

Copyright

by

Thomas Alexander Leddy-Cecere

2014

**The Thesis Committee for Thomas Alexander Leddy-Cecere  
Certifies that this is the approved version of the following thesis:**

**Patterns of Dialect Accommodation to Phonology and Morphology  
among Sudanese Residents of Cairo**

**APPROVED BY  
SUPERVISING COMMITTEE:**

**Supervisor:**

---

Kristen Brustad

---

Barbara Bullock

**Patterns of Dialect Accommodation to Phonology and Morphology  
among Sudanese Residents of Cairo**

**by**

**Thomas Alexander Leddy-Cecere, A.B.**

**Thesis**

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

**Master of Arts**

**The University of Texas at Austin**

**May 2014**

## **Acknowledgements**

First and foremost, I wish to thank my thesis advisor, Dr. Kristen Brustad, and my second reader, Dr. Barbara Bullock, for their unfailing guidance, insight and encouragement. Also indispensable to the completion of this research were the tireless efforts of A and S, whose generosity and dedication bore the mark of true friendship. I am likewise grateful for the valuable feedback provided by Dr. James Stanford and other participants in the Linguistic Society of America's 88<sup>th</sup> Annual Meeting, at which I presented a preliminary version of these findings.

This material is based on work supported by the National Science Foundation Graduate Research Fellowship under Grant No. DGE-1110007. Any opinion, findings, and conclusions or recommendations expressed in this material are those of the author's and do not necessarily reflect the views of the National Science Foundation.

## **Abstract**

### **Patterns of Dialect Accommodation to Phonology and Morphology among Sudanese Residents of Cairo**

Thomas Alexander Leddy-Cecere, M.A.

The University of Texas at Austin, 2014

Supervisor: Kristen Brustad

This study analyzes the accommodation strategies of Arabic-speaking Sudanese immigrants to Cairo toward the dominant Cairene Arabic variety. Accepted wisdom across much of variationist sociolinguistics views phonology in dialect contact scenarios as highly mutable and readily altered, while imputing to morphology a far greater degree of “staying power;” however, analysis of the Cairo-based fieldwork reveals a situation in which speakers freely accommodate to morphological forms, while adapting in only minimal and restricted ways to phonological differences. This finding, discussed in relation to both structural and social motivating factors, has the potential to inform conceptions of both the synchronic mechanics of dialect interaction and diachronic understandings of inheritance and stability across linguistic domains.

## Table of Contents

List of Tables .....	viii
List of Figures .....	ix
Chapter 1: Introduction .....	1
Chapter 2: Study Overview .....	7
2.1 The Sudanese Community of Cairo .....	7
2.2 Participants .....	8
2.3 Interview Design .....	10
Chapter 3: Research Questions and Hypotheses .....	12
3.1 Hypotheses .....	12
Chapter 4: Methods .....	13
4.1 Methods: Hypothesis 1 .....	13
4.1.1 Feature Selection .....	13
4.1.2 Coding and Rate of Accommodation .....	17
4.1.3 Statistical Analysis .....	17
4.2 Methods: Hypothesis 2 .....	18
4.2.1 Coding .....	18
4.2.2 Statistical Analysis .....	19
4.3 A Note on the Potential for Confounding Lexical Effects .....	20
Chapter 5: Results .....	22
5.1 Test of Hypothesis 1 .....	22
5.2 Test of Hypothesis 2 .....	25
Chapter 6: Discussion .....	27
6.1 Structural Factors: Linguistic Distance .....	27
6.2 Social Factors: Marginalization .....	30
6.2.1 Externally-Imposed Marginalization .....	30
6.2.2 Self-Imposed Marginalization .....	33

6.2.3 Marginalization and Implications for Dialect Accommodation	.35
Chapter 7: Conclusions and Continued Steps	38
References	41

## **List of Tables**

Table 1: Features Examined.....	15
Table 2: T-test Results Comparing Phonological and Morphological RoAs .....	24
Table 3. Fisher’s Exact Test Results.....	25



## List of Figures

Figure 1: Fisher's Exact Test Design.....	19
Figure 2: Rates of Accommodation.....	22

## Chapter 1: Introduction

The ever-growing number of international migrants and displaced persons in the modern world compels today's social scientists consider the experiences and actions of such populations not simply as auxiliary or exceptional cases but as integral to work in their respective fields. The current study represents an attempt to incorporate the linguistic behavior of one such group, the Arabic-speaking Sudanese community of Cairo, Egypt, into mainstream discussion of sociolinguistic principles, with a result I hope will prove informative to both specialists and practitioners in the field at large.

Amongst major world languages, Arabic is often recognized for its appreciable dialect diversity. Given that it is the majority language of eighteen sovereign states, in addition to numerous minority and enclave communities spanning from Nigeria to Uzbekistan (Lewis et al., 2013), a high degree of linguistic variety is perhaps not unexpected; what does surprise, however, is the fact that despite such acknowledged dialectal richness Arabic has remained largely untouched by modern research in variationist sociolinguistics. An area particularly lacking is that of dialect contact studies. Though there are occasional (and valuable) contributions dating from previous decades – such as Jassem's (1987) study of phonological variation in the speech of displaced Six-Day War refugees in Damascus – quantitative studies of dialectal interaction and accommodation in Arabic-speaking communities have been rare, and it is only quite recently that a few such accounts have come to receive general attention. Though incipient, this turn is a welcome one, as such descriptions of contact-induced intra-speaker variability have proven highly elucidating in contexts of other world languages.

Among the more prominent examples of such studies are Al-Wer (2003, 2007), Habib (2011) and Al-Rojaei (2013). Al-Wer describes the impact of the Palestinian mass

exodus to Jordan following 1948 which, in addition to significant country-internal migration, shaped the treatment of several linguistic variables in both existing regional Arabic varieties (2003) and in the newly forming urban vernacular of the capital (2007). Habib's work in the Syrian village of Ouyun Al-Wadi examines the social meanings indexed by the urban/rural variants of [ʔ]/[q] and [a]/[e] and the treatment of these variables in the speech of children and adolescents, uncovering intriguing gender and age correlates to the spread of the urban features. Al-Rojaie presents a quantitative study of social factors relating to /k/-affrication in Najdi Arabic of eastern Saudi Arabia, in which a regional affricated realization [tʃ] exists in contact with a supra-local variant [k], resulting in different patterns of intra-speaker variability depending on age, gender, and level of education.

Although some works (such as Al-Wer, 2007) do include mention of lexical or morphological features, the existing body of Arabic variationist literature is overwhelmingly concerned with phonetic and phonological variables, as may be ascertained even from the limited number of studies described above; and indeed, given the success of these recent undertakings, such an approach would seem to represent a fruitful line of inquiry. It is against this research backdrop that I began to conduct my own fieldwork amongst members of the Sudanese community resident in Cairo, Egypt, to observe processes of dialect contact and accommodation between speakers of Sudanese and Egyptian Arabic varieties.

The data I acquired, however, did not lend itself well to a phonology-based analysis – contrary to expectation, instances of accommodation of Sudanese Colloquial Arabic (SCA) phonemes to Egyptian Colloquial Arabic (ECA) norms were relatively rare, a paucity made all the more striking by the contrastingly high degree of adoption of

ECA morphological features. The following examples illustrate the character of the data as whole, displaying as they do prominent use of ECA functional elements while maintaining SCA phonology throughout (ECA items underlined):

- 1) *gulta la? ʕalʕān dōl rijāl kubār ma fi -ʕ mushkila ... mīn illī bigūl hāja?*  
 said.1SG no because DEM.PL men old NEG EXIS-NEG problem ... WHO REL say.3SG thing?  
 ‘I said no, because those are old men there’s no problem ... who would say something?’ (D5)
- 2) *anta tisʔal nafsak, ē al- masʕrī bijāxud?*  
 you ask.2SGM yourself, WHAT DEF-Egyptian take.3SG?  
 ‘You ask yourself, what does the Egyptian take?’ (D3)

Moreover, what limited phonological accommodation to ECA that was present appeared largely confined to specifically ECA lexical items. Consider as representative the following sentences – in each, a single phoneme, \*/q/ and \*/d̤ʒ/, respectively (bolded), receives an ECA realization when appearing in an ECA lexeme (underlined), but an SCA realization elsewhere:

- 3) *ihnā dilwaʔti yā habīb-ī gʕā al- garn al- ʕifrīn*  
 we now VOC dear -my came.3SG DEF-century DEF-twenty  
 ‘We’re in the twentieth century now, my dear.’ (B3)
- 4) *huwa bjimʕt wa byīgī ... ma bjiʕrif -fi hāja*  
 he go.3SG and come.3SG ... NEG know.3SG-NEG thing  
 ‘He comes and he goes ... he doesn’t know anything.’ (D2)

Thus, the overall picture painted by the data is one in which phonological accommodation processes, demonstrated to be central in other documented cases of intra-Arabic dialect contact, play a decidedly secondary role to morphological ones in terms of frequency, and are additionally restricted in terms of their distribution. In order to set this

observation in more specific context, I turned to the (admittedly limited) Arabic dialect contact literature available which might shed light on the Sudanese-Egyptian case.

As previously described, not a great number of Arabic variationist studies treat morphological variables in a quantitative manner, and even fewer provide a comparison with phonological variables in a way that would allow one to assess their relative status within the production of a given speech community. One glowing exception is Miller's (2005) study of Upper Egyptian migrants in Cairo and their accommodation to Cairene forms of ECA, which addresses the issue directly. Miller obtained free-form interview speech from Upper Egyptian informants who had come to Cairo as adults, chiefly in search of economic opportunity, analyzing the recorded data with reference to a host of linguistic variables, spanning various linguistic domains. She finds that "phonemes do generally accommodate more quickly than morphemes" (2005:943), though with the caveat that specific social salience factors and the presence of pre-existing variation in speakers' native dialects can interfere with this tendency via the promulgation of prestige and koiné forms. Miller's insight is a valuable one, particularly considering that a) her study's participants are analogous to those of my own with regard to a number of key social parameters and b) the setting (Cairo) and one of the input dialects (Cairene ECA) are identical across the two investigations. These considerations serve to make the morphology-dominant nature of accommodation in the Sudanese-Egyptian data stand out even more.

Another study which sheds light on the discussion, though not so directly, is Hachimi's (2007) report on the accommodation strategies demonstrated by fifteen Moroccan women of Fessi extraction residing in Casablanca. The major concern of her paper is the use of specific variables in operations of identity construction, and not a

typological comparison of phonological and morphological features in accommodation processes. However, Hachimi does provide comprehensive statistics describing the treatment of the three features examined in her study, “two phonological variables ... and one morphosyntactic” (2007:106): the phonetic quality of /r/, the realization of \*/q/ in the word *\*qāl* ‘say,’ and the conjugation of second person singular verbs. It is clear from the data Hachimi provides that the Casablancon realizations of the two phonological variables are far more readily accommodated to than those of a morphosyntactic nature. Only six of fifteen speakers show significant use of the Casablancon second person conjugation, with the greatest rate of occurrence in any individual’s speech 54.5%; Casablancon realizations of /r/ and \*/q/, by contrast, are both used by ten of fourteen speakers surveyed, at a rate reaching 90-100% by eight and nine speakers for each variable, respectively (2007:107-108, 111). Of course, circumspection must be observed in interpreting these results, as Hachimi’s research design was not intended or optimized to reflect on these issues; however, it is possible to view here data as at least provisionally in line with Miller’s (2005) findings, and thus distinct from the pattern displayed in the Sudanese-Egyptian data.

A final work which investigates linguistic domain as a factor for differentiating variables in Arabic dialect accommodation is Watson’s (2007) examination of leveling processes in Yemeni media. In the language of a particular radio program, produced in Sana’a but intended for wider, national-level consumption, Watson finds that dialect leveling effects are largely enacted in terms of graduated phonetic features, rather than lexicon and morphology, reminiscent of the phonology-dominant accommodation strategies sketched by Miller’s and Hachimi’s explorations. That being said, however, I must caution that I do not consider it a completely valid comparison to my current study or to the previous two mentioned – its use of broadcast material sets it apart from the free

speech based approaches of the latter, both in terms of speech style and by virtue of the fact that content of the radio program selected is previously scripted. Thus, the language utilized represents the product of multiple writers and actors and of the scripting process itself, which might exercise greater control over certain types of features (e.g., morphosyntax and lexicon) than it does over others (such as non-orthographically represented phonetic traits).

Though information is certainly lacking, the available documentation of the comparative treatment of phonological and morphological variables in Arabic dialect contact scenarios appears to indicate that nonnative phonological features are, on the whole, more readily adopted than morphological features as part of accommodation processes. This observation renders the trajectory encountered in the Sudanese-Egyptian examples all the more unexpected on the basis of prior research. A preliminary survey of the data produces limited evidence of phonological accommodation, which is numerically subordinate to morphological adaptation and largely dependent on lexical context. In the context of Miller's, Hachimi's and Watson's findings, this observation is unexpected, and worthy of further investigation. In the study described below, I will therefore address in detail the validity of this observation and its implications.

## Chapter 2: Study Overview

### 2.1 THE SUDANESE COMMUNITY OF CAIRO

The current study is based on data obtained from a series of sociolinguistic interviews conducted in Cairo with members of the Cairo-based Sudanese community, which took place between November, 2012, and May, 2013. Though reliable figures are difficult to come by, the Sudanese expatriate community in Egypt is large and long-established, dating in its current form from at least the nineteenth century and comprising anywhere between 2.2-4.0 million members, with the greatest single concentration residing in Cairo (Grabska, 2005). Within Cairo, my participants describe Sudanese emigrants living in numerous areas of the city, both in relatively homogeneous enclaves and in mixed or predominantly Egyptian neighborhoods. Inter-ethnic and regional divisions originating in the Sudan would seem often to be maintained in migration, though not invariably.

The waves of Sudanese relocating to Egypt in recent decades have done so primarily fleeing conflicts within the Sudan and seeking security and economic opportunity, either in Egypt or in a further location to which Egypt may be a waypoint; other attractors such as access to medical care and educational opportunities also exist (Grabska, 2005). It bears noting that the assigning of the specific appellations “refugee” and “immigrant” is exceedingly politicized in this context, and hardly reflective of human realities: the United Nations High Commissioner for Refugees, for example, recognized the presence of only 12,100 official Sudanese “refugees” in Egypt in 2012 (UNHCR, 2013). When these terms are utilized in the context of this paper, I have done so based on the usage of the study participants themselves of the terms *lājī* ‘refugee’ and *muhājir* ‘immigrant/emigrant.’ On the whole, I found *lājī* ‘refugee’ to be used most often and in a



broader manner than intended by the official UNHCR terminology, referring generally to those who had left the Sudan due to conflict or other forms of persecution.

Regardless of official status or motivation for migration, it is generally recognized that the members of Cairo's Sudanese community are often subject to intense marginalization, socially, economically and politically; this marginalization is often enacted along racial lines. Numbering amongst Cairo-based Sudanese are both those of Sub-Saharan African heritage and those of Arab descent, the latter generally closer in appearance to the bulk of the Egyptian population and the former distinguishable physically by their darker skin; this fact results in (often severe) color-based discrimination against black (or perhaps more accurately "non-Arab") Sudanese in Cairene society (Grabska, 2005; Fábos, 2012). This unfortunate reality was described time and time again by the participants in my study, all of whom self-describe as *ʔaswad/ʔazrag/zinjī* 'black' or *ifrīgī* 'African' and not as Arabs. It is to a more detailed description of those specific participants that I shall now turn.

## **2.2 PARTICIPANTS**

The study included nine participants; a tenth participant interviewed was later excluded due to technical problems with the interview recording, resulting in insufficient recorded speech to accurately assess the features examined. All were born and spent their childhoods in the Sudan, emigrating to Egypt as adolescents (Speakers D5 and D2, ages of arrival 11 and 15 years, respectively) or adults (the remainder of the sample, ages of arrival  $\geq 22$  years) and at the time of recording were aged 18-70, having been resident in Cairo for a minimum of three years. Due to cultural restrictions surrounding the conducting of one-on-one mixed-gender interviews, all participants were male. Of the

nine participants, five are natives of Darfur state, located in the Sudan's western region; one participant hails from the city of Omdurman in the central Khartoum state, adjacent to the national capital; the remaining three participants represent the eastern state of Kassala (Speaker B2 was in fact born in Eritrean territory of the area's trans-border region, relocating to the Sudanese side of the border in early childhood). Ethnically, all three participants from Kassala identify with the Beni Amer tribe; three of the five Darfur natives self-identify as Fur/Darfuri, one as Zaghawa; the remaining participant from Darfur did not chose to self-identify, and the participant from Omdurman described himself simply as *ifrīgī* 'African.'

All nine participants acquired Arabic in the Sudan either from birth or during early childhood (i.e., by the time they reached school age), and were judged by the interviewer to represent fluent, native users of Arabic – several potential interviewees were excluded based on this criteria. Though an array of regional varieties of Arabic are used by the speakers of the sample, specific measures have been taken in the research design to account and control for this diversity (see below, §4.1.1). Reflecting the pronouncedly polyglossic nature of the Sudanese context, seven of the nine study participants are bi- or multilingual, representing native-like proficiency in Fur (Speakers D3, D4, D5), Beja (B1, B2, B3), Zaghawa (D1), Hausa (D5), Fulani (D5), and Tigrinya (B2); Speakers D2 and O1 are monolingual Arabic speakers. Though attention was paid to potential inter-language influence, I did not detect any direct effects of multilingual interference in the participants' speech, at least with regard to the features examined in this study. Though some contact-induced features are undoubtedly present in the nativized Arabic varieties used by several of these individuals, it is my evaluation that any such usages are at this point conventionalized and do not represent "on-line" performance effects on the part of these speakers.

I met and contacted participants either via a shared acquaintance or through spontaneous interaction in public spaces frequented by members of the Sudanese-Cairene community, primarily restaurants and cafés.

### **2.3 INTERVIEW DESIGN**

The sociolinguistic interviews carried out with each of the nine participants were designed to provide naturally-occurring examples of accommodation from the speakers' native Sudanese SCA varieties to the ECA dialect of Cairo. They were prompted and loosely guided by a set of questions concerning four major topics: basic biographical information (birthplace, age, languages spoken, etc.), recollections of the speakers' personal immigration to Egypt (such as age and manner of arrival, waypoints, motivations for leaving the Sudan), reflections on experiences integrating into life in Cairo (e.g., Had they had prior connection to Cairo/Cairenes? What are some observed uniting or dividing factors between Egyptian and Sudanese society?), and finally discussion of the situation of the Sudanese émigré community in Cairo as a whole, extrapolating beyond the personal. These questions were used to obtain valuable sociological and ethnographic information; however, the primary goal of each interview was to elicit naturalistic language data while respecting the privacy and comfort of the participant. As such, if a speaker did not desire to discuss a given subject the question was simply passed over, and participants were given full leeway to depart from the question list and pursue other topics they felt pertained to the discussion. Approved IRB procedures were followed to ensure informed consent and ethical treatment of participants.

Interviews were recorded using a Sony IC Recorder, and lasted approximately one hour (average 67 minutes; minimum 31 minutes, maximum 180 minutes) for a total of 603 minutes of recorded speech. The interviews of Speakers B1 and D1 were both completed across two sittings. Interviews were conducted in cafés or restaurants and in personal homes, at the discretion of the participant. Each interview consisted of a single participant and the interviewer (myself). Depending on the interview setting, others (both Egyptian and Sudanese) may have been present within earshot, but none were involved as licensed interlocutors. During the interviews, I spoke and replied solely in ECA. This fact, of course, limits the external validity of the results when generalized beyond SCA-speaker/ECA-speaker interactions, but was the only practical manner of ensuring a constant interlocutor variable across the interviews and thus comparability within the sample. Participants were not given explicit instruction regarding language use. If they asked for clarification, they were guided to simply use *ʕarabī* ‘Arabic,’ as opposed to English, or *ʕarabī ʕādī* ‘normal, everyday Arabic,’ as opposed to literary Modern Standard Arabic.

## Chapter 3: Research Questions and Hypotheses

Returning now to the impressionistic observation that the speakers' phonological accommodation to ECA was far less frequent than morphological accommodation, and that what little phonological accommodation was present appeared largely limited to ECA-specific lexemes, I propose the two following research questions as the basis for this study:

1. Is phonological accommodation to ECA demonstrably less common in the data than morphological accommodation?
2. Is the limited phonological accommodation present predictably conditioned by the source dialect of the lexeme in which it occurs?

Reformulated as testable hypotheses, these are as follows:

### 3.1 HYPOTHESES

- $H_1$ : Phonological accommodation from SCA to ECA is less common than morphological accommodation.
- $H_2$ : Source dialect of the lexeme is a predictor of phonological accommodation.

The following section will describe the methods employed to test each hypothesis.

## Chapter 4: Methods

In the following sections, I will describe the methods used to evaluate Hypotheses 1 and 2, in turn.

### 4.1 METHODS: HYPOTHESIS 1

In order to evaluate  $H_1$ : *Phonological accommodation from SCA to ECA is less common than morphological accommodation*, I 1) selected a group of phonological and a group of morphological features the treatment of which was to be examined in the participants' speech. I then 2) determined a rate of accommodation for each feature in a given participant's production, and then 3) compared these rates to one another statistically to evaluate whether or not the values for each speaker's phonological and morphological feature sets represented distinct groups. Each of these steps will be described in detail below.

#### 4.1.1 Feature Selection

The general considerations which shaped the selection of features to be examined were twofold. Firstly, for reliability of coding and interpretation, elements needed to display an unambiguous contrast in form between all relevant SCA realizations on the one hand and the ECA realization on the other. Thus, graduated phonetic features such as degree of pharyngealization of /s<sup>h</sup>, t<sup>h</sup>, d<sup>h</sup>/ were not considered; neither were elements which might contrast between ECA and only one variety of SCA, but not others (such as Darfuri SCA object pronoun forms *-ā, -um* vs. ECA, Eastern SCA *-hā, -hum*). Secondly, features considered needed to occur with sufficient frequency in the production of all speakers to allow for fruitful comparison.

The primary reference source for identifying ECA forms was Abdel Massih et al. (2009). Locating appropriate references for SCA was far more difficult, as the state of description of Arabic varieties in the Sudan is extremely underdeveloped, and many available sources severely out of date. I made use of Hillelson's (1935) and Dicken's (2006) descriptions of the dialect of Khartoum, with additional reference to Versteegh (2001), Manfredi (2013) and Qāsim (1985). However, due to the incomplete nature of these accounts, and their lack of attention to the specific regional and ethnic varieties of SCA used by my study's participants, it was also necessary to utilize my own field observations to include forms not generally attested in existing descriptions of SCA but strongly present in my data; these include the third person plural subject pronoun *humam*, the genitive exponent *tabaʕ*, and the [gʲ] variant of \*/dʒ/. In one case, these observations have pushed me to contradict previous accounts and consider *anta* the default SCA form for my participants rather than the generally cited *inta*. Though I do not doubt the veracity of prior descriptions as applied to the particular speech communities they pertain to, the pervasively dominant use of *anta* by all speakers of the current study (even Speaker O1 of Omdurman) across all sociolinguistic contexts and even in occasional gender-neutralized forms has led me to identify it as a basic feature of their SCA varieties (and not, for example, an acrolectal conformance to MSA). Instances of *inta* will thus be considered accommodations to ECA, with the recognition that encounters with such forms would likely not be unique to the Egyptian context.

The specific phonological and morphological features examined are listed in the following table, with discussion below.

Feature Type	Feature	Description	SCA Realization(s)	ECA Realization(s)
Phonological		*/q/	[g] ~ [ɣ]	[ʔ]
		*/dʒ/	[ʃ] ~ [gʲ]	[g]
Morphological	Subject Pronouns	1 <sup>st</sup> person, pl.	<i>niĥna,</i> <i>aniĥna ~ anīna</i>	<i>iĥna</i>
		2 <sup>nd</sup> person, sg. masc.	<i>anta</i>	<i>inta</i>
		3 <sup>rd</sup> person, pl.	<i>humam, humōn,</i> <i>hum</i>	<i>humma</i>
	Negation	nominal negator	<i>mā</i>	<i>mif ~ muf</i>
	Verb Inflection	imperfective prefix	<i>ja-/ta-/na-</i>	<i>ji-/ti-/ni-</i>
		perfective suffix (1 <sup>st</sup> person, sg.)	<i>-ta</i>	<i>-t</i>
	Free Function Morphemes	demonstrative (proximal pl.)	<i>dēl</i>	<i>dōl</i>
		relative pronoun	<i>al</i>	<i>illī</i>
		genitive exponent	<i>ħagg, tabaʕ,</i> <i>bitāʕ [-agr]</i>	<i>bitaʕ [+agr]</i>
		interrogative pronoun (‘what’)	<i>ʃinū</i>	<i>ē</i>

Table 1: Features Examined



The realizations of the phonological features selected, \*/q/ and \*/d͡ʒ/, represent basic segmental contrasts between SCA and ECA. This choice was motivated by concerns both theoretical and practical. In the first case, it has been noted cross-linguistically that “simple” phonological traits (i.e., one-for-one substitutions/transformations of individual phones, of which the above are examples) are often treated differently from “complex” ones (such as more intricate phonological rules with extensive conditioning) in situations of dialect accommodation (cf. Chambers, 1992); in order to maintain comparability with prior studies it is important select features with a similar level of complexity to those already examined. From the practical standpoint, investigation involving more subtle aspects of SCA phonetics/phonology (such as phonotactic patterning, stress assignment) awaits more complete basic description of these phenomena, which are as yet largely untouched by researchers.

The groupings of morphological features involve a relatively large number of individual items, in order to provide token counts of an appropriate size for statistical analysis and of a comparable nature to the figures arrived at for phonology. It bears noting that some of the features selected (for example, the subject pronouns) may reasonably be viewed as “more lexical” in nature than others (such as verbal inflectional affixes), a potentially relevant distinction in cases of dialect accommodation (Chambers, 1992). I have chosen here, however, to consider all the above-listed features side by side in opposition to the phonological features. In order to validate this decision and control for “lexicalness” as a differentiating factor amongst the selected morphological traits, I used Microsoft Excel 2010 to conduct a two-tailed, paired samples t-test comparing speakers’ mean rates of accommodation (see §4.1.2 below) of the two “more lexical” sets of features, the subject pronouns and free function morphemes, to those of the two “less lexical,” nominal negation and verb inflection. The result was  $t_{(17)} = .03$ ,  $p = .976$ ,

showing no statistically significant difference between the treatment of more vs. less lexical features and thus not providing any objection to my classifying them together for the purposes of this study, though of course this distinction could prove an interesting avenue for investigation in future work.

#### **4.1.2 Coding and Rate of Accommodation**

Once these features had been identified, the interview recordings were reviewed auditorially using Elan 4.1.2. Tokens of all features were tagged, transcribed, and labeled using Elan's annotation feature, and further coded as representing either a SCA or an ECA realization of the feature. In the interest of controlling for diglossic variation, sequences determined by the researcher to represent Modern Standard Arabic were not included in the tabulation. Once this coding process was complete, a rate of accommodation to ECA (RoA) was calculated for each feature in each speaker's production as a proportion of total tokens, using the formula:

$$\# \text{ ECA REALIZATIONS} / (\# \text{ SCA REALIZATIONS} + \# \text{ ECA REALIZATIONS}) = \text{RoA}$$

The RoA was then expressed as a percentage for the continuing analysis.

#### **4.1.3 Statistical Analysis**

Once RoAs were obtained for all features of each participant's speech, the values for the two phonological features were compared to those of the four morphological features in an attempt to find a statistically significant difference between groups. I analyzed the groups for each speaker in Microsoft Excel 2010, running a one-tailed

independent samples t-test consistent with the directionality of the hypothesis, with Welch's correction for unequal variance.<sup>1</sup>

## 4.2 METHODS: HYPOTHESIS 2

In order to test  $H_2$ : *Source dialect of the lexeme is a predictor of phonological accommodation*, I returned to the previously identified tokens of the phonological feature set for each speaker and coded them for source dialect of lexeme and accommodation to ECA. The results were then statistically analyzed to evaluate the predictive relationship of the two parameters.

### 4.2.1 Coding

As part of the methodology used to test Hypothesis 1, each token of each speaker's phonological feature set had already been tagged using Elan and coded as representing an ECA or a SCA realization. I further coded each token a second time for the source dialect of the lexeme in which the token occurred, identifying each as being a) a uniquely ECA lexeme or b) a uniquely SCA lexeme or common to the two varieties. These determinations were made using a combination of dictionary sources, native speaker judgments, and field observations; though the established dictionaries were relied on whenever possible, the latter two resources were at times necessary to supplement the limited available published knowledge of SCA (and particularly regional SCA) lexicography. The dictionary consulted for ECA was Badawi and Hinds (1986); those for SCA were Qāsim (1985) and Tamis and Persson (2013).

---

<sup>1</sup> Though a paired-samples test would be logically consistent with the research design, such an analysis is not possible due to uneven group sizes.

In order to focus the analysis on the influence of the lexeme, I chose not to include tokens for which other, clear motivations for accommodation were present – these consisted of immediate, verbatim repetition (“echoing”) of my own ECA speech as well as quoted direct speech of ECA speakers, which occasionally occurred in narrative contexts (generally with a clear indication of expressively “doing a voice” for a character).

#### 4.2.2 Statistical Analysis

Once coding for both variables was completed, I analyzed the values for each speaker’s production using Fisher’s Exact Test (a variant of the chi-squared test preferred for use with small sample sizes). I conducted my tests with the GraphPad QuickCalcs online tool, utilizing the following design:

		<b>Accommodation to ECA</b>	
		<b>Yes</b>	<b>No</b>
<b>Source Dialect</b>	<b>ECA</b>		
	<b>SCA/ Shared</b>		

Figure 1: Fisher’s Exact Test Design

The test evaluates the effect of the phonology of the lexeme of the source dialect as a predictor of phonological accommodation within the same lexeme in the speech of each participant.

#### **4.3 A NOTE ON THE POTENTIAL FOR CONFOUNDING LEXICAL EFFECTS**

When comparing the results of the present study to previous descriptions of Arabic dialect accommodation, it must be noted that the prior accounts of Miller's, Hachimi's, and Watson's do not undertake to analyze the lexical distribution of phonological accommodation effects in a manner comparable to the this study's  $H_2$ : *Source dialect of the lexeme is a predictor of phonological accommodation*. As such factors were not addressed in detail in earlier descriptions, the possible influence of lexical diffusion of accommodation phenomena in these studies remains unknown. This complicates, to a degree, direct comparison of the perceived dominant and subordinate roles of phonological accommodation across the data sets, inasmuch as the observed differences in the results of the current study and those previously published might, in whole or in part, be due to differences in lexical frequency and not attributable directly to the treatment of phonological variables as such.

As such an interpretation cannot be verified or overturned in the absence of more complete analysis of existing accounts of Arabic dialect interaction, I will proceed here to discuss the divergent treatment of phonological traits in the Sudanese-Egyptian case as a true difference in type rather than an artifact of differential rates of lexical adoption, though of course the latter possibility must remain in mind until it can be more thoroughly assessed. In indirect support of this approach is the one piece of lexical specificity provided by Hachimi, in which she restricts her analysis of variation between

Fessi /q/ and Casablancon /g/ to the item *qāl* ~ *gāl* ‘say,’ a lexeme common to both varieties – the high rates of accommodation (typically 90-100%) to Casablancon /g/ in the context of this non-Casablancon-specific lexeme appear indicative of a pattern distinct from the Sudanese-Egyptian tendency observed in the current research. To determine whether this observation might hold more conclusively upon broader examination is not possible at the present time for the reasons stated just above; it does, however, add a degree of credence to the identification of a distinct Sudanese-Egyptian accommodation strategy not present in other documented cases of Arabic dialect interaction, characterized by the dominant role assumed by morphological, not phonological, variables. Until further comparative evaluation of specific lexical effects is possible, it is on this basis that I shall proceed to report and discuss my study’s results.

## Chapter 5: Results

### 5.1 TEST OF HYPOTHESIS 1

In order to test  $H_1$ : *Phonological accommodation from SCA to ECA is less common than morphological accommodation*, I calculated a rate of accommodation (RoA) in the production of individual speakers for each of the phonological and morphological features described in §4.1.1. These rates are displayed in percentage form on the following bar graph:

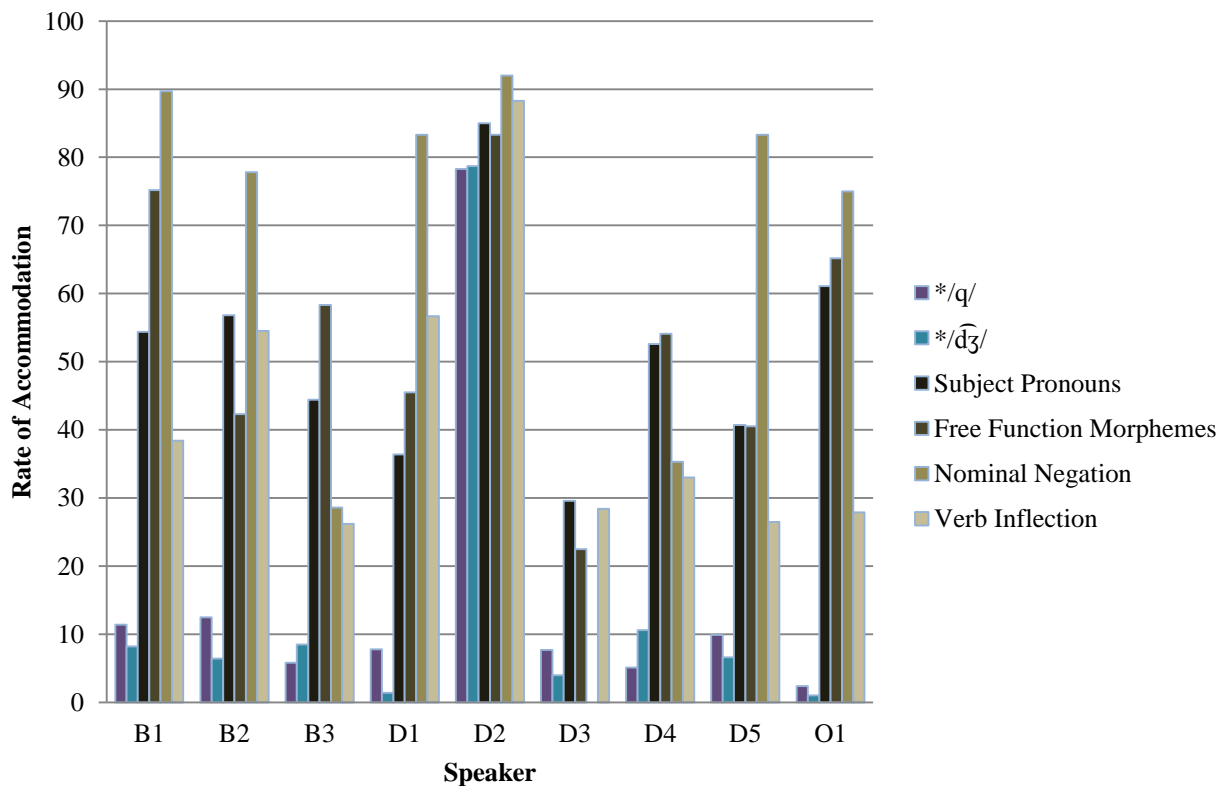


Figure 2: Rates of Accommodation

In line with the initial observation that sparked this inquiry, the RoAs of each speaker's morphological features can be plainly seen to be higher than those of their phonological features; this tendency is very nearly invariable, the sole exception being Speaker D3's score of 0% in the nominal negation category. Moreover, the difference is very often on the level of an order of magnitude, with RoAs for some morphological features exceeding 90% – a figure far higher than the 5-10% generally found for the phonological features. The only speaker for whom the phonological RoAs approach the range typical of the morphological features is Speaker D2 (\* /q/ = 78.3%, \* /dʒ/ = 78.7%), whose production will be discussed in more detail below.

The second stage of testing Hypothesis 1 consisted of determining whether or not the pattern indicated by the values in Figure 2 is statistically verifiable – i.e., do the RoAs of each speaker's phonological and morphological feature sets represent two statistically distinct groups, with the morphological values being higher. To this end, I conducted for each participant a one-tailed independent samples t-test with Welch's correction comparing the phonological and morphological RoAs, the results of which are displayed in Table 2 below (\* denotes significance at the  $\alpha < .05$  level, \*\* significance at the  $\alpha < .01$  level).



Speaker	$t_{(4)} =$	$p =$
B1	4.786	.0087**
B2	6.067	.0019**
B3	4.235	.0121*
D1	4.775	.0044**
D2	4.478	.0104*
D3	2.002	.0695
D4	5.779	.0022**
D5	3.181	.0250*
O1	5.425	.0061**

Table 2: T-test Results Comparing Phonological and Morphological RoAs

The tests for 8 of the 9 participants produced statistically significant results at the  $\alpha < .05$  level, and 5 of those 8 at the  $\alpha < .01$  level. The only speaker for whom the test did not deliver a significant result is Speaker D3, whose  $p$ -value is a marginally insignificant .0695. I believe this is due primarily to the presence of his highly atypical 0% RoA for nominal negation, mentioned above; if run with the nominal negation feature excluded, the result of the test would be  $t_{(3)} = 7.311$ ,  $p = .0026^{**}$ . Thus, given a more nuanced view of the numbers, I do not consider the pattern displayed by Speaker D3 to be inconsistent with that displayed by the remainder of the sample, though of course the unique 0% nominal negation RoA still begs an explanation. It also bears noting that Speaker D2, despite his unusually phonological RoAs described above, still displays a statistically significant difference between those elevated figures and morphological RoAs.

In light of these results,  $H_1$ : *Phonological accommodation from SCA to ECA is less common than morphological accommodation* is supported.

## 5.2 TEST OF HYPOTHESIS 2

To test  $H_2$ : *Source dialect of the lexeme is a predictor of phonological accommodation*, I assessed each speaker's production using Fisher's Exact test. Table 3 contains the  $p$ -value resulting from each test (\* denotes significance at the  $\alpha < .05$  level, \*\*\* significance at the  $\alpha < .001$  level).

Speaker	$p =$
B1	.0000***
B2	.0000***
B3	.0432*
D1	1.0000
D2	.0009***
D3	.0000***
D4	.0000***
D5	.0000***
O1	.0324*

Table 3. Fisher's Exact Test Results

The test results show source dialect of the lexeme as a significant predictor of phonological accommodation in the speech of 8 of the 9 participants, 6 at the  $\alpha < .001$

level and 2 at the  $\alpha < .05$  level. Speaker D1's strikingly nonsignificant result ( $p = 1.0000$ ) represents a clear departure from the trend displayed by the other speakers in the sample. No single factor presents itself as a ready explanation for this divergence, though following further investigation it could prove relevant that D1, unprompted and uniquely amongst the participants, explicitly stated that he consciously avoids ECA phonological features in his speech. Though D1's exceptional behavior will remain unexplained, it does not detract greatly from the remainder of the results; I find that, on the whole,  $H_2$ : *Source dialect of the lexeme is a predictor of phonological accommodation* is supported.

## **Chapter 6: Discussion**

The results of the tests conducted show both Hypotheses 1 and 2 to be supported, leading to the conclusion that phonological accommodation of SCA speakers to ECA is significantly less common than morphological accommodation, and is strongly bound to the source dialect of the lexeme. This finding stands out primarily in the fact that it does not coincide with the phonology-dominant trajectory of Arabic dialect accommodation sketched by the studies of Miller (2005), Hachimi (2007), and Watson (2007), nor with the overall focus of Arabic variationist studies on phonological factors. Additionally, it begins to shed light on the role of lexical factors in such processes, which in the Arabic literature to date have mainly been discussed in terms of phonetic salience or frequency, not dialectal affiliation.

The presence of this alternative, morphology-dominant route of accommodation in the Sudanese-Egyptian data is then notable, and desires an explanation. Two potential explanatory factors loom largely in distinguishing the Sudanese-Egyptian case from the previously described situations mentioned above, one structural and the other social; each, following an initial detour, will be discussed in detail in the following sections.

### **6.1 STRUCTURAL FACTORS: LINGUISTIC DISTANCE**

One notable commonality of the Miller (2005), Hachimi (2007) and Watson (2007) studies is that all three address dialect accommodation on an intra-national level: Miller studies the speech of Upper Egyptian migrants in Cairo, Hachimi that of women of Fessi origin living in Casablanca, and Watson examines a radio program intended for regional Yemeni consumption. This is, of course, not true of the participants of the current study, who have traveled a significantly further distance and across international

borders. While few would argue that geographic distance is a perfect correlate of linguistic distance (meaning here the degree of structural difference between varieties), in a dialect continuum situation such as that of Arabic the two generally increase in tandem (cf. François, forthcoming). Based on this fact and the linguistic data presented in each of the three prior works and my own, I assert here that the degree of linguistic distance between SCA and ECA is demonstrably greater than the distance between any of the other three previously examined dialect pairings. Could this noteworthy distinction exercise an appreciable effect on the relative accommodation to phonological and morphological features?

Following a review of dialect accommodation studies carried out in languages other than Arabic, I believe the answer is yes. A preliminary survey of quantitative variationist studies covering the comparative treatment of phonological and morphological features in dialect accommodation reveals a great number of cases which conform to the phonology-dominant pattern present in the work of Miller, Hachimi, and Watson. Examples include Trudgill's (1986) description of accommodation between British and American English, Vousten and Bongaert's (1995) account of contact between standard and dialectal Dutch, and Wilson's (2011) study of Moravian and Common Czech. Critically, the majority of these cases would seem to be roughly analogous to Miller's, Hachimi's, and Watson's scenarios, though not to my own data, in terms of linguistic distance of the dialects interacting, involving as they do intra-national contact and/or shallow time-depth of diversification.<sup>2</sup> A context distinct from these and perhaps more akin to the Sudanese-Egyptian scenario with regard to linguistic distance

---

<sup>2</sup> Though notions of linguistic distance are notoriously difficult to quantify, I base this judgment on the language materials present in each study as well as any explicit statements of the authors themselves. Though this is of course not an ideal foundation for analysis, such impressionistic estimations will have to suffice until more reliable objective tools are made available.

and dialect diversity is that of Scandinavia. Intriguingly, studies of interaction and accommodation between varieties of the modern continental Scandinavian languages have unveiled the only well-documented cross-linguistic parallel I have identified of the morphology-dominant route of accommodation described by this study. Nordenstam (1979) tackles the issue head-on in her study of Swedish-speaking immigrants to Norway, and concludes that they, like SCA-speakers in Cairo, accommodate more rapidly to novel morphological features than phonological ones. Similarly, though somewhat less definitively due to a combined indexing of morphological and lexical features, Kerswill's (1994) analysis of dialect accommodation within Norway found roughly equivalent treatment of morpholexical and phonological traits; though not as dramatic as the full reversal found in the Swedish-Norwegian or Sudanese-Egyptian data, this still represents a departure from the phonology-dominant strategy encountered in other research.

The brief sampling provided above would seem to contain a split along the lines of linguistic distance, with cases of interaction between "close" varieties resulting in phonology-dominant routes of accommodation and those between "distant" varieties distinguished by morphology-dominant strategies. Clearly, this sample is neither complete nor representative, so no true conclusions may be drawn from these observations; nor am I aware of any cross-linguistic investigation of these issues, as discussion of distance in dialect acquisition tend to focus on transfer and salience effects between extremely close dialects, rather than extremely distant ones (e.g., Wolfram and Schilling-Estes, 1998; Siegel, 2010). However, the apparent correspondence observed above is a noteworthy one and, if investigated more thoroughly, could prove instrumental in providing a structural account for the divergent, morphology-dominant Sudanese-

Egyptian accommodation strategy in the face of those utilized in other documented cases of Arabic dialect contact.

## **6.2 SOCIAL FACTORS: MARGINALIZATION**

The current study may also be seen to differ from previous works on Arabic dialect accommodation, as well as those on the phenomenon more broadly, in terms of the level of marginalization of the speakers involved. Social marginalization is a multifaceted experience, often conceived of as comprising two primary aspects, one externally-imposed and the other internally to the experiencer. As Grabska writes, “The process of marginalization can be seen as a two-way dynamic: being marginalized by the host society as well as *self-exclusion* from the host society” (2005:10, emphasis in original). This dualistic nature of the social integration process has long-recognized correlates in situations of linguistic adaptation; LePage and Tabouret-Keller, for example, describe the individual’s motivation to identify with a given speech community (the internal aspect) and the response, positive or negative, of said community (the external) as “by far the most important of the constraints governing linguistic behavior” (1985:184). In the sections below, I will assess the status of the participants of my study vis-à-vis those of prior research with reference to both of these recognized components of marginalization, and will then reflect on the nature of my linguistic results in light of these findings.

### **6.2.1 Externally-Imposed Marginalization**

Externally-imposed marginalization here refers to the actions and opinions of a dominant group imposed on a socially subordinate group to the result that the latter are

negatively impacted and inhibited from integrating more fully with the former. By this definition, the SCA-speaking community of Cairo certainly suffers from externally-imposed marginalization, I would argue to a degree not found in prior studies of Arabic dialect accommodation. With regard to Hachimi (2007), the Fessi community investigated in Casablanca is described as reasonably well integrated into its host society: “they have big financial capacities and a complex and solid network of alliances. They have enjoyed, since independence, positions of power in the higher administration, politics, economy and international affairs ... In short, today Fessis are well represented in all sectors of power” (2007:102). In the instance of Miller’s (2005) Upper Egyptian informants, the evaluation is not as clear-cut, but would still seem to compare favorably to the Sudanese case. The Upper Egyptian community is by no means fully integrated into or accepted by larger Cairene society, as Miller clearly states, citing views of Upper Egyptians as unsophisticated, poor, and culturally distinct. The valuation is not completely negative, however, and there exists “a religious-regionalist discourse that praises the supposed moral and religious values of the Upper Egyptians as opposed to the decadence and ‘westernization’ of the Cairene upper class” (2005:944). Additionally, following a year’s residency in Cairo working with both SCA and Upper Egyptian Arabic speakers, I would assert that the Egyptian national identity of the latter sets them apart to a significant degree as accepted members of greater Cairene society. I mean in no way by these comments to belittle the marginalization of Upper Egyptians or Fessis, which indeed does regrettably take place, but simply to highlight the startlingly grave nature of that faced by Sudanese residents of Cairo.

In her study of the livelihood strategies of Cairo’s Sudanese refugee population, Grabska writes that Sudanese are often “perceived by the Egyptian community as impoverished, poorly educated, and of a very different cultural background that is even



considered immoral” (2005:74). Further, “the respondents lamented the limited interactions they have with Egyptians, the distant attitude and lack of openness of the society, and the daily harassment they receive from them” (2005:73). Fábos (1999, 2012) underlines the central role played by race in such interactions between Cairo’s Egyptian and Sudanese populations. These points are, to a “T,” reiterated time and time again across the recorded material of my interviews. Consider the following excerpt spoken by Speaker D5:

*ʔammā al-maṣāmala fī f-fāriṣ fa-hiya maṣāmala sʿaṣba ṣadīd jiddan ... wallāhi al-maṣāmala dī jaṣnī la-daragʿit ʔinnu, jaṣnī, ṣunsʿurijja baḥtā; illī ḥasʿal hinā li-n-nās az-zunuy, ṣāmalū ṣunsʿurijja baḥtā. jaṣnī bitlāgī al-walad fī f-fāriṣ, sʿuḡajjir, jifākl-ak: “bunga-bunga, jā samāra” wa l-kalām al-fāriḡ al humma biṣrifū-h dā ... fī l-muwāsʿalāt talāgī in-nās al gāṣḍīn gamb-ak jifāklū-k ...*

As for the treatment on the street, it’s terribly difficult ... I swear, that treatment is to the point that, I mean, it’s utter racism; what happens here to black people, what they do is utter racism. You’ll find a kid on the street, a little kid, harassing you: “bunga-bunga, hey samāra [racial slurs]” and that crap they all know ... on public transit, you’ll find the people sitting next to you harassing you ...

Given the perspectives presented by Grabska and Fábos and those found in my own data, it seems justified to identify the Sudanese community of Cairo as suffering from an extreme form of externally-imposed marginalization, in many or most cases motivated by racial discrimination, the like of which is not encountered in previous studies of Arabic dialect accommodation.

### 6.2.2 Self-Imposed Marginalization

By self-imposed marginalization, I intend the process by which individuals purposefully self-exclude from the dominant or host society and abstain from interacting with its members. This phenomenon, like the externally-imposed marginalization described above, is commonly observed among the SCA-speaking community of Cairo to a degree not evident in either Hachimi's or Miller's studies. The very title of Hachimi's article, "Becoming Casablancon," indicates the self-driven desire of several of her informants to integrate, at least in part, into the Casablancon community; these speakers consciously abandon certain features of traditional Fessi identity in favor of becoming more "normal" Casablangans, or "one of the people" (2007:117). Miller's informants are generally more reserved in their attitudes towards assimilation into Cairene society, but commonly express a pragmatic view that it is "a need and a duty" to "adapt to the surrounding dominant environment" (2005:917). The migrants see Cairo as "*balad akl il-ṣīf*" 'land of their daily bread'(2005:917), and it is only appropriate to push oneself to interact with the city and adjust to its norms.

Such a view is not commonplace amongst Cairo's SCA-speaking residents, with the potential exception of members of the long-standing Galya community of Muslim Arab Northern Sudanese, none of whom are among my study's participants; these individuals, closer to mainstream Egyptians in appearance, religion, and ethnic identity than the remainder of the Sudanese population, are often able and willing to assimilate into Cairene society to a degree impossible for others of their compatriots (Fábos, 1999). The general perspectives described by the speakers I recorded are more in line with those provided by Grabska's respondents, who "see Cairo as a long painful bus stop or a waiting room they have to cope with until they reach their desired destination. Purposively, they do not build strong relations with the host community as they perceive

it as a waste of time. Many respondents stated that they have no intention to integrate in Egypt because they do not want to stay [there]” (2005:75). Similar comments were captured in my recordings. In addition to this future-oriented rationale, another common theme was self-isolation to avoid having to acknowledge or interact with harassment. Speaker D5 describes a situation in which such a strategy may be taken as far as to feign ignorance of the Arabic language, falling silent at the approach of Egyptians on the subway:

*bitlāgī humma zāt-hum ḥawālēnā bijitkallamū fīk. anta Ṣarabī, anta bitafham al-kalām al humam bigūlū-h bas anta miṣ Ṣāwz taftaḥ al-maḡāl bitāṣ al-kalām ḍāt-u, huwa ... bitlāgī-hum kull-am jitkallamū fīk, jagūlū “lā, huwa mā biṣrif-ḥi Ṣarabī ...”*

You find them all around us, talking about you. You’re Arab, you understand what they’re saying but you don’t want to open up the prospect of speaking at all, it’s ... you find all of them talking about you, saying “No, he doesn’t even know Arabic ...”

Numerous other anecdotes and comments like this one lead to the conclusion that self-imposed marginalization amongst Cairo’s Sudanese population is an intense and acutely felt force, with effects potentially as severe as those of externally-imposed factors. This fact sets the participants of the current study apart from those considered by previous studies of Arabic dialect accommodation and may contribute to the corresponding difference in linguistic outcome, as will be discussed below.

### 6.2.3 Marginalization and Implications for Dialect Accommodation

Given the points explored in the previous two sections, it appears that the speakers participating in the current are set apart from those of Miller's and Hachimi's research by the severity of both the internally and the externally-imposed marginalization they face. The sociolinguistic influence of both types of factors, both as directly and indirectly related to language use, has been widely observed and commented upon in a variety of geographic, cultural, and linguistic contexts (LePage and Tabouret-Keller, 1985; Siegel, 2010; Stanford, 2007). Is it possible that this influence could operate differentially upon features from distinct linguistic domains, and thus help to explain the morphology-dominant accommodation pattern in the Sudanese-Egyptian data, representing as it does a reversal of the generally encountered phonology-dominant strategy?

A potential response to this question may in fact be found within my own study's data, specifically in the performance of Speaker D2. As will be recalled from the results displayed in Figure 2 (§5.1), D2 represented a clear departure from the rest of the group with regard to his treatment on phonological variables. While he still displayed a statistically significant morphology-dominant route of accommodation, his phonological RoAs are conspicuously high at 78.3% for \*/q/ and 78.7% for \*/d̥ʒ/. An initial reaction to these elevated figures is that they might be related to age, as D3 (at 18 years old, having arrived in Cairo at 15) is the youngest speaker whom I interviewed. After further review, however, I am no longer convinced that this is the case. Speaker D5, D3's older brother who preceded him to Cairo, is currently aged 29 years and came to Cairo at 11 years old, thus representing both the earliest age of arrival and greatest length of residence of any of the study's participants; intriguingly, his phonological RoAs are 9.9%

(\*q/) and 6.6% (\*d̥ʒ/) and therefore typical of the sample as a whole, weighing against the explanatory power of age in D3's case.

In search of another interpretation, I turned to the ethnographic content of D3's interview, and noted a remarkable fact: with the exception of Speaker B3 (who cited a wish to remain close to his children and grandchildren), D3 is the only participant who 1) expressed an explicit desire to reside in Cairo on a permanent basis, 2) compared daily life in Cairo favorably to that in the Sudan, and 3) acknowledged having Egyptian friends with whom he interacted on a day-to-day social basis. This stands in stark contrast to the reports of other participants, who generally (in line with the respondents of Grabska (2005)) viewed Cairo as a stepping stone to a further location, lamented being forced to leave the Sudan, and described interacting with native Cairenes only *lamman jakūn fih mas'laħa*, i.e., 'for a specific, practical purpose.' D3 therefore appears to stand starkly apart from the remainder of the group, including his own brother, in terms of the degree of marginalization he experiences in Cairene society, at least in its self-imposed form. The co-occurrence of this fact with his equally unique, high accommodation to phonological aspects of ECA – closer to the behavior recorded by Miller and Hachimi, in whose studies marginalization of both types was similarly less extreme – cannot go unremarked.

On the basis of this observation, I hypothesize that the widely-acknowledged sociolinguistic effects of social integration/marginalization are realized more strongly within the phonological feature set than they are within the morphological, with increased marginalization leading to suppressed accommodation to phonological, but not necessarily morphological, variables – at least in the Sudanese-Egyptian case and possibly in situations of Arabic-dialect accommodation more broadly. This in turn would result in the morphology-dominant accommodation strategy revealed by this study.

Though it is impossible to evaluate such a hypothesis through the behavior of a single speaker, I believe that Speaker D3's divergent performance, coupled with the results of other quantitative studies of Arabic, is sufficient to prompt further inquiry.

The above sections have introduced interpretations, both structural and social, for the study results confirming both Hypotheses 1 and 2. Both accounts await further empirical exploration, and the validity of either or both approaches will rest on assessment by future analysis.

## **Chapter 7: Conclusions and Continued Steps**

In final summation, the tests conducted support the acceptance of both H<sub>1</sub>: Phonological accommodation from SCA to ECA is less common than morphological accommodation and H<sub>2</sub>: Source dialect of the lexeme is a predictor of phonological accommodation, leading to the identification of a morphology-dominant dialect accommodation strategy in use amongst the study's participants. This stands in contrast to the phonology-dominant routes sketched by studies such as Miller (2005), Hachimi (2007), and Watson (2007). I have discussed two possible accounts for this finding. The first is structural and relies on the concept of linguistic distance, observing that the morphology-dominant approach may in fact be typical of contact between more distantly related language varieties. The second explanation is socially-based and invokes the well-known (yet less well understood) influence of social marginalization on patterns of language use, proposing that this force might differentially impact various domains of linguistic features and help to produce the morphology-dominant accommodation pattern uncovered by the tests of this study's hypotheses.

In order to better situate this finding and comprehend its relevance and applicability to cross-linguistic understandings of dialect contact, continued and expanded research is necessary. First, the results should be replicated employing a larger and more diverse participant group, designed to permit the analysis of factors such as ethnic and regional origin, gender, and age of arrival/length of residence in Cairo as possible influences on accommodation processes – although the morphology-dominant pattern was found to be present across the board in the current sample group, it is possible it might prove to be graduated across the levels of various ethnographic parameters. Additionally, more and more types of linguistic variables should be include

in the analysis, in order to determine if the trends noted in the current research are in fact generalizable to the domains of “phonology” and “morphology” at large or are rather restricted to specific subsets of features (e.g., simple vs. complex phonological adaptations, inflectional vs. derivational morphology) or even to the individual features I have chosen to examine.

To assess the validity of the structural explanation I have proposed above for the morphology-dominant strategy prevalent amongst the Sudanese-Egyptian group, I believe fruitful comparisons may be drawn cross-dialectally and cross-linguistically. Study of further examples of international (as opposed to intra-national) dialect contact in Arabic, involving comparable degrees of difference between varieties, could prove elucidating: potential cases include the Palestinian community of Kuwait, or Jordan’s Iraqi refugee population. Additionally, comparisons could be drawn with phenomena of accommodation between closely related languages, such as *Portuñol* in Uruguay/Brazil (Spanish-Portuguese contact) or *Trasianka* and *Surzhyk* in Eastern Europe (Russian-Belorussian and Ukrainian-Russian, respectively), which in terms of linguistic distance may parallel the Sudanese-Egyptian case more closely than do many “classic” examples of dialect contact. With regard to evaluating the suitability of the second proposed explanatory factor, the influence of social marginalization on different domains of language use, more explicit attention to this area should be built into the research design of future replication studies. Inclusion of participants from the Muslim Arab Northern Sudanese community described by Fábos (1999, 2012) would provide breadth of experience concerning the generally racially-based enactment of externally-imposed marginalization in Cairo, and the addition to the protocol of a Likert-scale type assessment of personal attitudes could allow for a more detailed assessment of self-imposed marginalizing factors.



Additional undertakings like those I have outlined here will help to situate the results of this study in a larger and more comprehensive context. It is my hope that through such lines of inquiry these findings, combined with future work, will contribute to the existing knowledge of Arabic dialect dynamics and potentially inform conceptualizations of dialect accommodation as a broader linguistic phenomenon.

## References

- Abdel-Massih, E. T., Z. N. Abdel-Malik, E. M. Badawi and E. N. McCarus. (2009). *A reference grammar of Egyptian Arabic*. Washington, D.C.: Georgetown University Press.
- Al-Rojaie, Y. (2013). Regional dialect leveling in Najdi Arabic: The case of the deaffrication of [k] in the Qaṣīmī dialect. *Language Variation and Change*, 25(1), 43-63.
- Al-Wer, E. (2003). *Variation and change in Jordanian Arabic*. London: RoutledgeCurzon.
- (2007). "The formation of the dialect of Amman: From chaos to order." In C. Miller et al. (Eds.), *Arabic in the city: Issues in dialect contact and language variation* (pp. 55-76). London: Routledge.
- Bedawi, E. and M. Hinds. (1986). *A dictionary of Egyptian Arabic: Arabic-English*. Beirut: Librarie du Liban.
- Chambers, J. K. (1992). Dialect acquisition. *Language*, 68(4), 673-705.
- Dickens, J. (2006). Khartoum Arabic. In *The Encyclopedia of Arabic Language and Linguistics*. (Vol. 2, pp. 559-571). Leiden: Brill.
- Fábos, A. H. (1999). *Ambiguous ethnicity: Propriety (adab) as a situational boundary marker for northern Sudanese in Cairo*. (Doctoral dissertation). Boston University, Boston.
- (2012) Resisting blackness, embracing rightness: How Muslim Arab Sudanese women negotiate their identity in the diaspora. *Ethnic and Racial Studies*, 35(2), 218-237.
- François, A. (forthcoming). "Trees, waves and linkages: models of language diversification." In Bowerman & Evans (Eds.), *Routledge handbook of historical linguistics*. London: Routledge.

- Grabska, K. (2005). "Living on the margins: The analysis of the livelihood strategies of Sudanese refugees with closed files in Egypt (FMRS Working Paper No. 6)." Cairo: The American University in Cairo.
- Habib, R. (2011). Meaningful variation and bidirectional change in rural child and adolescent language. *University of Pennsylvania Working Papers in Linguistics* 17(2), 81-90.
- Hachimi, A. (2007). "Becoming Casablančan: Fessis in Casablanca as a case study." In C. Miller, et al. (Eds.), *Arabic in the city: Issues in dialect contact and language variation* (pp. 97-122). London: Routledge.
- Hillelson, S. (1935). *Sudan Arabic Texts with Translation and Glossary*. Cambridge: Cambridge University Press.
- Jassem, Z.A. (1987). *Phonological variation and change in immigrant speech: A sociolinguistic study of a 1967 Arab-Israeli War immigrant speech community in Damascus, Syria*. (Doctoral dissertation). University of Durham, Durham.
- Kerswill, P. (1994). *Dialects converging: Rural speech in urban Norway*. Oxford: Clarendon Press.
- LePage, R. B. and A. Tabouret-Keller. (1985). *Acts of identity: Creole-based approaches to language and ethnicity*. Cambridge: Cambridge University Press.
- Lewis, M. P., G. F. Simons and C. D. Fennig. (2013). *Ethnologue: Languages of the world* (17<sup>th</sup> ed.). Dallas: SIL International.
- Manfredi, S. (2013). "Native and non-native varieties of Arabic in an emerging urban centre of western Sudan: Evidence from Kadugli." In M. Lafkioui (Ed.), *African Arabic: Approaches to dialectology* (pp. 13-50). Berlin: De Gruyter.
- Miller, C. (2005). Between accommodation and resistance: Upper Egyptian migrants in Cairo. *Linguistics*, 43(5), 903-956.

- Nordenstam, K. (1979). *Svenskan i Norge: Språklig variation hos svenska invandrare in Bergen*. Gothenburg: Acta Universitatis Gothoburgensis.
- Qāsim, A. (1985). *Qāmūs al-lahjah al-‘āmmīyah fī al-Sūdān* (2<sup>nd</sup> ed.). Cairo: Al-Maktab Al-Miṣrī Al-Ḥadīth.
- Siegel, J. (2010). *Second dialect acquisition*. Cambridge: Cambridge University Press.
- Stanford, J. N. (2007). *Dialect contact and identity: A case study of exogamous Sui clans*. (Doctoral dissertation). Michigan State University, East Lansing.
- Tamis, R. and J. Persson. (2013). *Sudanese Arabic-English, English-Sudanese Arabic: A concise dictionary*. Dallas: SIL International.
- Trudgill, P. (1986). *Dialects in contact*. Oxford: Basil Blackwell.
- UNHCR, The UN Refugee Agency. (2013). *Global Report*. Available from <<http://www.unhcr.org/gr12/index.xml>>.
- Versteegh, K. (2001). *The Arabic Language*. Edinburgh: Edinburgh University Press.
- Vousten, R. and T. Bongaerts. (1995). “Acquiring a dialect as L2: The case of the dialect of Venray in the Dutch province of Limburg.” In W. Viereck (Ed.) *Verbandlugen des internationalen dialektologenkongresses Bamberg 1990, Band 4* (pp. 299-313). Stuttgart: Franz Steiner.
- Watson, J. C. E. (2007). “Linguistic leveling in Sanʿani Arabic as reflected in a popular radio serial.” In C. Miller, et al. (Eds.), *Arabic in the city: Issues in dialect contact and language variation* (pp. 97-122). London: Routledge.
- Wilson, J. (2011). Types of dialect accommodation in first-generation contact between adult speakers of mutually intelligible but regionally different varieties. *Multilingua*, 30(2), 177-220.

Wolfram, W. and N. Schilling-Estes. (1998). *American English: Dialects and variation*.  
Malden: Blackwell.