On verb agreement in "inverse languages"

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1. Transitivity inversion and its syntactic variation

(1)　Central Ojibwa (Central Algonquian, ojc; Rhodes 1976:202)

    a. *Aw*　　　*aniniw*　　*w-gii-waabam-**aa**-an*　　　*niw*　　　*kweew-an.*
      DEM.PROX　　man　　　3-PST-see.TA-**DIR**-OBV　　DEM.OBV　woman-OBV
      'The man (PROX) saw the woman (OBV).'

    b. *Aw*　　　　*kweew*　　*w-gii-waabam-**igw**-an*　　　*niw*　　　*aniniw-an.*
      DEM.PROX　　woman　　3-PST-see.TA-**INV**-OBV　　DEM.OBV　man-OBV
      'The man (OBV) saw the woman (PROX).'

(2)　Mapudungun (isolate, arn; Zúñiga 2006a:Ch. VII)[1]

    a. *Chi*　　*wentru*　　*pe-**fi**-i-Ø*　　　　*chi*　*domo.*
      ART　　man　　　see-**3O**-IND-3　　ART　woman
      'The man (PROX) saw the woman (OBV).'

    b. *Chi*　　*domo*　　*pe-**e**-i-Ø-**mew**　　*chi*　*wentru.*
      ART　　woman　　see-**INV**-IND-3-**3A**　ART　man
      'The man (OBV) saw the woman (PROX).'

(3)　Lummi (Coast Salishan, str; Jelinek & Demers 1983:168)

    a. *X̣či-t-**s***　　　　*cə*　*swəy̓qəʔ*　　　*cə*　*swiʔqoʔəɬ.*
      know-CTRL-**3A**　　ART　man　　　　ART　boy
      'The man knows the boy.'

    b. *X̣či-t-**ŋ***　　　　　*cə*　*swiʔqoʔəɬ*　*ə*　*cə*　*swəy̓qəʔ.*
      know-CTRL-**PASS**　　ART　boy　　　　OBL　ART　man
      'The boy is known by the man.'

Table 1. Personal scenarios and construction distribution						
	C Ojibwa		Mapudungun		Lummi	
	DIR	INV	DIR	INV	ACT	PASS
SAP→3	✓	✗	✓	✗	✓	✗
3→SAP	✗	✓	✗	✓	✗	✓
3PROX→3OBV	✓	✗	✓	✗	✓	✗
3OBV→3PROX	✗	✓	✗	✓	✗	✓
1→2	(n.a.)		✗	(✓)	✓	✗
2→1			✗	(✓)	✓	✗

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[1] Underlying verb forms are given here; some resyllabification, elision, and assimilation rules apply.
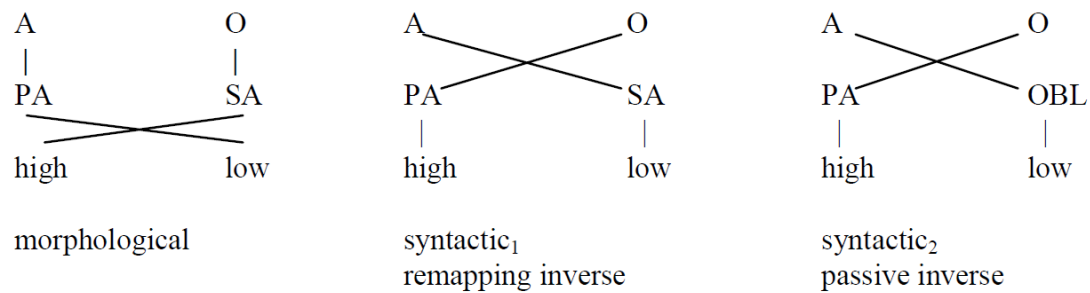
Figure 30. *Some inverses in a three-tiered morphosyntactic representation*

(from Zúñiga 2006a)

1.1 Basic idea

- There are three domains involved here: diathesis, voice, and direction.
  - Diathesis consists in specific mappings between semantic roles (A—O) and grammatical relations (SBJ=PA—OBJ=SA—ADJT=OBL).
  - Voice consists in specific diatheses being expressed through predicate morphology.
  - Direction consists in specific mappings between semantic roles (A—O) and semantico-pragmatic saliency (high—low).
- "Inverse languages" (Klaiman 1992) show a correlation between voices and directions (s. Figure 30 above). (See also Farrell 2005.)

1.2 Verb agreement morphology

- In Algonquian, mostly neutral indices (S=A=O) are complemented by direction markers (DIR—INV—1→2—2→1), as well as by occasional portmanteaus and non-neutral indices, e.g.

(4)　Plains Cree (Central Algonquian, crk; Dahlstrom 1986:86f, 44)

　　a.　*Ê-sêkih-**ak**.　　　　　　　　　　*Ê-sêkih-**it**.*
　　　　CNJ-frighten.TA-1SG→3　　　　　CNJ-frighten.TA-3→1SG
　　　　'I frighten him/her (PROX).'　　　'S/he (PROX) frightens me.'

　　b.　*Ê-wâpam-iko-**wâ**-yêkw*　　　*o-kosis-a.*
　　　　CNJ-see.TA-INV-OBV.S/A-2PL　　3PSR-son-OBV
　　　　'His/her son (OBV) sees you (PL).'

- In Mapudungun, mostly neutral indices (S=A=O) are complemented by direction markers (INV—1→2M—2→1M, 1→2E—2→1E), as well as two non-neutral indices (viz. *-fi* '3O' in the direct and *-mew* '3A' in the inverse). (Note that the Plains Cree suffixes in (a) above could be analyzed analogously, viz. *-ak* '1SGA' in the direct and *-it* '1SGO' in the inverse, with *-Ø* 'INV' in such forms.)
- In Lummi and other Coast Salishan languages, there is no dedicated morphology for particular directions; run-of-the-mill active and passive constructions are deployed according to communicative needs but restricted by direction-related considerations (see Table 1 above).

1.3 Verb agreement syntax

- In Algonquian, it's a bit complicated (see Zúñiga 2006a:Ch. III and Haude & Zúñiga 2016).
- In Mapudungun and other languages, agreement is simple ("AGR1" with the subject, "AGR2" with the primary object), the syntax reacts to direction, and there are two bivalent constructions.
- In Coast Salishan languages (and some Kiowa-Tanoan languages, see Zúñiga 2006a:Ch. VI), agreement is simple ("AGR1" with the subject, "AGR2" with the primary object), the syntax reacts to direction, but there is only one bivalent construction.

2. The remapping inverse: two case studies

2.1 Background
- A successful case has already been made for the existence of two bivalent constructions in some languages related neither genealogically nor areally (e.g. Philippine languages and Jarawara, see Himmelmann & Riesberg 2013 and Dixon 2000).
- Tagalog and other Philippine languages have voice markers but no indices.

2.2 Claim
Mapudungun and Kutenai are examples of languages with two bivalent constructions with hierarchically motivated (but arguably epiphenomenal) agreement patterns.

2.3 Mapudungun[2]
- The secondary object (and other GRs) controls no verb agreement whatsoever.
- The subject controls AGR1, which distinguishes three persons (1—2—3) and three numbers (SG—DU—PL, somewhat reduced for 3rd person) but not semantic role (S=A=O).
- The primary object controls AGR2 in principle, but these patterns do not distinguish number (e.g. -*fi* '3O') and distinguish person only in some person combinations.

(5) Mapudungun (Zúñiga 2006a:Ch. VII)

a. *pe-e-n*   *pe-mu-n*   *pe-mu-i-i-u*   *pe-mu-i-in*
   see-INV-1SG.IND   see-INV-1SG.IND   see-INV-IND-1-DU   see-INV-IND-1-PL
   'you (SG) saw me' 'you (NSG)   'you (NSG)   'you (NSG)
                      saw me'   saw us (DU)'   saw us (PL)'

b. *p-e-i-i-u*   *pe-w-i-i-n*
   see-INV-IND-1-DU   see-INV-IND-1-PL
   'I saw you (SG)'   'I saw you (NSG) / we saw you'

- The suffix -*mu* (perhaps etymologically related to -*m-u* '2DU') could be analyzed as a separate INV allomorph or as a "theme suffix" analogous to Proto-Algonquian *-*i* and its present-day reflexes ('2→1') that simply does not apply to the 2→1M (= 2SG→1SG) case.
- The 1SG→2SG case has an anomalous marking, since the 1DU is not really an argument of the verb.
- The 1→2E cases are expressed by a form that is/was (?) transparently the reflexive 1PL form.
- The evidence for the reversal of GRs comes from the reference of *iney* 'who', constituent order regularities, and possessive marking of arguments in subordinate clauses.

(6) Mapudungun (Arnold 1997)

a. *Iney=kam*   *langüm-fi-i-Ø*   *Peyro?*   (and other possible orders)
   who=Q   kill-3O-IND-3   P.
   'Who did Pedro kill?'   (direct: O)

b. *Iney=kam*   *langüm-e-i-Ø-mew*   *Peyro?*   (and other possible orders)
   who=Q   kill-INV-IND-3-3A   P.
   'Who killed Pedro?'   (inverse: A)

c. *Iney=kam*   *aku-i-Ø?*
   who=Q   arrive.here-IND-3
   'Who arrived here?'   (monovalent: S)

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[2] Pre-modern descriptions (e.g. Augusta 1903) did not address GRs but described the different "*transiciones*" (i.e. valency patterns and person combinations). An early formulation of the idea that topics, rather than (familiar) subjects, were involved in agreement patterns, is found in Grimes (1985). See Arnold (1994, 1997) and Zúñiga (2006a, 2006b). (Smeets 1989 and her later book propose an analysis that omits reference to transitivity inversion.)

➡ The reference of *iney* 'who' corresponds to the S in the monovalent case, to the A in the inverse bivalent case, and to O on the direct bivalent case ("(quasi-)ergative pattern").

(7) Mapudungun (elicited, based on Smeets 1989:278)

a. *Fey   müna   kutranka-w-i Ø   (ñi)   trem-m-a-fi-el.*
    3   very   torment-REFL-IND-3   3PSR   grow-CAUS-FUT-3O-NFIN
    'S/he made a lot of sacrifices in order to raise him/her.'   (direct: A)

b. *Fey   müna   kutranka-w-i Ø   **m-i**   trem-m-a-etew.*
    3   very   torment-REFL-IND-3   2PSR-SG   grow-CAUS-FUT-NFIN.INV
    'S/he made a lot of sacrifices in order to raise you (SG).'   (inverse: O)

c. *Fey   müna   kutranka-w-i Ø   (ñi)   amu-a-el   waria   mew.*
    3   very   torment-REFL-IND-3   3PSR   go-FUT-NFIN   city   POSP
    'S/he made a lot of sacrifices in order to go to the city.'   (monovalent: S)

➡ The possessive marker is bound by the S in the monovalent case, by the A in the direct case, and by the O in the inverse case ("(quasi-)accusative alignment").

2.4 Kutenai[3]
- Whenever SAPs are involved as arguments, verb agreement is determined without resorting to direction: subjects are indexed via verbal proclitics (*hu=* '1S/A', *hin=* '2S/A') and primary objects are indexed via verbal suffixes (*-ap* '1O', *-is* '2O'). Plural number is specified by verbal suffixes, some of which are role-neutral (*-awas* '1PL', *-kił* '2PL') and one of which is not (*-ała'* '1PLS/A'). (The behavior of the plural suffixes is complex, see Zúñiga 2006a:Ch. VII:1.1 for details.)
- Whenever a 3rd person interacts with an SAP or is the sole argument, it is unmarked.
- Whenever two 3rd persons interact with each other, there is an opposition between unmarked direct and marked inverse:

(8) Kutenai (isolate, kut; Dryer 1991:189, 185)

a. *Wûkat-i.*   *Wûkat-**aps**-i.*
    see-IND   see-INV-IND
    'S/he (PROX) saw him/her (OBV).'   'S/he (OBV) saw him/her (PROX).'

b. *Wûkat-i   Małí-s.*   *Wûkat-**aps**-i   Małí-s.*
    see-IND   M.-OBV   see-INV-IND   M.-OBV
    'S/he (PROX) saw Mary (OBV).'   'Mary (OBV) saw him/her (PROX).'

- Additionally, obviative subjects are marked via *-(i)s*:

(9) Kutenai (Dryer 1991:25, 129-130)

a. *Wûkat-i   pałkiy   titqat'-s.*
    see-IND   woman   man-OBV
    'The woman (PROX) saw the man (OBV).'

b. *Wûkat-**aps**-i   titqat'-s   pałkiy.*
    see-INV-IND   man-OBV   woman
    'The man (OBV) saw the woman (PROX).'

c. *Wûkat-**s**-i   pałkiy-s   titqat'-s.*
    see-OBV.SBJ-IND   woman-OBV   man-OBV
    'The woman (OBV) saw the man (OBV).'

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[3] See Dryer (1991, 1992, 1994, 1996, 1997, 1998) for the Kutenai data and their analysis, and Zúñiga (2006a:Ch. IV) for my interpretation and synthesis.

    d.   *Qu-s*   *łiyni-s*   *qaqap-**s**-i*   *ławu-s.*
       there-OBV   across-OBV   be-OBV.SBJ-IND   cow.elk-OBV
       'Across there was a herd of cow elk (OBV).'

    e.   *Ma-'is*   *Misáł*   *wûkat-**aps**-**is**-ni*   *Małí-s.*
       mother-3PSR   M.   see-INV-OBV.SBJ-IND   M.-OBV
       'Mary (OBV) saw Michael's (PROX) mother (OBV).'

…and the subject is the S (d), the A in the direct (c), and the O in the inverse (e); compare:

(10)   Kutenai (Dryer 1996:27)

    a.   *Wûkat-**aps**-i*   *pałkiy-s.*   b.   *Wûkat-**aps**-**is**-ni*   *pałkiy-s.*
       see-INV-IND   woman-OBV   see-INV-OBV.SBJ-IND   woman-OBV
       'The woman (OBV) saw him/her (PROX).'   'The woman (OBV) saw him/her (OBV).'

3. Subjecthood and agreement

- So far, my interpretation of the phenomena in terms of diathesis, voice, and direction has been: "In languages like Mapudungun and Kutenai, verbs agree with their subjects and primary objects; these GRs are determined based on diathesis and direction; direction values are determined based on person and topicality relations."

  ➔ Such a "constructivist" approach leads to unfamiliar GRs, viz. P subjects and A objects.

- An alternative analysis would be: "In these languages, verbs agree with their clausal topics (which are determined based on person and on discourse structuring principles). Subjects and objects are determined without taking direction into account and are therefore at odds with particular direction patterns (and the allocation of pragmatic relations)."

  ➔ An extremely "traditionalist" approach (e.g. "subjects are always arguments in S/A function, objects are always arguments in O function") also leads to unfamiliar GRs, viz. topical objects and nontopical subjects.

(11)   Dzamba (C Bantu; Givón 1994:27-28)

    a.   *o-Poso*   ***a**-tomaki*   *mukanda*   *o-Poso*   ***a-mu**-tomaki*
       DEF.M-P.(M)   3SG.M-sent   letter(N)   DEF.M-P.(M)   3SG.M-3SG.N-sent
       'Poso sent the letter.'   'Poso sent it.'

    b.   *i-mukanda*   ***mu**-tomaki*   *o-Poso*
       DEF.M-letter(N)   3SG.N-sent   DEF.M-P.(M)
       'The letter was sent by Poso.'

    c.   *i-mukanda*   *o-Poso*   *a-mu-tomaki*
       DEF.M-letter(N)   DEF.M-P.(M)   3SG.M-3SG.N-sent
       'The letter, Poso sent it.'

- Other approaches?

Abbreviations
A agent-like argument, ACT active, ADJT adjunct, AGR AGREEMENT, ART article, CAUS causative, CNJ conjunct, CTRL control, DEF definite, DEM demonstrative, DIR direct, DU dual, E extended, FUT future, GR grammatical relation, IND indicative, INV inverse, M masculine, M minimal, N neuter, NFIN nonfinite, NSG nonsingular, O patient-like argument, OBJ object, OBL oblique, OBV obviative, P patient-like argument, PA primary core argument, PASS passive, PL plural, POSP postposition, PROX proximate, PSR possessor, PST past, Q question, REFL reflexive, SA secondary core argument, SAP speech-act participant, SBJ subject, SG singular, TA transitive animate stem

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