

Kiowa-Tanoan agreement and agreement restrictions: I

[with clarifications after lecture]

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- (1) **Kiowa-Tanoan languages and generative theory** (i.e., leaving purely descriptive work aside)

Incorporation and argument structure Allen and Frantz 1986, a variety of other conference proceedings and SIL working papers by subsets of {Allen, Gardiner, Frantz}, Rosen 1990, Baker 1988, Heck and Richards to appear, Adger, Harbour, and Watkins In press.

Person-Case phenomena Adger and Harbour 2007, Heck and Richards to appear.

Number and noun class Takahashi 1984, Noyer 1992, Harbour 2007, Harbour 2005, plus various other passing mentions of the inverse.

Passives, direct/inverse alignment a variety of other conference proceedings and SIL working papers by subsets of {Allen, Gardiner, Frantz}, Kroskirty 1978, Kroskirty 1985, Klaiman 1991, 1992, 1993, Watkins 1996, Zúñiga 2006.

Agreement Watkins 1996, Harbour 2003, Zúñiga 2006, Harbour 2007, Heck and Richards to appear

Phonology Harbour 2002, Halle 2005.

- (2) **Problems for outsiders** (or: if there are so many topics of relevance to current linguistic theory, why isn't Kiowa-Tanoan on the tip of everyone's tongue?)

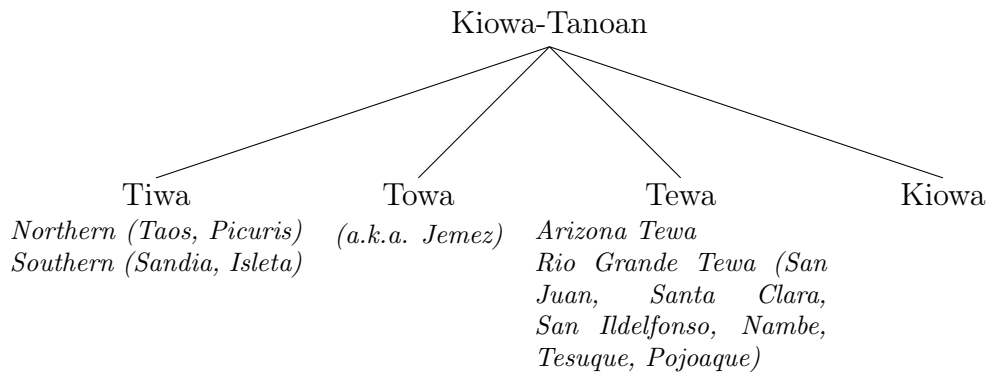
Description Not all languages described to the same level of detail (esp. tone, but also passives).

Descriptive terminology Two different uses of 'inverse'. Noun class and agreement nomenclature. Opacifying agreement notation.

Implicit theory Gender \neq number.

- (3) **Purview of these lectures.** To present a notational and descriptive framework that makes clear what the points of contact and of divergence are between various Kiowa-Tanoan languages—and to make clear where the data does not permit one to say either way.

(4) **The family** (Hale and Harris 1979)



(5) **Abbreviations and notation I**

- a. Agreement types: S (singular), D (dual), P (inanimate plural), I (inverse), A ('animate' plural).

(6) **Noun and number**

- a. The inverse is a number suffix that attaches to some nouns to form the singular, others to form the plural, and others to form both.
- b. The form of the inverse suffix is very varied (but for the most part phonologically conditioned).
- c. Crucially, however (and irrespective of the shape of the nominal suffix or the 'referential cardinality' in question), inverse-marked nouns trigger a proprietary form of agreement.
- d. X!óú Ø /ɛ /gya-dóó
stone 3S/3D/3P- be
'It's a stone / two stones / some stones.'
- e. (i) Óópíí Ø- dóó
fish 3S-be
'It's a fish.' singular ⇔ S-agreement
- (ii) Óópíí/k!ôn /áá ɛ- dóó
fish /tomato/stick 3D-be
'It's two fish/tomatoes/sticks.' dual ⇔ D-agreement
- (iii) Áá gya-dóó
stick 3P- be
'It's some sticks.' plural ⇔ P-agreement
- f. Óópíídó/k!ǫ́dɔ /áádɔ e- dóó
fish.I /tomato.I/stick.I 3I-be
'It's some fish / a tomato / some tomatoes / a stick.'
- g. E-x!óígyá
1I-fall.S/D.PF

Table 1: *Number-dependent noun marking*

Noun	singular	dual	plural
fish	óópíí	óópíí	óópíí-dó
tomato	k!ḡḡ-dḡ	k!ḡn	k!ḡḡ-dḡ
stick	áá-dḡ	áá	áá

‘We two fell.’

(7) **Noun class: notation and identification**

- a. ‘stone’ SDP, ‘fish’ SDI, ‘tomato’ IDI, ‘stick’ IDP, ...
- b. To recognize noun classes, you actually need to look at verbs, for two reasons: *deer*-type nouns and group-like singulars/plurals.
- c. T!áp∅ /e/ /e- dós
deer 3S/3D/3I-be
‘It’s a deer / two deer / some deer.’
- d. Xát e/e/ /∅- dós
door 3I/3D/3S-be
‘It’s a door / two doors / some doors.’
- a’. ... ‘door’ IDS, ‘cloud’ SDS, ‘water’ SSS, ‘pants’ PPP, ‘I/we’ SII.
- e. Alternative notation (Wonderly, Gibson, and Kirk 1954, Watkins 1984, Noyer 1992, ...): Classify nouns on the basis, first of inverse marking, I=*xxI*, II=*Ixx*, III=*IxI*, IV=*xxx*. Then subclassify in relation to non-singular S, non-plural P; e.g., IIa=IDP, IIb=IDS, IVa=SDP, IVb=SDS, IVc=PPP, ...

- (8) **Exercise.** Run the following nouns through the sentence frames ‘It’s a _____ / two _____ / some _____’: SDI **thón**/**thóúdo** ‘articulated tail’; IDP **thón**/**thóúdo** ‘unarticulated tail’; SDS **tóú** ‘Western-style house’; PPP **tóú** ‘Indian-style house (teepee)’.

(9) **First person: notation**

- a. Inclusive = 1IN (only for external argument / argument of unaccusative)
- b. Exclusive = 1EX (only for external argument / argument of unaccusative)
- c. General = 1 (used only for indirect/direct object)

(10) **Person and inverse**

- a. Given that we talk about first person singular/dual/plural and second person singular/dual/plural, you might expect to see the abbreviations 1S/1D/1P

and 2S/2D/2P. In fact, what you see in Table 2 is 1S/1I/1I—or, more exactly, —corresponding to (9a) –/1I.IN/1I.IN, and similarly (9b) 1S/1I.EX/1I.EX, and (9c) 1S/1I/1I—and 2S/2D/2I. Why?

- b. For external arguments and subjects of applicative-less unaccusatives, there is a thoroughgoing metasyncretism: first inclusive dual/plural is realized as second plural, and first exclusive dual/plural is realized as third inverse.
- c. If we state this using 1S/1D/1P and 2S/2D/2P, it is a very odd syncretism. For reasons that will soon be obvious, and only for the duration of the discussion, I'll write '12' for inclusive and use '1' for exclusive.



Without going into what the features are, we can see that we will need a powerful transformational component: converting D into P, and P into I, and D into I. (I assume that getting 12 into 2 and 1 into 3 just involves deletion of 1, '3' being the absence of person in this case, cf, Benveniste 1971.)

- d. By contrast, if we assume that first person (inclusive, exclusive, or general) is an SII noun and second person (like all other animates) is an SDI noun, then the syncretism to be derived is:



Here, all the syncretisms follow immediately if we simply delete 1.

- e. Note 1: these facts will be important when we turn to Southern Tiwa.
 Note 2: there is the residual question of how you get first person to be inverse in dual and plural, and second person to be inverse just in the plural; see Harbour 2007: 81–88.

(11) **Abbreviations and notation II**

- a. Agreement types: S (singular), D (dual), P (inanimate plural), I (inverse), A ('animate' plural).
- b. Argument types: 'x:' external argument or, if followed by '∅', internal argument of unaccusative; ':y:' indirect object (recipient, source, benefactor, malefactor, ...); ':z' direct object of (di)transitive, or if preceded by '∅:y:', internal argument of unaccusative.
- c. Prefix types: 'x:∅' unaccusative without dative; '∅:y:z' unaccusative with (y) dative; 'x:z' transitive or unergative; 'x:y:z' ditransitive (transitive with applicative).

NB: Contra almost everybody else's $x:z:y$, which order is disharmonic

Table 2: *Kiowa Agreement Prefixes (adapted from Harbour 2007: 161)*

<i>x:y:</i>	<i>z</i>					
	\emptyset	3S	3D	3P	3I	3A
1S:(3A:)	a	gya	nen	gyat	dé	de
1I.EX:(3A:)	e	é*	et	ét*	ét	ét
1I.IN:(3A:)	ba	bá*	bet	bát*	bét	bé
2S:(3A:)	em	a	men	bat	bé	be
2D:(3A:)	ma	má*	mén	mán*	mén*	mé
2I:(3A:)	ba	bá*	bet	bát*	bét	bé
3S:(3A:)	\emptyset	\emptyset	ę	gya	é	em
3D:(3A:)	ę	é*	én	én*	én	én
3P:	gya					
3I:(3A:)	e	é*	et	ét*	ét	ét
3A:(3A:)	á	á*	et	gyá*	et	ém
\emptyset /2S/3S:1S:	é	é	né	yá	nó	né
2D:1S:	mâa*	mâa*	ménéi*	máníi*	mónô*	D~I
2I:1S:	bâa*	bâa*	bédèi*	bágíi*	bódô*	D~I
3D:1S:	êi*	êi*	énèi*	éńi*	énô*	D~I
3I:1S:	èi*	èi*	édèi*	égíi*	édô*	D~I
3A:1S:	âa*	âa*	dèi*	gyâa*	dô*	D~I
<i>any</i> :1I:	dó	dó	dét	gyát	dót	D~I
\emptyset /1S:2S:	em	gyá	nén	yán	gó	D~I
<i>other</i> :2S:	gɔ	gó	dét	gyát	gót	D~I
<i>any</i> :2D:	mó	mó	mén	mán	món	D~I
<i>any</i> :2I:	bó	bó	bét	bát	bót	D~I
1S:3S:		gyá	nén	yán	gó	D~I
1I.EX:3S:		èi*	édèi*	égíi*	édô*	D~I
1I.IN:3S:		bâa*	bédèi*	bágíi*	bódô*	D~I
\emptyset /2S/3S:3S:		á	én	án	ó	D~I
<i>any</i> :3D:		mé	mén	mén	mén	D~I
<i>any</i> :3I:		bé	bét	bét	bét	D~I
2D:3S:		mâa*	ménéi*	máníi*	mónô*	D~I
2I:3S:		bâa*	bédèi*	bágíi*	bódô*	D~I
3D:3S:		êi*	énèi*	éńi*	énô*	D~I
3I:3S:		èi*	édèi*	égíi*	édô*	D~I
3A:3S:		âa*	dèi*	gyâa*	dô*	D~I

both w.r.t. the syntactic hierarchy of arguments (Adger and Harbour 2007, Adger, Harbour, and Watkins In press) and w.r.t. the morphological constituency of the prefix Harbour 2003.

- d. Tone I: high, fáll, (unmarked) low.
- e. * = lowers subsequent tones.
(E.g., **á** + **bóúhêl** = **á-bóúhêl**, but **á*** + **bóúhêl** = **á-bouhel**)

(12) **Exercise.** Run the following nouns through the following sentence frames:

- a. ‘It’s my _____ / two _____ / _____s’: SDI **thón/thóúdo** ‘tail’.
- b. ‘It’s your.D _____ / two _____ / _____s’: IDP **thón/thóúdo** ‘tail’.
- c. ‘It’s his/her _____ / two _____ / _____s’: SDS **tóú** ‘house’.
- d. ‘It’s their.I _____ / two _____ / _____s’: PPP **tóú** ‘teepee’.

(13) **Animate plural, reflexive**

- a. ‘Animate plural’ A-agreement can only be used with third person SDI nouns as a replacement for I-agreement (i.e., not for 2I, nor for 3D, SDI nouns, and certainly not for, say, plural IDI nouns).
- b. Its use signifies that the referent is the object of empathy. Hence, near obligatory for Kiowas talking of other adult Kiowas, also used for horses, children, and (perhaps a more recent usage) for members of other tribes. Hence, **Kóígú á-dóó** ‘They’re Kiowas (3A)’ (??e-dóó), **Xêjgo á/e-zéima** ‘The horses are moving about (3A/I)’, **Emhâamop e-zéima** ‘The ants are moving about (3I)’ (*á-zéima).

(*Exercise: Say ‘The tails are moving about’ in two different ways.*)

- c. The same form of agreement is used for reflexives. Hence, a systematic ambiguity: **de-hóltco** ‘I will kill them/myself’ (1S:3A), **gya-hóltco** ‘I will kill him for them/myself’ (1S:3A:3S).

(*Exercise: What other meaning does this last sentence have?*)

- d. Important note: in rows of the form ‘ $x:(3A:)$ ’ (e.g., ‘1S:(3A:)’), the optional applicative is only available for non-zero objects. That is, 1S:(3A:)3D **nen**, say, can be used for 1S:3S (‘I killed them two’) or 1S:3A:3S (‘I killed them two for them all’); however, 1S:(3A:)∅ **a** can only be used for 1S:∅ (‘I came’), and not for 1S:3A:∅ (‘I came for them all’). As implied under (11c), the combination external+applicative (without object) is not a possible argument combination in Kiowa. (The use of the zero-object notation is further explained immediately below.)

(14) **:∅**

- a. Under normal circumstances, in solo and coauthored work, I would gloss ‘I came’ as 1S (and similarly for other mono-argument unaccusatives) and ‘I

saw you’ as 1S:2S (and similarly for other transitives with local objects). (See also (13)).)

- b. However, for reasons having purely to do with the arrangement of Table 2 (which would become intractable if *z*-columns weren’t restricted to third person), these are glossed here with a fake zero object. Hence, to figure out from the table which prefix you would use in 1S ‘I came’, you look for 1S:∅ (finding **a**); and for 1S:2S ‘I saw you’, you look for 1S:2S:∅ (**em**).

(15) **Inanimate plural**

- a. Note: 3P is only ever inanimate. Given that Kiowa requires both external and applicative arguments to be affectable (hence, nearly always, animate), 3P can never be a subject of (di)transitive. Consequently, in Table 2, all such cells as 3P:3S, 3P:3D, ... are left blank.
- b. In a related vein, although 3I can be used both for animates and inanimates, when 3I is an external argument, it is almost invariably animate.

(16) **Exercise.** Gloss and translate the following sentences. Indicate tone lowering prefixes. Be sure to decide whether you are dealing with an inverse-marked noun, a non-inverse-marked noun, or an ambiguous noun.

- a. (i) Xát gó- héǵdó
door ____-remove.PF
- (ii) Xát gót- héǵdó
door ____-remove.PF
- b. (i) T!áp á- hól
deer ____-kill.PF
- (ii) T!áp âa- hol
deer ____-kill.PF
- (iii) T!áp á- hol
deer ____-kill.PF
- (iv) T!áp a- hól
deer ____-kill.PF
- c. (i) K!ôn bét- thón
tomato ____-found.PF
- (ii) K!ǵǵdǵ bét- thón
tomato ____-found.PF
- (iii) K!ǵǵdǵ bé- thón
tomato ____-found.PF

(17) **Person-Case Effects** (see Adger and Harbour 2007)

- a. $*\emptyset:y:1/2$. I.e., *‘I came to you’, ‘You died on us’, ‘You’re known to them’, ...
- b. $*x:y:1/2$. I.e., *‘I brought you to them’, ‘They’ll kill you for us’, ...
- c. Evidently a syntactic not a morphological restriction because $*x:3A:1/2$, even though $x:3A:1/2 \equiv x:1/2$, which is wholly grammatical. (I.e., the morphology could deal with this if the syntax gave the opportunity.)
- d. No restriction on ‘animacy’ per se (i.e., no problem with $x:y:3A$). Note, however, that the absence of specific 3A vocabulary items in this context (D/I-agreement must be used instead) is suggestive of this being a marked context. (Tacit assumption: the vocabulary items for D/I-agreement are proper subsets of those for A-agreement; impoverishment is the morphology’s reaction to excessive markedness; Harbour 2007: 145–149.)

(18) **Case syncretism** (Watkins 1996, Adger and Harbour 2007): for local persons, direct object agreement looks like indirect object agreement

- a. Compare ‘he saw us’, ‘he gave it to us’ (3S:1I, 3S:1I:3S **dó**) with ‘he saw them’, ‘he gave it to them’ (3S:3I **é**, 3S:3I:3S **bét**)
- b. Prefix-verb tonal contours: the parity between, on the one hand, ‘They saw me’/‘They gave them to me’ ([high-falling]-low) and ‘You saw us’/‘You gave them to us’ (high-high) and, on the other, ‘They saw them’/‘They gave it to them’ (3I:3D low-high / 3I:3D:3S high-high) and ‘You saw him’/‘You gave them.I to him’ (2I:3S high-low / 2I:3S:3I [high-falling]-low).
- c. The vowel **ɔ** is generally restricted to prefixes containing indirect objects. However, where it does occur in two-argument transitive prefixes, the direct object is always local.

(19) **Metasyncretic effects**

- a. Inclusive/exclusive distinction is achieved by syncretism: $1d/p.in \equiv 2i, 1d/p.ex \equiv 3i$. (Occurs only for x -agreement.)
- b. $x:2D/I:z \equiv x:3D/I:z$
- c. For non-singular x , $x:1S:z \equiv x:3S:z$
- d. $2/3D \equiv 2/3I+[nasal]$ (unless there is a structurally higher non-singular argument, in which allomorphy; Harbour 2003)
- e. In the context of 1S, $2S \equiv 3S$ (i.e., $1S:2S:z \equiv 1S:3S:z$ and $2S:1S:z \equiv 3S:1S:z$. (I’m suspicious about whether this is principled, rather than accidental; but Watkins 1996 makes something of it, so we will consider this in more detail later.)

References

- Adger, David and Harbour, Daniel. 2007. Syntax and syncretisms of the Person Case Constraint. *Syntax* 10:2–37.
- Adger, David, Harbour, Daniel, and Watkins, Laurel. In press. Mirrors and Microparameters: Phrase Structure Beyond Free Word Order. Cambridge University Press.
- Allen, Barbara and Frantz, Donald. 1986. Goal advancement in Southern Tiwa. *International Journal of American Linguistics* 52:388–403.
- Baker, Mark. 1988. *Incorporation: a Theory of Grammatical Function Changing*. Chicago: University of Chicago Press.
- Benveniste, Emile. 1971. *Problems in General Linguistics*. Florida: University of Miami Press.
- Hale, Kenneth and Harris, David. 1979. Historical linguistics and archeology. In Alfonso Ortiz, ed., *Handbook of North American Indians: Southwest*, 170–177, Washington, D.C.: Smithsonian Institute.
- Halle, Morris. 2005. Palatalization/velar softening: What it is and what it tells us about the nature of language. *Linguistic Inquiry* 36:23–42.
- Harbour, Daniel. 2002. On the metrical nature of Kiowa tone, ms. MIT.
- Harbour, Daniel. 2003. The Kiowa case for feature insertion. *Natural Language and Linguistic Theory* 21:543–578.
- Harbour, Daniel. 2005. Valence and atomic number. Ms., Queen Mary, University of London. Under review.
- Harbour, Daniel. 2007. *Morphosemantic Number: From Kiowa Noun Classes to UG Number Features*. Dordrecht: Springer.
- Heck, Fabian and Richards, Marc. to appear. A probe-goal approach to agreement and incorporation restrictions in Southern Tiwa. *Natural Language and Linguistic Theory* ??:??–??
- Klaiman, M.H. 1991. *Grammatical Voice*. Cambridge: Cambridge University Press.
- Klaiman, M.H. 1992. Inverse languages. *Lingua* 88:227–261.
- Klaiman, M.H. 1993. The relationship of inverse voice and head-marking in Arizona Tewa and other Tanoan languages. *Studies in Language* 17:343–370.
- Kroskrity, Paul. 1978. On the lexical integrity of Arizona Tewa /-di/: A principled choice between homophony and polysemy. *International Journal of American Linguistics* 44:24–30.
- Kroskrity, Paul. 1985. A holistic understanding of arizona tewa passives. *Language* 61:306–328.
- Noyer, Rolf. 1992. *Features, Positions and Affixes in Autonomous Morphological Structure*. Cambridge, MA: MITWPL.
- Rosen, Carol. 1990. Rethinking Southern Tiwa: The geometry of a triple agreement language. *Language* 66:669–713.
- Takahashi, Junichi. 1984. Case marking in Kiowa: A study in the organization of meaning. Ph.D. thesis, City University of New York.
- Watkins, Laurel. 1984. *A Grammar of Kiowa*. Lincoln, NE: University of Nebraska Press.
- Watkins, Laurel. 1996. Reconstructing person and voice in Kiowa-Tanoan: Pitfalls and progress. In David Librik and Roxanne Beeler, eds., *Special Session on Historical Issues in Native American Languages*, number 22 in Berkeley Linguistics Society: Proceedings of the Annual Meeting, 139–152, Berkeley, CA: Berkeley Linguistics Society.
- Wonderly, William, Gibson, Lorna F., and Kirk, Paul L. 1954. Number in Kiowa: Nouns, demonstratives and adjectives. *International Journal of American Linguistics* 20:1–7.
- Zúñiga, Fernando. 2006. *Deixis and Alignment: Inverse Systems in Indigenous Languages of the Americas*. John Benjamins.