Reconciling diachronic and synchronic accounts of ejectivization

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A well-documented source of ejective consonants is the fusion of a voiceless obstruent with a following glottal stop through the temporal overlap of the oral and glottal articulations. Fusion as a historical source of ejectives is well-attested through comparative data (Fallon 2002). The crosslinguistically frequent pattern by which ejectives are restricted to word-initial and -medial positions has also been used to argue for fusion as a source of these consonants (e.g., Rude 2012 for Proto-Sahaptian). Fallon (2002) surveyed 28 languages which were reported to have synchronic processes of fusion producing ejectives. An intriguing pattern in his survey which he does not discuss is that 27 of the languages already have contrastive phonological ejectives in their consonant inventories, and most belong to families (e.g., Athabaskan, Mayan, Salishan, Wakashan) whose protolanguages are also reconstructed to have ejectives. Thus, the presence of synchronic fusion processes in a language characteristically implies a long history of ejectivization within that language.

While a handful of the fusion processes surveyed by Fallon (2002) are phonetic, most are morphophonological. Interestingly, synchronic phonetic sources for ejectives are crosslinguistically infrequent but relatively diverse in quality. In the sound change databases of Bybee & Easterday (to appear), Easterday (2019), and Mielke (2008), just four of the more than 700 combined languages are reported to have a phonetic process producing ejectives. Only one, Zuni, involves fusion. In Zulu, aspirated stops become ejective following a homorganic nasal, and in Acehnese and Limbu, voiceless stops may be ejectivized domain-finally. Outside these databases, the ejectivization of consonants conditioned by domain-initial position is attested (Pilagá; Vidal 2001). Additionally, the ejectivization of word-final stops is a well-known property of some English dialects (Gordeeva & Scobbie 2013, McCarthy & Stuart-Smith 2013). The prominence of domain-final phonetic ejectivization is particularly surprising, given the common distributional restrictions on these consonants noted above.

On the one hand, there is a diachronically robust path to ejectivization through fusion, and on the other there is a collection of disparate phonetic processes producing ejectives. In phonological reconstruction there has been a reluctance to speculate on the origin of ejectives which have no obvious source in fusion (cf. Jacobsen 1976 for Washo, Chafe 1976 for Caddo), suggesting that other historical sources for ejectives are obscure. Further, the strongly regional distribution of ejectives (Everett 2013, Urban & Moran 2021), means that surveys like Fallon (2002), which emphasize the role of fusion, are biased towards certain areas and particularly North America. These facts raise a number of interesting questions about sound change as it relates to ejectives, including issues of phonetic patterns phonologizing at different rates, lifespans of different sound change trajectories, and whether some paths are limited areally, historically, or by the initial structural conditions present within languages.

This paper seeks to better elucidate the range of diachronic sources and trajectories associated with ejectivization through a systematic typological study. The language sample takes as its starting point the 189 languages recorded as having ejective phonemes in PHOIBLE (Moran & McCloy 2019), which represent 65 families from Africa, Eurasia, North America, and South America. For each family with available reconstructions, the relevant proposed proto-language(s) will be coded for the presence of and distributional restrictions on ejectives, and hypothesized sources of innovative ejectives in the daughter languages will be noted. The acquisition of ejectives through contact will also be noted. This historical data will be compared with a comprehensive crosslinguistic survey of synchronic phonetic processes producing ejectives in order to better understand and perhaps reconcile the apparent disparity between fusion and other phonetic sources of ejectives.

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