

Reconsidering sonority dispersion and liquid vs. glide offsets:
What do the typological facts indicate?

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In some languages exhibiting syllable-initial clusters (C_1C_2V), the offset (C_2) may only consist of a liquid. In other languages, C_2 is always a glide. In all languages of these two types, at least some of the anchors (C_1) are obstruents. Clements' (1990, 1992) model of sonority dispersion claims that liquids are the least marked type of offset. In opposition to this, proposals for minimum sonority distance favor glide offsets. These include classical parametric models such as Steriade (1982), Selkirk (1984), and Levin (1985), as well as OT accounts (Baertsch 2002, Zec 2007, etc.). These two general approaches, then, make contradictory claims, yet both of them have some empirical support. These facts point to a harmonic contradiction in terms of the universally unmarked onset cluster:

$OL \succ OG$ vs. $OG \succ OL$ (where O = obstruent, L = liquid, G = glide)

The sonority dispersion model has been successfully applied to the analysis of several attested languages (Al-Ahmadi Al-Harbi 2002, Carlisle 2006, Christman 1992). Nevertheless, there are many other reported languages in which offsets are always glides (Parker 2012), suggesting that minimum distance constraints are also on the right track. This raises a crucial question: which approach is correct? To my knowledge, no extant approach to phonotactics can adequately deal with the full range of cross-linguistic facts. This is because most formal models start from the basic assumptions of either the sonority dispersion or the sonority distance theory, whose predictions are in part mutually exclusive. The goal of this paper is to explore three related questions: (1) Does the majority of the empirical evidence indicate a cross-linguistic preference for either liquid or glide offsets overall, and if so, which one? (2) Why should this be the case? And (3) What is the best way to model this formally in a unified and principled approach that can systematically generate both types of languages (CG-only and CL-only)?

This problem highlights a major weakness with Clements' (1990) argumentation: the extreme paucity of empirical facts supporting his theoretical claims about the relative markedness of certain cluster types. While several of the predictions of his dispersion rankings are clearly true, some of them are dubious, and certain others simply appear to be wrong. For example, although his formula ranks ONV as less marked than NGV, I have identified 96 languages containing NG onsets (most without ON) but only 39 allowing ON. What is needed to help resolve this lacuna is an examination of hundreds of languages containing complex onsets. The preliminary results I have compiled from over 570 languages converge in indicating that glides rather than liquids are the unmarked offset consonants universally, contra Clements.

Based on this typological survey of onset cluster inventories, I conclude that constraints on minimum distance between C_1 and C_2 ultimately explain the facts most elegantly, and with greatest empirical coverage. In order to account for all language types I am aware of, I posit a family of Minimum Distance to Offset (MDO) constraints, building on the glide and liquid continua of Parker (2012):

GG → LG → NG → OG [Glide Offset Continuum]
(the presence of GG onset clusters in a particular language implies LG, but not vice-versa)

LL → NL → OL [Liquid Offset Continuum]

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