Clitic dissimilation and dependent case

Summary: Baker (2015) suggests that the theory of dependent case—that case is assigned based on the structural relationship between nominals—is essentially a formulation of the idea that morphological case functions to differentiate nominals. This paper provides novel evidence for this claim from the clitic system of Yimas (Lower Sepik; Papua New Guinea). In Yimas, grammatical relations are encoded on a series of optionally doubled clitics; the DPs they double are morphologically unmarked. Because clitic doubling is optional, there may be fewer clitics on the verb than total DPs in the syntax. Crucially, the morphological form of a given clitic covaries with the total number of clitics, even when the sentence-level syntax is held constant: the realization of a clitic is thus *dependent on its clitic environment*. I argue that this context-dependence is underlyingly a *dissimilation process*. Clitic dissimilation is triggered whenever the structure would otherwise contain multiple morphosyntactically indistinguishable clitics; this arises whenever multiple DPs are clitic doubled, since DPs in Yimas are morphologically invariant themselves. The link to dependent case comes from the parallel between the distribution of clitic forms and that of dependent case on nominals (Marantz 1991, a.o.), in that both are controlled by morphosyntactic context, albeit in different structural domains. The strength of this parallel reveals that dependent case is also fundamentally a dissimilation process.

Fundamental observation: The clitic forms are drawn from three classes: A, B, and C. When all the DPs in the syntax are clitic-doubled, the clitics have a distribution strongly reminiscent of absolutive, ergative, and dative case on nominals: class-A clitics reference objects and intransitive subjects (~ABS), class-B clitics reference transitive subjects (~ERG), and class-C clitics reference indirect objects/causees (~DAT) (1).[1] However, when one or more clitics are missing, *B and C fail to surface*. In (2b)-(3b), the direct object is not clitic-doubled: in (2b), a transitive subject, which we might expect to be referenced by a B clitic, is instead referenced with A; similarly, in (3b), a causee that would otherwise be doubled with C also surfaces as A.

(1) a. **pu**-wat
3PL.A-go
'They went.'

b. **pu-n**-tay
3PL.A-3SG.B-see
'He saw them.'

c. uraŋ **k-ka**-tkamr-**akn**
coconut.6 **6S.A-1SG.B**-show-**3SG.C**
'I showed him the coconut.'

(2) a. **na**-**kay**-cay
3SG.A-**1PL.B**-see
'We saw him.'

b. Mitchell **ipa**-tay
Mitchell **1PL.A**-see
'We saw Mitchell.'

(3) a. tpuk **ka-ka**-na-tmi-amnt-**akn**
pancake.10 **10S.A-1SG.B**-DEF-CS-eat-**3SG.C**
'I made him eat it (a pancake).'

b. irwa **na**-**mpu**-tmi-ampat
mat.9 **3SG.A**-**3PL.B**-CS-weave
'They got her to weave a mat.'

Analysis: I propose that the class-A clitics have an *elsewhere* distribution (i.e., are default forms), surfacing wherever class-B and C clitics cannot. Moreover, clitics are by default class-A as a result of clitic doubling (movement of a pronominal D^0; e.g., Uriagereka 1995); this accounts for the morphological identity between the A-clitics and the pronominals (boxed) (4).

(4) a. **kapwa** taŋka-mpi **kapwa**-wat
2DU where-ADV **2DU.A**-go
'Where have you two gone?'

b. **ipa** wara **ipa**-na-amn
1PL.A what **1PL**-DEF-eat
'What do we eat?'

Though all clitics originate as class-A, they are often realized instead as class-B or C. I propose that this is the result of *clitic dissimilation* (5), which arises due to a general anti-identity

[1] All examples are from Foley (1991). Clitics are bolded, and are additionally boxed when under discussion. **Abbreviations:** A = class A, B = class B, C = class C, ABS = absolutive case, CS = causative, DAT = dative case, ERG = ergative case, NEG = negation, POT = potential, SG/DU/PL = singular/dual/plural, 1/2/3 = 1st/2nd/3rd person, 6/10 = noun classes 6/10.

requirement militating against morphosyntactically non-distinct objects (cf. Richards 2010)—here, multiple class-A clitics. The rules in (5) capture the context-dependence of the B and C forms, as well as the grammatical relations they encode; for instance, clitics referencing subjects are either class-A or B, while clitics referencing IOs/causees are either class-A or C. In two-clitic constructions, only (5a) applies, yielding Cl_A-Cl_B; in three-clitic constructions, both rules apply, yielding Cl_A-Cl_B-Cl_C. The fact that there is never more than one A-clitic per verb (Phillips 1995) follows from the obligatoriness of dissimilation.

(5) *Clitic dissimilation rules in Yimas:*
   a. A clitic α is realized with a **class B** form if it co-occurs with a clitic β, where the DP doubled by α is a subject in the sentential syntax.
   b. A clitic α is realized with a **class C** form if it co-occurs with clitics β and γ, where the DP doubled by α is an indirect object or causee in the sentential syntax.
   c. If both rules can apply to a clitic sequence, apply rule b. before rule a.

Evidence for clitic-specific dissimilation: The rules in (5) are computed *internal to the domain of clitics*, and are independent of the sentence-syntax. This is supported by the behaviour of a set of non-doubled morphemes that do not tolerate class-A clitics (Phillips 1993, 1995; Gluckman 2014). When such morphemes are present, a clitic that is expected to surface with a class-A form is instead *realized with a B form* (6). Crucially, these morphemes do not obviously reference anything interacting with DPs at the sentence-level, but are sufficiently similar to the A-class clitics to trigger clitic dissimilation. These morphemes also sometimes idiosyncratically trigger other dissimilatory processes, further demonstrating that the effects discussed throughout are dissimilation: in (7) the class-A clitics are *impoverished* or *deleted altogether*.

(6) a. **ama**-wat
   1SG.A-went
   'I went.'

   b. ant-**ka**-wantut
   POT-**1SG.B**-went
   'I would have gone.' ($Cl_A \rightarrow Cl_B$)

(7) a. ta-**pu**-wat
   NEG-**3**-went
   'He didn't go.' ($Cl_A \rightarrow$ *impoverished*)

   b. ant-∅-**ka**-tur-um
   POT-~~**3PL.A**~~-**1SG.B**-killed-PL
   'I almost killed them.' ($Cl_A \rightarrow \varnothing$)

Dependent case: The clitic patterns in Yimas mirror the *dependent case* system of Marantz (1991), a.o., whereby case is assigned through competition between case-requiring elements. Like dependent case, the rules determining the surface form of a clitic are calculated among morphosyntactically similar objects in a particular domain (here, the span of clitics). As noted above, the clitic classes A, B, and C behave like absolutive, ergative, and dative case respectively. This parallel still holds under a dependent treatment of ERG and DAT case, which correctly predicts that these cases may be bled—realized as ABS/NOM, the default—when their realizational environments are not met, just as a clitic in Yimas remains class-A whenever the dissimilation rules do not apply. For instance, Podobryaev (2013) shows that incorporating the direct object into the verb in Alutor blocks dependent DAT case on the indirect object.

(8) gəm-**nan** akka-**ŋ** tə-nə-svitkuvətkən utte-**ʔut** ⟶ gəm-**nan** **akək** tə-n-u-svitkuvətkən
   1SG-**ERG** son-**DAT** 1SG.A-CS-cut wood-**ABS** 1SG-**ERG** son.**ABS** 1SG.A-CS-wood-cut
   'I am making the son cut wood.' 'I am making the son cut wood.'

We thus see striking parallels between dependent case at the sentence-level cross-linguistically and morphology determined internal to the clitic domain in Yimas. This suggests that they arise from the same general mechanism—*dissimilation*, driven by a well-formedness condition cross-cutting different structural domains. This offers a reinterpretation of the logic behind dependent case: nominals are by default ABS/NOM, and surface with morphological (dependent) case only when required by well-formedness considerations mandating distinctness.