

**Feature economy and the Kiowa-Tanoan continuum**  
**Daniel Harbour, Queen Mary University of London**

**Big picture** A core tenet of much Generative work is Borer’s hypothesis that parameters of variation reduce to different lexical specifications of features on functional heads. If correct, then the more constrained the inventory of features available to languages is, the more successful such a theory is at constraining the space of possible languages. A powerful contribution to this approach, then, would be to show that seemingly disparate phenomena (such as agreement, differential object marking, differential subject marking, incorporation, and argument-triggered passivisation) are all reflexes of a single feature. Moreover, if such diverse surface characteristics can be shown to result from subtly different calibrations of feature specifications on functional heads, then we also make another core tenet of Generativist work more plausible, namely, that a restrictive theory (in particular, a restrictive alphabet of features) can insightfully account for the diversity of human languages.

**Empirical focus** This talk demonstrates both these principles of explanation in theoretical linguistics by focusing on a range of person-argument restrictions in the Kiowa-Tanoan languages. Using the notation  $x:y:z$  for agent  $x$ , applicative  $y$ , patient  $z$  (and  $x:z$  for a simple transitive), the restrictions are the Strong Person-Case Constraint ( $*x:y:1/2$ ), Differential Object Marking ( $x:3INAN \neq x:3AN$ ), a ban on third person agents acting on first or second persons whether applicative or patient ( $*3:1/2$ ,  $*3:1/2:z$ ), and a broader ban on third person agents acting on any applicative ( $*3:y:z$ ). As the table below shows, Kiowa has the first of these, Tewa, the first and second, Jemez and Taos, the first, second, and third, and Tiwa, all four (though the last can be overridden in special circumstances, discussed below; hence the parentheses).

(1)		Kiowa	Tewa	Jemez, Taos	Isletan Tiwa
	$*x:y:1/2$ (sPCC)	✓	✓	✓	✓
	$x:3INAN \neq x:3AN$ (DOM)		✓	✓	✓
	$*3:1/2$ , $*3:1/2:z$			✓	✓
	$*3:y:z$ (esp. $*3:3:3$ )				(✓)

This novel typology corrects two longstanding claims in the descriptive and subsequent theoretical literature. Kroskrity’s (1985; see also Klaiman 1992, Zúñiga 2006) Tewa passives are differential object marking on a par with Spanish *léismo*. And Allen, Frantz, Gardiner, and Perlmutter’s  $*3:3:3$  ban in Southern Tiwa (of which Isletan is a variety) is not absolute: it may be obviated in specific discourse structures (which elicitation alone would be unlikely to reveal).

**Theoretical claim** My core claim is simple: that this entire incremental range of variation can be attributed to a single feature,  $\pm$ participant, which is put to use in different ways across the family.

My point of departure is the account of the Strong Person-Case Constraint and of Case Syncretism (defined below) given by Adger and Harbour (2007), specifically addressing Kiowa. They claim that  $\pm$ participant plays two distinct roles. First, its conventional semantic role is to divide up the person space (along with the feature  $\pm$ author) yielding familiar person categories such as first, second, and third. Specifically, they claim that first and second person must be specified for  $\pm$ participant, in order to derive their meaning, but third person may be underspecified, that is, it may have no specification for the feature, or it may be specified as  $-$ participant. Second, Adger and Harbour claim that  $\pm$ participant is used to license applicative arguments: Appl bears the feature, which must Agree with its specifier in order for the applicative to Merge.

In brief, this derives the sPCC because, if the object is personless (third person), then Appl’s  $\pm$ participant feature remains to license its specifier. If, however, the patient is first or second person and so is specified for  $\pm$ participant, then Appl obligatorily agrees with it and has no feature left for its specifier. Moreover, it entails that third person arguments have different feature specifications depending on whether they are direct objects or indirect objects: in the indirect case, they are specified for  $\pm$ participant (as  $-$ participant). This is reflected in, e.g., French: the 3P.ACC clitic is *les* (realising just P), 3P.DAT clitic is *leur* (realising P with

–participant). By contrast, first and second person bear  $\pm$ participant inherently, as part of their meaning, and so do not change feature specification when direct versus indirect objects. Correspondingly, *nous*, say, means both 1P.ACC and 1P.DAT (what Adger and Harbour call Case Syncretism).

The properties that this accounts for in Kiowa also hold across the Tanoan languages. So, I propose to build on the approach and to reduce the other argument restrictions to further parametrisation of the participant feature. For differential object marking, this amounts to addition of –participant to some third persons, even when they are not applicatives. Restrictions on third person agents result, by contrast, from extending the licensing mechanism of applicatives to external arguments, meaning that feature specifications of lower arguments can bleed the capacity of *v* to Merge its specifier.

**Tewa** Tewa distinguishes inanimate from animate object agreement. For instance, inanimate *i-mû* ‘I saw it/them’ (3S:3-saw) is number insensitive and distinct from animate singular *ôe-mû* ‘I saw him/her’ (3S:3S.AN-saw) and plural *ôvây-mû* ‘I saw them’ (3S:3P.AN-saw). Being number sensitive, animate direct object agreement is like applicative agreement (e.g., 1:2S *wí* versus 1:2P *wây*). Moreover, the form of animate direct object agreement is distinctly dative, often resulting in transparent Case Syncretism: just as transitive 1:2D *wân* and ditransitive 1:2D:3 *wân* are identical, so are transitive animate 1:3D.AN *dovân* and ditransitive 1:3D.AN:3 *dovân*.

I capture this by positing that, for third person, animate direct objects bear –participant (just like applicatives), in contrast to inanimate ones, which have no specification for  $\pm$ participant. This makes two predictions, both correct. First, –participant direct objects have the same semantic interpretation as indirect objects in Kiowa: they are restricted to animates and animate-like bearers of mental states. Second, animate object agreement will be barred exactly where first and second person (i.e.,  $\pm$ participant) object agreement triggers PCC violations. Configurations like ‘Tell them (3D.AN) to come out for me’ use inanimate object agreement *dîn* 2:1:3, rather than *\*dî+ovân* (= *dovân*?) 2:1+:3D.AN.

Moreover, a –participant versus nonparticipant dichotomy between third persons correctly cuts two further phenomena at the joints. Optional differential subject marking occurs only when a lower argument (any person, direct or indirect object) bears  $\pm$ participant. And incorporation is permitted only for nonparticipant direct objects. (Examples omitted for reasons of space.)

**Jemez, Taos, Tiwa** These languages restrict third persons from being agents depending on the person of lower arguments. To account for this, I suppose that, when *v* licenses a third person argument, it does so via the same mechanism of agreement as Appl uses (agreeing with a –participant-endowed third person). Consequently, a third person agent is only licit when there is no first or second person, no indirect object, and no animacy-coded direct object. This correctly derives the most restrictive language, Isletan Tiwa. However, even it permits 3:3:3 configurations, provided that the agent is the prominent protagonist of the discourse. Adapting Pykkänen’s division of applicatives in (low) noun-related and (high) event-related ones, I interpret some arguments as having two licensing conditions: via phi-features (as explored so far above) and via event features. Just as (high/ethical) event-related benefactives are immune from PCC effects (Bonet 1991), so event-licensed agents are immune from –participant licensing and bleeding by lower arguments. I propose that event licensing is always available for first and second persons (otherwise 1/2:2/1 would be ungrammatical in these languages in the same way way that *\*x:1/2:2/1* is). The difference between Tiwa and Jemez/Taos, then, comes down to the circumstances under which they are prepared to attribute first/second-person properties of agenthood to third persons.

Just as Kiowa and other languages may use a prepositional dative to avoid the PCC, so Tiwa and kin use a prepositional agent to circumlocute third person agent restrictions. These amount to passives. Interestingly, then, the differential object marking that triggers pseudo-dative agreement in Tewa is predicted to trigger passivisation in Tiwa and the like. This, then, is a case where minor alterations in underlying specifications of a single feature can result in very divergent surface structures, a result that emphasises the utility to Generative research of fully articulated, carefully examined theory of features.