Sonority and the typology of Turkic onset obstruentisation

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In various of the Kipchak and Siberian Turkic languages[1], suffixes with sonorant onsets undergo obstruentisation conditioned by the preceding coda segment; a partial sample of the total inventory of data is given in table 1 below. The general form of all such patterns is that sonorancy is preserved if preceded by a high-sonority coda, and destroyed if preceded by a low(er)-sonority coda—Kazakh [alma.lar] 'apples', but [kitap.tar] 'books'—but individual cases show variability in the 'cut-off point' for obstruentisation, and in the targeting of presumably sonority-equivalent segments with different place specifications.

Language	Onset	Preceding coda: vowel	glide	r	l	n, m, ŋ	voiced obst.	voiceless obst[2].	Source
Bashkir	l	baqsa.lar garden-PL	taw.ðar mountain-PL	jər.ðar place-PL	kyl.dær lake-PL	urman.dar forest-PL	kolxoz.dar kolkhoz-PL	kitap.tar book-PL	Poppe 1964
	n	baqsa.nɨ garden-ACC	taw.ðɨ mountain-ACC	jər.ðɨ place-ACC	kyl.də lake-ACC	urman.dɨ forest-ACC	kolxoz.do kolkhoz-ACC	kitap.tɨ book-ACC	
	m			al.ɨr.mɨn take-COND-1SG	al.mam take-NEG				
Kazakh	l	alma.lar apple-PL	taw.lar mountain-PL	kijar.lar cucumber-PL	køl.dar lake-PL	adam.dar man-PL	qɯz.dar girl-PL	qus.tar bird-PL	Mukhamedova 2015
	n	alma.nɯ apple-ACC	taw.dɯ mountain-ACC	kijar.dɯ cucumber-ACC	køl.di lake-ACC	kelin.di bride-ACC	qɯz.dɯ girl-ACC	qus.tɯ bird-ACC	
	m	alma.ma apple-INT	taw.ma mountain-INT	kijar.ma cucumber-INT	køl.me lake-INT	ʒaŋ.ba sleeve-INT	qɯz.ba girl-INT	qus.pa bird-INT	Gouskova 2004
Khakas	l	pu.lar this-PL	toj.lar wedding-PL	pyyr.ler wolf-PL		ton.nar fur coat-PL	taɣ.lar mountain-PL	aɣas.tar tree-PL	Anderson 1998
	n	ʃkola.nɨ school-ACC	toj.nɨ wedding-ACC	taɣ-lar.nɨ mountain-PL-ACC		ton.nɨ fur coat-ACC	taɣ.nɨ mountain-ACC	inek.ti cow-ACC	
Shor	l	aba.lar father-PL	saj.lar pebble-PL	asqɨr.lar stallion-PL	køl.ler lake-PL	**mon.nar** coat-PL		kas.tar goose-PL	Dyrenkova 1941
	n	pøry.ni wolf-ACC	saj.dɨ pebble-ACC	kebe-ler.di boats-PL-ACC	abɨl.dɨ hoe-ACC	**korum.nɨ** deposit-ACC		køryk.ti chipmunk-ACC	Chispyakov 1992
Tuvan	l	bala.lar child-PL		dækter.ler notebook-PL	ool.dar boy-PL	**kyn.ner** sun-PL		at.tar horse-PL	Mawkanuli 2004
	n	bala.nɨ child-ACC		dækter.ni notebook-ACC	ool.dɨ boy-ACC	**kyn.ni** sun-ACC		at.tɨ horse-ACC	
	m	kumda.ma angry-NEG		dur.min stay-1SG	gel.be come-NEG		gag.ba put-NEG	bil-bes.ben know-NEG-1SG	

Table 1: Summary of selected Turkic desonorisation patterns, for 5 of 11 languages considered. Grey cells undergo desonorisation. **Bolded** are those I analyse as being nasalised by assimilations also targeting all post-sonorant stops.

The property that all attested patterns have in common is *continuity* with respect to the assumed position of the triggering coda on the sonority scale. If we assume an ordering *vowels* > *glides* > *liquids* > *nasals* > *obstruents* (Clements 1990; Parker 2002, 2008; Wright 2004), then if a given coda triggers desonorisation in a following sonorant onset α, then it is the case in every pattern that desonorisation will also apply *to that onset* α after all equal or lower-sonority codas. This continuity, however, does not hold in the reverse: if a particular coda triggers desonorisation in an onset α, it is *not* the case that all onsets of equal or higher sonority must desonorise.

[1] Altai (Dyrenkova 1940; Kotvič 1962; Schönig 1998), Bashkir (Poppe 1964), Chulym (Li et al. 2008; Schönig 1998), Chuvash (Krueger 1961), Dolgan (Stapert 2013), Kazakh (Davis 1998; Gouskova 2004; Mukhamedova 2015), Khakas (Anderson 1998), Kyrgyz (Gouskova 2004; Herbert & Poppe 1963), Noghay (Csató & Karakoç 1998; Karakoç 2013), Sakha ('Yakut') (Krueger 1962; Odden 2005), Shor (Schönig 1998; Chispyakov 1992), and Tuvan (Mawkanuli 2004; Anderson & Harrison 1999).

Type of repair	Segment		
	l	n	m
Desonorised after any [+consonantal]	4	5	1
Desonorised only after some segments	6	3	2
Never desonorised	1	0	1
Absent underlyingly	0	3	7

Table 2: Individual sonorants across patterns of onset desonorisation (number of cases).

Data of this type from cases in Kazakh and Kyrgyz appear previously in the literature on sonority-driven alternations (Davis 1998; Gouskova 2004), attributed to Syllable Contact and related families of constraints militating against coda-onset sequences with rising sonority; these accounts, however, do not include data for the /n/-initial accusative in Kazakh. **In this talk**, I will argue that these existing approaches are insufficient to capture the observed typological variation: these patterns of seemingly sonority-mediated obstruentisation in Turkic show *place*-dependent non-uniformity across onset segments with identical manner, which behaviour is not predicted by previous accounts. Sensitivity to featural markedness is not accounted for by theories of a fixed, universal sonority hierarchy, and has been explicitly prohibited in several theories[3]. The proposition of De Lacy (2002, 2006) (and also Gouskova 2004, who follows this) is that scales involving subsegmental properties (dependents of the root note, like place or voice) and scales involving non-subsegmental properties (like sonority) must be unable to refer to each other.

The most analytically intractable patterns can then be enumerated as follows: first, the split in the behavior of the coronal and labial nasal; second, the unexpected dispreference for onset coronal nasals, relative to onset coronal laterals; third, the disjoint behaviour of participating segments in onset versus coda position. Considering the examples for Kazakh, the sequences [j.m], [r.m], and [l.m] are all acceptable, but not [n.m]; [j.l] and [r.l] are acceptable, but not [l.l], [n.l] or [m.l]; all possible C.n sequences are banned. The fact that onset /n/ desonorises in a wider range of environments than /m/ or /l/ has no consequence here for the behaviour of /n/ as a coda; n.[son] sequences and m.[son] sequences pattern identically, and both are less favourable than l.[son] sequences (both [l.m] and [l.n] may surface). It is difficult then to escape the conclusion that the relationship between coda-acceptability and onset-acceptability is non-uniform.

Our theory must account for the existence of this within-language discontinuity in tolerance for sonorant onsets, without sacrificing the insight that *given a particular onset segment*, the operation of desonorisation shows scalar behaviour. Based on the descriptive facts, I make the following propositions in this analysis: first, that (contra the axioms of De Lacy 2002, 2006; Gouskova 2004) it is possible to permit featural markedness scales and structural elements such as moraicity to interact, and consequently, featural markedness scales and 'combined' scales corresponding to coda-onset sequences; second, that the scale of prominence for *onsets* alone undergoes a reordering that accounts for the anomalous patterns in onset desonorisation.

[3]Morén (2001) gives cases in Hungarian and New York English in which the less-sonorous [ŋ] is moraic while the more-sonorous [l] is not; Iosad (2013) describes a pattern in Pembrokeshire Welsh in which dorsal & labial nasals ŋ, m but not coronal sonorants n, l, r undergo (weight-driven) gemination together with the lowest-sonority segments.