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Pourquoi il n'y a pas de pharyngalisation ?

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Si les études sur les consonnes pharyngalisées de l'arabe (les « emphatiques ») ont porté sur la nature de ces consonnes et de l'articulation secondaire qui leur est associée, elles ont plus souvent débattu des effets de coarticulation, c'est-à-dire de la célèbre « diffusion de l'emphase ». A côté de travaux essentiels comme ceux de S. Ghazeli (1977, 1981), la phonologie générative et ses récentes variantes optimales ont suscité de nombreux débats sur cette « diffusion » (types de règles, itération, extension du domaine etc.).

L'ensemble de cette littérature sur la « diffusion de l'emphase » (et spécifiquement l'interprétation du terme « pharyngalisation ») a souffert d'une confusion entre, d'une part la reconnaissance des effets de coarticulation et, d'autre part, les descriptions par règles de réécriture ou par contraintes de propagation (*spread*). Nous montrerons, dans un cadre purement déclaratif (Bird 1995, Angoujard 2006), que la présence de segments pharyngalisés (que l'on peut désigner, pour simplifier, comme non « lexicaux ») n'implique aucun processus modificateur (insertion, réécriture). Nous en profiterons pour indiquer que la question du « domaine » de l'emphase et de son asymétrie peut être efficacement analysée dans le cadre des grammaires d'unification.

La conclusion sera simple : il n'y a aucune raison de supposer l'existence de processus chargés de « transformer » (de réécrire) un segment simple en segment pharyngalisé. Mais on peut être rassuré : s'il n'y a pas de « pharyngalisation » (au sens de tels processus), il n'y a pas davantage, par exemple, de palatalisation...

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Typologising resonance patterns in Arabic and North-East Caucasian

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Arabic is well known for having a healthy array of post-velar segments, including uvulars, pharyngeals and emphatics. There is no paucity of literature (both phonological and phonetic) on various aspects of these segments and their behaviour. This paper presents an approach which deals with 'backing' in a systemic context: I argue that 'backing' is merely one part of a cross-linguistically variant sound-system resonance patterning which must be viewed as a whole. I argue that 'backness' (*tafxīm*) in Arabic is a resonance contrast that interacts crucially and necessarily with 'frontness' (*imāla*) and sometimes with 'roundness'. I demonstrate how this is very effectively captured through the adoption of an Element framework (Bellem 2008), of which the resonance elements I, A and U characterise the Arabic sound system(s).

I present a comparison of resonance patterning in Damascene and Baghdadi Arabic, showing how Damascene is a dialect with a resonance dichotomy (A–I), while Baghdadi has a resonance trichotomy (A–I–U). This is briefly exemplified in the patterns below. A resonance element is necessarily associated with each string of segments in Arabic.

(a)	Damascene Arabic	(b)	Baghdadi Arabic	
	ṭābe		*ṭōḍa*	'ball'
	baʔʔālīye		*ḍaġġāl*	'grocery'
	kāẓim		*kāðum*	Kadhim (name)

Typologically, an interesting comparison with Arabic resonance patterns is to be found in the North-East (Nakh-Daghestanian) Caucasian languages. Many Caucasian languages have a remarkable array of uvulars and pharyngeals; the focus here is pharyngealisation', how this may be characterised typologically, and how this pharyngealisation compares with that of Arabic.

Notably, Caucasian 'pharyngealisation' differs both phonetically and phonologically from Arabic-style 'pharyngealisation'. NE Caucasian 'pharyngealised' vowels are comparatively centralised (front vowels are retracted, while back vowels are fronted),[1] an observation which led Trubetzkoy, in his 1931 survey of NE Caucasian sound systems published in 1931, to refer to this 'pharyngealisation' as *emphatische-mouillierung*.

I briefly compare the typical acoustic effects of so-called 'pharyngealisation' in Arabic with that in North-East Caucasian, and then move onto the phonology. An interesting effect of pharyngealisation can be seen in consonantal patterning. For example, in Lak, velars and /l/ are palatalised in words with pharyngealised vowels.[2] Moreover, Bezhta is said to have an active system of harmony, whereby there are "two series of morphonologically distributed phonemes":[3]

(1) *a o u i s z c c'* (2) *ä ö ü i e š ž č č' ʕ ħ*

Within a phonological word, segments from series 1 and 2 do not co-occur. Crucially, series 2 contains pharyngealised vowels, pharyngeals and palatals. Typically, where affixal

[1] Catford (1977: 294), Comrie (2005: 2), among works by other researchers on individual languages.
[2] Anderson (1997: 974). See also Kodzasov's (1987: 143) discussion of epiglottopharyngealisation.
[3] Kibrik & Testelets (2004: 221–2). Note that that *i*, which is present in both series, is derived from both Proto-Tsez **ɨ* and **i*.

vowel alternations in various NE Caucasian languages involve 'pharyngealisation', the trigger can be seen to be either stem-final pharyngeals / (pharyngealised) uvulars, or pharyngealised stem vowels, as is the case in Dargwa.[4]

I argue that the data show the effect of 'pharyngealisation' to be more accurately characterisable as palato-pharyngealisation, i.e. the resonance elements [I] and [A].

I conclude with a brief discussion of the different role of 'pharyngeal' in NE Caucasian as compared with the two Arabic systems discussed in the first half of the paper.

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[4] Van den Berg (2001); Sumbatova & Mutalov (2003).

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The Typology of the Gutturals

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There seem to be at least three points of articulation posterior to the oral cavity: pharyngeals, "adytals," and laryngeals. As non-oral sounds all serve to form sonorants. Their phonology is complex and not yet fully understood.

Most common are the laryngeals, made at the vocal cords as either stops or fricatives. The phonology of these sounds is underdetermined: they may be simply default realizations of a consonant node, C, and thereby lacking in any feature specification save [+C]. Alternatively, they may show a feature [+low], which may be thought of as characterizing low vowels and as being incompatible with both consonantal closure [+C] or with [+high]. Their potential to take [+low] links them with the pharyngeals.

Pharyngeals are made phonetically in three places: (1) in the naso-pharynx (just behind the mouth) by means of both tongue retraction and constriction of the faucal pillars, (2) by simple tongue retraction in the pharynx proper, or (3) at the opening of the larynx, the "adytus." No language seems to contrast faucals with the others. The pharyngeals proper, those made with simple tongue root retraction, [+C(onstricted) P(harynx)], may also show [+low], a variant with contraction lower in the pharynx that presses the tongue root down over the epiglottis so as to partially obstruct the adytus. In many cases, such [+low] pharyngeal are realized facultatively as pure adytals, raucous sounds that can be made with the tongue protruded, something that cannot be done with pharyngeals proper. Hence pure adytals are [-CP, +low], and constitute the third point of articulation. Two Daghestani languages, Dargwa and Aghul contrasts [+CP] pharyngeals with adytals and with laryngeals, using all three articulations. Therefore, a complete feature account remains to be fully established for these sounds.

Because of a low first formant (~ 0.5 kHz) pharyngeals and adytals can mimic high, front vowels, and can exhibit emphatic palatalization as an acoustic effect. By contrast pharyngeals can exhibit lowering as an articulatory effect because of tongue root retraction,[+CP]. These competing effects are seen in a wide variety of language families, including Proto-Indo-European with its so-called "laryngeals."

The pharyngeals and adytals can serve as secondary articulators with all vowels, and with consonants so long as C is [-high]. To wit, one finds pharyngealization with labials, simple coronals (/t, d, etc./), and uvulars, all [-high], but not with alveo-palatals, palato-alveolars, palatals, or velars, all [+high]. In this these gutturals show a complex interplay with consonantal articulation, [+C], above and beyond that seen with vowels, [-C]. By contrast, laryngeals can couple with pharyngeals and adytals as multiply articulated segments, but with no other segments. (Many Daghestani and some Salishan languages have a pharyngealized glottal stop.) Laryngeals serve as a crucial mechanism for supra-segmentals, whether tonal, percussive, or of voice quality, whereas pharyngeals play a limited supra-segmental role. No other articulatory zone exhibits such complex behavior.

Laryngales mayas et instrumentation

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Cette étude s'intéresse au sujet récurrent de la glottalisation dans la langue maya. Cette langue amérindienne, parlée dans la Péninsule yucatèque, Mexique, présente plusieurs caractéristiques glottiques intéressantes (mécanismes glottaux, réduction vocalique à travers des effets de voix craquée) qui se déploient, sur fond d'une polymorphie articulatoire, en diverses réalisations distinguées (Antonia Colazo-Simon, 2007). Le but de cette étude, est de confronter les méthodes d'analyse adoptées par Avelino, Shin et Tilsen (2011), Shosted (2011), Melissa, Frasier (2009), etc., pour l'analyse de la glottalisation vocalique maya à celles menées sur la glottalisation en général (Alexis Michaud, 2006) et sur les phénomènes glottaux mayas en particulier (Antonia Colazo-Simon, 2007). Le degré de constriction aryépiglottique pouvant varier selon le phénomène glottique, la détection de la glottalisation est fondée sur une recherche d'apériodicité des cycles glottiques et une mesure du degré de fermeture des cordes vocales. Nous verrons alors, comment au moyen de données acoustiques, M. Avelino et Melle Frasier parviennent à remettre en question l'alternance de diathèse par des changements dans la racine des syllabes types et quels éléments leurs permettent d'avancer l'hypothèse d'un contraste de tonalité dans le processus de laryngalisation vocalique (abaissement de ton et laryngalisation en fin de voyelle).

A Prosodic Theory of Laryngeal Timing

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We present a cross-linguistic survey of how obstruents and sonorants are pre- and postaspirated, and pre- and postglottalized. In general our study supports Howe & Pulleyblank's claim that 'the distribution of glottalisation appears to be governed by syllable structure' (2001:45) and expands the implications of this in two ways. First, we expand the claim to cover aspiration as well as glottalization, yielding a generalized account of laryngeal timing. Second, we drive the explanation deeper into syllable structure by linking it directly to SONORITY SEQUENCING.

Our main finding is that there are two major patterns for laryngealized sounds across languages. The central pattern is that obstruents are post-aspirated (t^ha) and ejective (t'a) in the onset but pre-aspirated (a^ht) and pre-glottalized ($a^ʔt$) in the coda, while sonorants are the reverse, namely pre-aspirated (^hna) and pre-glottalized (^ʔna) in the onset but post-aspirated (an^h) and post-glottalized ($an^ʔ$) in the coda. We call this *the prosodic pattern* (1) because it follows directly from sonority sequencing if laryngeals are more sonorous than obstruents and less sonorous than sonorants (2).

The second pattern generalizes the way onsets are realized in the prosodic pattern: obstruents are post-aspirated (t^h) and ejective (t') and sonorants are pre-aspirated (^hn) and pre-glottalized (^ʔn), *in onsets as well as in codas*. We call this *the onset pattern* (3). A third pattern generalizing the way codas are realized in the prosodic pattern (*the coda pattern*, (4)) is very rare at best (we found three potential cases), while the logically possible forth pattern, which we call *the antiprosodic pattern* (5) is completely unattested in our survey.

Laryngeal timing in intervocalic position deserves special attention in that it equals onsets in some languages ($t^hat^ha^ht$) but codas in others ($t^ha^ht^ha^ht$), thereby deviding the prosodic pattern into two subtypes. We end with a discussion of breathy voiced consonants ($n^ɦ$, $d^ɦ$) and preglottalized voiced stops (^ʔd), both of which appear problematic for our account.

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(1) *The prosodic pattern* for glottalized and aspirated sounds

	Aspiration	Glottalization
Obstruents	t^ha^ht	t'a^{ʔ}t
Sonorants	^{h}nan^h	^{ʔ}nan^ʔ

(2) The sonority hierarchy

stop < fricative < laryngeal < nasal < liquid < glide

(3) *The onset pattern* for glottalized and aspirated sounds

	Aspiration	Glottalization
Obstruents	t^hat^h	t'at'
Sonorants	^{h}na^{h}n	^{ʔ}na^{ʔ}n

(4) *The coda pattern* for glottalized and aspirated sounds

	Aspiration	Glottalization
Obstruents	^{h}ta^{h}t	^{ʔ}ta^{ʔ}t
Sonorants	n^{h}an^h	n^{ʔ}an^ʔ

(5) *The antiprosodic pattern* for glottalized and aspirated sounds

	Aspiration	Glottalization
Obstruents	^{h}tat^h	^{ʔ}tat'
Sonorants	n^{h}a^{h}n	n^{ʔ}a^{ʔ}n

Laryngeal closed quotient values in relation to the *majhūr-mahmūs* distinction in traditional Arabic grammar.

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The terms *majhūr* and *mahmūs* were introduced into Arabic grammatical studies by Sībawayh in his 8th century treatise *al-Kitāb*. How these terms should be interpreted in modern phonetics and phonology, given that the source and mechanism of voicing was not known at that time in the Arab world (Hassan & Heselwood 2011: 2-3), has been the subject of discussion and some disagreement (Al-Nassir 1993: 35), much of it revolving around Sībawayh's inclusion of *hamza, qāf* and *ṭā'* in the *majhūr* class which makes it problematic to equate *majhūr* with 'voiced'.

In this paper we present results from acoustic and laryngographic analysis of eight male speakers of Arabic, and aerometric analysis of four of them. Our data set comprises 80 tokens each of words containing intervocalic and final /t ṭ d ḍ k q ʔ s z ṣ ð̣ /. Closed quotient (Qx) values are taken at the CV and VC boundaries, and the average Qx value is taken for the VV portion of each word. Qx values express the proportion of a vocal fold cycle during which the folds are in contact. They typically range in speech from c.30% to c.65%. Duration of aspiration at stop release is also measured, and airflow rate.

In our data, *hamza, qāf* and *ṭā'* pattern much more closely with voiced /d, ḍ/ than voiceless /t, k/ in being associated with relatively higher Qx values in adjacent vowels, indicating that laryngeal tension is a key articulatory parameter in the implementation of the distinction; they also exhibit less aspiration and lower airflow rates. Results provide justification for Sībawayh's classification, showing it to be based on airflow as regulated by the larynx.

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Pharyngalization in North-Eastern Neo-Aramaic

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It is generally believed that Aramaic, a North-West Semitic language, originally had 'emphatic' consonants which were realized with pharyngalization, as in Arabic. This historical emphatic consonants have developed in a variety of different ways in the North-Eastern Neo-Aramaic dialects, which are spoken by Christians and Jews originating from northern Iraq, south-eastern Turkey and western Iran. Three main typologies of historical pharyngalization can be identified, which are associated respectively with the following groups of dialects: (i) the dialects of north-western Iraq, (ii) the dialects of western Iran and (iii) the dialects of north-western Iran. Group (i) has broadly speaking preserved the historical type of pharyngalization and its realization is similar to that of Arabic dialects in the region. Group (ii) has lost pharyngalization but has preserved a fossil of it in the form of pharyngal consonants in historically pharyngalized words. In group pharyngalization has been detached as a feature of individual consonant segments and has become a feature of the entire prosodic unit of a word. Certain segments are transparent to the pharyngalization, including in some cases the original emphatic consonant.

De l'influence des gutturales perdues sur la formation des pluriels internes en maltais

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Le lexique maltais se divise en deux sous-ensembles: (a) les lexèmes hérités de la variété d'arabe débarquée à Malte au IX^{e} siècle; (b) les emprunts à des langues indo-européennes, surtout le siculo-italien et, plus récemment, l'anglais (Aquilina 1965). Lexèmes hérités ou emprunts peuvent être nominaux ou verbaux. Nous ne traiterons ici que des nominaux (noms et adjectifs).

Les mots-formes nominaux d'origine arabe sont bâtis sur des radicaux gabaritiques, à savoir des suites ordonnées de consonnes, le plus souvent trois (radicaux "trilittères" ou 3C). Les radicaux bilittères (2C) sont rares, les quadrilittères (4C) assez nombreuses, et les quinquilittères (5C) très rares. Les noms ne connaissent qu'une flexion de nombre, qui peut être interne (infixale) ou externe (suffixale).

Parmi les emprunts, certains ont été "gabaritisés" et montrent une flexion interne: cf. *bank* / *banek* 'banque(s)' < anglais *bank* ou italien *banco*, pseudo-radical √bnk. La plupart forme des pluriels externes, affixaux : p.ex. *xugaman*/*-i* 'serviette(s)' < italien *asciugamano/i*, *ċekk*/*-ijiet* 'chèque(s)'. Pour ceux-là, le radical est fait de consonnes et de voyelles, sans gabarit évident.

Les noms hérités forment en principe des pluriels internes : cf. *qalb* / *qlub* 'cœur(s)'. Il est toutefois fréquent que le gabarit consonantique ne soit plus perceptible, du fait de changements phonétiques propres au maltais, en particulier la perte d'une partie des gutturales arabes.

Peuvent être dites "gutturales" les consonnes qui présentent les traits [–antérieur] et [+arrière] (Chomsky & Halle 1968:133). Seul un sous-ensemble intéresse la présente étude, à savoir :

- Pour l'arabe: les fricatives vélaires voisée et non-voisée /ɣ/ (غ) et /χ/ (خ), les fricatives pharyngales voisée et non-voisée /ʕ/ (ع) et /ħ/ (ح), plus l'occlusive glottale /ʔ/ ء et l'approximante glottale /h/ (ه) (Ladefoged 1975).
- Pour le maltais, la fricative pharyngale non voisée /ħ/ et l'occlusive glottale /ʔ/.

Maltais /ħ/ noté <ħ> recouvre la fusion d'arabe /χ/, /ħ/ et (dans certains environnements) /h/. Quoique noté (<h>), ce dernier n'est pas prononcé, ou bien comme <ħ>. De même, /ɣ/ et /ʕ/, fusionnés et uniformément notés <għ>, ne correspondent à aucun segment prononcé – mais nous verrons que leur présence est susceptible de se manifester. Maltais /ʔ/ noté <q> réalise l'uvulaire non voisée /q/ (ق) de l'AL. (D'autres langues arabes partagent ce trait.)

On se demandera donc si les processus morphologiques responsables de la pluralisation infixale de l'arabe (dont tous les dialectes ont conservé l'ensemble des gutturales) continuent de s'appliquer partout en maltais. Ou bien le maltais a-t-il innové pour une partie de ses lexèmes nominaux une autre forme de flexion interne, non plus infixale, mais apophonique ?

Le cadre théorique de l'étude sera du type "abstractiviste", conformément à la théorie "Mot et Paradigme" (*Word and Paradigm* – Robins 1959 ; Blevins 2006) : les racines et autres formants morphologiques n'ont pas d'existence propre ("lexicale") mais sont abstraits des mots-formes qui les comportent. Le formalisme morphologique utilisé est celui du modèle *Paradigm Function Morphology* (PFM – Stump 2001 ; Bonami & Stump à paraître). Pour la

phonologie, j'adopte le modèle "déclaratif" (Bird 1992 ; Bird et al. 1992 ; Angoujard 2005, 2006).

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A Survey of Laryngeals versus Velars Onsets & Codae and of Laryngeal Compexity in Tseltal

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This research reports on three years gathering and processing data within the framework of the ALTO project ("Atlas Linguistique du Tseltal Occidental"), which aims at providing a first hand survey of dialectal variation in Tseltal, a Western Mayan language of the highlands of Chiapas, in Southern Mexico. It will deal with methodological questions which arise while transcribing and analyzing first hand data for a linguistic atlas. In a previous study on Tseltal (Léonard, Gendrot & Polian, 2010), we were interested in the properties of laryngeal complexity, e.g. as regards the alternation between /h/ and /x/ in different contexts in 16 localities of Tseltal. In a further study covering the same dialect network of Tseltal (Léonard, Gendrot & Polian, 2011), we focused on the so called "rearticulated" or "interrupted vowels" and their different realizations allowing us to cluster Tseltal varieties according to the similarity of the phonological patterns under scrutiny (e.g. V'V *versus* V: and VV). In other words, token exemplarity was considered more important than dialect classification by itself (such as, e.g. in Hopkins, [1970]-1990, Campbell, 1987), in order to provide insights on the structure of the s. c. "complex nuclei" (i.e. categories such as VV, V:, V', V'V, Vh, VhV, see Brown & Wichmann, 2004 and data in Kaufman & Justeson, 2003; Kaufman, 1972; see Silverman, 1997 for similar phenomena in a neighboring phylum), from a typological standpoint.

We found out that empirical linguists in our situation were actually handling two kinds of variability: (i) variability between speakers of the same locality or within one speaker himself. Indeed intra-speaker variability in speech is an expected phenomenon that listeners usually take for granted, but that may prove embarrassing, if one endeavors to skip off this variability as not relevant for the topographic survey of who speaks what and where, in order to fill spots on a linguistic map. Though, we were convinced that variability relies on quanta, as Labovian co-variationism has convincingly demonstrated, and that there should be a way to account for it. (ii) variability found between the different localities, overstressed by dialectologists, since they tend to consider localities as genetically different according to specific realizations, which deserve isoglosses and clear-cut boundaries or bundles of isoglosses on linguistic maps. According to this viewpoint, quanta should be banished, and variation should be doomed to unconspicuousness. Though, quanta do not only blur those lines and frontiers (i.e. the isoglosses): they give them sense, beyond the isoglottic frame. Obviously these two kinds of variability – inner and outer variability – have to be distinguished, but both should be observed as *quanta*.

Previously, linguists were annotating data phonetically, relying on impressionistic transcription. Further analysis tried afterwards to make the phonemes match what the linguist had heard to the phonetic symbols provided by whatever Phonetic Alphabet in use in the empirical domain under scrutiny. Nowadays, the objectivity of this procedure can be seriously questioned, as phoneticians and phonologists make use of quality recording devices that allow accurate spectral analysis, providing a wide range of statistical evidence on acoustical patterns (Praat, by Boersma & Weenink, 2009), hinting at alternative forms of what had too often been too easily taken for granted. However, this doesn't rule out the problems of separating inner and outer variability in a geolinguistic space (or a diasystemic topology), and brings out new methodological issues, mainly based on how to handle any quantum of variation.

Phoneticians make use of several acoustic measurements such as the first three formants for the description of vowel systems, the localization and distribution of energy for the categorization of fricatives or stops (Shadle & al. 1996), the harmonic-to-noise ratio in the realization of voicing of friction, acoustic duration and Root-Mean-Square intensity in selecting between phonemic categories. All these acoustic measurements do not provide binary (nor discrete) values, but continuous values instead, with standard deviation that should be separated in as many categories as needed for the language one observes. We will discuss the need of such instrumental methods, in order to obtain a reliable measurement and a better understanding of the variability present in speech. Instead of a quantum of solace, we'll deal with quanta of laryngeality, duration and sonority. It might be, though, that quanta may provide, at the best, some solace to the dialectologist desperate to reach his holly Grail: accurate notation.

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Gutturales et glottales comme indices pour une théorie de la racine en tchouktche

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On suppose généralement que le tchouktche a des « voyelles glottalisées », qui posent de multiples problèmes de caractérisation typologique, à l'échelle de la comparaison avec les langues du monde. Un certain nombre d'anomalies distributionnelles dont nous rendrons compte laissent supposer que des phénomènes indiciels d'un ordre de structuration en profondeur de la forme des mots se cachent derrière cette catégorie *ad hoc* de la « voyelle glottale » du tchouktche, et derrière l'allomorphie de l'occlusive gutturale /q/. Nous tenterons de faire apparaître des modes de fonctionnements fondamentaux qui n'apparaissent pas explicitement dans la *parole*, et qui relèvent de la *langue*, autrement dit, des phénomènes de structure, au-delà (ou à l'arrière-plan) des *réalisations*.

Nos hypothèses de travail seront les suivantes, numérotées de 1 à 5 :

- [1] la racine lexicale en tchouktche est majoritairement de type CVC ; cette racine peut développée en formes plus dérivées par des augments consonantiques (C3 et C4 dans le tableau 1), dont la distribution est davantage restreinte en C4 qu'en C3 ;
- [2] il y a donc deux domaines radicaux : la racine (C1V1C1) d'une part, les augments d'autre part. Ces augments servent à classifier ou à catégoriser les formes lexicales (noms, adjectifs, adverbes, avec spécifications sémantiques lexicalisées) ;
- [3] il y a bien deux voyelles « centrales » en tchouktche : l'une, dans la racine, qui est une voyelle haute rétractée /ɨ/, l'autre, qui est un schwa [ɤ] et sert de voyelles d'appui pour la syllabation dans le domaine des augments ;
- [4] le schwa [ɤ] n'est pas la seule « voyelle d'appui » : des contraintes d'harmonie vocalique mais aussi d'harmonie syllabique régressive entre coda et noyau entrent en ligne de compte (noyau = V, coda = C4, dans tableau 1) ;
- [5] il n'y a pas de voyelle glottale ou glottalisée en tchouktche : ce qu'on appelle ainsi est en réalité le produit d'une métathèse dans une séquence CV de type Vq-C3, réalisée $V, où q valant pour C2 antécède V1, tandis que C3 vient occuper sa position dans la grille.

Cette étude sera fondée sur une liste d'une centaine de formes à « voyelle glottale », avec des doublons et formes dérivées avec ou sans cette « glottalisation », réunies par Charles Weinstein & Zoya Weinstein-Tagrina.

Ces cinq hypothèses de travail nous permettrons de suggérer une théorie de la racine en tchouktche. Elle permettra ainsi de mieux comprendre les processus de formation lexicale et donc d'améliorer la conception du dictionnaire. Elle fera apparaître une richesse en affixes bien plus grande que ce qui était supposé jusqu'à maintenant. Les hypothèses [1] et [2], si elles se vérifient, éclaireront également certains aspects de la grammaire du tchouktche, en passant par le prisme d'une particularité de sa phonologie : la voyelle dite « glottalisée », quelle qu'en soit sa nature de construit ou de donné. Nous montrerons comment ce *construit*, parfaitement intégré à la graphie du tchouktche, n'est en rien un *donné*, et qu'en tant que catégorie réputée spécifique à cette langue, une recherche aussi bien interne (par jeux d'alternances, doublets et doublons) qu'externe (par le comparatisme typologique avec les autres langues de la région et les langues du monde), permet de mieux comprendre la structure de la langue tchouktche, encore insuffisamment décrite.

Distribution, réalisation et comportement morphophonologique des uvulaires dans les dialectes inuit

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A l'intérieur de la famille eskaléoute, les dialectes inuit constituent la branche orientale de l'ensemble eskimo. Ils proviennent de la diversification d'une langue parlée aux environs de l'an 1.000 dans le nord de l'Alaska, et dont le proto-système consonantique comportait une quinzaine de phonèmes, parmi lesquels les uvulaires /q/ et /ʁ/. Le but de l'exposé, simple et descriptif, sera d'abord de rassembler les principales données sur le devenir de ces deux phonèmes dans les dialectes inuit actuels, aussi bien du point de vue de leur distribution que de leur réalisation. En fonction du temps disponible, on se concentrera ensuite sur le dialecte du Québec arctique (le nunavimmiutitut), pour présenter la façon dont /q/ et /ʁ/ interviennent dans les processus morphophonologiques.

La corrélation occlusive laryngovélaire dans des variétés néo-arabes et sud-arabiques.

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Dans les dialectes arabes modernes, des variantes de manière et de place sont attestées pour l'uvulaire *q. Ce phonème, on le sait, a fait l'objet d'une attention particulière dans les approches diachroniques du sémitique (Brockelmann 1910, Haudricourt 1950, Martinet 1953, Fleisch 1958, Cantineau 1960, Moscati 1980, Lipinsky 2001) et dans les études de dialectologie comparée (Bergsträsser 1915, Cantineau 1939, Blanc 1964, Rabin 1951, Fischer et Jastrow 1980).

A partir d'études de cas (dialectes du Yémen, du Liban et du Plateau palestinien), on s'intéressera au statut des variantes antérieures (k/ ḳ), postvélaires (q /ʔ / ʔ̣) et glottalisées (qˀ / kˀ) de *q, et à leur distribution à l'intérieur de chaque système. La variante éjective [kˀ], attestée dans le dialecte yéménite de Zabid (Prochazka 1978, Naïm 2008), retiendra notre attention. Elle soulève en effet, la question longtemps débattue du rapport de l'ordre des éjectives à celui des consonnes dites 'emphatiques'. Question sur laquelle reviendra J. Watson à partir de l'examen de deux dialectes Mehri, le Mehreyyet et le Mahriyōt, dans une perspective comparative, arabe ~ sud-arabique. A cet effet, des analyses acoustiques de quelques variantes de *q en arabe et en Mehri seront présentées.

In the discussion of Mehri, we begin with Fresnel, the acknowledged western discoverer of the new Modern South Arabian language family: he describes a set of consonants in Jibbali that are ‘crachées par une emission violente et subite de l’air comprimé dans le larynx’ (Fresnel 1838: 545). His words largely went unheard, however, and Johnstone’s description of ejective reflexes of emphatic consonants in MSAL at the Hamito-Semitic conference in 1970 was described by Leslau as a ‘minor revolution in so far as Semitic is concerned’ (Johnstone 1975b: 157).

The realisation of the emphatic consonants in Mehri is not invariably ejective, however. In the eastern Yemeni dialect, Mahriyōt, with the exception of the velar ejective /k’/, the emphatics are pharyngealised with ejective realisations resulting solely from utterance-final pre-pausal glottalisation (Sima 2009; Watson & Bellem 2010, 2011). In Omani Mehri, also known as Mehreyyet, the emphatics are more mixed, with /k’/ showing ejective tokens in all but some intervocalic environments, /S/ showing ejective tokens utterance initially and finally, and /T/ showing ejective tokens utterance finally and word initially and pharyngealised tokens before the low vowel /ā/ and the back vowels /ō/ and /aw/. In neither Mehreyyet nor Mahriyōt are /s̆/ or /ṣ́/ regularly realised as ejectives, and the interdental emphatic is pharyngealised in all environments.

Here we have two systems: the Arabic system in which the main correlate of emphasis is pharyngealisation, and the Mehri system in which the main correlate of emphasis appears to be glottalisation. Both systems, however, exhibit pharyngealisation and glottalisation. Within this paper, we examine the extent to which the phonological behaviour of each system can help explain the phonological behaviour of the other.

Aspiration in Northern Otomi and the relic of an old fortis/lenis contrast

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On the basis of data from the variety of San Ildefonso Otomi, in Palancar (2009) I have claimed that Northwestern Otomi (Oto-Pamean, Oto-Manguean) has two series of simple plosives based on a sonority contrast /b,d,g/ vs. /p,t,k/.[1] For the voiceless series, there is an interesting phenomenon involving aspiration when the plosives occur to the interior of the word.

For example, when the voiceless occurs as the weak onset of a trochaic word of the type /'CV.**p,t,k**V/ (eg. /'so.**p**a/ 'soup', /'tə.**k**e/ 'to bolt', /'du.**t**u/ 'clothes'), the strong syllable receives an aspiration in coda: ['CV**h**.p,t,kV] (eg. ['so**h**.pa] 'soup', ['tə**h**.ke / 'to bolt', ['du**h**.tu] 'clothes'). Compare with iambic /tsi.'**t**a/ 'god' with no aspiration [tsi_.'ta] or when the word serves as host for a proclitic {dí=**t**əke} '1.present.realis=bolt[3SG]' /dí.'**t**ə.ke/ with no aspiration [dí_.'**t**əh.ke]. The aspiration also occurs in morphologically complex words. Here it precedes the voiceless when it occurs in the coda of the strong syllable /'CV**p,t,k**.CV/ > ['CV**h**p,t,k.CV] (eg. {tʃu-kodo} 'female-turkey' /'tʃu-kdo/ syllabified as /'tʃuk.do/ 'female > ['tʃu**h**k.do], or {pede-gi} 'tell-1DAT' morphophonologically adjusted to /'pet-ki/ and syllabified as /'pet.ki/ > ['pe**h**t.ki]).

This aspiration is found in all Otomi languages, but in a few of them it is better analysed as responding to a fortis/lenis contrast in the phonology. One of such languages is Tilapa Otomi, a very conservative language of the South, which has a fortis/lenis contrast involving the coronal and the dorsal /t̩,k̩/ vs. /t̪,k̪/. Here the lenis is commonly realized by the voiceless phone [t,k]; the fortis by an additional preaspiration [ht,hk]. Compare for example {mi=t̩o} '1POSS=stone' /mi.'t̩o/ > [mi.'to] with {mi=t̪o} '1POSS=mother-in-law' /mi.'t̪o/ > [mi.'**h**to]. The realization of both phonemes is neutralized in absolute initial position /t̩o/ 'stone' and /t̪o/ 'mother-in-law' both realized as [#to].

In my paper, I interpret that the aspiration of Northern Otomi is a relic of an old fortis/lenis distinction existing in historical times. I propose ways in which the change to a system based on a sonority contrast may have happened, showing that the change has left aspiration as a backing phonetic trace left behind of the former system. More interestingly, I will also discuss a very specific morphophonological context involving the enclitization of a plural marker where the aspiration does not occur when it is otherwise expected according to the general rules that explain most of its instances. This is problematic as the context appears to be the only one where the old contrast still survives.

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LA THÉORIE DES LARYNGALES ET LA RECONSTRUCTION INDO-EUROPÉENNE

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La reconstruction de trois phonèmes consonantiques, les « laryngales » (notées **h*$_1$, **h*$_2$ et **h*$_3$), est devenu, au cours du 20^{e} siècle, un des acquis les plus importants de la linguistique indo-européenne. Si la pratique de l'étymologie indo-européenne opère désormais régulièrement avec ces trois laryngales, il est notable que leur reconstruction pose des problèmes considérables, qu'on peut résumer comme suit :

(a) nature des phonèmes appelés « laryngales » : s'agit-il de consonnes ou de sonantes ? leurs traits phonologiques peuvent-ils être restitués ? quelles règles définissent leur capacité à la « vocalisation » ?

(b) effets des « laryngales » sur leur environnement : comment comprendre la notion de « coloration » usuellement associée aux laryngales ? comment offrir une image unifiée de la diversité des effets des laryngales dans les langues historiques ?

(c) impact des « laryngales » sur la reconstruction du système phonologique de l'indo-européen : quelle place les laryngales occupent-elles ? apportent-elles un soutien à la « théorie glottalique » développée depuis une quarantaine d'années par certains savants ?

L'examen de ces questions passera d'abord par une présentation de l'histoire de la théorie des laryngales, avant une discussion des faits linguistiques eux-mêmes qui jouent un rôle dans la reconstruction des laryngales indo-européennes. La question qui restera posée au terme de cet exposé est celle de la compatibilité de cette reconstruction avec la typologie phonologique.