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Voicing ethnicities: ethnic orientation, contact, and lexical borrowing in Chaouia

التعبير عن الاثنيا: التوجه الاثني والاتصال والاقتراض المعجمي في الشاوية

Exprimer les ethnies: orientation ethnique, contact et emprunt lexical à Chaouia

Doct. Haroun Melgani
University of Oum El Bouaghi

Pr. Zoulikha Bensafi
University of Algiers 2

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ملخص

يهدف هذا البحث إلى دراسة العلاقة بين التوجهالاثنيوأنماط اقتراض المفردات العربية في المتغير الشاوي. تقوم فرضية هذا البحثعلى أساس وجود علاقة قوية بين درجة التوجهالاثني وتغير اللهجة الشاوية. المشاركين أصحاب التوجهالاثني العالي يختلفون عن أصحاب الدرجات المنخفضة في التوجه العرقي. قمنا بدراسة وتحليل 399 استبيان وتحليل علاقة الاقتراض اللغوي بالتوجهاتالاثنية لدى كل المشاركين. أثبتت دراسة هذا البحث وجود نسبة عالية من الكلمات العربية لدى المشاركين أصحاب التوجه الاثني العالي أكثر منه عند المشاركين الذي يملكون توجها عرقيا منخفضا تجاه الثقافة الشاوية. أثبتت نتائج هذا البحث فعالية دور التوجهات الاثنية عمليةاقتراض الكلمات العربية المقترضة في المتغير الشاوي في ولاية باتنة.

الكلمات الدالة: التوجه الاثني؛ الشاوية؛ الاقتراض؛ التغير المعجمي.

Abstract

This research seeks to investigate the link between ethnic orientation and patterns of Arabic lexical borrowing in Chaouiadialect. We argue that, speakers who have high ethnic engagement scores would differ linguistically from speakers who have low ethnic engagement scores. Ethnic orientation responses of 399 Chaoui informants were examined in relation with their lexical variation indexes. The results revealed that lexical borrowing is higher among speakers with high ethnic orientation scores than speakers with low scores. Ethnic orientation serves as a boundary that inhibits and accelerates the diffusion of Arabic loanwords in Chaouiavariety in Batna city.

Keywords: ethnic orientation; Chaouia; borrowing; lexical change.

Résumé
Cette recherche vise à étudier le lien entre l'orientation ethnique et les modèles d'emprunt lexical arabe dans le dialecte Chaouia. Les réponses d'orientation ethnique de 399 informateurs Chaoui ont été examinées en relation avec leurs indices de variation lexicale. Les résultats ont révélé que l'emprunt lexical est plus élevé chez les locuteurs ayant des scores d'orientation ethnique élevés que chez ceux ayant des scores faibles. L'orientation ethnique sert de limite qui inhibe et accélère la diffusion des mots d'emprunt arabes dans la variété Chaouia dans la ville de Batna.

Mots-clés: orientation ethnique; Chaouia; emprunt; changement lexical.

Introduction

As of 1960s, first wave variation studies sought to investigate, statistically, the interplay between linguistic variation and global socio-demographic factors. Labovian approaches adopted an '*essentializing*' view, treating speech variables as merely reflections of speakers' social identities (Labov, 1963, 1966). By way of example, early researchers focused on the binary set of male-female biological categorization (Trudgill, 1974). Age-correlated speech differences reflect language change in progress (Boberg, 2010; Chambers, 1995; Labov, 1963).

Class stratification co-varies significantly with language variation, with upper classes being more associated with prestigious, standard forms, and lower-classes being more associated with stigmatized, vernacular forms (Labov, 1966; Trudgill, 1974). In interethnic contact contexts, individual speakers and social groups draw on linguistic resources not only to maintain ethnic boundaries, but also to participate in progressive linguistic changes (Labov, 1963; Poplack, 1978).

However, recent variationist works embraced a multidisciplinary perspective, crisscrossing, theoretically and methodologically, with various social sciences, ranging from social constructivism, social psychology, education and anthropology. Fieldworkers sought ways to redefine and operationalize the construct of identity in variationist sociolinguistic inquiry. Accordingly, generalizations about the role of sociocultural variables in linguistic variation have been questioned, criticized and refuted in several subsequent research surveys. Recent breakthroughs about on language and

gender postulate that "relations between language and social categories like gender and sexual identities emerge out of myriad processes linked to interaction, institutions, genres, roles, and relation" (Robin, 2013, p.368), thus treating gender as a sociocultural construct. Apparent time linguistic changes have been shown to intersect with lifespan changes, whereby individual speakers abruptly alter their speech habits after the critical period in the direction of the whole community speech norms (Eckert, 2012; Sankoff, 2005).

Likewise, there has been a notable shift from interest in examining speech in areas which are stratified on the basis of social class, towards interest in examining speech patterns in locally-based taxonomies, i.e. social networks (Milroy, 1987), koineizing regions, ethnic enclaves and smaller units of organizations like communities of practice (Bucholtz, 2011; Eckert, 2000; Eckert; McConnell-Ginet , 2003). Recent variationist work, also, addressed how speakers construct ethnic identities and index stances and affiliations with other ethnic groups (Cutler, 1999; Fought, 1999, 2003; Hewit, 1986; Rampton, 1995)

This paper seeks to examine the link between ethnicity and lexical borrowing in Batna multiethnic setting. In essence, it stresses the need to move beyond treating linguistic variability as merely a mirror of fixed, predetermined social structures. It, however, embraces the view that identity, be it personal or social, is fluid and multi-faceted and is 'agentively' deployed by speakers to index (construct) various stances, attitudes and affiliations with in-group and out-group memberships (Eckert, 2008, 2012; Mendoza-Denton, 2008).

1. Literature review

1.1 Ethnicity and language change in monolingual and multilingual settings

Since the advent of variationist sociolinguistics in early 1960s, fieldworkers sought ways to understand the intrinsic link between ethnic composition and language change. They examined, in detail, the complex ways in which individuals adopt salient vernacular norms and use ethnically marked varieties to express affiliations with certain ethnic groups. In

predominantly monolingual contexts, researcher studied how ethnic groups participate in ongoing speech changes. In his groundbreaking work of Martha's Vineyard dialect, Labov (1963) found that speakers of Native American and Portuguese descent retained the 'Vineyarder' centralized forms of (aw) and (ay) to mark their strong ties with the island. Fought (2006) noted that adolescents of Puerto Rican origin, who contract with African American peers, lend themselves to adopt salient AAVE features. In the last two decades, however, there has been an increased focus on how speakers use language stylistically to construct ethnicities and to '*Cross*' into other ethnic groups (Rampton, 1999; Cutler, 1999).

That there is a link between ethnic composition and linguistic change in multicultural settings is crystal clear. Lexical borrowing, along with code switching and dialect accommodation, is the most noticeable outcomes of interethnic contact. In North African countries, for instance, fieldworkers were interested in examining Berber-Arabic contact along with its sociolinguistic correlates.

Kossmann (2013) notes that the use of Arabic loanwords in Berber varieties is traceable to the long established coexistence of Arab immigrants and indigenous Berber inhabitants in North Africa ever since the 7th century. The Arabization policies launched in Algeria and Morocco were a crucial historical impetus behind the imposition of Arabic as a 'superimposed' language. Accordingly, these socio-historical factors, along with the rising tide of adherence to 'Arabness' resulted in sizeable amounts of Arabic loans into Berber varieties. Kossmann (2013b) added that the influence of Arabic on Berber was higher and more prominent than the other way around.

In 1984, Chaker engaged with three Berber varieties; namely: Kabyle, Tachelhit and Tuareg. He set the task to examine 200 lexical variables that represent different social domains-e.g., animals, religions, politics, body part...etc. He noted that, except for number 'one' and 'two', all numbers were borrowed from Arabic into all Berber dialects. He added that 'Borrowability'

was higher in 'religion' and 'politics' fields and less notable in other fields, such as 'body parts. Kossmann (2013) found that, although most Berber varieties are 'Medium Borrowers' of Arabic loans, Ghadames in Libya and Siwa in Egypt were comparatively more amenable to borrowing than Kabylia in Algeria.

Berberologists were also interested to examine the development of the so called 'Berber Substratum' North Africa. Substratum influence occurs when speakers import salient features from their heritage mother tongues when using another language (Winford, 2010).Enormous book-length introductions were devoted to discuss patterns of substratum effect of Berber on 'Darija' speech (Arabic Dialect), such as syllable reduction and vowel shortening (/i/ and /ʌ / shift to /ə/), the use of /taa..t / Berber morpheme marker in many Jijel dialect words like 'تاكبورت' [tekəbu:rt], meaning 'boosting' and 'تاوحومت' [tewəhu:mt], meaning labor pain (Kossmann, 2013b), and the affrication of the stop consonant /t/ (Versteegh, 2010).

Walker and Hoffman (2010) noted that early researchers, both in western and Arabic countries, treated ethnicity as a fixed, predetermined social category that mirrors language variation, and disregarded the importance of individuals' subjective evaluations and perceptions about their ethnic identities. Researchers, they stressed, must foreground not only the ways in which individuals aggregate into ethnically marked groups (e.g., blacks, white, Chicanos), but also the extent to which those individuals orientate towards their ethnic cultures.

In keeping with Walker and Hoffman' 'Etic' and 'Emic' approach, we believe that addressing Chaoui speakers' shared cultural norms and ethnic networks, along with their personal evaluations, would yield a clearest image about the mechanisms of lexical borrowing in Batna multiethnic community.

1.2 Berber varieties in north Africa

Berber varieties are spoken in northern parts of the African continent. Geographically, The Berber language continuum stretches from Burkina Faso in the South to the Mediterranean

coast in the North, and from Siwa oasis in Egypt to the Atlantic coast in the west (Kossmann, 2012). Because Berber varieties in Algeria and Morocco are linguistically analogous, they are subsumed under 'Northern Berber' category, whereas 'Eastern Berber' encompasses Berber varieties spoken in Lybia and Egypt.

The sociolinguistic make up in Algeria is diverse, regionally and socially, with nine Berber varieties spoken in different parts of the country: Mzab, Tuareg and Gourara in the South; BeniSnoun and Chenoua in the Northwestern regions; Chaouiaand Kabylia in the Northern and Eastern regions (Kossmann, 2012). Because of the absence of language section in most national censuses, it was difficult to hazard exact estimations about the number of Berber speakers in Algeria. Benrabah (2007) reported that there are roughly 25% speakers who use Berber as their mother tongue, whereas Kossmann (2012) reported that it is spoken by only 20%.

1.3 Arabic-Berber contact in Algeria

The historical origins of Berber piqued the attention of many historical linguists and researchers working with the Afro-asiatic studies. Nevertheless, a glance over the long arc of history reveals that ethnic contact between the indigenous Berber inhabitants and their Arabic counterparts in Algeria and, by and large, is traceable to the eve of Islamic conquests, which lasted from the seventh century to the twelfth century. Due to their strong links to 'Islamic identity' and 'Arabness', Classical Arabic and Modern Standard Arabic gained privileges as codes of prestige, education and sociopolitical transactions (Kossmann, 2013).

Berber dialects, in contrast, were negatively stereotyped in daily interactions. By way of example, Chaouia was perceived by many sedentary Chaoui youngsters and, also, their non-Chaoui counterparts in Batna *'Ville'* as '*archaic'*, '*backward'* and '*ungrammatical*'. However, it was until the last decade that Berber gained a strong foothold in the educational and public spheres.

On the eve of independence, the sociolinguistic situation of Berber cultures became even more complicated. The Arabization policies, which ushered in 1960s, strengthened the marginalization of Berber varieties. Arabization policies resulted in significant linguistic outcomes such that a sizable amount of Arabic standard lexical items replaced Berber words in daily interactions. As of 1970s, new nationalist movements were established, voicing their wrath against the political oppression of Tamazight culture, appealing for an official recognition of Berber in many political and social arenas.

In 2016, Berber was officially recognized as a national language alongside Arabic In Algeria. Accordingly, Berber gained a foothold as the language of national unity and ethnic pride in many '*imaziγən'* (or Berber)communities. It was taught in primary schools and was used as the medium of communication in media (e.g., Beur TV channel). The revival of Tamazight culture, Kossmann (2013) noted boosted a sense of linguistic pride among many scholars and laypeople, especially in great Kabylia (Kabyle), and the Aures regions (Chaouia), Jebel Chenoua, Tipaza (Chenoua) and Ghardaïa (Tumẓabt).

Most 'Northern Berber' varieties in Algeria and Morocco are not endangered. However, Kossmann (2013) reported, ethnic enclaves, which are situated in central and eastern parts, are less immune to language shift. Before the colonial period, Chaouiaand Kabyle were restricted to only close-knit rural areas. It was even argued that urbanization processes and migrations into urban areas threatened Berber status in Algeria (Kossman, 2013). Nowadays, rural villagers use Chaouiain economic transactions and daily interactions. In urban areas, conversely, it is restricted to only 'in group' conversations and home.

2. Method

This research seeks to examine contact-induced ethnolinguistic change in Chaouiain Batna speech community. Specifically, it focuses on the following points:

- Whether Chaouia and Maghribian Arabic dialects converge linguistically;

- Whether ethnic orientation degree towards Berber culture co-varies significantly with patterns of lexical borrowing.

Granted that Batna city is a multiethnic society, Chaouia speakers engage in frequent contact and economic transaction with speakers of Arab origins. Such interethnic contact, along with mobility and urbanization, would yield significant sociolinguistic outcomes in the area-e.g., language shift, the emergence of new Arabic dialects, the development of the so called *Diglossia*(Sayahi, 2014),..etc.

It was predicted that Chaouian speakers' Ethnic Orientation (EO) degree correlates statistically with patterns of lexical borrowing in Chaouia. In order to test this hypothesis, we recruited 399 participants who identify as native speakers of Chaouia or bi-ethnic, that is, whose parents are of different ethnic descents. Table 1 illustrates some socio-demographic information about respondents who will take part in the study. Using 'Judgment sampling', the researcher recruited participants on the basis of pre- social characteristics, ranging from 'ethnic orientation', ethnicity, age, regionality and gender.

Four age groups were selected in this research, namely: adolescents aged 17-20 (9%), young adults aged 21-29 (61.5%), adults aged 30-54 (27%) and elderly aged 55-83 (2.5%). The first two age-cohorts were selected because, it was believed, they represent the focal stages of linguistic innovations, whereas the last two age groups are thought to be more amenable to older, archaic vernacular forms (Eckert, 2012; Llamas, 2007).

Table 1: Stratification of participants by age cohort and gender.

	Gender	
Age cohorts	**Female**	**Male**
Adolescents (17-20)	13	23
Young Adults (21-29)	117	128
Adults (30-54)	31	77
Elderly (55-83)	2	8
Sub-total	163	236
Total	**399**	

The research addresses native speakers of Batna vernacular speech; that is, recruiting only participants who were born or grew up in Batna city. If a speaker lived his first 20 years in another region, say Setif, chances are that he would acquire and use the local linguistic habits associated with that region, and thus will not be recruited in the study.

Almost half of the sample (47.3%) inhabit in predominantly rural areas-e.g., T'Kout, AïnTouta, Ras El Aioun and Arris, whilst 52.7% of the sample inhabits in the urban areas. The majority of participants are by no means 'non-mobile'. By way of example, adolescents and young adults, who live in close-knit rural regions, tend to travel every week into the city to study at the university and/or work.

The majority of participants reported that they migrated from different outlaying rural areas into Batna urban city, where they interact with speakers of Arabic descent. Accordingly, geographically mobile speakers, it is assumed, would lend themselves to lexical borrowing and, by extension, dialect assimilation (Britain, 2013)

2.1 Ethnicorientation questionnaire

In order to investigate the interplay of ethnic orientation and lexical replacement, we used the 'Ethnic Orientation Questionnaire' (EOQ) associated with the work of the social scientists Keefe and Padilla (1987), and which was elaborated by the sociolinguists Hoffman and Walker (2010). In essence, the underlying goal of this research tool is to measure, statistically, the degree of orientation of participants towards their ethnic heritage and see whether it plays a role in the processes of Arabic-Chaouialexical borrowing and dialect convergence.

The questionnaire consists of two main sections, namely: 'informant information, 'ethnic orientation' and 'linguistic tasks'. The former consists of five questions that seek to solicit information about the social background of each respondent: gender, age, residence and linguistic environment. Ethnic orientation section consists of 21 items that address five different, yet interrelated, topics, ranging from ethnic

identification, childhood/current linguistic environment, friendship network, attitudes towards cultural heritage, and language choice. Fittingly, it is of interest to note here that the researcher adopts a 'Topic Method' (Nagy, Chociej; Hoffman, 2012), such that questions addressing one topic are grouped together in one section. So, for example, questions like *'do you think of yourself as Arab or Chaoui?* And *'are most of your friends of Chaoui origins?* Address one topic and so must be grouped under 'Ethnic Identification' section. We quantified each response in the ethnic orientation section using a scoring index of 3 points scale, and thus 2 points represents high orientation towards Chaoui heritage, 1 point represents mixed engagement, and 0 point represents minimum engagement. In so doing, we set the task to investigate the *'Orientation Continuum'* of the whole sample, ranging from High orientation, Medium orientation and low orientation towards Chaouiaheritage (Nagy; Chociej; Hoffman, 2012).

In 'Linguistic tasks' section, informants are presented with 36 lexical variables in the form of a brief description along with their Chaouiaand Arabic variants. The lexical variables are essentially related to various aspects of social life: animals, weather, colors, and verbs. Participants are expected to select the lexical variants they use mostly in daily communication. In lexical item: 'yeqder' [yeqdər], meaning 'be able to', they can choose either the Chaouian variant 'ynedjem' [jnədʒəm] or the Arabic loans 'yeqder' [yeqdər]. We set up a lexical variation index in which, for each variable, the informant gets 2 points for using a Chaouiaword and 00 points for using an Arabic word. Informants' lexical variation indexes were plotted against their Ethnic orientation mean scores. Finally, the relation between EO mean scores and lexical variation indexes was measured with a Spearman rank coefficient test of correlation.

3. Results

Table 2 displays the overall EO mean scores of all informants, along with their total number and range. To begin, the sample was divided into participants with high EO (1-2 points) and

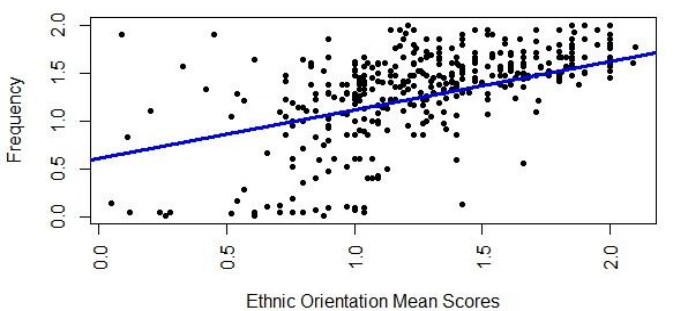
participants with low EO (0-0.99 point). 76,9 % of informants scored high EO index mean (1.21), whereas only a 23,1 % scored low EO index mean (0.76). Informants' ethnic engagement scores were crisscrossed with other age-cohort differentiation. All generations reported strong Ethnic engagement with Chaouiaidentity, with older speakers having the highest EO scores, and younger speakers having the lowest EO scores.

Table2: Overall ethnic orientation mean scores of informants.

Ethnic orientation	Mean	Range	Number of *Respondents*
High High EO	1.26	1	307
Low EO	0.76	0.92	92

As figure 1 shows, there is a strong positive linear correlation between lexical variation index and EO index (Rho= 0.614, p-value < 0.05). As EO increases in value, lexical variation index increases as well. Said differently, participants who contract strong ethnic ties with Chaouia peers, and who have positive orientation towards Chaouiaculture, tend to retain most of their Chaoui words. In contrast, participants with weak ethnic ties and who have low orientation values, use more Arabic words, and thus are more amenable to patterns of lexical borrowing.

Figure 2: Linear correlation of lexical variation indexes and ethnic orientation mean scores.



Not all informants in the sample identified as members of a single ethnic group. Bi- ethnic participants identified themselves as *'half Chaoui', 'half Arab'* because their parents belong to two distinct ethnic groups. Compared to other participants, Bi- ethnic speakers have the lowest scores in both scales: EO index and lexical variation index.

Intriguingly, they reported that they usually mix between Chaouia and (Arabic) '*Dariğa'* varietiesin almost all social contexts and use more Arabic terms in their daily speech interactions. These findings are aligned with Fought's (2006, 2013) idea that 'multiracial speakers' represent 'interethnic contact within themselves. Bi-ethnic participants, because they contract ties with Chaouian and Arab peers, adopted speech features from both linguistic varieties: Chaouiaand *Dariğa*

3.1 Logistic regression analysis

In this section, we set the task to conduct a multiple regression analysis of respondents' variation indexes against five distinct, yet related social predictors in 'Rbrul' program (Johnson, 2009). Lexical variation scores were plotted against one 'natural' factor, mainly regionality, and three 'human' (or social) factors- ethnic orientation, ethnic density, gender and age. In so doing, we run a series of step-wise regression analyses-one level, step-up and step-down, to examine each factors independently and in order of influence.

A set of Rbrul model statistical procedures were, also, run to analyze the interplay and interaction between different sociolinguistic predictors.

Table 3: Multiple linear regression analysis of on lexical variation scores in Batna city. (Fixed-effects model).

R^2= **0.50** Number of Respondents: **39** Grand Mean: **1.40**			
Ethnic Orientation (p= 0.000000146)			
Factors	**Coefficient**	**Mean**	**Number of Respondents**
High EO	0.174	1.523	313
Low EO	-0.174	0.966	86
EthnicDensity **(p= 0.00000000549)**			
Strong	0.176	1.479	351
Weak	-0.176	0.845	48
Gender **(p= 0.0000000703)**			
Male	0.0715	1.483	251
Female	0.0715-	1.266	148
Regionality **(p=0.00156)**			
Rural	0.00618	1.513	210
Urban	-0.00618	1.281	189
Age Cohorts **(p=0.0175)**			
Elders	0.113	1.713	6
Adults	0.020	1.485	108
Young Adults	-0.0194	1.386	241
Adolescents	-1140	1.250	44
Regionality and Ethnic Density **(p=0.0268)**			
High Rural	0.0496	1.556	197
Low Urban	0.0496	0.843	35
High Urban	-0.0496	1.380	154
Low Rural	-0.0496	0.852	13

Table3 displays five social social predictors that correlate, statistically, with the overall variation indexes of the whole sample (399 respondents), ordered from the most significant to the least significant: EO (p= 0.000000146), ethnic density (p= 0.00000000549), gender (p= 0.0000000703), regionality (p= 0.00156), age.cohort (p= 0.0175), regionality and ethnic density combined (p= 0.0268).

On closer inspection, respondents with the highest EO scores are the ones who use Chaoui words much extensively (mean= 1.523). By the same token, respondents who contract strong ethnic ties with Chaoui peers are more prone to adopt more Chaoui words and less Arabic loans (mean= 1.479) than those who contract ties with Arab peers (mean=0.845). Likewise, the

use of Chaoui variants is frequent in the speech of males (mean= 1.483), and those who live in predominantly rural settings (1.513).

Remarkably, the use of Chaoui words increments as one moves from the oldest generation (mean= 1.713) to the youngest generation (adolescents, mean= 1.250). This latter result, it must be noted, is consistent with the results noted by Boberg (2010) and Llamas (2007), that linguistic innovation (and hence lexical borrowing) is spearheaded by young age groups as opposed to elders and adults who tend to retain most of their native speech features. In the multiple regression analysis, the so called 'step-up' and 'step-down' runs excluded all the potential 'combinations' which do not correlate significantly with the overall lexical variation scores; namely: EO and Ethnic density combined (p=0.571), EO and age cohort (p=0.08)…etc.

The Rbrul analyses reported high p-values for these combinations and thus were not accounted for in the regression analysis. The interplay between regionality and ethnic density seems to be, however, the only strong correlate of lexical variation indexes. Rural speakers with strong Berber ties adopt more Chaoui words than other social sub-groups (p=1.556, coefficient= 0.0496)

The four lexical variables 'heavy', 'pigeon' , 'darkness' and 'grandson' correlate significantly with regionality and ethnic density. Remarkably, the Chaouia variants '*yiẓeg'* [jiẓeg](heavy), *'aḍhbir'* [eðbiːr] (pigeon), *'sallesth'* [selesθ] (night-darkness)and *'ayaw'* /ejew/ (grandson) are strongly associated with rural settings, whereas Arabic loans 'yethqal'/jeθqəl/, 'hmama'[ħmemθ], 'ḍalma'/ḍəlmʌ/ and 'hfiḍ'/ħfiːd/ are more associated with urban landscapes.

By way of example, the use of Chaouia variant '*sallesth*' is higher in the speech of rural participants (48.87 %) than in the speech of urban counterparts (36.59 %). By the same token, while rural participants retain the Chaouia terms *'aḍhbir'* (36.84%),'*yiẓeg'* (39.34%)and *'ayaw'* (45.86 %), urban speakers are less immune to Arabic influence and are on the leading edge of '*yethqal'*(20.3 %) '*hmama*' (21.3 %) and

'hfiḏ'(20.3 %) use.The Arabic influence on Chaouia variety in urban settings is crystal clear, especially among young adults and adolescents. This is attributable to the high, extensive interethnic between speakers of Berber descent and other ethnic groups. Urban regions are characterized by weak ethnic networks as many Chaouia urbanites (and migrants) were influenced by other inhabitants of Arabic descent, both socially and linguistically. Accordingly, a sizeable number of Berber terms eclipsed from the speech of urban Chaouia participants and were replaced by Arabic alternative forms.

3.2. Lexical Variables

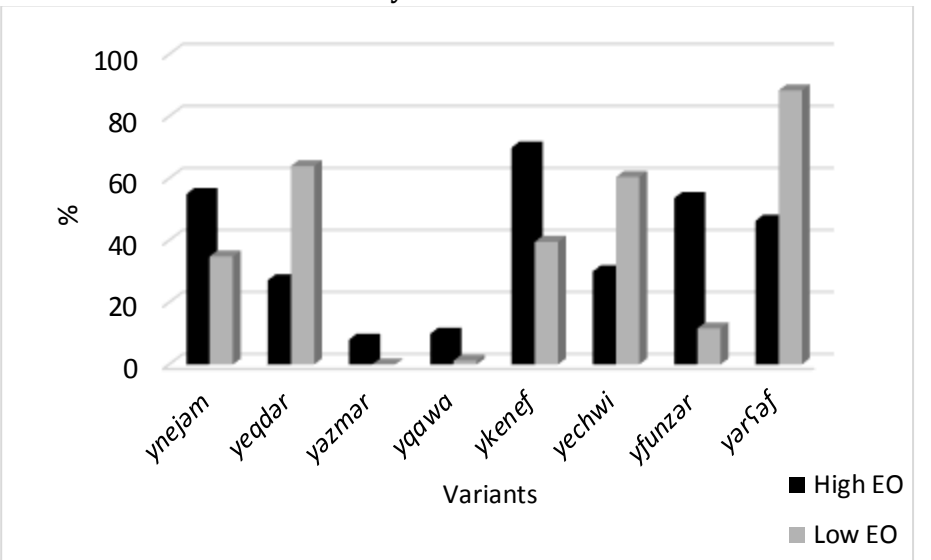
This section is devoted to the analysis of respondents' EO scores in relation to some lexical variables in the data. Notably, Figures 3 and 4 indicate that the use of Chaoui words, be they verbs or adjectives, is so extensive in the speech of respondents with high EO scores, whereas Arabic borrowings are much frequent in the speech of respondents with low ethnic engagement in Chaoui culture.

3.2.1. Verbs

The research respondents reported four competing variants for the verb 'to be able'; namely: *'ynejəm', 'yəzmər'* [jəzmər] (Chaoui variants),*'yqawa'*[yqʌwʌ] and *'yeqədər'*[yəqədər] (Arabic loans). The Chaoui variant *'ynejəm'* seems i preserved in the speech of respondents with the highest EO scores (54.95%), whereas the Arabic equivalent ' *yeqədər'* is strongly associated with low EO scores (63.95 %).

The variants *'yəzmər'* and 'yqawa' are almost ousted from speech and are, thus, disfavored by the majority of respondents. The former is used by 25 respondents and the latter is used by 32. Nevertheless, *'yəzmər'* [jəzmər] is still maintained regionally in some isolated rural areas in the city, most notably in 'Inoughissen' and 'Chir' (Eastern parts of Batna).

Figure 3: Distribution of the verbs 'to be able', 'to grill' (meat) and 'to nose bleed' by ethnic orientation.



3.2.2. Adjectives

'yəzmər' is on the edge of death (obsolescence) and, all things being equal, is more likely to go out of use inall rural and urban areas. By the same token, respondents with high engagement in Chaoui Culture adopt the Chaoui verbs: '*yeterjay'* (to dream), '*ykenef*' (to grill meat) and '*yfunzər'*[jəfu:nzər] (to nose bleed). In contrast, respondents with low EO are more prone to use the Arabic equivalents: '*yechwi'* [jəʃwi] (60.46%) and '*yərʕəf*' [jərʕəf] (88.37%).

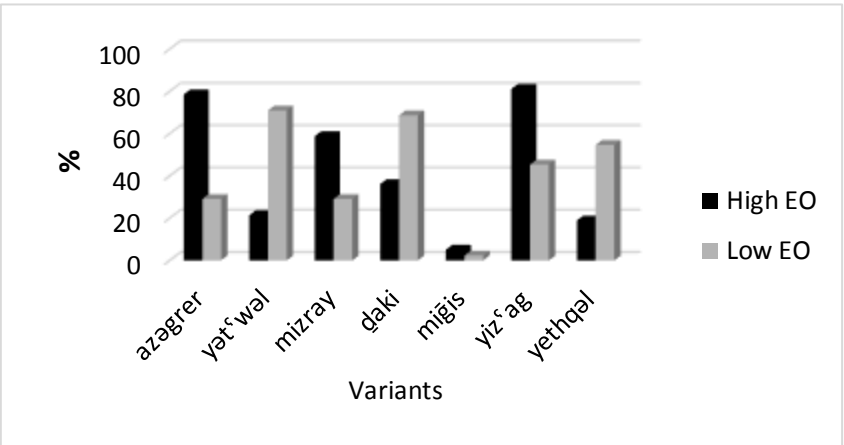
Figure 4 indicates the strong association between ethnic engagement degree and four adjectives. Like the aforementioned Chaoui verbs, the use of Chaoui adjectives is statistically associated with high EO scores, whilst the use of Arabic loans is remarkably associated with low EO scores.

By way of example, rural villagers with low EO indexes tend to use the Chaoui adjective 'mizray', meaning 'smart', much extensively than other sub-groups (58.78%). Conversely, urban speakers with low EO are more amenable to lexical borrowing and use more of the Arabic loan 'ḏaki' (68.6%). Like the variant

'yəzmər', the adjective 'miḡis' (so smart) is used by only a few number of respondents (16 responses).

Many respondents, most notably youngsters, reported that they neither know nor use the variant 'miḡis' in their daily social interactions. Because it is relatively under-represented in the date, chances are that 'miḡis' will eclipse from daily usage and will be ousted by the Arabic laon *'ḏaki'* [ḏaki].

Figure 4:Distribution of the adjectives 'tall', 'smart 'and 'to 'heavy' by ethnic orientation.



3.2.3. Other semantic fields

It is worth noting that there are other competing variants for the variable (smart) in Batna speech community and which were not reported in the data, such as *'yəfreh'*, and phrases like *'ghərsḏiigḏkhf'*, etc. the Chaoui adjectives *'yizˁag'* and *'azəgrer'* are associated with high EO indexes, whereas the Arabic loans 'yethqəl' and 'yətˁwəl' are associated with low EO scores. Phonetically, *'yizˁag'* and 'azəgrer' in two distinct ways. They are realized with the velar /g/ in some regions (OuedChaara and Bouzina) and as *'yizˁay'* and *'azirer'* in some eastern rural areas (Arris, Ghassira and T'kout)

4. Discussion

The aforementioned analyses revealed that there notable differences in degrees of EO among participants, and that these differences are mirrored in their speech habits. Speakers with

strong ethnic ties tend to maintain Chaouia contacts, preserve most of their traditional Berber customs, and hold positive attitudes towards Tamazight heritage. That said, they retained most of their Chaouiavocabulary in attempt to strengthen their affinity towards their ethnic identity. Because language is linked to culture, Chaouiawas perceived as emblematic of Berber pride.

Geographically, rural villagers used less Arabic loanwords and more Chaouiaforms, such as *'aḏhbir'* ,*'yiẓeg'* and *'ayaw'*, a pattern that elucidates their strong affiliation with Berber. However, in urban city and in which interethnic contact is extensive, participants displayed different EO degrees. Speakers who have weak ethnic ties and hold negative views about Berber lend themselves to use more Arabic loan. Contrary to the privileged Arabic variety, Chaouiais often portrayed as the 'language of rural life and is negatively stereotyped as 'archaic', 'obsolete' and 'rough'. In fact, many Berber parents discourage their children from using Chaouia at home and in public. Negative attitudinal social evaluations, in conjunction with loosened ethnic ties, triggered language shift in the urban city.

Intriguingly, this research revealed that a sizable number of urban inhabitants with high EO scores were more resistant to lexical borrowing, and, by extension, patterns of dialect convergence. Fought (2006) stressed that interethnic contact in itself is not adequate to cause linguistic change. For many urban Chaouia citizens, ethnic orientation serves as a boundary that may maintain their local language and heritage culture. Therefore, in order to draw a clearest image about patterns of Ethnolinguistic change, one must foreground not only for socio-demographic constraints, such as age and social network, but also speakers' attitudes and perceptions.

This research, also, reported that bi-ethnic individuals displayed the lowest scores in EO and lexical variation indexes, and thus contracted the weakest ethnic ties with Chaouiaculture. In the last few decades, Batna witnessed an increase in interethnic marriage rates, with couples belonging

to different ethnic origins, especially Berber and Arabic. Bi-ethnic individuals' kinship and friendship networks consist of mainly of speakers with different sociocultural backgrounds. It is not surprising that bi-ethnic speakers may adopt dialectal forms from Chaouiaand Arabic codes. In keeping with Barret's (1999) notion of *'Polyphonous Identities'*, we believe that bi-ethnic speakers avail themselves of a large 'Ethnolinguistic Repertoire' (Benor, 2010), in order to voice different ethnicities. They may use Arabic words to index Arabic identity, Chaouiato index solidarity with Berber culture, and may also mix both codes to construct a totally distinct 'multiethnic identity'.

5. Conclusion

This research is an Ethno linguistic investigation of the interplay between ethnic orientation and lexical change in Batna multiethnic community. It set the task to examine, statistically, the extent to which Chaouia speakers with different degrees of ethnic engagements. As predicted, the use of Chaouia words correlates significantly with high EO scores, whereas the use of Arabic lexical equivalents correlates with low EO. The adoption of Arabic loanwords has nothing to do with 'lexical need' (Matras, 2009) and more to do with maintaining ethnic ties with Berber cultural heritage.

Intriguingly, bi-ethnic speakers are more amenable to lexical borrowing, lending themselves to adopt both Arabic and Chaouiadialectal norms. This is attributed to their desire to construct various interrelated layers of ethnic identity. Nevertheless, confirming these eye-catching results requires conducting a series of in-depth longitudinal research studies on how bi-ethnic speakers deploy various Ethno linguistic forms to project different stances and affiliations. Likewise, researchers will be well-served to examine the relationship between ethnic orientation and other contact-induced phenomenon, such code-switching and 'Koine' formation. In listing these lacunae, we may be able to draw a clearest image about the complex ways in which ethnicity plays a role in ongoing speech changes, shaping new ethnic varieties and maintaining Ethnolinguistic boundaries

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