuated P</td>
</tr>
</tbody>
</table>

Cf. languages with rich case systems:

HINDI (Indo-European > Indo-Iranian > Indo-Aryan, India, Mohanan 1994: 59, 69, 80):

(26) a. Ravi kelā khā rahā thā.
   Ravi(NOM.SG) banana(NOM.SG) eat DUR AUX.PST
   ‘Ravi was eating a banana.’
   (neutral)

   b. Nīnā bacce=ko uṭhāyegi.
   Nina(NOM.SG) child:OBL.SG=OBJ lift:FUT
   ‘Nina will lift the child.’
   (accusative)

1 In Roshani, case is retained only with personal and demonstrative pronouns.
c. \textit{bacce}=ne \textit{kitāb} \textit{padhī}.
   \begin{itemize}
   \item child:OBL.SG=ERG \textit{book(NOM.SG)} \textit{read:PFV}
   \item ‘The child read \textit{a/the book}.’
   \end{itemize}

\textit{ergative}

d. \textit{Ila}=ERG \textit{bacce}=ko \textit{uṭhāyā}.
   \begin{itemize}
   \item Ila:OBL.SG=OBJ \textit{lift:PFV}
   \item ‘Ila lifted the child.’
   \end{itemize}

\textit{tripartite}

\begin{table}[h]
\centering
\begin{tabular}{|l|l|l|l|}
\hline
A & P & strategy & conditioning factor \\
\hline
Nom & Nom & neutral & imperfective; non-individuated P \\
Nom & Obj & accusative & imperfective; individuated P \\
Erg & Nom & ergative & perfective; non-individuated P \\
Erg & Obj & tripartite & perfective; individuated P \\
\hline
\end{tabular}
\caption{Patterns of argument marking in Hindi}
\end{table}

Similar functional motivations result in different structures because case systems are different.

Neutralization of Agent and Recipient in ditransitive constructions

KATI (Indo-European > Indo-Iranian > Nuristani, Afghanistan; Grjunberg 1980: 153)

(27) \textit{amki pari yīmo tu nuī-e pī’e}.
\begin{itemize}
\item this \textit{apple(DIR.SG)} \textit{we:OBL your mother-OBL.SG give:PST}
\item ‘We gave this apple to your mother.’
\end{itemize}

\textit{ditransitive; past}

Agent and Recipient in ditransitive constructions are marked by the same Obl. How come?

Again interaction of different marking strategies: ‘split’ encoding of \textit{A} vs. uniform encoding of \textit{Recipient}, cf. (28).

KATI (Indo-European > Indo-Iranian > Nuristani, Afghanistan; Grjunberg 1980: 151, 148)

(28) \textit{uze kuṛy-e ano šenu-m}.
\begin{itemize}
\item I:DIR \textit{dog-OBL} \textit{meat(DIR.SG)} \textit{throw-1SG.PRS}
\item ‘I am throwing some meat to the dog.’
\end{itemize}

\textit{ditransitive; present}

‘Absolutive’ vs. ‘oblique’: Agent patterns with peripheral relations in ergative alignment, cf. (29), (30).

ADYGHE (North-West Caucasian > Circassian; my own fieldwork, 2005)

(29) \textit{č’ale-m pšaše-m moʔeres-e r-ja-ta-s}.
\begin{itemize}
\item boy-OBL \textit{girl-OBL} \textit{apple-DIR} \textit{3SG.REC-3SG.A-give-PST}
\item ‘The boy gave the apple to the girl.’
\end{itemize}

\textit{ditransitive}

(30) \textit{č’ale-r waʔe-m ča-sē}.
\begin{itemize}
\item boy-DIR \textit{house-OBL} \textit{run-PST}
\item ‘The boy ran home.’
\end{itemize}

\textit{intransitive + adjunct}

Clause type splits in Uto-Aztecan and Tsimshian

YAQUI (Uto-Aztecan > Southern Uto-Aztecan, Mexico; Lindenfeld 1973: 81, 103):

(31) a. [\textit{hu-ka oʔo-ta yepsa-k-o}] \textit{itepo saha-k}.
\begin{itemize}
\item this-OBL \textit{man-OBL} \textit{arrive-PRF-SBRD we.DIR go-PRF}
\item ‘When this man arrived we left’.
\end{itemize}

\textit{intransitive; subordinate}

b. \textit{na=a biča ke [hu-ka usi-ta čuʔu-ta kipwe-ʔu]}.
\begin{itemize}
\item I.DIR=it see that this-OBL \textit{child-OBL} \textit{dog-OBL} \textit{have-SBRD}
\item ‘I see that this child has a dog’.
\end{itemize}

\textit{monotransitive; subordinate}
Main vs. subordinate ‘split’ resulting from nominal nature of non-finite predications, where subject is encoded like the NP-internal possessor, cf. (32).

YAQUI (Uto-Aztecan > Southern Uto-Aztecan, Mexico; Lindenfeld 1973: 56)

(32) itom pare-ta kari si weela.
we:POSS priest-OBL house:DIR very old
‘Our priest’s house is very old’.

Neutralization may appear only on the paradigmatic level, but not in syntax.

INTERIOR TSIMSHIAN (Tsimshianic, Canada; Peterson 2006: 75)

(33) a. w’itx t=John.
come PNC=John
‘John came.’

b. hlëmoo-y=t=Tom, t=Mary.
help-TR-3=OBL PNC=Tom PNC=Mary
‘Tom helped Mary.’

INTERIOR TSIMSHIAN (Tsimshianic, Canada; Peterson 2006: 76)

(34) a. needii=t hlëmoo-t=[s (t)=John] t=Peter.
NEG-3 help-3=OBL PNC=John PNC=Peter
‘John didn’t help Peter.’

b. yukw=hl litsxw-(t)=[s (t)=John].
PROG=CNC read-3=OBL PNC=John
‘John is reading.’

c. needii=t gya’-(t)=[s (t)=John].
NEG=1PL see-3=OBL PNC=John
‘We didn’t see John.’

Conclusions

2-case systems show that

- languages may tolerate extended polysemy of case markers (even comprising such ‘contrary’ functions as A and P or A and Rec) – both on the paradigmatic and on the syntagmatic levels;

- iconicity (encoding of paradigmatic distinctions, e.g. individuated vs. non-individuated P) may often outrank distinguishability (syntagmatic distinction between A and P) in case-marking;

- different ‘alignments’ (‘global’ systems of encoding of core arguments) are epiphenomenal to iconic patterns of encoding of particular arguments and the inventory of case markers (indeed, the ‘unnatural’ double-oblique alignment in Vafsi and other Iranian languages turns out to be motivated by the same functional factors that the ‘overdistinctive’ tripartite alignment in Hindi and other Indo-Aryan languages);

2 Case marking is observed only with proper names; case particle =s is positioned before the NP it marks and is cliticized to the preceding constituent.
the overall functional load of cases in ‘poor’ case systems is no less important than in the richer ones, and the very number of cases in a given language may become an important typological parameter.

Abbreviations

References


The Institute for the Study of Science of the Russian Academy of Sciences (ISS RAS) is a public research organization, established as the Centre for Science Development Studies of the Russian Academy of Sciences (CSDS RAS) in 2005 and renamed into ISS RAS in 2008. The core of ISS research team is composed of the researchers experienced in studies of modern economic and statistical trends in Science, Technology and Innovation (STI) in Russia and other countries of the world. Being a leading academic organisation, ISS carries out basic and applied research aimed at the studies of problems and pe All-Russian Scientific and Technical Information Institute of Russian Academy of Sciences â€“ Vserossiisky Institut Nauchnoi i Tekhnicheskoi Informatsii (VINITI). VINITI the leading information centre in Russia and CIS countries has been supplying the world community with scientific and technical information since 1952. It carries out basic research in the theory of information science, development of automatic preparation technologies for presenting a broad range of information products and services; organisation and methods for scientific information activities; scientific communications. It develops new means of data searching. It deposits scientific publications.