Graduate Institute of Applied Linguistics

Thesis Approval Sheet

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Linda Jordan

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Master of Arts

with major in

Language Development

has been read and approved

by the undersigned members of the faculty

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A STUDY OF SHARA AND RELATED OMETO SPEECH VARIETIES OF ETHIOPIA

By

Linda Jordan

Presented to the Faculty of
the Graduate Institute of Applied Linguistics
in partial fulfillment of the requirements
for the degree of

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June 2009

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ABSTRACT

A STUDY OF SHARA AND RELATED OMETO SPEECH VARIETIES

OF ETHIOPIA

Linda Jordan
Master of Arts
with major in
Language Development
The Graduate Institute of Applied Linguistics, June 4, 2009

Supervising Professor: Dr. Peter Unseth

This study analyzes the historical relationship of Shara and Mele to East Ometo Zergulla [zay] and North Ometo Gamo [gmo]. This involves a discussion of genetic relationship, lexical borrowing and contact-induced morphological change. Sound correspondences across the four varieties, verb morphology and the history of language contact in the area all contribute to an understanding of how these less-known Ometo varieties compare to the better documented ones. As speech varieties of southern Ethiopia change and shift in contact with closely related varieties, lexical similarity can only tell a small part of the story. This research has a particular focus on Shara, which exemplifies the effect of contact-induced change on the apparent relatedness of one variety to another. In addition to clarifying relationships between Ometo speech varieties, the study's ultimate aim is to provide recommendations for language development and further sociolinguistic investigation in the area.

ACKNOWLEDGMENTS

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I would like to express my appreciation to Hussein Mohammed, Carol Magnusson and Mulatu Goshu. As my coworkers on the SIL Ethiopia language survey team, they each played a vital role in gathering the data on which this thesis is based. The original fieldwork could never have been completed without them. I would also like to thank Wondimu Gaga for his advice, encouragement and comments on the team's fieldwork report.

I acknowledge all the wordlist contributors, interviewees and other participants in this research, particularly the residents of Ajjo, Bulk'e, Arba and Dhimalle. My thanks also go to the administration of the Gamo-Gofa Zone, whose kind permission made this work possible.

Finally, I would like to thank Colin Davis for his work in producing and revising the map used in Figure 4 of section 2.3 (used by permission, © SIL International, *Zayse-Zergulla and South Gamo language areas*, 2009).

June 2, 2009

TABLE OF CONTENTS

Content Page

LIST OF TABLES

Page

LIST OF FIGURES

Page

Chapter One

INTRODUCTION

1.1 Problem statement

In the past, little work has been done on the Ometo speech varieties found west of Lakes Ch'amo and Abaya in southern Ethiopia, including Mele, Shara, Ganta, Garbansa and Balta. They have often been grouped under Gamo [gmo], a North Ometo speech variety commonly used as a second language by people throughout that area, but the ethnolinguistic identity of those who are called "Gamo" remains unclear. More information is needed in order to further define that identity and the speech varieties it encompasses. This study's aim is to investigate the historical relationship of two little-known varieties, Mele and Shara, to East Ometo Zergulla [zay] and North Ometo Gamo by using sociolinguistic data and the comparative method of wordlist analysis.

The study has its roots in a dialect survey that was conducted for the Zayse [zay] and Zergulla speech varieties[1] and other potentially related varieties of the area. The survey took place in February and April 2006, conducted by SIL surveyors Linda Jordan, Hussein Mohammed and Carol Magnusson with Zayse assistant Mulatu Goshu. The work was completed in the Arba Minch area of southern Ethiopia, ranging about 60

[1] Both varieties are currently treated as part of the same language, Zayse-Zergulla [zay], according to the ISO 639-3 codes.

kilometers to the west and southwest of Arba Minch town. It focused on Zayse and Zergulla as well as Mele, Shara, Ganta, Garbansa, Balta and Gamo.

1.2 Purpose of the study

This study was conducted in order to clarify the classification of Ometo speech varieties spoken west of lakes Ch'amo and Abaya in southern Ethiopia. The researcher hopes the results will be used to further define the relationships between these varieties and to inform strategies for possible future language development programs in the area. The results should also add to the body of knowledge available to linguists about the classification of Ometo speech varieties in southern Ethiopia.

1.3 Need for the study

The classification of Omotic as a separate language family in its own right has been controversial, as has the classification of speech varieties within this relatively new family. The scholars who have worked on the internal divisions of Omotic include Fleming (1976a, 1976b), Bender (1975, 1987, 1988, 2000, 2003), Hirut (2004, 2005) and Wondimu (2006).

This is still a work in progress (see the discussion in section 2.1). There is a particular need to fill in the gaps within the Ometo cluster and to further define the linguistic position of the southern groups having a Gamo ethnic identity. As Wondimu (2006:111) states at the conclusion of his study, "Based on the results obtained from the

analysis of the sociolinguistic and linguistic data…one can suggest that the Southern group where Baltatstso and Garbansatstso[2] belong is closer to members of the East Ometo subgroup….This, however, needs further comparative research to verify."

1.4 Research questions

The research problem involves the classification of Mele and Shara based on lexical data. According to Wondimu's (2006:10) sociolinguistic data, these two little-known Ometo varieties are spoken by "Gamo subcommunities" and are reported to be mutually intelligible with varieties like Zayse, Zergulla, Ganta, Garbansa and Balta (2006:21). Based on this, Wondimu (2006:111) tentatively classifies both Mele and Shara under the East Ometo subgroup. The questions to be answered in the current study are as follows:

- What are the segmental correspondences across the four varieties being compared in this study (Zergulla, Mele, Shara and North Ometo Gamo)?
- Do the correspondences show Mele and Shara linking more closely to East Ometo Zergulla or North Ometo Gamo?
- What if any variation can be found between Mele and Shara?
- What effect has borrowing had on the data?
- How do the correspondences found within the data compare to those found by Bender (2003) in his analysis of NWO (Northwest Ometo = North Ometo) and

[2] These are the autonyms for the Balta and Garbansa speech varieties. The repetition of 'ts' in the spelling represents gemination.

SEO (Southeast Ometo = East Ometo)?

- Do the findings from this study support Bender's (2003:107) proposed segmental phonemes of Proto-SEO?
- How do the sociolinguistic data obtained during the 2006 field work explain the variation found in the lexical data?
- What recommendations can be made regarding possible future language development programs in the area?

1.5 Scope and limitations of the study

The goals of the study are three-tiered, involving 1) analysis of the lexical data, 2) comparison of the results to Bender's (2003) findings and 3) application of the sociolinguistic data. The data used is from four speech varieties, namely Zergulla, Mele, Shara and North Ometo Gamo.

During the 2006 field work in the Gamo area, word lists of eight speech varieties were transcribed, and seven of them were completely audio-recorded. Mele and Shara were chosen to be the focus of this study because they are the least known of those seven, not appearing in the literature except for Wondimu's 2006 master's thesis.[3] Another reason for selecting Mele is that it seems to be both geographically and linguistically central to the southern part of the Gamo ethnic area. As for Shara, it is the most endangered of the seven, and this is a chance to document its relationship to other Ometo

[3] There is also a brief mention of Mele in Azeb (2007).

varieties as it heads toward extinction.

Zergulla and Dhaach'e Gamo were chosen as good points of comparison for the two less known varieties. The Zergulla are usually considered to be ethnically Gamo, yet their mother tongue has long been thought to be a member of the East Ometo subgroup. Dhaach'e is a North Ometo Gamo variety commonly used as a second language by people throughout that area, and mother tongue speakers of Dhaach'e can often be found living in the same communities as "South Gamo" speakers. A standardized variety of North Ometo Gamo is also used as the language of education in the Gamo-Gofa Zone, where the field work for this study was conducted.

The limitations of the study are listed below. They are addressed in greater detail in the relevant sections of Chapter Four.

1. Because of time limitations, the word lists were not double-checked with other language helpers, leaving open the possibility of non-cognate synonyms where cognates could have been obtained.
2. Prosodic phenomena like tone and length were not covered in great detail.
3. The words were elicited in isolation instead of in the context of an unchanging tone frame, resulting in tonal transcriptions that may be somewhat less than reliable.
4. The research team did not visit the Gobbe and Gashesso dialect areas of Shara, so it is possible that they are more isolated from external influences and that more of their young people are still speakers of Shara.

5. Because only wordlist data are available, possible evidence for structural borrowing (such as syntactical change) is lacking.

1.6 Procedure of the study

The wordlist transcriptions from this study were entered into WordCorr version 2.0 for phonological comparison. Individual lexical items were assigned to initial cognate sets, and the comparative method (Campbell 1999, Durie & Ross 1996) was applied according to the following steps:

1. Establishing regular sound correspondences.
2. Identifying lexical items that are just linguistically similar and not truly cognate by finding those that do not adhere to the regular sound correspondences.
3. Assigning individual lexical items to sets of true cognates.
4. Identifying apparent irregularities in sound change caused by borrowing and analogical change.
5. Comparing sound correspondences found in the current data to those found in Bender's (2000, 2003) comparative analysis of Ometo varieties.
6. Identifying linguistic traits that Shara and Mele share with either North Ometo Gamo or East Ometo Zergulla.
7. Subgrouping Shara and Mele based on these shared linguistic traits.
8. Examining the current data for evidence either for or against Bender's (2003) reconstruction of Ometo proto-sounds.

Chapter Two

REVIEW OF THE LITERATURE

2.1 Omotic classification

The discussion below outlines the controversy over this language family's internal classification, reflected by the different versions of the Omotic family tree that can be found in the literature over the past 30 years or so. For example, two different schemes appeared in 1976, both of them by Fleming. One of them (1976a) places Ometo under Western Omotic and Gamo under North Ometo. The other (1976b) labels the same subfamily and subgroup as North Omotic and Central Ometo, respectively. This study follows the former, the relevant parts of which are shown in Figure 1 below.[4]

[4] Though this is merely a change in labels rather than relative linguistic groupings, it still has the potential to cause confusion, since both versions have subsequently appeared in the literature.

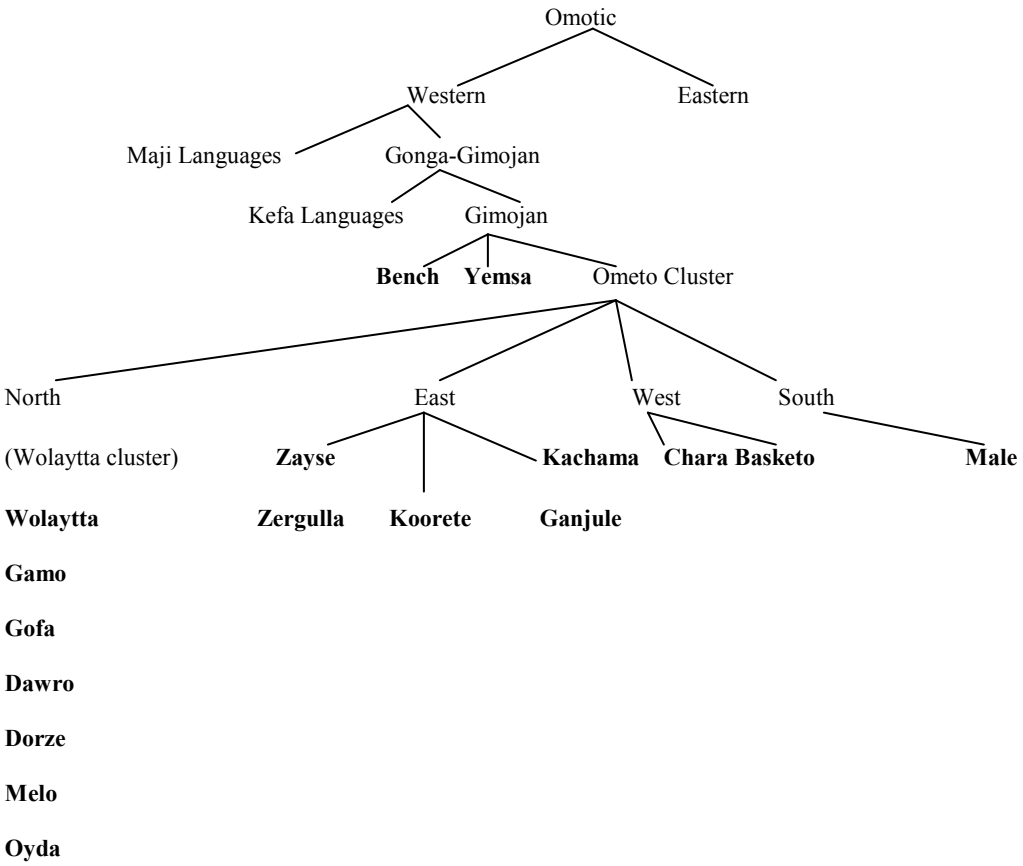

Figure 1: Omotic language family, adapted from Fleming (1976a)

Bender, who contributed a great deal to the reconstruction of Proto-Omotic (1987, 1988), developed a genetic classification of Omotic languages (2000:230-1). This appears again in a slightly modified form in his book on the lexicon and phonology of this language family (2003:2). Bender's new classification system, shown in Figure 2, lists Gamo under the Extended Welaitta (Wolaytta) Cluster (EWC) of the Northwest Ometo subfamily (NWO). Zayse and Zergulla are included in the Southeast Ometo (SEO) subfamily, more commonly referred to as East Ometo.

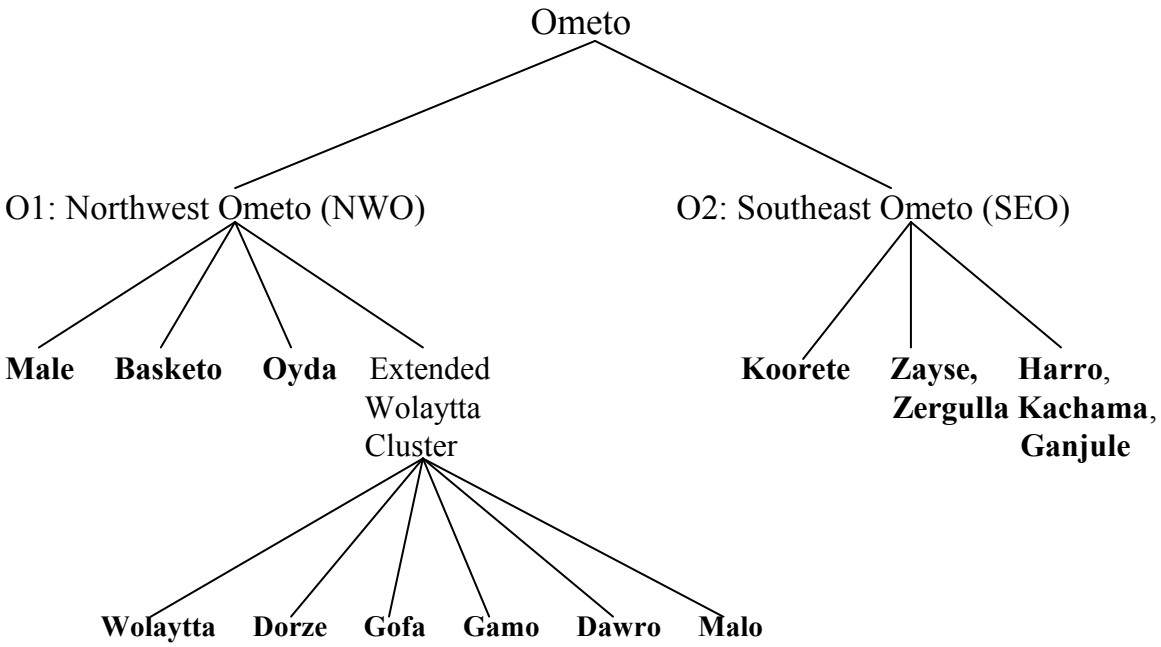

Figure 2: Ometo group, adapted from Bender (2000, 2003)

Hirut (2004:75) recommends revising Fleming's system by adding a separate "Gamo Group". This would better represent the idea that Gamo is comprised of many varieties instead of just a single dialect under the umbrella of Wolaytta [wal]. Hirut's revisions are illustrated in Figure 3.

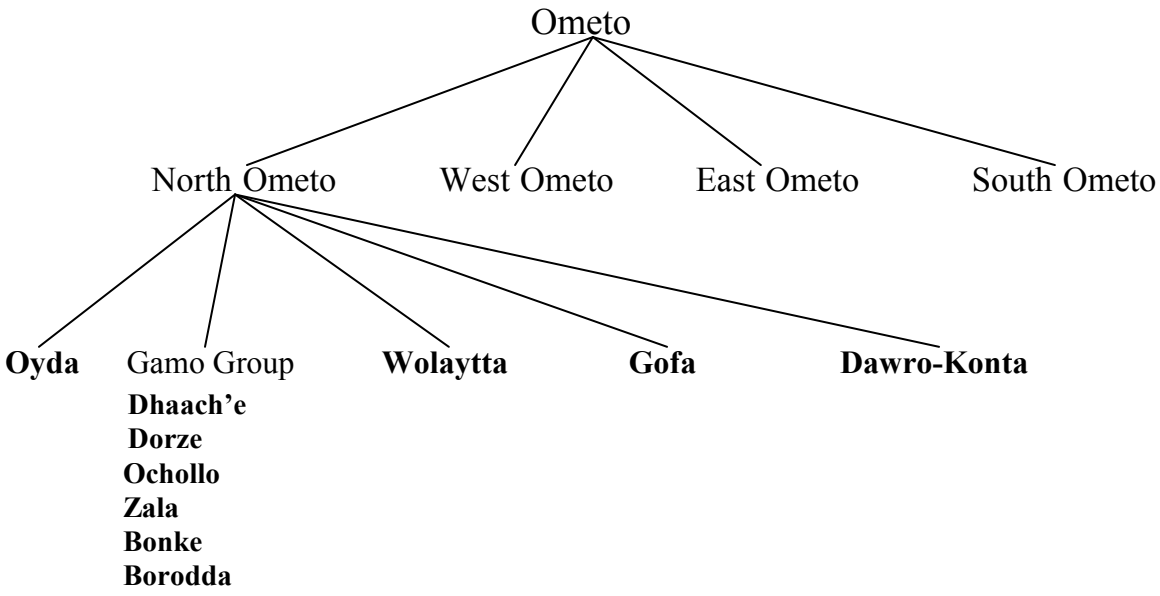

Figure 3: Ometo group, adapted from Hirut (2004:76)

The "Gamo" speech varieties in the south of this area have received little attention within the changing framework of classification, which explains why varieties such as Shara and Mele do not appear at all in the diagrams above. Among the groups having a Gamo ethnic identity, the Zergulla are probably the most often mentioned, with their mother tongue being listed as part of the East Ometo subgroup or its equivalent (Bender 1975, Bender 2003, Fleming 1976a, Fleming 1976b). Based on Cerulli (1929:38), the same four sources have also placed the little-known Zala in the North Ometo subgroup or its equivalent. Balta appears as a member of the West Ometo dialect cluster (Fleming 1976b). However, Wondimu (2006:111) includes Zaalla (Zala) and Balta along with Zergulla in his list of East Ometo varieties falling under the category of "South Gamo".

Bender (1975) lists Ganta as one of the "Welamo" (Welaitta, Wolaytta) areas, but the Ganta speech variety has since been documented in more recent work. Brenzinger

(1999:35) writes that this variety may be regarded as a dialect of North Ometo Gamo, though it is not entirely clear whether it might rather be a distinct language related to Gamo. In contrast, Selamawit (2004), Hirut (2005) and Wondimu (2006:21) all support Ganta as fitting in more closely with East Ometo than with North Ometo. The Ethnologue (Lewis 2009) includes Ganta as a dialect of Kachama-Ganjule [kcx], another East Ometo variety. The source for this is Siebert & Hoeft's (2002:14) field report, in which an interviewee is quoted as saying that "Ganta and Ganjawle (Ganjule) are one language; at least they are very similar."

2.2 Names used for ethnolinguistic groups

Following Wondimu's (2006:111) master's thesis, this study applies the term "North Gamo" to Gamo varieties belonging to the North Ometo branch of Omotic languages. This includes the developed, standardized variety of Gamo that is currently used in schools and the Dhaach'e Gamo variety, used as a second language by people in that area and used as a point of reference in this study (see section 1.4). The speech varieties that are the main focus of the study are referred to as "South Gamo", also following the recommendation put forward by Wondimu. Wondimu (2006:111) believes that the South Gamo varieties belong to the East Ometo branch of Omotic, based on their grammatical and lexical similarity to members of the East Ometo subgroup.

Wondimu also explains in more detail how "Gamo" is used by different groups. There is no agreement about the origin of the term, and there are two main views about Gamo identity. The political and educated elite consider the Gamo to be those who live

in the area defined "by lakes Abbaya and Chamo in the east, Zayse and South Omo in the south, Maale and Gofa in the west and Dawro and Wolaita in the north…" (Wondimu 2006:10) In the northern part of this area, those who are not among the elite do not consider themselves to be Gamo but rather define their ethnolinguistic identity according to their membership in one of the many smaller groups found there. Only those to the south of Diita and Bonke in the central Gamo highlands accept the Gamo ethnolinguistic identity. The actual residents of Diita and Bonke call themselves "Dhaach'e" and consider the Gamo to be those whose ancestors they defeated in a series of wars.

2.3 Geography

The North and South Gamo varieties are spoken in the Gamo-Gofa Zone of the Southern Nations, Nationalities and Peoples Regional State (SNNPR), west of lakes Abaya and Ch'amo in southern Ethiopia. The map in Figure 4 below is an attempt to define the South Gamo area in relation to the language groups listed in the Ethnologue (Lewis 2009), and it is based on the Ethnologue map for that part of Ethiopia. Note that there is some geographical overlap between the North Gamo ("Gamo-Gofa-Dawro" [gmo]) and South Gamo areas, since there are communities where both North and South Gamo varieties are spoken. The map shows the extent of the South Gamo homeland without indicating patterns of North Gamo settlement within that area.

Figure 4: Zayse-Zergulla and South Gamo language areas

The speech varieties that are the main focus of this study are mapped within the South Gamo boundaries in Figure 4, while the varieties to which they are compared are found on the periphery. Mele is located in the southwestern corner of the South Gamo area near the community of Arba, and Shara is in the northeast near Bulk'e. The

Dhaach'e Gamo data used in this study were gathered in the northern community of Ajjo, near where Zegetse (a South Gamo variety) is spoken. Though Zergulla speakers are ethnically Gamo, Zergulla is shown here as the western half of the Zayse-Zergulla language area, following the Ethnologue (Lewis 2009), Fleming (1976a) and Bender (1975). The Zergulla data were gathered in the community of Dhimalle. (See the circled communities in Figure 4.)

2.4 Peoples and languages

Many South Gamo speech varieties are found west of Lakes Abaya and Ch'amo, but Zergulla is the only one that has received much recognition. Therefore, the information summarized in this section pertains to the Zergulla speech variety and people, and this is taken as a starting point for a discussion of literature about related varieties in the sections that follow.

Zergulla is an East Ometo speech variety. According to Bender (1975), it is a dialect of Zayse. It has also been classified as one of two main dialects of the language Zayse-Zergulla (Fleming 1976a), though more recent work has treated Zergulla independently (Baye 1994, Azeb 2007). Its alternate spellings and names include "Zergula" (Teferi et al. 2005), "Zergullinya" (Lewis 2009) and "Zargulla" (Azeb 2007).

Zergulla, unlike the other South Gamo groups, is listed by name in Table 2.17 of the first volume of 1994 Ethiopian census results (Office of Population and Housing Census Commission 1998:99-108). The mother tongue speakers of the Zergulla variety are reported as much higher in number (7,625) than the people in the Zergulla ethnic

group (only 390). Hudson (2003:97) interprets this as a case of people from other ethnic groups acquiring Zergulla as their mother tongue. However, Wondimu (2006:15) theorizes that this is the result of indecision over what they should declare as their ethnic identity. It may be more likely for Zergulla people to claim Gamo ethnicity while still maintaining that their mother tongue is Zergulla.

2.5 Other previous research

Much of the literature about the East Ometo varieties found in this area is focused on Zayse and Zergulla. Hirut (1988) has done some work on the noun morphology of Zayse, and Hayward (1990, 1991, 1996, 1999) has conducted grammatical studies on Zayse in the course of his work on Omotic classification and East Ometo verb paradigms. Mulugeta Seyoum's 1988 BA thesis on the phonology of Zayse contains one Zayse word list as well as a description of Zayse phonemes. Baye (1994) has done some work on Zergulla morphology. Azeb's (2007) contribution to the description of Zergulla has also added to the understanding of East Ometo verb paradigms.

A sociolinguistic survey of Zayse-Zergulla (Siebert & Hoeft 2002) was conducted as part of the Survey of Little-Known Languages of Ethiopia (S.L.L.E.). The survey was primarily aimed at gaining a clearer understanding of interrelations between several speech varieties spoken around Lake Abaya and on the inhabited islands of the lake itself. The locations visited were Alge, Arba Minch and Gat'eme at the western shore of Lake Abaya, and Elgo and Shele Mela west of Lake Ch'amo. The targeted speech varieties were the following: Baise [bsw], Ganjawle (Ganjule [kcx]), Gats'ama (Get'eme,

Kachama), Gidicho (Giddicho, Harro, Haruro [kqy]), Zayse and Zergulla.

Besides the above-mentioned research, Hirut (2004, 2005) and Selamawit (2004) have made recent contributions to the understanding of this area's speech varieties. They both suggest that the Ganta variety is East Ometo rather than North Ometo. Together with Wondimu's (2006) comparison of Garbansa and Balta to North Ometo varieties, these examples constitute the only literature to date that looks in detail at the little-known Ometo varieties found north of Zergulla. Because the ethnic name "Gamo" includes the Ganta, Garbansa, Balta and other South Gamo groups, there has in the past been some confusion over the classification of their speech varieties. Just because North Gamo belongs to North Ometo, it should not be assumed that all the other varieties spoken in ethnically Gamo areas are also North Ometo.

2.6 Ometo phonology

Table 1 provides an overview of Macro-Ometo's phonemes as proposed by Bender (2003:137). This gives a general indication of what phonemes to expect in modern Ometo varieties. As shown in the chart, /tʃ/, /r/ and /mʔ/ are non-initial, and /mʔ/ is weakly attested. The vowels /E/ and /U/ are questionable archiphonemes. The especially rare /U/ shows up as *o* in North Ometo and *o~u* in East Ometo, and /E/ occurs mostly as *a~e* (Bender 2003:127-8). The affricates /ts/ and /dz/ are also problematic; *ts* is usually attributable to *tt*, and the rare *dz* alternates with *ts* (Bender 2003:137).

		Labial	**Alveolar**	**Palatal**	**Velar**	**Glottal**
Stops	*voiced*	b	d		g	
	voiceless		t		k	ʔ
Implosives		ɓ	ɗ			
Ejectives		p’	t’	tʃ’	k’	
Fricatives			s z	ʃ		h
Affricates			(ts dz)	-tʃ tʃ’		
Nasals		m	n			(-mʔ)
Liquids			-r l			
Glides		w		j		
Vowels	i e (E?) ɑ o u (U?) ɑi oi					

Table 1: Protophonemes of Macro-Ometo, adapted from Bender (2003:137)

North and East Ometo languages are generally found to have a five-vowel system (*a, e, i, o, u*) with short and long vowels, though there is disagreement over whether vowel length is distinctive in some varieties (Bender 2000:9,49). Distinctive geminate consonants are also found to occur in both subgroups (Bender 2000:8-10, 47-50).

Ferguson (1976:65-9) describes eight phonological features typical of the Ethiopian Language Area, and half of these have been noted in Ometo speech varieties. These include 1) a series of palatal consonant phonemes, 2) a series of glottalic (ejective) consonant phonemes, 3) an implosive phoneme /ɗ/ and 4) lexically distinctive geminate consonants.

Chapter Three

METHODOLOGY

Several different methods were used to accomplish the research goals of the 2006 fieldwork in the Gamo area. The sociolinguistic interviews and wordlist elicitation provided the specific data that are analyzed in the current study. The procedures, data sources, analysis techniques and informed consent protocol for each are described below.

3.1 Procedures

3.1.1 Group and individual interviews

In eight of the locations that were visited, the research team conducted a group interview in order to get an overall picture of the sociolinguistic situation among the speakers of Ometo varieties in that area. The questionnaire was based on the S.L.L.E. Main Sociolinguistic Questionnaire (Appendix III) as revised by Aklilu Yilma, Ralph Siebert and Kati Siebert (Wedekind & Wedekind 2002:5-6). It was further revised by Hussein Mohammed. Conducting this interview usually took at least two hours and covered the areas of multilingualism, language use, language attitudes, dialect attitudes, social interaction patterns, language vitality and language development.

This group interview was supplemented by one-on-one interviews with a convenience sample of selected individuals who were not part of the group interview. The individual questionnaire includes a subset of the questions found in the group

questionnaire, focusing more on language attitudes, social interaction, language vitality and language development. It served primarily to double-check the accuracy of the information collected during the group interviews.

3.1.2 Wordlists

Wordlists were collected using the 322-item elicitation list that was first compiled by Tim Girard (Wedekind & Wedekind 2002:5) and later revised by Colleen Ahland, Hussein Mohammed and Angela Davis. The team collected wordlists of eight different speech varieties in eight of the locations visited during this study. Four of these lists are included in Appendix I.

3.2 Data sources

3.2.1 Group and individual interviews

In each interview group, there were at least ten participants aged 15 and older, ideally both men and women from a range of ages. The survey team waited to begin the interview until at least ten participants were present. Since such an interview is often held in an informal setting, participants come and go as they see fit. The information is taken as being from the group as a whole instead of from individuals within that group.

A total of 20 individual sociolinguistic interviews were completed, at least two in each of the seven villages where they were conducted and one in the town of Gerese. The following general guidelines were used when selecting the convenience sample:

Include at least two

- males / females

- with / without some formal education
- below / above 25 years of age.

3.2.2 Wordlists

Each wordlist was gathered with the assistance of one or more mother tongue speakers of the speech variety in question. More than one mother tongue speaker was usually present in order to help with the discussion and find the best word. Only one person from the group was audio-recorded pronouncing each word, unless that person was unable to stay and finish the entire list. In such cases, a substitute was found to complete the recording.

3.3 Analysis

3.3.1 Group and individual interviews

The answers to interview questions in different locations were compared and evaluated in light of other observations and the research goals.

3.3.2 Wordlists

The wordlist transcriptions from this study were entered into WordSurv version 5.0 beta for lexicostatistical comparison, which involves a comparison of lexical items by "inspection" and not a careful historical reconstruction. The researcher assigned each transcription to a group based on its degree of phonetic similarity to other transcriptions. The program then calculated the percent of similar lexical items using these assigned groups, and the researcher arranged the represented speech varieties in a matrix according to lexical similarity.

3.4 Informed consent protocol

In this part of Ethiopia, ethnolinguistic identity and language development have been very highly charged political issues. Therefore, privacy was identified as a key topic (among others) about which participants should be informed before giving their consent to participate in this study. Personal information about them will not be disclosed or used in any way that might be embarrassing or harmful to them.

3.4.1 Consent from group interview participants

In the group interview situations, the research team waited to begin the interview until at least ten participants were present. Since it was in an informal setting, with participants coming and going as they saw fit, it would have been inappropriate and time-consuming to stop the discussion every time a new member joined in order to get consent. Additionally, the information was taken as being from the group as a whole instead of from individuals within that group. The answers given by an individual were not connected in any way to that person's identity but were only recorded as part of the group input.

Therefore, group oral consent was obtained before each interview started, as soon as ten participants had gathered. This was duly recorded on a form that included the main points about which they were informed (see notice below). It was not audio-recorded, as this would have introduced an unfamiliar and perhaps unsettling element to the meeting. Likewise, signed consent forms would have been inappropriate in a setting where many of the participants were illiterate.

The following notice was given in Amharic[5] and, if necessary, interpreted into the vernacular of the community where the interview would be conducted:

> We come from SIL, and we are working with the Ministry of Culture. We are doing a study on what kind of languages people speak here. We hope this will help organizations that want to help you. I would like you to discuss and answer some questions that I am going to ask you as a group. Some of the questions may be harder to answer than others, but it shouldn't be too difficult since they will be about your language and culture. It should only take about __hour(s). We will not write down your names and will not give your names to anyone else. If you don't want to help, or decide to stop, that's fine. Would you be willing to help by being a part of this group?

Once the group had asked any questions that arose and had given its consent, the interview proceeded.

3.4.2 Consent from individual interview participants

For individual interviewees, the informed consent procedure was more rigorous in order to reflect the more personal nature of the data that was gathered. Again, it would have been inappropriate to expect rural interviewees to have their oral consent audio-recorded, since many, especially women, may have been frightened by the recording equipment. As above, signed consent forms were also not always possible in such a setting because of low literacy levels.

A culturally appropriate alternative was to obtain a "finger-signature" (fingerprint) from each willing participant. This is a common and legally binding practice for illiterate people in Ethiopia, and it is easily enough accomplished with a simple inkpad used for rubber stamps. First, a notice similar to the one above was given in Amharic and, if

[5] Amharic is the national language of Ethiopia.

necessary, interpreted into the first language of the interviewee.

> We come from SIL, and we are working with the Ministry of Culture. We are doing a study on what kind of languages people speak here. We hope this will help organizations that want to help you. I would like you to answer some questions that I am going to ask you. Some of the questions may be harder to answer than others, but it shouldn't be too difficult since they will be about your language and culture. It should only take about __hour(s). We will not write down your name on your answer sheet and will not give your name to anyone else. If you don't want to help, or decide to stop, that's fine. Would you be willing to help by answering some questions?

Following the notice, each consenting individual either signed or made a "finger-signature" on one of the consent forms prepared for this purpose, and the interview proceeded.

3.4.3 Consent from word list helpers

The language helpers who worked on the word lists had their voices recorded on audiocassette. Therefore, oral consent audio-recorded at the beginning of the word list cassette was the most appropriate. The following notice was given in Amharic and, if necessary, interpreted into the first language of the language helper.

> We come from SIL, and we are working with the Ministry of Culture. We are doing a study on your language. We hope this will help the organizations that want to help you. I would like you to translate the words that I am going to tell you from Amharic into your language. I would also like to record your voice saying each word in your language. Some of the words may be uncommon or difficult to remember, but it is all right to leave out the ones that are too difficult. It may take about 5 hours total, but it is not necessary to do it all in one meeting. We will not write down your name and will not give your name to anyone else. If you don't want to help, or decide to stop, that's fine. Would you be willing to help by translating these words?

Once the language helper understood the procedure and gave his/her consent, the consent was audio-recorded and the word list session proceeded.

Chapter Four

RESULTS AND DATA ANALYSIS

4.1 Lexicostatistics

First let us look at how these four speech varieties are related to each other in terms of lexical similarity (see section 3.3.2), according to the analysis from the recent Zayse-Zergulla dialect survey (Hussein et al. 2006:27).

Gamo			
72%	**Shara**		
56%	66%	**Mele**	
52%	61%	76%	**Zergulla**

Figure 5: Lexical similarity between the speech varieties in the current study

Figure 5 above shows that the relationships between the speech varieties on which this study is focusing can be categorized into three types, according to percentages of lexical similarity. The closest lexical relationships are demonstrated by similarity in the 70-79% range. By this measure, Mele is particularly close to Zergulla (76%), and Shara is particularly close to North Gamo (72%). More distant lexical relationships are characterized by similarity in the 50-59% range, as can be seen when comparing North Gamo to Mele (56%) and Zergulla (52%). Finally, Shara appears to have special status as a sort of link between the two groups, shown by similarity in the 60-69% range. Though

it is lexically closer to North Gamo, it is also fairly close to Mele (66%) and Zergulla (61%).

Simons (1977) describes patterns of divergence and convergence that can be recognized in matrices of lexical similarity percentages. When looking at the big picture of all the Ometo speech varieties covered by Hussein et al. (2006:27), more than one of these patterns can be recognized within one large matrix. The patterns are more obvious after the average percentage of shared lexical items (shown in bold type in Figure 6 below) is calculated for each speech variety (Simons 1977:122-3). This is done by finding the average of the similarity percentages that the variety has with all the other varieties in the matrix. For example, Mele's 69.4% average in Figure 6 was calculated by adding its percentages of similarity with Zayse, Zergulla, Balta, Garbansa, Ganta, Shara and Gamo, then dividing that sum by seven. Based on these averages, it is possible to change the order of the rows and columns until the patterns can be seen.

Zayse 58.7%							
69	**Zergulla 66.7%**						
57	68	**Balta 67.3%**					
61	72	81	**Garbansa 71.7%**				
67	76	72	78	**Mele 69.4%**			
64	69	68	73	71	**Ganta 67.6%**		
53	61	68	73	66	68	**Shara 65.9%**	
40	52	57	64	56	60	72	**Gamo 57.3%**

Figure 6: Lexical similarity for the Zayse-Zergulla survey (Hussein et al. 2006:27)

These patterns as described by Simons (1977:122-4) are summarized below.

(1) Divergence: recognized by a set of two lower, similar percentages and one higher percentage adjacent in the matrix. The first variety to diverge will have the lowest average percentage.

(2) Basic convergence: recognized by a set of two higher percentages and one lower percentage adjacent in the matrix.

(3) Chaining: recognized by a matrix with the highest percentages on the

diagonal and the lowest percentages in the corner. The varieties in the center of the chain have the highest average percentages, while the varieties at the ends of the chain have the lowest.

(4) Dominance: recognized by one row or column of percentages that are higher than the others. The central variety will have the highest average percentage.

(5) Sporadic convergence: recognized by an unusually high percentage surrounded by lower percentages.

Two examples of divergence, Gamo and Zayse, are seen here. The first speech varieties to diverge should be marked by the lowest average (see point 1 in the summary above); the two lowest averages are Gamo at 57.3% and Zayse at 58.7%. This fits well with what is known about Ometo classification. Since Gamo was the only North Ometo variety included in the study, it was naturally the first to diverge from the rest, which are presumably all East Ometo (Wondimu 2006:111). It is not entirely surprising to see that Zayse is also somewhat divergent from the other East Ometo varieties. Bender (2003:79) notes that SEO (Southeast Ometo, the equivalent of Fleming's East Ometo) could be considered a dialect cluster except for Zergulla, "which is unexpectedly anomalous." It stands to reason that Zayse would be in a slightly different category of East Ometo from the other varieties in this study, of which the closest is Zergulla. Both comprehension testing and lexicostatistics indicate that Zergulla may actually have more in common with Mele than with Zayse (Hussein et al. 2006:30). The better-known East Ometo varieties of Kachama, Ganjule and Koorete have more in common with Zayse.

Another pattern that can be seen in the data is a chaining pattern (point 3). Speech varieties in the center of the chain show the highest average lexical similarity and those at the ends show the lowest average lexical similarity. Garbansa and Mele have the two highest averages for lexical similarity, and since it is already known that they are centrally located in this area (see Figure 4), it makes sense that they would be at the center of a chain comprised of these eight speech varieties. Gamo and Zayse, with the two lowest averages, would be found at either end of the chain. Again, this fits with their location in the area, since Gamo is at the northern edge and Zayse is at the southern edge.

The dominance pattern (point 4) does not fit quite so well with this data, since none of the East Ometo varieties appears to strongly influence all the others. However, Garbansa has the highest average lexical similarity and the most similarity with every East Ometo speech variety except Zergulla and Zayse. This group of speech varieties displays more of a chain pattern in the south and more of a dominance pattern in the north.

Finally, the matrix in Figure 6 displays sporadic convergence (point 5) in the unusually high lexical similarity of Shara with Gamo. This can only really be seen in the context of the larger matrix containing eight speech varieties. The smaller matrix in Figure 5 makes the relationship between these four varieties look like a simple chain from Gamo in the north to Zergulla in the south, with no other complicating factors besides the natural contact of adjacent languages.

Lexicostatistics is not as powerful a tool as the comparative method when it comes to studying the classification of speech varieties. With lexical similarity it is hard

to determine the degree of phonological relatedness, because surface similarities do not always indicate a genetic relationship. Borrowing or chance can often be responsible for similar words being used in different varieties, and this is difficult to document without a method for determining whether words are true cognates.

There are other reasons why the above analysis may not give the clearest picture of the relationships between the varieties. Because of time limitations, the word lists were not double-checked with other language helpers.[6] This would have involved a process of eliciting the list a second time from a person or persons who had not contributed to the initial wordlist. Transcriptions that were matched in the second elicitation would have been allowed to stand, while those that were different would have been discussed further and changed if necessary. There are probably cases where the speech variety in question has a cognate but the contributor gave a non-cognate synonym, thereby lowering the lexical similarity. In addition, the method of checking for lexical similarity according to a certain degree of phonetic similarity could have missed some cognates that have undergone more extreme sound changes. For these reasons, the percentages of similarity could actually be higher than reported in Figure 6. Nevertheless, the lexicostatistical comparisons are a useful measure of relative similarity between the lexicons of these speech varieties and provide a good starting point for the current study.

[6] However, they were spot-checked by asking the contributor about forms elicited in other speech varieties.

4.2 Segmental correspondences

The above constraints do not negatively impact the use of these wordlists for analysis with the comparative method. The lists are long enough that quite a few cognate sets can be found, even though there are probably non-cognate synonyms in situations where cognates may have been discovered with further checking. In addition there is other data available from Gamo, Zergulla and related speech varieties of both North and East Ometo. This makes it possible to compare the current study's data to wordlists from other researchers and to fill in some of the gaps. The following is an overview of the sound correspondences found in the cognate sets of this study's data, with some comparison to previous research on related varieties. Because Gamo, Shara, Mele and Zergulla are closely related, there are many sound correspondences with the same phonetic segment in all four varieties. An example of this would be the *g~g~g~g* correspondence found in items 30, 41 and 56, among others (See Appendix I for a table showing the complete wordlists). The following discussion focuses on the differences instead of such similarities, in an attempt to distinguish the North Ometo varieties from the East Ometo varieties.

Table 2 presents a "sound correspondence" found in the cognate sets of this study's data. This is the only one occurring in an environment unaffected by morphophonemic changes and having two or more attestations in word roots. Full attestations are those items in which all four transcriptions are cognate and exhibit the segment expected according to the sound correspondence. Partial attestations are found

where three or fewer varieties are cognate and exhibit the expected segment. Counter-examples are not included in the list of partial attestations.

GAM	SHA	MEL	ZER	Environment	Fully attested in:	Partially attested in:
p	p	ɸ	ɸ	#_	7, 154, 187	16, 67, 135, 255, 278

Table 2: Word-initial correspondence

The pattern shown in Table 2, *p~p~**ɸ**~**ɸ***, is not a true sound correspondence since it most likely involves free variation in both Mele and Zergulla. Word-initially, /p/ can be realized as [ɸ] in East Ometo varieties (Bender 2000:48, Hayward 1990:215-16); in North Ometo varieties, the segment must remain [p] in that position (Bender 2000:9). The data from the current study supports this, but only partially. While all examples of word-initial /p/ are realized as [p] in Gamo and Shara, there are only two cases in which an alternate transcription is given for word-initial /p/ in Mele or Zergulla. One case is that of Mele's transcriptions for item 255 'wide', [pɑtʃɑ] and [ɸɑtʃɑ], which are non-cognate with the transcriptions for the other three speech varieties. The other is Zergulla's alternate transcription for item 7 'blow' (v.), shown in 1d.

(1) a. Gamo pun-

b. Shara pun-

c. Mele ɸun-

d. Zergulla ɸun-

pun-

Further evidence that can be seen as supporting free variation is provided by examples counter to the *p~p~**ɸ**~**ɸ*** pattern. Item 51 '(tree) bark' is [pok'o] in all four

varieties. Item 230 'well' (n.) is [pulto] in Zergulla, though it is [ɸulto] in Mele. Alternate pronunciations are not always noted for Mele and Zergulla, but the fact remains that in those varieties [p] and [ɸ] can occur in the same environment. Based on the two alternate transcriptions and what the literature says about /p/, it is reasonable to interpret this as free variation rather than separate phonemes /p/ and /ɸ/. While the phoneme is the same in all four varieties, it is apparently governed by different rules in East and North Ometo.[7]

Table 3 shows sound correspondences that may possibly be caused or affected by morphophonemic changes. These involve the root-final consonants of verbs,[8] nouns and in the case of the *z~s~s~s* correspondence, pronouns. The absolutive forms of nominals in Ometo languages are comprised of the nominal root plus a word-final vowel known as a "terminal vowel" (Hayward 2001); Ometo verb morphology is discussed in more detail in section 4.4.

[7] Speech varieties within the Ethiopian Language Area often have /f/ instead of /p/ in their phonemic inventories (Ferguson 1976:65). This is probably reflected in East Ometo's tendency toward [ɸ] (often transcribed as [f]), even though that phoneme has been reconstructed as /p'/ in Proto-Ometo (Bender 2003:137).

[8] Note that the *p~p~ɸ~ɸ* correspondence in Table 2 and the *k~k~ɸ~ɸ* correspondence in row 2 of Table 3 are in apparent conflict. This can be explained by a root-final consonant alternation found in East Ometo verbs, which is discussed in more detail in section 4.5.

	GAM	SHA	MEL	ZER	Environment	Fully attested in:	Partially attested in:
1	Ø	d	t	t	Verb root-final	5, 114	177
2	k	k	ɸ	ɸ	Verb root-final	24, 62, 109, 166, 182[9]	-
3	k'	ʔ	ʔ	ʔ	Verb root-final	90, 193	-
4	m	ŋg	m	m	Verb root-final	215	319
5	s	ts	ts	ts	Noun root-final	106	-
6	ʃ	tʃ	tʃ	tʃ	Noun root-final	27, 39, 71, 118	-
7	ts	Ø	Ø	Ø	Noun root-final	3, 4, 48	-
8	z	s	s	s	Root-final (verbs, nouns and pronouns)	146, 216, 305, 309	-

Table 3: Sound correspondences possibly caused by morphophonemics

In the fully attested examples of the first set in Table 3, the Gamo verb roots have no final obstruent, either ending in [j] or being comprised of a single consonant only. Bender's (2003:14) reconstruction of North Ometo 'come' as the single consonant [j-] reinforces this pattern, though the Gamo transcription in this data set (item 177, Appendix I) is non-cognate.

The difference in voicing between the root-final obstruents in Shara and the other two varieties raises the question of a connection between this and the *z~s~s~s* pattern. Perhaps Shara is inconsistent in whether it patterns with the voiced or voiceless obstruents. Items 82 'gourd' and 98 'six' provide what appear to be contradictory examples of an *s~s~z~z* pattern, noun root-finally and word-medially in a numeral. This is discussed in more detail in section 4.8.

[9] 'Marry' seems to be the same verb root as 'take', which would mean there are really only four examples instead of five.

The fifth and sixth patterns listed in Table 3 seem to be part of a larger pattern involving sibilants. At the end of a noun root, where Gamo has a voiceless sibilant (either alveolar or palatal), the others have the corresponding affricate (see item 27 'shoulder'). Following are examples of this and some of the other sound patterns that may be affected by morphophonemic changes.

	Verb root-final *Ø~d~t~t* (#5 'hear')	Noun root-final *ʃ~tʃ~tʃ~tʃ* (#27 'shoulder')	Pronoun root-final *z~s~s~s* (#305 'he')
Gamo	se-	hɑ**ʃ**-	ʔi**z**-
Shara	si**d**-	hɑ**tʃ**-	ʔe**s**-
Mele	si**t**-	hɑ**tʃ**-	ʔe**s**-
Zergulla	si**t**-	hɑ**tʃ**-	ʔe**s**-

Table 4: Possible morphophonemic patterns involving root-final consonants

4.3 Tonological correspondences

Prosodic phenomena like tone and length are not covered in great detail in this paper in order to focus more on the segmental correspondences. Nevertheless, following is a brief introduction to some of the tone issues in these speech varieties.

According to Hayward (1990), Zayse (East Ometo) is a tonal-accent language in which tone and accent interact at the phrasal level. Isolated words have the following possible pitch contours: LL, HH, LH, HL and LHL. In his preliminary analysis of pitch in

Gamo (North Ometo), Hayward (1994) also finds it to be a tonal-accent language, with the same system as in Zayse. Lamberti & Sottile (1997) state that Wolaytta (North Ometo) is probably a tonal-accent language, with stress being at least partially predicted by grammatical form. Azeb (1996:135) concurs, writing that Wolaytta is "somewhere between 'tone' languages and 'stress' or 'accent' languages." Bender (2000:236) reports that in a personal communication Azeb further explained to him that this means Wolaytta is a tonal-accent language in which derived words may have more than one high tone. It is likely that Shara, Mele and Zergulla are also tonal-accent languages, since the above speech varieties, particularly Gamo and Zayse, are recognized to be closely related historically, geographically and linguistically.

The wordlists used in this current study were not elicited in the context of an unchanging tone frame, and for this reason the tonal transcriptions are considered somewhat less than reliable. However, this is not necessarily the case, according to Hayward's (1990) analysis of phrasal tone-accent in Zayse. Hayward formulates a rule stating that the high tone is associated with the first accented syllable in the phonological phrase. If this is also the case with Shara, Mele and Zergulla, it would seem better to elicit the words in isolation, as was done for this study. Any preceding word could attract the high tone from the targeted word and leave it with low tones only.

Though it is not the focus of this paper, it is still useful to examine surface differences in tone in order to clarify the relationships among these speech varieties. Wondimu's (2006) thesis can be used as a starting point for a discussion of the possible differences in tone-accent between North and East Ometo varieties. Wondimu gave four

examples of words in which the tone pattern found in his East Ometo data is the opposite of that found in his North Ometo data (Table 5). Dhaach'e, Dookko, K'uch'a and Diita are North Ometo; Balta and Garbansa are East Ometo.

	'he-goat'	**'many'**	**'man'**	**'four'**
Dhaach'e	kórbè	dárò	àdːé	òjdːá
Dookko	kòrbé	dárò	àdːé	òjdːá
K'uch'a	kòrbé	dárò	àdːé	òjdːá
Diita	kòrbé	dárò	àdːé	òjdːá
Balta	kórbè	dàró	ádè	ójdːù
Garbansa	kórbè	dàró	ádè	ójdːù

Table 5: A comparison of words having differing tone patterns in Wondimu's (2006) data

His first example, 'he-goat' /korbe/, was not elicited in the current study. His second example, 'many' /dárò/, is found under only Gamo and Shara in this data set, but Shara does follow the same HL pattern shown in Gamo and all the North Ometo varieties in Wondimu's data. A more complete example is 'man', which is cognate in all four varieties of the current data. In Gamo it is/ʔàdːé/, whereas in Shara, Mele and Zergulla it is /ʔádè/. Besides the fact that Shara here follows the same tone pattern as Mele and Zergulla, it is also notable that Gamo is the only variety in which the consonant is geminated. The final example, 'four', is also cognate in all varieties. In both Gamo and Shara, it is /ʔoìdːá/. In Mele it is /ʔoídːù/, while in Zergulla it is /ʔoídːè/. Here Shara follows Gamo, both in the final vowel and in the LH tone pattern.

Judging by the few examples given above, it appears that Shara follows the tone-accent pattern of Gamo in words that have been borrowed from Gamo but maintains the same pattern as in Mele and Zergulla in inherited words. There are no clear examples of Shara taking on the Gamo tone pattern in words that are cognate across all four varieties. Only 'many' is unclear in this respect, since the current data contains a contradiction of Wondimu's evidence. Wondimu gives examples of East Ometo cognates for /dɑro/ with a LH tone pattern. However, during the 2006 fieldwork for this study, /dɑro/ was only found in Gamo, Shara and Garbansa, with a HL pattern in all three. In Bender's (2003) comparison of wordlists from different sources, he reconstructs the North Ometo proto-form for 'many' as /dɑro/, while the East Ometo form he gives as /lɑgo/. The latter was also found in Zayse and Ganta during the 2006 fieldwork. If Wondimu's examples of an East Ometo LH tone pattern for this word are put aside, it seems that the geographically northern varieties of Shara and Garbansa borrowed the North Ometo form /dɑ́rò/, complete with tone pattern. Nevertheless, one would hesitate to ignore Wondimu's intuition as a mother tongue speaker of Garbansa.

At first glance, the most striking overall tonal pattern observed in this data is one of LH in the verb root and post-thematic vowel of third person long perfect verb forms in Gamo and Shara. This contrasts with Mele and Zergulla, which tend to exhibit a HL pattern in the same environment (see Table 6).

	Item 7 ‘blow’	**Item 86 ‘spit’**	**Item 158 ‘kill’**	**Item 182 ‘take’**
Gamo	pùní-	tʃ’òtí-	wòdî-	èkí-
Shara	pùní-	tʃ’ùtí-	wòdî-	èkí-
Mele	ɸúnà-	tʃ’útò-	wódà-	éɸà-
Zergulla	ɸúnà-	tʃ’útò-	wódà-	éɸà-

Table 6: Examples of opposite tonal patterns in the third person long perfect verb forms

However, upon closer examination, this pattern does not hold up throughout the data (see Table 7). Where tone in verb roots and post-thematic vowels is concerned, Gamo and Shara do not always group together, as can be seen from item 166. Neither do Mele and Zergulla always group together, as shown by items 85 and 188. Gamo and Shara also do not always contrast in tone with Mele and Zergulla. This is made especially clear in item 120, where all four varieties exhibit the same LH tone sequence.

	Item 85 ‘cough’	**Item 120 ‘run’**	**Item 166 ‘sew’**	**Item 188 ‘enter’**
Gamo	k’òɸí-	wòts’í-	sìkí-	gèlí-
Shara	k’òɸí-	wòts’í-	síkì-	gèlí-
Mele	k’úɸà-	wòts’á-	síɸà-	gèlá-
Zergulla	k’ùɸá-	wòts’á-	síɸà-	gélà-

Table 7: Examples of non-patterning tones in the third person long perfect verb forms

One possible reason for finding more tonal variation among the verbs is Hayward’s (1990) discovery that tonal differences accompany a verb class distinction marked by the vowel immediately following the root in Zayse (see section 4.5). The problem with this hypothesis is that Mele and Zergulla verb roots of both classes exhibit the common HL pattern.

4.4 Variation between Mele and Shara

Of the two less known varieties included in this study, Mele consistently exhibits the East Ometo sound correspondences as exemplified by Zergulla. The results for Shara are much less uniform, showing similarity to both East and North Ometo (see tables 2 and 3). This section explores some of the similarities and differences found in the Shara data when it is compared to Mele and East Ometo varieties in the literature.

Similarities between Mele and Shara can first of all be seen in the area of lexicon. As stated above, even though Shara exhibits the closest lexical relationship to North Gamo, it is still lexically closer to both Mele and Zergulla than Gamo is. When examining sound correspondences, the picture is also rather complicated. In the one "correspondence" that cannot be affected by morphophonemics (*p~p~ɸ~ɸ*), Shara patterns only with Gamo. Though this case is likely to involve free variation in East Ometo rather than a true sound change, every example of word-initial /p/ is realized as [p] in Shara (see discussion of Table 2 in section 4.2).

When it comes to sound correspondences that may be influenced by morphophonemics (Table 3), in five out of eight cases (rows 3, 5, 6, 7 and 8) Shara patterns with Mele and Zergulla. Two of these instances (rows 5 and 6) are closely related. Of the remaining three, twice (rows 1 and 4) Shara exhibits a morphophonemically conditioned correspondence involving a unique stop that patterns neither with Mele and Zergulla on one hand nor with Gamo on the other. In the remaining correspondence (row 2), Shara patterns with Gamo.

As can be seen from this analysis, it is not possible to say that Shara can always be

grouped with either North Ometo or East Ometo on the basis of phonological correspondences. There does appear to be a tendency for it to pattern with Mele and Zergulla, since this is true in over 55% (five of nine) of the correspondences found in this data set. It is interesting that the degree of Shara's relationship to Gamo as indicated by sound correspondences seems to be lower than that indicated by lexical similarity. This points to a certain amount of lexical borrowing from Gamo into Shara. Though on the surface it might appear to be another North Ometo speech variety, Shara shows indications of being an East Ometo variety.

This is further demonstrated by the example below from item 85 'cough' (v.). The verb conjugation (shown in bold type in 2) of the 3m.sg. long perfect form is related to that of Garbansa, Ganta and Balta, other speech varieties encountered during the 2006 fieldwork. Wondimu (2006) has shown that Garbansa and Balta belong in East Ometo, and Hirut (2005) has shown that Ganta belongs there as well.

(2) a. Gamo k'oɸi **des**

b. Shara k'oɸi **kose**:**ne**

c. Garbansa k'uɸɑ **koside**

d. Ganta k'uɸɑ **koside**

e. Balta k'uɸɑ **kozde**[10]

Further evidence that Shara fits in with East Ometo varieties can be found in its

[10] This conflicts with Wondimu's (2006) transcriptions of 3m.sg. long perfect forms for Balta, which are the same as those for Garbansa. Still, there are more similarities than differences, and the last four forms listed here can be grouped together even when the Balta conjugation is *-kozde*.

intransitivizing extension *-ut:*, which follows the East Ometo pattern as described by Hayward (1990:290-1) and Bender (2000:75). Hayward (1990:227) mentions evidence from older suffixes retained in some Zayse words, showing that the present root extensions containing the high back vowel are an innovation within the Ometo subgrouping. This is an innovation shared by many East Ometo varieties such as Koorete, Zayse and Zergulla, as well as Shara and Mele. The North Ometo equivalent, *-et:*, is found in Wolaytta, Gofa, Kullo and Melo[11] in addition to Gamo (Bender 2000:43).[12] An example of the use of this extension can be found in item 299 'bathe' (v. int.). Note how Shara (3b) exhibits the East Ometo extension even though its verb root is the same as that of Gamo.

(3) a. Gamo metʃ' **et**: ides

b. Shara metʃ' **ut**: ikose:ne

c. Mele ʃog **ut**: oteside

d. Zergulla ʃog **ut**: otesine

4.5 Effect of contact-induced change on the data: borrowing vs. simplification

Though there are indications that Shara belongs to East Ometo, it also bears a strong resemblance to North Ometo Gamo. It is especially informative to look at the verb structure of Shara when considering what may have been borrowed from Gamo or changed in some way due to contact with that variety. The discussion below presents

[11] Melo's version is actually *-ed* instead of *-et:* (Bender 2000:43), but it retains the front vowel.
[12] This is not intended to be an exhaustive list.

some possible reasons why Shara seems to be in a category of its own.

The most interesting example is the case of the vowel immediately following the verb root. In North Ometo speech varieties such as Gamo, the vowel in this position is what Hompo (1990:386) analyzes as a person marker, termed a "characteristic vowel" by Hayward (1991:2). It can be seen as the first in a series of agreement markers in the perfective affirmative declarative verb paradigm, the constellation of which changes according to person, number and gender (Wondimu 2006:88). Most important for this study is the form the vowel takes according to gender in the third person singular. In the third person masculine perfect form, it is realized as [i], but it is realized as [ɑ] in the third person feminine perfect form. For example, in Gamo the 3m.sg. long perfect form of item 72 'cut' is /k'ɑnts-**i-**des/, while the 3f.sg. long perfect form of item 111 'give birth' is /jel-**ɑ-**dus/.

However, in Zayse the vowel in this position indicates membership in one of two verb classes and is realized as either [ɑ] or [o] in the perfect forms (Hayward 1990:285-6). Azeb (2007:1) also describes this phenomenon in Zergulla, mentioning that these morphemes are unique to East Ometo. Neighboring speech varieties like Mele appear to have the same sort of post-thematic vowels.[13] Examples of this are given in Table 8.

[13] In the full data set from the 2006 fieldwork for this study, the vowel in this position alternates between [ɑ] and [o] in six of the eight varieties, but not in Gamo and Shara. With few exceptions, all varieties exhibiting these post-thematic vowels are found to have the same vowel when comparing transcriptions of the same verb.

	Item 116 'ask'	**Item 158 'kill'**
Zayse	oitʃ'-**o**-	wodʃ-**ɑ**-
Zergulla	oitʃ'-**o**-	wodʃ-**ɑ**-
Mele	oitʃ'-**o**-	wodʃ-**ɑ**-
Balta	oitʃ'-**o**-	wodʃ-**ɑ**-
Garbansa	oitʃ'-**o**-	wodʃ-**ɑ**-
Ganta	o:tʃ'-**o**-	wodʃ-**ɑ**-

Table 8: Examples of "post-thematic" vowels in Ometo varieties

The form this vowel takes has nothing to do with person, gender, number or tense/aspect and so has a completely different function from the North Ometo vowel occurring in that position. Hayward (1990:300) found that in Zayse there is a correlation between the form of the post-thematic vowel and the tonal pattern in verbs, at least those with (C)VC roots. Verbs of the O class show a HH tonal pattern in the root and post-thematic vowel of third person long perfect forms, whereas verbs of the A class have a LH pattern.[14] Another correlation is that intransitive and passive/reciprocal verb stems belong to the O class, while transitive/causative verb stems belong to the A class; this has been observed in both Zayse (Hayward 1990: 292) and Zergulla (Azeb 2007:13). An example would be verbs with the intransitivizing extension *–ut:*, introduced in section 4.4 and discussed further in section 4.7.

In Shara third person perfect verbs in this data set, the vowel immediately following the root is almost always [i] (with two exceptions where it is [ɑ][15]). This

[14] However, these patterns do not show up in this study's data set (see section 4.3).
[15] These are items 175 'listen' and 252 'fight' (v.).

occurs in verbs where the East Ometo post-thematic vowel is normally [ɑ] as well as where it is [o]. It would appear at first glance that Shara has borrowed Gamo's system of using the vowel in this slot as a gender marker. However, in the few examples of verbs elicited in the third person feminine perfect form, the root-adjacent [i] does not change to [ɑ] in Shara, as it does in Gamo. It remains [i], contrasting with the Gamo form as well as the Mele and Zergulla forms. In Gamo it changes to [ɑ] to reflect the change in gender. Table 9 shows examples of this.

	Item 7 'blow' 3m.sg.	**Item 86 'spit' 3m.sg.**	**Item 111 'give birth' 3f.sg.**
Gamo	pun **i** des	tʃ'ot: **i** des	jel **ɑ** dus
Shara	pun **i** kose:ne	tʃ'ut: **i** kose:ne	jel **i** ke:ne
Mele	ɸun **ɑ** teside	tʃ'ut **o** teside	jel **ɑ** tiʃide
Zergulla	ɸun **ɑ** tesine	tʃ'ut **o** tesine	jel **ɑ** tiʃine

Table 9: Examples of "characteristic" and "post-thematic" vowels in this data set

There are two possible hypotheses for the behavior of this vowel in Shara. The first is that Shara is mimicking the North Ometo 3ms perfect form. Incomplete learning by L2 speakers of Gamo may have resulted in what appears to be a case of incomplete borrowing into Shara. The vowel following the verb root no longer serves the function of verb class marker, as it no longer alternates between two forms but remains the same in all situations, regardless of whether that vowel is [ɑ] or [o] in Mele and Zergulla. Neither has it taken on the North Ometo function of gender marker, as can be seen from the above examples where it remains [i] even in the feminine form. Shara seems to have borrowed a frozen third person masculine form of that vowel, neither retaining the old function nor

taking on the new.

This may have been an innovation by second language speakers of Gamo who did not yet have a firm command of the grammar. Following is a possible scenario for how this might have happened. Because the vowel following the verb root would be recognized by speakers of any Ometo dialect as a meaningful unit,[16] this was borrowed along with the Gamo verb root. However, since (according to East Ometo grammar) the vowel would not be expected to change with gender, only the masculine form was borrowed. Finally, with no Gamo examples of verb class variation on which Shara could model changes in the newly borrowed affix, the vowel either remained as a sort of meaningless placeholder or was reinterpreted as part of a new CVCV root. The latter would however be difficult to prove without a full set of Shara verb paradigms.

In cases like this where the people enacting the changes are mother tongue speakers of the variety being changed, words are borrowed before grammar (Thomason 2001:69). Bound morphemes are generally said to be among the language features most resistant to contact-induced change, as there are very few examples of it in the literature (Sankoff 2001:17). However, the case of Shara would appear to be one of these examples, since the morpheme *-i-* is not considered as part of the verb root (though it may be reinterpreted as such). Even where the root in Shara is cognate with that of Mele and Zergulla, the *-i-* morpheme is still present. This seems to rule out the possibility that the *-i-* was simply borrowed from Gamo along with the verb root as an inseparable unit,

[16] The post-thematic vowels do not bear lexical meaning as such, but they are meaningful in the sense that they distinguish verb classes.

though it does not rule out the borrowing of *-i-* as a separate morpheme.

There is another hypothesis for the possible origin of this morpheme in Shara. It could be copying the invariable *-i* suffix of what Hayward calls the "short perfect" East Ometo verb forms, as described in Zayse (Hayward 1990:296-7) and Zergulla (Azeb 2007:2-3). The short perfect is a simple verb form that is used only for events completed in the past and does not have the full verbal inflection of the 3ms long perfect forms elicited for these word lists. East Ometo short perfect verbs always end with *-i*, regardless of whether they belong to the O class or the A class.

This second hypothesis, asserting that Shara's long perfect *-i-* affix has been copied from its own short perfect suffix, is perhaps the more likely of the two. It does not suggest that Shara has borrowed verb morphology from Gamo, even incompletely. Though anything can be adopted by one language from another (Thomason 2001:63), this would be the only example of morphological borrowing found in the current data. It seems likely that this is just morphological reanalysis in the environment of a very similar but different speech variety that also has a vowel existing in that slot, but having a different function. It could be that the pressure of language shift toward Gamo and confusion over the gender marking affix of Gamo verbs caused the post-thematic vowel in Shara to be changed in this way.

The second hypothesis is supported by the fact that some Zergulla verbs have more than one root form, showing final consonant alternation (Azeb 2007:3-4). In verb roots that have this alternation, Shara's long perfect form has the final consonant that

would normally be found in the Zergulla short perfect form (Table 10).[17]

Zergulla long perfect	**Zergulla short perfect**	**Shara long perfect**
'come' [je:**t**:-]	'come' [je:**d**-]	#177 'come' [je:**d**-]
'scatter' [k'a**ɸ**-]	'scatter' [k'a**k**:-]	#62 'plant' (v.) [to**k**:-]
'find' [de**m**-]	'find' [de**ŋg**-]	#215 'buy' [ʃa**ŋg**-]

Table 10: Zergulla root alternations adapted from Azeb (2007:3), compared to Shara

In one of the three correspondences displaying this pattern, Shara's root-final consonant also happens to be the final consonant in the North Ometo verb root, making it appear to be a simple case of borrowing from Gamo (see row 2 of Table 11 below). However, in the other two correspondences (rows 1 and 3), Shara follows neither Gamo nor Mele and Zergulla.

	GAM	SHA	MEL	ZER	Environment	Fully attested in:	Partially attested in:
1	Ø	d	t	t	Verb root-final	5, 114	177
2	k	k	ɸ	ɸ	Verb root-final	24, 62, 109, 166, 182	-
4	m	ŋg	m	m	Verb root-final	215	319

Table 11: Correspondences influenced by consonant alternation in verb roots

Further support for the short perfect origin of Shara's unique long perfect affix can be found in the consistency of its root-final consonant forms. With a variety like Shara that seems to have undergone extensive lexical borrowing from another, one might expect to find irregularities in the sound correspondences. Since the correspondences cut across semantic domains, it stands to reason that sometimes Shara would be grouped with

[17] Mele's root-final consonants are the same as Zergulla's in this data. Since this alternation is also attested in Zayse (Hayward 1990), it is taken to be an East Ometo characteristic.

Gamo and other times it would be grouped with Zergulla. However, the Shara wordlist from this study shows no evidence of irregularity at that level. Irregularity in the Shara reflexes is only found between correspondences, not within a single correspondence.

For example, Shara is grouped with Gamo in the *k~k~ɸ~ɸ* correspondence, and it is grouped with Zergulla and Mele in the *k'~ʔ~ʔ~ʔ* correspondence (Table 3).[18] No examples were found of *k~ɸ~ɸ~ɸ* or *k'~k'~ʔ~ʔ*. More specifically, one can not find both [e**k**:ikose:ne] and *[si**ɸ**ikose:ne] in Shara, nor can one find both [hɑi**ʔ**ikose:ne] and *[e**k'**ikose:ne] within that variety (see Appendix I, items 90, 109, 166 and 193). In verbs that fit the *k~k~ɸ~ɸ* correspondence pattern, the Shara reflex always has the root-final consonant *k*, as does Gamo. Likewise, in verbs that fit the *k'~ʔ~ʔ~ʔ* correspondence pattern, the Shara reflex always has the root-final consonant *ʔ*, as do both Mele and Zergulla.

Based on Azeb's (2007:3-4) examples from Zergulla, wherever the East Ometo verb root is expected to have different forms in the long and short perfect, the Shara long perfect root is different from the Zergulla and Mele long perfect roots (see Table 11). Where the East Ometo verb root is not expected to have any variants, the Shara root is the same as the Zergulla and Mele roots (see Table 3, rows 3, 5, 6, 7 and 8).

According to Thomason (2001:227), the most common process on the way to language death is a gradual loss of speakers, domains and finally structure. Thomason (2001:228) defines one common type of such contact-induced attrition as "reduction of

[18] Note that in all the correspondences involving root-final consonants in nouns or pronouns, Shara is grouped with Zergulla and Mele.

rule-governed alternations by analogic generalization of one variant." This seems to be a good description of what is happening in the case of Shara.

Given the above evidence, the appearance of the *-i-* morpheme in Shara's 3ms long perfect verbs seems to be more of an internal change instead of a loan from Gamo. There are several other pressures, both internal and external, that could have influenced the reanalysis of the vowel in that slot. Another possible function of the *-i-* could be epenthesis, since phonologically there must be a vowel there in order to separate the final consonant of the verb root from the initial consonant of the focus marker. Indeed, any or all of the factors discussed in this section could have contributed to the change of Shara's post-thematic vowel.

However, the form of the root-final consonants points to simplification as the primary reason for the *-i-* in that position. Shara's root-final consonants in the long perfect verb form are the same as the expected East Ometo root-final consonants in the short perfect form. Therefore, it seems that the original alternation between *-a-* and *-o-* in Shara's long perfect has been reduced to a non-alternating *-i-* by analogic generalization of the short perfect form, according to the type of contact-induced structural loss described by Thomason (2001:227-8).

Because Shara's long perfect root forms are the same as the East Ometo short perfect root forms, Shara's roots differ from Zergulla and Mele only in verbs with root alternations. Here, simplification due to the process of language death appears to override lexical borrowing. Within the cognate sets in this data, the form of the root-final consonant in Shara is dictated by the short perfect East Ometo root variant rather than the

Gamo root. The fact that Shara is following these alternation patterns in its simplification process provides more support for the idea that Shara is an East Ometo variety, because Gamo verb roots do not have these alternate forms (Wondimu 2006:83-4). Bender (2003:42) and Hayward (1996:174) both report *k'~ʔ* verb root alternants in Gamo, but this does not interfere with the above analysis since it is not among the root alternations found in East Ometo (Hayward 1990:286, Azeb 2007:3).

4.6 Comparison to Bender's (2000, 2003) analysis

In what follows, this study's data is compared to Bender's (2000, 2003) findings, focusing on verb root alternations, verbal inflections, isoglosses and shared innovations. One of the main points of this comparison is to see if the current data, drawn from a greater range of Ometo speech varieties, can add to our understanding of the East Ometo subgroup. Bender analyzed data from Koorete, Gidicho, Kachama, Harro, Ganjule, Zayse and Zergulla to create his picture of East Ometo. This study adds Mele and Shara to the list, in addition to a new source of Zergulla data. Taking a wider view, the other little-known Ometo varieties covered during the fieldwork for this study (Balta, Garbansa and Ganta) hold the potential to expand our knowledge of the East Ometo subgroup and extend it to include varieties originally thought to be North Ometo.

Bender, in his treatment of Ometo sound correspondences, does not look at the alternation of verb root-final consonants in great detail, since his main goal is to set-up proto-phonemes of the major Omotic groupings. He writes that "it has been noted in Omotic-language descriptions that verbs may have root alternants differentiated by final

consonants; these are partially morphologically determined and herein I treat them as non-phonological variants." (Bender 2003:28) Hayward (1990:286) briefly addresses the origin of Zayse's labial-velar root alternations and their place in historical reconstruction, giving his opinion that the underlying form is labial.[19]

These verb root alternations have nevertheless proven useful in the current study as evidence for helping to determine Shara's genetic relatedness to the East Ometo speech varieties. In Zergulla, Mele, and all the other reportedly East Ometo varieties investigated during the field work for this study, the root-final consonant almost always follows the form expected for the long perfect in East Ometo. A notable exception occurs in item 62 'plant' (v.), where the Garbansa word is /tukokoside/. In the long perfect form, the root for this verb in an East Ometo language would normally be /tuɸ-/ (see tables 10 and 11 above). This can be explained as borrowing of the Gamo verb root, /tok:-/. Garbansa is spoken in an area that is geographically very close to the Gamo heartland (Figure 4). Among the little-known Ometo varieties found there, its 64% lexical similarity to Gamo is second only to Shara's 72% (Figure 6). The Garbansa data shows no evidence of the simplification Shara seems to be undergoing, so it would appear that at this stage language contact has not impacted Garbansa as deeply, stopping at the level of lexical borrowing.

As Bender (2003:81,112) noted, the Ometo branch of the Omotic subfamily is

[19] His reasoning is that these alternations can not be predicted from the presence of a root-final velar consonant in the short perfect form, since there are examples of verbs with root-final velar consonants in both the short and long perfect forms. On the other hand, it is possible to predict an alternation from the presence of a non-geminate labial consonant root-finally in the long perfect form (Hayward 1990:287). On a larger scale, this could have historical implications for the *k~k~ɸ~ɸ* correspondence.

relatively uniform, East Ometo particularly so. Verbal inflections still reveal several variations on the unique East Ometo structure of affirmative indicative main verb paradigms, described by Azeb (2007:1) as -FOCUS-SUBJECT.AGREEMENT-TENSE/ASPECT. The following brings together data from this study and from Wondimu (2006, Balta and Garbansa), Hayward (1990, Zayse), Azeb (2007, Zergulla) and Hirut (2005, Ganta).

Speech variety	**3ms long perfect form**	**3fs long perfect form**
Balta	-ko-si-de	-k-i-de
Garbansa	-ko-si-de	-k-i-de
Shara	-ko-seː-ne	-k-eː-ne
Ganta	-ko-si-de	-k-i-de
Mele	-te-s-ide	-t-iʃ-ide
Zergulla	-tːe-s-inːe	-tː-iʃ-inːe
Zayse	-tːe-s-in	-tː-is-in

Table 12: Comparison of East Ometo verbal inflections

From Table 12 it can be seen that these East Ometo varieties can be grouped a few different ways according to their 3s long perfect forms. Based on focus and subject agreement markers, they fall into two main groups comprised of 1) Balta, Garbansa, Shara and Ganta and 2) Mele, Zergulla and Zayse. When based on tense/aspect markers, the groups are slightly different, comprised of 1) Balta, Garbansa, Ganta and Mele and 2) Shara, Zergulla and Zayse. It should be noted that Zayse is somewhat divergent from Mele and Zergulla, lacking palatalization in the subject agreement marker of feminine

forms as well as having a consonant word finally.

Taking the above into consideration, the three East Ometo varieties selected for comparison with Gamo in this study appear to be good representatives of the subgroup's morphological diversity. Fewer distinctions are apparent at the lexical and phonological levels, as discussed in sections 4.1 - 4.4. Zergulla and Mele are clearly grouped together and stand separate from Gamo, though Shara shows some affinity to both sides on account of lexical borrowing from Gamo and contact-induced simplification of its verbal morphology. This only serves to further emphasize the division between North and East Ometo and to provide more evidence of the uniformity of features within East Ometo.

Bender (2003:150), in his synthesis of Macro-Ometo, gives lists of diagnostic items for the different subgroups. When compared to these isoglosses, the data from both Shara and Mele show evidence of much lexical borrowing, though Shara is a more extreme case (see Appendix II). Of Bender's 65 items unique to East Ometo, 57 are found in this study's data. Mele shares 30 of these (53%), while Shara has only 18 (32%).

In Bender's (2000:92) summary of Ometo morphology, he discusses the subgrouping of Ometo varieties according to shared innovations. He mentions that "Ometo is not a deep family," showing mostly common retentions and few shared innovations. We have already examined the innovative structure of verbal paradigms in East Ometo and the intransitivizing extension *-ut:* as opposed to North Ometo *-et:* (section 4.3). Of the other innovations proposed by Bender, those for which there is evidence in the current data are explored below. This evidence serves both to better

define shared innovations across East Ometo and to further support the membership of Shara and Mele in the subgroup.

Bender (2000:92) finds one definite shared innovation, which is the 3 pl. pronoun *usu* in East Ometo. This is evidenced by Shara, Mele and Zergulla in contrast with Gamo below in 4 (item 309 'they'). All the other East Ometo varieties covered during the fieldwork for this study also have the same *usu* pronoun.

(4) a. Gamo izetɑ

b. Shara **usu**nɑ

c. Mele **uso**nɑ

d. Zergulla **usu**nɑ

e. Balta **usu**nɑ

f. Garbansa **usu**ni

g. Zayse **usu**nɑ

h. Ganta **usu**nɑ

Among demonstratives, Bender (2000:93) recognizes a possible innovation in East Ometo's lack of *-k* in the second 'far' form. He reconstructs /sek/ for Proto North Ometo and /se/ for Proto East Ometo. The examples below lend further support to this, with North Ometo Gamo (5a) providing the only occurrence of *-k* in item 281 'that'.

(5) a. Gamo **se**:**k**ɑisɑ

b. Shara **so**ji

c. Mele **se**jɑ

d. Zergulla **se**n:o

e. Balta **se**jɑ

f. Garbansa **se**i:

g. Zayse **so**jɑ

h. Ganta **so**jɑ

The interrogatives yield a good candidate for shared innovation in /ɑjnɑ/, the proto form Bender (2000:93) reconstructs for East Ometo 'where?' (item 287). The reconstructed palatal glide, attested in Koorete, Gidicho, Kachama, Harro and Ganjule, is not found in the other East Ometo varieties of 6(b-h). They do however consistently include the nasal consonant instead of the labiovelar glide of /ɑwɑ-n/, Bender's (2000:81) reconstruction of 'where?' in Proto North Ometo.

(6) a. Gamo ɑwɑ

b. Shara ɑnɑ

c. Mele ɑnɑ

d. Zergulla ɑn:ɑ:

e. Balta ɑnɑ

f. Garbansa ɑn:ɑ

g. Zayse ɑnɑ

h. Ganta ɑn:ɑ

Bender did not come up with an overall reconstruction for 'where?' in Proto-Ometo because other branches of the subgroup have forms like /ɑube/, /woj/ and /wokɑ/ (Bender 2000:80-81). The North Ometo suffix *-n* is thought to be the postposition 'at' and is usually included (Bender 2000:80), so it could be reinterpreted as part of the stem in Proto East Ometo /ɑjnɑ/. Then the /ɑnɑ/ forms would have resulted from deletion of the /j/, which was probably innovative in the first place. Because North Ometo and the other branches have /w/ or /u/, this makes a Proto-Ometo /w/ look quite likely.

Bender (2000:93) labeled East Ometo /ʔɑnd-/ (item 285 'when') a "dubious shared innovation" since it is not attested in Koorete. The data below cast even more doubt on this form, since only Mele, Zergulla and Zayse have it (7c,d,g). The other East Ometo varieties all have the same form as Gamo, reconstructed by Bender (2000:81) as Proto North Ometo /ɑjd-/. However, this cannot be taken as proof that they lack the other form, since Gidicho, Kachama, Harro and Ganjule have both in the data analyzed by Bender.

(7) a. Gamo **ɑi**de

b. Shara **ɑi**de

c. Mele **ɑn**de

d. Zergulla **ɑn**de

e. Balta **ɑi**de

f. Garbansa **ɑi**de

g. Zayse **ɑn**de

h. Ganta **ɑi**de

4.7 Explanations from the sociolinguistic data

The Shara people are shifting toward Gamo as a first language, which intensifies the Shara speech variety's similarity to Gamo. As described in sections 4.1 and 4.6 above, Shara now has greater lexical similarity to Gamo than it does to Zergulla, and it only shares about a third of the East Ometo isoglosses identified by Bender (2003). All Shara children now have Gamo as their first language. The remaining Shara speakers are reportedly over 25 years old, and their speech variety is most likely headed toward extinction. On the other hand, the rest of the East Ometo varieties in the area seem to be holding their own in a state of relatively stable diglossia with North Ometo Gamo.[20] Most of the "South Gamo" people apparently still use their East Ometo mother tongue in

[20] This is according to Fishman's definition of diglossia, which includes "not only multilingual societies which officially recognize several 'languages', …but also… societies which employ…*functionally differentiated language varieties of whatever kind*." (Fishman 1972:92)

the domains of home and community life, and their children are able to speak it as well. This section includes an investigation of why the Shara people are shifting at a greater rate than those around them and why the Shara speech variety has changed in some ways though not in others.

What happened to trigger the Shara people's shift in language use? The fieldwork for this study was conducted in 2006, and the people who were the first to shift were estimated to be 25 and under at that time. There must have been an event or series of events some time during the 1980s, particularly the early- to mid-1980s, which led to this change in language behavior. The 1991 Revolution brought in the current Ethiopian government (Ofcansky & Berry 1993) and opened up many opportunities in the area of language development and ethnic identity. The members of the first Shara generation that shifted to Gamo would have been about 15 and under then. It is possible that the teenagers at that time were caught up in the shift to Gamo, though there are likely to be other factors involved as well. Indeed, it was not until 1994 that a standardized Gamo-Gofa-Dawro curriculum[21] was introduced on a trial basis at the fourth and fifth grade levels (Siebert 2002), making it highly unlikely that a change in language development policy was solely responsible for the shift.

Another possible explanation involves the period of severe famine during the mid- to late-1980s, which affected large parts of the country including the south and resulted in

[21] The curriculum was used in the whole area covered by this study, including the Shara, Mele and Zergulla homelands. It is no longer in use, since the Gamo, Gofa and Dawro ethnic groups have opted for separate language development. A Gamo curriculum is currently used in the primary schools of the study area, except for in the Zayse part.

government-mandated resettlement programs (Ofcansky & Berry 1993). Perhaps the large scale disruption of people's lives during that time somehow drew the Shara closer to the Gamo sphere of influence, though that is impossible to confirm without a source of information about the specific effect the famine had on the Shara. However, neither this explanation nor the one of language policy addresses why the other East Ometo groups in the area are maintaining their vernacular speech varieties while the Shara community is shifting to Gamo.

Marriage patterns could be part of the reason why the Shara are shifting to Gamo faster than their neighbors. In the locations where sociolinguistic interviews were conducted for this study, the spouses of most interviewees[22] were mother tongue speakers of the variety spoken where they were living, though there was at least some intermarriage found in every interview group except the Zayse one. In the Zergulla area, one of the 13 interviewees (8%) was married to a mother tongue speaker of Gamo. Eight of 48 Mele interviewees (17%) had Gamo spouses, while two of 11 Shara interviewees (18%) did. Unlike the Mele and Zergulla, the Shara interviewees expressed no reservations regarding intermarriage. This suggests a less rigid identity and therefore a greater openness to Gamo, which could be either a cause or effect of language shift. The interview results are admittedly not a very good measure of frequency in the community, since the interviewees were not randomly selected and the sample sizes were not

[22] On average, the group interviewees in the Shara community of Bulk'e were older than those in the Zergulla area; the age range for the Shara group was 28-70, while for the Zergulla group it was 18-58. The greatest age range was 15-90 in the Mele group, which was also the largest interview group at 38 participants.

controlled.[23] There must be yet other factors influencing language shift in Shara, since 100% of the children are now mother tongue speakers of Gamo.

The above discussion raises a number of different potential causes for the shift from Shara to Gamo, but it is not easy to determine exactly what caused parents to begin transmitting Gamo to their children. Much has happened that could cause shift, including language policy change, migration and intermarriage. There can be no doubt that Shara speakers have faced a great number of challenges to their economy, society and identity. However, since the data are limited, it is difficult to find which factor has caused the Shara people to react differently to circumstances that appear very similar to what their neighbors have experienced.

Whatever the main reason is for the Shara people's shift to Gamo over the past thirty years, the best explanation for the difference between Shara's vitality and that of other East Ometo varieties may be found in geography. The Shara community of Bulk'e, where this data was gathered, is a short distance north of Arba Minch, the administrative center of the Gamo-Gofa Zone. It is located just off the asphalt road that leads from Arba Minch toward Addis Ababa, the national capital. The only other place this research team visited that had such easy access to Arba Minch was the Ganta community of Maych'e. Maych'e was also the only other place visited during this study where the younger generation regularly spoke a language different from that of their parents (though in Maych'e's situation the language was Amharic instead of Gamo). In addition to this

[23] Nevertheless, these numbers do reflect the expected pattern based on geographic proximity to the Gamo area and linguistic influence from that speech variety.

the Shara live right on the edge of the Gamo heartland (Figure 4), in an area generally found to have more ethnically mixed communities that were home to mother tongue speakers of both North and East Ometo varieties.

Finally, it must be mentioned that Shara interviewees in Bulk'e listed other dialects, namely Gobbe Shara and Gashesso Shara. This research team did not visit the Gobbe and Gashesso dialect areas, so it is possible that they are more isolated from external influences and that more of their young people are still speakers of Shara. Still, the interviewees in Bulk'e described Gashesso Shara as being *more* similar to Gamo; it seems that the Bulk'e dialect may not even be the one that is most influenced by contact with Gamo.

Here it may be useful to return to the concept of diglossia. If other East Ometo varieties in the area are in a state of relatively stable diglossia with Gamo, then it can be said that Shara's diglossia "leaks". Leaky diglossia occurs when one speech variety encroaches on domains previously reserved for the other (Fasold 1984:41). During the fieldwork for the current study, the only South Gamo participants to admit that they sometimes count and even dream in North Ometo Gamo were the Shara interviewees. In such situations, either a mixture of the two speech varieties will form, or one will replace the other (Fasold 1984:41-2). In the case of Shara, a little of both seems to be happening.

Since the remaining Shara speakers in the Bulk'e area are aging and the members of the younger generation are growing up speaking Gamo, the Shara speech variety is gradually decreasing in use. The contact-induced change from the older, more prototypically East Ometo Shara speech variety to a strongly Gamo-influenced Shara

variety is also still underway.[24] The data from the current study is only a snapshot of how Shara was spoken by one person at one point in time.

Irregularities like Shara items 175 'listen' /wɑjʔ-ɑ-/ and 252 'fight' (v.) /olut:-ɑ-/ are examples of how contact-induced processes such as the simplification of verbal morphology are not necessarily complete within the speech of an individual. In both examples, the post-thematic vowel *-a-* was used instead of the typical *-i-*. In item 175, it matches the post-thematic vowel in other East Ometo varieties like Mele and Zayse. In item 252, though, instead of *-a-* the post-thematic vowel in East Ometo varieties should be *-o-* on account of the verb extension *-ut:* (Hayward 1990:292, Azeb 2007:13-14). This indicates some confusion over the use of these post-thematic vowels even in situations when *-i-* is not used, emphasizing that this speech variety is in a state of flux. It should also be noted that the Shara word list contributor was a relatively young man, estimated to be in his late 20s or early 30s (though he was assisted by an older man in his late 40s or early 50s).

Shara does not seem to have a tendency to borrow Gamo items in limited semantic domains. Gamo loans span different parts of speech and semantic domains, including numbers, adjectives, verbs and nouns as well as common things such as parts of the body, clothing, tools, household items, plants, people, food, wild animals and geographical features. Though many of these loans are explainable by common

[24] In spite of the fact that Gamo and Shara are closely related and Shara is becoming even more like Gamo through contact, the Shara interviewees in Bulk'e made a clear distinction between speaking Gamo and speaking Shara. They recognize that use of the Shara variety is decreasing in their community, not because of a gradual replacement with Gamo structures, but because the younger generations are being raised as Gamo speakers.

marketplace contact with Gamo, others such as body parts, people, wild animals and geographical features are more difficult to explain without allowing for more intense contact beyond the arena of work and trade.

In the absence of more detailed information about the amount and nature of social contact between the speakers of Shara and Gamo, it may be informative to compare the extent of borrowing found in the Shara data to the probability scale for borrowed features as described by Thomason & Kaufman (1988:74-5) and Thomason (2001:70). This scale is "a hierarchy determined by the relative degrees of structuredness of various grammatical subsystems: the more internal structure a subsystem has, the more intense the contact must be in order to result in structural borrowing." (Thomason & Kaufman 1988:73) The scale is based on the observation that typological distance can be a predictor of amount and type of borrowing (Thomason & Kaufman 1988:72).

In cases of heavy to extreme borrowing, typological distance does not have much of an effect. However, in examples of slight to moderate borrowing, features that fit well with the borrowing language have a tendency to be borrowed first. It follows that more complex grammatical structures will be less likely to match those of another speech variety and therefore less likely to be borrowed. For these reasons, the borrowing scale reflects the relative complexity of grammatical subsystems (Thomason & Kaufman 1988:73).

Barriers to borrowing increase with each successive level. Generally, nonbasic vocabulary is borrowed before basic vocabulary, and vocabulary is borrowed before structure, though there are known exceptions to the latter constraint. The pertinent points

of the borrowing scale as described by Thomason & Kaufman (1988:74-76) are summarized below.

(1) Casual contact: lexical borrowing only

Lexicon: content words

(2) Slightly more intense contact: slight structural borrowing

Lexicon: function words- conjunctions and various adverbial particles

Structure: minor phonological, syntactic, and lexical semantic features

(3) More intense contact: slightly more structural borrowing

Lexicon: function words- adpositions (prepositions and postpositions), derivational affixes abstracted from borrowed words, inflectional affixes attached to borrowed vocabulary items, personal and demonstrative pronouns and low numerals

Structure: slightly less minor structural features than in category (2)

Shara does not fit easily into this borrowing scale. Because low numerals have been borrowed from Gamo into Shara, it seems like it might fit into level 3, which involves more intense contact and slightly more structural borrowing. There is also one example of a borrowed pronoun in item 308 'you' (pl.). There are other ways in which it does not fit into the description of this level, though. In this data's one example of an adposition (item 318 'at'), Shara follows Zergulla and Mele instead of Gamo, going against the prediction that adpositions are likely to be borrowed at level three. If it is true that Shara's verbal morphology is being simplified by analogy to the East Ometo short perfect form, then neither is there any known evidence of inflectional affixes borrowed

along with vocabulary items. This is again contrary to the borrowing scale's predictions.

At the same time, the borrowing of basic vocabulary indicates that Shara is beyond the level 1 stage of casual contact marked by lexical borrowing only. Perhaps the level 2 description of slightly more intense contact and slight structural borrowing would be the best fit. There is some very tentative evidence of minor phonological change in Shara's consistent use of the voiceless bilabial stop instead of the fricative in word initial position; in East Ometo varieties these segments appear to be in free variation word initially (see sections 4.2 and 4.4). Because only limited data is available, other evidence such as syntactical structure is lacking. It is impossible to say whether structural borrowing in Shara is at the level one would expect based on its extensive lexical borrowing.

It should be no surprise that Shara does not appear to closely follow the borrowing scale. As Ometo speech varieties, Shara and Gamo are typologically quite close. According to the above analysis, Shara appears to be an example of slight borrowing from Gamo, and as a result the amount and type of borrowing should be impacted by typological distance. In fact, though the borrowing scale was partially based on observations of borrowing among typologically similar languages, it is meant more for application with unrelated languages. The hierarchy does not always hold true for closely related languages (Thomason & Kaufman 1988:78, Thomason 2001:71).

Thomason & Kaufman's (1988:97) definition of "typologically favored borrowing" is "structural borrowing at a higher level than the intensity of contact might seem to warrant, thanks to a close typological fit between source-language and

borrowing-language structures." They add that the classic cases of this are found in dialect borrowing situations. The examples of contact-induced change in Shara are mostly in the area of lexical borrowing, and it also cannot be considered a dialect of Gamo. However, parallels can be found to the case of Norse interference in northern Old English.

Typologically favored borrowing can account for much of this interference, according to Thomason & Kaufman (1988:97). The settlement of northern and central England by Danes and Norwegians over a period of about 90 years resulted in the replacement of basic Old English vocabulary with Norse words, including some quantifiers and the pronouns *they, them* and *their* (Thomason & Kaufman 1988:275-98). The Norse influence spread southward and into London English, thereby affecting contemporary Standard English (Winford 2003:81). Both the degree of linguistic relatedness of these Germanic languages and the type of lexical borrowing that occurred are similar to the modern day Ometo example of Shara and Gamo.

With this in mind, is it still possible to find an explanation of why adpositions are not borrowed at a level where both pronouns and low numerals are borrowed? In order to answer this question the status of the supposed adposition item 318 'on' must be more closely examined. The word for 'on' in East Ometo is not really a postposition in the strictest sense, though it might seem to be according to the context in which it was elicited (/oge gɑlːɑ/ 'on the road'). At least according to Hayward (1990:261), it is a locative noun found at the head of genitive constructions. As neither a postposition nor a suffix, it would seem to be even *more* susceptible to borrowing, because morphemes that

are part of complex structures are not as easily borrowed. Especially considering the fact that Gamo has similar locatives (/bol:ɑ/ 'on' in the current data), it seems reasonable to think that such a word would be at least as easily borrowed as numerals or pronouns.

The key may lie in Hayward's (1990:261) analysis of this construction in Zayse. This locative is actually a word meaning 'body' in other contexts. According to the "unifunctionality factor" (Heath 1978:105), a morpheme with only one use is easier to borrow.

At any rate, the typological closeness of Shara to Gamo makes it likely that borrowing of some elements, like pronouns and lower numerals, would happen more quickly than in an unrelated variety. Added to this is the idea that attitudes can get in the way of structural borrowing (Thomason & Kaufman 1988:72). Perhaps the Shara's positive attitude toward the Gamo language and people has also influenced them to borrow at a higher level than what would normally be expected. All this points to Shara having contact with Gamo that is at level 2, or slightly more intense than "casual".

4.8 Proposed segmental phonemes of Proto East Ometo

We now return to the question of sound correspondences and examine how this study's data interacts with Bender's (2003) reconstruction of Proto East Ometo's phonemes. Table 13 shows the protophonemes proposed by Bender (2003:107). As indicated by the hyphens, /ts/, /r/ and /tʃ/ are non-initial, while the diphthongs /ɑi/ and /oi/ are well attested only word-initially. Like in Table 1, the vowel /E/ is a questionable archiphoneme. Other problematic segments include the rare /dz/ as well as /mʔ/, /rʔ/ and

/jʔ/. Regarding the latter three, Bender (2003:107-8) thinks that they might reveal a tendency toward glottalized sonorants and glides.

		Labial	**Alveolar**	**Palatal**	**Velar**	**Glottal**
Stops	*voiced*	b	d		g	
	voiceless	p	t		k	ʔ
Implosives		ɓ	ɗ			
Ejectives			ts’		k’	
Fricatives			s z	ʃ		h
Affricates			-ts- (dz?)	-tʃ tʃ’		
Nasals		m	n			(mʔ)
Liquids			-r l			(rʔ)
Glides		w		j		(jʔ)
Vowels	i e (E?) ɑ o u ɑi- oi-					

Table 13: Proposed phonemes of Proto East Ometo, adapted from Bender (2003:107)

The *p~p~ɸ~ɸ* correspondence, as discussed in sections 4.2 and 4.4, is probably not a true sound correspondence since [p] and [ɸ] appear to be in free variation word initially in East Ometo speech varieties. It could still be significant that in the five fully attested examples of word initial /p/, it is always realized as [p] in Gamo and Shara. This lends some support, albeit very weak, to the idea that Shara is undergoing some adjustment of its phonological system under Gamo’s influence (see section 4.7). It should not be taken to indicate any change in Shara’s phonological inventory, because the

closely related varieties Balta and Garbansa both have the phoneme /p/ (Wondimu 2006:28) as does Gamo (Hompo 1990:357). Neither do these data provide any new information that would change the inventory of Bender's Southeast Ometo (East Ometo) protophonemes. The current data indicate that Hayward's (1990:216) analysis of Zayse's [ɸ] as an intervocalic allophone of /p/ holds true for Mele and Zergulla.

The East Ometo verb root alternations involving root-final consonants and their significance in the case of Shara have already been discussed in section 4.4 above. Bender (2003) notes that these root alternants are partially morphological and therefore treats them as non-phonological variants.

One of this data set's sound correspondences involving verb roots, *k'~ʔ~ʔ~ʔ*, does not have any root alternants among the East Ometo varieties. Shara has the same root-final consonant as Mele and Zergulla here, and neither Hayward (1990) nor Azeb (2007) include any record of a root alternation involving both these consonants. It is still difficult to analyze this alternation as a purely phonological phenomenon. Not only are there counter-examples with intervocalic [k'] in East Ometo varieties, but some of these counter-examples occur in verb root-final consonants, as in [zɑik'] (item 8 'whistle'). Because the intervocalic [k'] can occur in exactly the same environment as [ʔ], it is tempting to analyze it as [k':] and to assume that only the non-geminate [k'] became [ʔ] intervocalically. However, this cannot be supported from either the current or previous data. Bender (2003:99) and Hayward (1990:218) both give examples of non-geminate [k'] intervocalically in East Ometo varieties.

Bender (2003:104) does mention that [k'] is infrequent in the East Ometo

varieties, and that most of the time North Ometo [k'] corresponds with East Ometo [ʔ]. At the same time, he also finds enough evidence to posit /k'/ as a protophoneme of East Ometo. Perhaps the irregularity in the *k'~ʔ~ʔ~ʔ* correspondence can be explained at least in part by a *k'~ʔ* final consonant alternation in Gamo verb roots. Hayward (1996:174) gives the example of [wɑjk'-] and [wɑjʔ-] 'whistle'. The reduction of a glottalized consonant like [k'] to a glottal stop is a common phonological process that can be seen as a simple loss of the non-glottal articulation, according to the analysis first introduced by Lass (1976). If the velar articulation of [k'] is suppressed, all that remains is [ʔ]. At any rate, the current data does not provide any new insights into this problematic correspondence, only underlining the difficulties already described by Bender. He reconstructs /k'/ and /ʔ/ as protophonemes of both East and North Ometo, and nothing can be found in this data to contradict his analysis.

The final consonants in noun roots are being treated separately in this study because of the incidence of terminal vowels and the implications this may have for morphophonemic changes at the root boundary. Nevertheless, there are no indications in the literature of anything on the order of the verb root alternations that have been documented. Indeed, many of the correspondences in this data are found in the final consonants of noun roots. In all of the examples that were found, Shara has the same reflex as Mele and Zergulla, and thus there is no further evidence of phonological shift toward Gamo.

Two of the noun root-final correspondences (*s~ts~ts~ts* and *ʃ~tʃ~tʃ~tʃ*) are very similar, involving voiceless affricates in either alveolar or post-alveolar form. In

Bender's (2003) analysis of Ometo's consonant protophonemes, /s/ and /ʃ/ are well attested in North Ometo, as might be expected from the above sound correspondences. Bender posits both of these as protophonemes of East Ometo based on word-initial support, though he remarks that medially /s/ is problematic and /ʃ/ shows more variation.

On the other hand, Bender (2003:34) does not include [ts] as a protophoneme of North Ometo, explaining its presence by the reduction of [t:] to [t] and the spirantizing of [t] to [ts]. In East Ometo, Bender (2003:101) is not able to support the development of [ts] from [t:] since the latter is so rare in that subgroup. He therefore sets up /ts/ as an East Ometo protophoneme. He includes /tʃ/ in both North and East Ometo but describes it as "an extremely unstable phoneme" that is never found initially and varies unsystematically in medial realizations (Bender 2003:36). He does give several examples in which [tʃ] in East Ometo corresponds to [ʃ] in North Ometo, lending somewhat stronger support to the reconstruction of /tʃ/ in East Ometo (Bender 2003:131).

According to Bender's (2003:101) analysis, *s~ts* is the only one of the two related sound correspondences that touches on an actual difference in the phoneme inventories of these Ometo subgroups. In the current data as well as the data that Bender analyzed, there is only one attestation of this pattern, 'person' (item 106). This is not even an example of the sound change that was supposed to have resulted in the protophoneme difference, since Bender (2003:101) reconstructs /-tt-/ for the nominalizing suffix on the nouns and pronouns that make up many of the items with the reflex [ts]. He hypothesizes that the Proto Ometo /-tt-/ was retained by Proto North Ometo, and that the spirantized /-ts-/ was an innovation of Proto East Ometo.

It would make sense to account for both *s~ts* and *ʃ~tʃ* with a rule of intervocalic deaffrication, casting North Ometo as the innovator in this case. Indeed, Bender (2003:113-4) uses the affricate to reconstruct all but one example of these correspondences,[25] and he tentatively posits /ts/ as another Ometo protophoneme (Bender 2003:137). The *ts~Ø~Ø~Ø* correspondence can be dismissed, because it was most likely caused by an absence of the /-tt-/ nominalizing affix in the East Ometo forms. As such, it has no effect on the reconstruction of East Ometo protophonemes.

The *z~s~s~s* correspondence presents an interesting problem. Not only is it found root-finally in verbs, nouns and pronouns, but there are actually two counter-examples showing an *s~s~z~z* pattern. These counter-examples are of interest not so much because Shara follows Gamo, but because of the *z~s -- s~z* reversal in the pattern.[26] Item 82 'gourd', also mentioned by Bender (2003:117), is [gose] in Gamo and Shara but [goze] in Mele and Zergulla. Here the segment of interest is a noun root-final consonant. In item 98 'six' it is found medially in a numeral, as [usup] in Gamo and Shara and [izup] in Mele and Zergulla. The *z~s~s~s* pattern is better attested in a wider variety of environments, at least when the *z~s* pattern in the pronouns is considered as in the current data set.

Bender (2003:70) sets up /z/ in Proto North Ometo as a rare, marginal phoneme. He also includes it in Proto East Ometo but combines it with /s/ on account of the

[25] The exception is found in 'brother' /iʃ-/. Ch'ara, another speech variety used in the reconstruction of Proto Ometo, does not follow East Ometo in this case. Ch'ara is tentatively placed in West Ometo by Fleming (1976a, see Figure 1) and in its own Ometo subgroup by Bender (2000).

[26] Note that these counter-examples are not found in verbs and therefore have no impact on the above hypothesis regarding root-final consonants in Shara verbs.

difficulty in separating them word medially (Bender 2003:102). The current study does not really shed any new light on this problematic segment. If *s~s~z~z* were accepted as a true sound correspondence, it would furnish two more instances of Shara patterning with Gamo, though it patterns with Mele and Zergulla in all four examples of the *z~s~s~s* correspondence.

Chapter Five

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary and conclusions

5.1.1 Linguistic diversity

The question of variation in East Ometo was examined from several different angles in this study. Lexicostatistics, sound correspondences and verbal morphology all contribute to a broader understanding of the subgroup.

The East Ometo varieties encompassed by the fieldwork for this study can be grouped a few different ways according to their 3s long perfect forms. Based on focus and subject agreement markers, they fall into two main groups comprised of 1) Balta, Garbansa, Shara and Ganta and 2) Mele, Zergulla and Zayse. When based on tense/aspect markers, the groups are slightly different, comprised of 1) Balta, Garbansa, Ganta and Mele and 2) Shara, Zergulla and Zayse. Especially considering the fact that both Shara and Mele can be grouped differently depending on the markers that are used, the varieties selected for comparison with Gamo appear to be good representatives of the East Ometo subgroup's morphological diversity. Fewer distinctions are apparent at the lexical and phonological levels.

By the measure of lexicostatistics, Mele is especially close to Zergulla (76%), and Shara is especially close to Gamo (72%). More distant lexical relationships are found

when comparing Gamo to Mele (56%) and Zergulla (52%). Shara seems to be a link between the two groups; though it is lexically closer to North Gamo, it is also fairly close to Mele (66%) and Zergulla (61%).

Of the two less known varieties included in this study, Mele consistently exhibits the East Ometo sound correspondences as exemplified by Zergulla. Zergulla and Mele are clearly grouped together and stand separate from Gamo. The results for Shara are much less uniform, showing similarity to both East and North Ometo as well as some unique forms. It is likely that this is the result of simplified verbal morphology due to language contact and a progression toward extinction as Shara speakers shift to Gamo.

5.1.2 Classification

Because of these apparent inconsistencies, the biggest question of classification revolves around Shara. Though on the surface it might appear to be another North Ometo speech variety, the evidence indicates it is an East Ometo variety. The degree of Shara's relationship to Gamo as indicated by phonological correspondences seems to be lower than that indicated by lexical similarity. This points to a certain amount of lexical borrowing from Gamo into Shara. Nevertheless, several core items are held in common with the East Ometo varieties. Perhaps the best example is the subgroup's one definite shared innovation, the 3 pl. pronoun *usu*, as described by Bender (2003). This is found in Shara, Mele and Zergulla but not in Gamo.

Further indication that Shara fits in with East Ometo varieties can be found in its verb forms. The verb conjugation in the 3m.sg. long perfect form is related to that of East Ometo speech varieties encountered during the 2006 fieldwork. Its intransitivizing

extension also follows the East Ometo pattern and is in evidence even when the verb root is the same as that of Gamo. Finally, within the cognate sets in this data, the form of the root-final consonant in Shara verbs is dictated by the short perfect East Ometo root variant rather than the Gamo root. The fact that Shara is following these alternation patterns in its simplification process provides yet more support for the idea that Shara is an East Ometo variety.

5.1.3 Sociolinguistics

The Shara people are shifting toward Gamo as a first language, which intensifies their speech variety's similarity to Gamo. Shara now has greater lexical similarity to Gamo than it does to Zergulla, and it only shares about a third of the East Ometo isoglosses identified by Bender (2003). Its speakers are reportedly over 25 years old, and it is most likely headed toward extinction.

Whatever the main reason is for the Shara people's shift to Gamo over the past thirty years, the best explanation for the difference between Shara's vitality and that of other East Ometo varieties is probably frequent contact due to geographical proximity. The Shara community of Bulk'e, where the data for this study was gathered, is only a short distance north of the administrative center of the Gamo-Gofa Zone. In addition to this the Shara live right on the edge of the Gamo heartland, in an area generally found to have more ethnically mixed communities that are home to mother tongue speakers of both North and East Ometo varieties. Finally, the Shara also do not have a rigid identity, as exemplified by their openness to intermarriage with the Gamo.

5.1.4 Protophonemes and phonological inventories

This study does not provide any new information that would adjust the inventory of Bender's Southeast Ometo (East Ometo) protophonemes, but it does support observations made by Bender and other researchers. Word-initial free variation between [p] and [ɸ] in East Ometo (Bender 2000, Hayward 1990) can be deduced from the current data, since Mele and Zergulla exhibit both [p] and [ɸ] in word-initial position, and both speech varieties have an example of alternate pronunciations for /p/ word-initially. In the five fully attested examples of word-initial /p/, it is always realized as [p] in Gamo and Shara.

This lends tentative support to the idea that Shara is undergoing some adjustment of its phonological system under Gamo's influence. It does not indicate any change in Shara's phonological inventory, because the phoneme /p/ has been documented in both North and East Ometo varieties. In all of the fully attested examples of root-final correspondences in nouns, Shara has the same reflex as Mele and Zergulla. Thus there is no further evidence of phonological shift toward Gamo except for the dubious *s~s~z~z* correspondence.

5.2 Recommendations

The results of the survey indicate a need to develop at least one more speech variety in this area besides the standardized Gamo that is used in schools. There are many East Ometo varieties in the area, spoken by people who identify themselves ethnically as "Gamo". It should be recognized that there are different uses of the term

"Gamo" and that some of the East Ometo-speaking "Gamo" people do not understand the North Ometo "Gamo" variety very well, if at all. They must learn it as a second language in order to use it, since it is not intelligible with the East Ometo varieties. Within the younger generation, some of the speech varieties in this area (especially Shara) are apparently giving way to Gamo, Amharic or both. Nevertheless, many of them still seem to be particularly vital, including Zergulla and Mele. They would be valid candidates for joining a language development program.

If a central variety were used as the standard or reference variety, all the varieties outside of North Ometo Gamo could possibly use the same body of literature. Though it would require comprehension testing for verification, this could include Shara, Mele, Zergulla and nearly all the other varieties covered during the fieldwork for the current study. Mele could probably be used as a reference dialect, since it seems to be central both geographically and linguistically. Though it highest percentages of lexical similarity are only 78% with Garbansa and 76% with Zergulla, this still does not rule out the possibility of adequate comprehension, especially considering the likelihood of non-cognate synonyms in the wordlists. As recommended by Wondimu (2006), these East Ometo varieties could be called "South Gamo" to distinguish them from the previously developed North Gamo. At the same time it must be recognized that in this area, as in many places around the world, language development and ethnolinguistic identity can be very sensitive issues. Any possible new projects must be considered carefully from all angles.

This study has also revealed a need for further investigation of contact-induced

language change in the Ometo area of southern Ethiopia. When compared to Bender's (2003) isoglosses of East Ometo, the data from Mele shows evidence of much lexical borrowing, though unlike Shara it seems to be holding its own in a state of relatively stable diglossia with Gamo. In-depth research into the sociolinguistic reasons for differing rates of language shift and the possible impact language contact has on tone, morphology and syntax could increase our understanding of how these processes operate in the environment of closely related speech varieties. More urgently, a full description of Shara is needed. The current study is only a first step toward documenting its structure and relationship to other Ometo varieties as it heads toward extinction.

Appendix I

WORDLISTS

#	Gloss	Dhaach'e Gamo	Bulk'e Shara	Arba Mele	Fuse Dhimalle Zergulla
1	hair (of head)	bìnánà	ìtsʰíŋkɻ̩	ìtsʰìkʰé	ítsʰíkʰè
2	head	húʔè	úm:à	úm:á	úm:à
3	forehead	sìntsé	sìnó	sìnó	sínó
4	ear	haìtsé	wà:jé	wà:jé	wàjé
5	hear	sèádìs:	sí:díkósé:nɛ̀	sí:tʰàtʰèsìdè	sí:tʰàtʰìsìdì
6	mouth	dùn:á	bì:dé	bà:dé	háʔì
7	blow (v)	pùn:ídìs:	pùn:íkósé:nɛ̀	ɸún:àtʰèsìdè	ɸúnàtʰìsìdì, púnàtʰìsìdì
8	whistle (v)	zaìk'édìs:	zaìk'ékósé:nɛ̀	zaík'òtʰèsìdè	zaí:kʰòtʰìsìdì
9	sing	jɛ̀ts'édìs:	jɛ̀ts'ékósé:nɛ̀	jé:ts'òtʰèsìdè	jé:ts'òtʰìsìdì
10	dance (v)	gùp:ídìs:	dùríkósé:nɛ̀	ɗól:ótʰèsìdè	ɗól:òtʰìsìdì
11	drum	tàmbúrè	kàràmbé	dím:bá	dím:bà
12	lip	moìɗǒ	moíɗò	moìɗǒ	moíɗò
13	tooth	àtʃé	àtʃʰé	àtʃʰé	àtʃʰé
14	tongue	ìnts'ərè	ìnts'érɛ̀	ínts'əré	ínts'írɛ̀
15	saliva	tʃ'ótʃu̧	tʃ'útʃʰ	tʃ'útʃʰu̧	tʃ'útʃʰi̧
16	sweat	pògólò	tʃ'əwà	tʃ'áwà	sú:l:è
17	chin	bù:tʃé	ʃəgálà	hà:ŋgətsʼà	hàŋgétsʼà
18	beard	bù:tʃé	bù:tʃʰé	bù:tʃʰé	bá:tsʼà
19	nose	sí:ɗè	sí:ɗè	kù:ŋkʰé	kúŋké
20	smell (v.t.)	sìŋgídès:	sì:ŋgékósé:nɛ̀	síŋk'ətʰèsìdè	ts'íŋk'ətɛ̀sìnì
21	eyebrow	sí:ɓùntsu̧	sí:ɸùntsʰu̧	síɓùntsʰu̧	dè:mó
22	eye	aíɸè	á:ɸè	à:ɸé	á:ɸè
23	see	wətʃ'ídɛ̀s:	wʊ́tʃʰékósé:nɛ̀	ts'é:làtʰèsìdè	ts'é:làtʰìsìnì
24	weep	jɛ̀:kídɛ̀s:	jɛ̀k:ékósé:nɛ̀	jé:ɸàtʰèsìdè	jé:ɸàtʰìsìnì
25	tear (n)	aíɸùntsu̧	á:ɸùntsʰu̧	à:ɸùntsʰu̧	áɸùntsʰu̧
26	neck	k'ó:ɗè	k'ó:ɗè	wòl:ó	wòl:ó
27	shoulder	hàʃé	hàtʃʰé	hàtʃʰé	hàtʃʰé
28	breast	ɗántsi̧	ɗántsʰi̧	ɗántsʰi̧	ɗántsʰ
29	belly	k'ànsé	gəwó	gəwó	gəwó
30	navel	gùlɗá	gùlɗá, gùlʔá	gùlɗá, gùlʔá	gùlɗá
31	guts	màɾətʃ'è	tòtʃ'é	tʰótʃ'é	ʃó:kʰà
32	back	zók:ò	ɗàt:é	ɗàtʰé	kìʔí:nì
33	buttocks	dútʃ'à	dútʃ'à	dútʃ'á	tʰòrzé
34	knee	gùlbə́tè	gùlbə́tè	gùlbə́tʰè	gùlβə́tʰə̀

#	Gloss	Dhaach'e Gamo	Bulke Shara	Arba Mele	Fuse Dimelle Zergulla
35	elbow	k'èsé	k'əsé	k'ésé	k'èsɛ́
36	foot	tóhò	túkè	tʰúkʰè	tʰúkʰè
37	sandals	tʃ'ɑmɑ	tʃ'ɑmɑ	kʰóɓà	kʰóɓà
38	thigh	wòdírà	wòdírà	gɛ́dá	gɛ́dá
39	hand	kúʃè	kʰútʃʰè	kʰútʃʰè	kʰútʃʰè
40	forearm	wádà	ìtʃʰé	wádǎ, ítʃʰé	wádà
41	fingernail	ts'ùgúmè	ts'ùgúmè	ts'úgúmé	ts'ùgúmè
42	skin	gálβà	gàlbá	k'ólé	k'ólé
43	bone	mɛ̀k'étsi̯	mɛ̀k'étę	mèk'étʰè	mìkʰétʰè
44	heart	wòzènà	wòzìnà	wòzànè	wòzànè
45	blood	sú:tsu̯	sú:tsʰu̯	sú:tsʰu̯	sú:tsʰ
46	liver	tírè	tírɛ̀	màjé	màjé
47	bush	wórà	wórà	wórà	wórà
48	thorn	àgúntsà	àkúl:à	àkʰ:úlà	àkúlà
49	tree	mítsì	mítsʰi̯	mínts'á	mínts'á
50	axe	káltà	káltà	wàlé	gən:dè
51	bark (n - of tree)	pòk'ó	pòk'ó	pʰòk'ó	pók'ò
52	root	ts'àɓó	ts'áp'ó	ts'àɓó	ts'àɓó
53	leaf	haìtsé	bó:ntʃ'ò	jè:tʃʰé	bóntʃ'ò
54	rope	wòdòró	wò:dòró	wòdórò	wòdórò
55	basket	kè:tʃé, dà:tʃó	dà:tʃʰé	dàtʃʰé	kótʰ:ó
56	farm (field)	gòʃ:é	gòʃ:é	gòʃ:é	gòʃ:é
57	seed	zérɛ́tsɛ̯	zérɛ̀tsʰi̯	búdùtsʰu̯	kí:lè
58	harvest (n)	bú:tʃu̯	ʃĭ:ʃù	bú:tʃʰu̯	bú:tʃʰɐ̯
59	machete	bà:tʃ'á	k'òntʃ'òrá	wàlándʒé	wàlé
60	hoe	mártʃ'ó	ts'oìl:é	màrɛ̀tʃ'ó	lùkʰɔ́sè
61	dig	bò:kídès:	gòʃíkósé:nɛ̀	bó:kʰətʰèsìdè	góʃ:ətʰìsìnì
62	plant (v)	tòk:ídès:	tók:íkósé:nɛ̀	tʰúɸòtʰèsìdè	túɸòtʰìsìnì
63	maize	bədələ	bədəl:á	bədələ	bədələ
64	tobacco	tàmbóh	təmbó	tàmbó	támbó
65	grass	mà:tá	mà:tá	mà:tʰá	má:tʰà
66	weed (n)	hàrúm:à	ʃàráfà	hó:dé	hó:dè
67	flower	púdè	púdò	ɸúdè	tòné
68	fruit	kàtsà aíɸè	á:ɸè	á:ɸèdĕ	á:ɸè
69	ripe	kà ts'í daí sà	káts'à	kàts'ótʰìʃìdè	kʰə́:ts'ə

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70	rotten	wò:kʼídaísà	wó:kʼà	wó:kʼətʰèsìdè	wó:kʼà
71	meat	àʃó	àtʃʰó	àtʃʰó	àtʃʰú
72	cut	kʼàntsídès:	kʼəntsʰíkósé:nè	í:tsʼòtʰèsìdè	í:tsʰùtʰìsìnì
73	steal	kaìsídès:	kaìsíkósé:nè	kʰaísətʰèsìdè	kʰəstʰátʰìsìnì
74	give	ìmédès:	íŋgíkósé:nè	íŋgətʰèsìdè	í:ŋgàtʰìsìnì
75	fat (n)	módɗò	módɗò, hàndá	mó:ɗě	mó:ɗè
76	egg	ɓúɓúl:è	ɓúɓúl:è	ɓúɓíl:é	ɓúɓíl:è
77	hide (v)	kʼòt:ídès:	kʼòt:íkósé:nè	á:tʃʰòtʰèsìdè	á:tʃʰùtʰìsìnì
78	hungry	gàɸídès:	gáɸìkósé:nè	bìɗŭtʰòtʰèsìdè	nàjút:òtʰìsìnì
79	cook (v fs)	kàts:ádùs:	kàtsʰíké:nè	kʰátsʰàtʰèʃìdè	kʰətsʰátʰìʃìnì
80	drink (v)	ùwídès:	ùʃíkósé:nè	úʃòtʰèsìdè	úʃòtʰìsìnì
81	cup	wántʃʼá	wàntʃʼá	wàntʃʼá	wántʃʼà
82	gourd	gòsé	gòsé	gòzé	gòzé
83	laugh	mè:tʃʼídès:	mì:tʃʼíkósé:nè	mítʃʼətʰèsìdè	mítʃʼètʰìsìnì
84	vomit (v)	tʃʼòídès:	tʃʼóʔíkósè:nè	tʃʼó:ʃòtʰèsìdè	tʃʼó:ʃòtʰìsìnì
85	cough	kʼòɸídès:	kʼòɸíkósé:nè	kʼúɸətʰèsìdè	kʼùɸátʰìsìnì
86	spit	tʃʼòt:ídès:	tʃʼùtʰ:íkósé:nè	tʃʼútʰòtʰèsìdè	tʃʼútʰòtʰìsìnì
87	sneeze	dìʃídès:	dĭʃíkósé:nè	dĭʃàtʰèsìdè	dĭʃətʰìsìnì
88	sick	hàrgídés:, sàk:ídès:	hàrgút:íkósé:nè	hàrgətʰèsìdè	hàrgátʰìsìnì
89	fall (v)	kòndídés:	ù:mbíkósé:nè	úmbòtʰèsìdè	úm:bòtʰìsìnì
90	die (v)	haì:kʼídés:	haìʔíkósé:nè	hájʔòtʰèsìdè	hájʔòtʰìsìnì
91	grave	bò:sá	bò:sá	bò:sá	bò:sá
92	fool	é:jà	é:jà	é:já	é:jà
93	one	ìs:ínò	ìstá	bìz:ó	bìz:ó
94	two	nàmʔá	nàmʔá	námʔu̱	námʔ
95	three	hè:dzá	hè:dzá	haídzi̱	haítsʰi̱
96	four	oìd:á	oìd:á	oíd:ù	oíd:è
97	five	ìtʃátʃà	ìtʃʰétʃʰá	ìʃĭtʃʰi̱	ìʃĭtʃʰi̱
98	six	ùsúp:ùnu̱	ùsópùnù	ìzúpʰu̱	ìzípʰu̱
99	seven	lá:pùnu̱	lá:pùnù	lá:pʰu̱	lápʰu̱
100	eight	óspùnu̱	óspùnù	làkʰ:útʃʰé	làkʰútʃʰe̱
101	nine	òd:úɸu̱	òd:úɸùnu̱	tàtʰ:síné	tʰànsínì
102	ten	támu̱	támu̱	támú	tʰámu̱
103	twenty	nàmʔútàmu̱	nàmtámu̱	nàmʔútàmu̱	námútʰàmu̱
104	hundred	tsʼé:ti̱	tsʼé:tʰi̱	tsʼétʰi̱	tsʼé:tʰi̱
105	think	kʼòp:ídès:	èzgíkósé:nè	móɗòtʰèsìdè	múlɗòtʰìsìnì

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106	person	àsé	átsʰi̪	átsʰi̪	átsʰi̪
107	man	àd:é	ádè	ádè, nàʔá	ádè
108	woman	mətʃʾà	mà:tʃʰó	bíʃ:ó	í:ndà
109	marry	èkídɛ̀s:	èk:íkósé:nɛ̀, màtʃʰ:íkósé:nɛ̀	éɸátʰèsìdè	éɸátʰìsìnì
110	wedding	sə́rgè	dìg:ís:à	k'ó:g:é	dìg:ìsá
111	bear child (v 3fs)	jèládùs:	jɛ̀líké:nɛ̀	jé:làtʰìʃîdè	jé:làtʰìʃînì
112	wife	màtʃó	mà:tʃʰó	bíʃ:ó	mátʃʰù, bíʃ:ù
113	father	àwá	ád:ó	àd:ó	ádè
114	say	gídɛ̀s:	hídíkósé:nɛ̀	hítʰ:àtʰèsìdè	hé:tʰàtʰìsìnì
115	mother	à:jó	í:ndò	í:ndó	í:ndù
116	ask	oìtʃîdɛ̀s:	oìtʃʾíkósé:nɛ̀	oí:tʃʾòtʰèsìdè	oítʃʾòtʰìsìnì
117	child	nə̀já	ʃà:tʰó	ʃà:tʰó	ʃà:tʰó
118	brother (elder)	baì:ɾá íʃà	baìɾá ítʃʰé	àŋgùs:é, àŋgùsú ítʃʰé	àŋgùs: ítʃʰè
119	walk (v)	hàntídɛ̀s:	hàn:tíkósé:nɛ̀	táŋ:gàtʰèsìdè	táŋgàtʰìsìnì
120	run	wòts'ídɛ̀s:	wòts'íkósé:nɛ̀	wòts'átʰèsìdè	wò:ts'ə́tʰìsìn:ì
121	rest (v)	kàts'ídɛ̀s:	kàts'íkósé:nɛ̀	kʰáts'ə̀tʰèsìdè	hájʔòtʰìsìn:ì
122	sister	mìtʃ:ó	mítʃʰù	mítʃʰó	mítʃʰò
123	teach	tàmàɾsídɛ̀s:	tàmàɾsíkósé:nɛ̀	tʰɛ̀máɾtsʰə̀tʰèsìdè	tʰàmàɾsɛ́tʰìsìn:ì
124	chief	dàn:á	dàn:á	dàn:á	dàn:á
125	God	ts'ò:sé	ts'ó:sʊ̪	ts'ósʊ̪, bázò	bə́zù
126	name	súntsʊ̪	súntsʰʊ̪	sú:ntsʰʊ̪	sú:ntsʰʊ̪
127	animal	méhè	zàwáméhè	zàwàméhè	zàwágaíd:è
128	fur	gɛ̀lɛ̀ʃó gálbà	gɛ̀lɛ̀ʃó gíl:è	gɛ̀lɛ̀ʃó gìrfé	k'ó:b:à
129	hunter	wódə̂tsi̪	ʃàŋká	hásé	sò:ɸé
130	hunt (v)	wòdî̂dɛ̀s:	ʃàŋkátʰíkósé:nɛ̀	hàs:ótʰèsìdè	só:ɸàtʰìsìn:ì
131	pig	gá:ʃò	gùd:úntsʰʊ̪	gá:ʃó	gáʃʊ̪
132	tail	goìná	goìná	goí:ná	goìn:á
133	bat	làβílɛ̀ʃi̪	làβláβù	làβláβó	láláβù
134	louse	tʃʾù:tʃé	tʃʾùtʃʰé	tʃʾú:tʃʰé	tʃʾù:tʃʰé
135	ant	gàzgázò	pə̀ŋkáʃʊ̪	tʃʾùntʃʾál:é	gòɾmótʃʾò
136	worm	gùts'úmè	gùts'únì	gùts'úmè	gùts'ún:è
137	fly (n)	ùzúnts'è	ùzú:nts'ẹ̀	wòzínts'é	wòzínts'è
138	spider	ʃà:ʔé	ʃèʔé	àtʃʰ:èɾó	ʃə̀ɾíʃə̀ŋgù
139	termite	áɾádɔ̀	àɾádɔ̀	hàɾádɔ́	ó:nts'ə̀lè

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140	termite hill	dùn:é	dùn:é	dùn:á	dùn:á
141	honeybee	mátsi̪	mətsʰe̪	mátsʰi̪	mətsʰi̪
142	beehive	kò:ts'é	kʰò:tsʰé	kʰò:tsʰé	kʰò:tsʰé
143	honey	é:si̪	é:se̪	ʃídà	ʃídà
144	goat	dèʃé	ts'égà	ts'égà	ts'égà
145	horn	kətʃ'é	kʰàtʃ'é	kʰàtʃ'é	kʰətʃ'é
146	cow	mízi̪	mí:si̪	mí:s:i̪	mí:si̪
147	donkey	hàɾé	hàɾé	hàɾé	hàré
148	hit	ʃòtʃ'ídès:	gʷíd:ìkósé:nè	guídòtʰèsìdè	guí:dòtʰìsìn:ì
149	chicken	kút:ò	kʰút:ò	kʰút:ó	kʰút:ò
150	bird	kəɸó	kʰəɸó	kʰəɸó	kʰəɸó
151	claw	ts'ùgúntsu̪	ts'úgúmè	ts'úgúmè	ts'ùgúmè
152	wing	k'èɸé	k'èfé	k'èɸé	k'èɸé
153	feather	bá:l:è	bál:è	bál:é	k'èɸé
154	fly (v)	pìɾídès:	pìɾíkósé:nè	ɸìɾótʰèsìdè	ɸìɾádàtʰìsìn:ì
155	nest	kəɸókètsi̪	kəɸókètsʰi̪	kəɸó kʰètsʰè	kʰəɸókʰè:tsʰè
156	snake	ʃó:ʃu̪	ʃó:ʃu̪	ʃó:ʃu̪	ʃó:ʃi̪
157	ètʃ'éɾè	ètʃ'éɾé	ètʃ'éɾé	ètʃ'éɾé	ètʃ'éɾè
158	wòɗídès:	wòɗíkósé:nè	wóɗàtʰèsìdè	wóɗàtʰìsìn:ì
159	scorpion	gì:té	gì:té	gì:té	gì:tʰé
160	fish	móló	mòló	mòlé	mòlɛ́
161	fishnet	mánts'ákò	mòlógítʰè	mòlé màɾà:bè	mòlɛ́ wóts'òmàdè
162	swim	wàŋàʔídí kàʔídès:	wàɗíkósé:nè	lí:mətʰèsìdè	ts'ùbé
163	frog	ó:k'ərs	gòpàɾʃódɛ̀	ó:k'əró	ó:k'ərs
164	thread	ó:gà	ó:gà	k'ətʃ'ínà	k'ətʃ'ínà
165	tie (v. int.)	k'ətʃètsídès:	k'àtʃʰútʰíkósé:nè	àtʃ'útʰòtʰèsìdè	àtʃ'útʰòtʰìsìn:ì
166	sew	sìk:ídès:	síkʰ:ìkósé:nè	síɸàtʰèsìdè	síɸàtʰìsìn:ì
167	crocodile	ʃɛ́ɓò	hàj:làʃó	dʒəró	ʃɛ́ɓò
168	fear (n)	bəbó	bàbó	bəb:ó	bəbó
169	buffalo	òs:ó	mɛ̀ntsʰé	dògé	mèn:ó
170	baboon	gɛ́lɛ́ʃ:ò	gɛ̀lɛ̀ʃó	gɛ̀lɛ̀ʃ:ó	gɛ̀lɛ̀ʃ:ó
171	leopard	màhé	màhé	màhé	mà:hé
172	cat	gəwərá	gàwàrá	gəwərá	gəròwá
173	hyena	gòdəré	gòdàɾé	tòlkʰó	tòlkʰó

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174	dog	kànɑ́	kànɑ́	kɑ́nɑ́	kʰɑ̀nɑ́
175	listen	wàj:ídɛ̀s:	wájʔàkósé:nɛ̀	wájʔàtʰèsìdè	sí:tʰɑ̀tʰìsìn:ì
176	bark (v)	bótʃʼídɛ̀s:	bòtʃʼékósé:nɛ̀	bótʃʼótʰèsìdè	bótʃʼòtʰìsìn:ì
177	come	gàk:ídɛ̀s:	jè:díkósé:nɛ̀	jé:tʰàtʰèsìdè	jé:tʰɑ̀tʰìsìn:ì
178	bite (v)	sàts'ídɛ̀s:	sɑ́ts'ìkósé:nɛ̀	mé:tʃʼòtʰèsìdè	mé:tʃʼòtʰìsìn:ì
179	banana	mú:zè	mú:zè	mú:zé	mú:zɛ̀
180	want	kòídɛ̀s:	wòɾgíkósé:nɛ̀	wóɾgòtʰèsìdè	wóɾgòtʰìsìn:ì
181	count	tɑì:bídɛ̀s:	tɑì:bíkósé:nɛ̀	tʰɑí:bàtʰèsìdè	tʰá:ɸàtʰìsìn:ì
182	take	èk:ídɛ̀s:	èk:íkósé:nɛ̀	éɸàtʰèsìdè	éɸàtʰìsìn:ì
183	hold	oìkídɛ̀s:	ɑìk:íkósé:nɛ̀	ɑí:kʰòtʰèsìdè	ɑí:kʰòtʰìsìn:ì
184	path	ògé	ò:gé	ògé	ògé
185	house	kètsé	kʰè:tsʰé	kʰè:tsʰé	kʰè:tsʰé
186	door	wúlá	ìβó	íbó	dìβó
187	sweep	pìt:ídɛ̀s:	pít:íkósé:nɛ̀	ɸíts'òtʰèsìdè	ɸítʰòtʰìsìn:ì
188	enter	gèlídɛ̀s:	gèlíkósé:nɛ̀	gèlɑ́tʰèsìdè	gɛ́làtʰìsìn:ì
189	exit	kèídɛ̀s:	kèsíkósé:nɛ̀	kʰésótʰèsìdè	kʰésòtʰìsìn:ì
190	stool	oìdé	dùtsʰé	àrdʒótʰá	oì:dé
191	make	ò:tsídɛ̀s:	ò:tsʰíkósé:nɛ̀	ó:tsʰàtʰèsìdè	ó:tsʰàtʰìsìn:ì
192	sit	ùt:ídɛ̀s:	ùt:íkósé:nɛ̀	útʰ:ótʰèsìdè	út:òtʰìsìn:ì
193	stand (v)	èk'ídɛ̀s:	èʔíkósé:nɛ̀	é:ʔàtʰèsìdè	éʔàtʰìsìn:ì
194	salt	màts'ìné	màts'íné	màts'ìné	màts'ìné
195	pot	ótù	ó:tʰà	ó:tʰà	ó:tʰà
196	fire	tàmɑ́	tàmɑ́	búdó	bùdó
197	burn (v. int.)	ts'ù:gɛ́tìdɛ̀s:	ts'ùɣútʰ:ìkósé:nɛ̀	ts'úgòtʰòtʰèsìdè	é:ts'òtʰìʃîn:ì
198	hot	ʃĭ:dɛ̆	hóʔò	bín:ɑ́	bín:ɑ̀
199	warm	hóʔò	dɑ́mbɑ́lè	lɑ́ɓé	hòmbómbɛ̀
200	cold/cool	màtʃʼé	íɾts'ɑ̀	k'oìtʃʼé	íɾts'ɑ̀
201	cold (weather)	mè:gó	mò:tʃʼé	kʰɛ̀ntʃʰó	mó:ʃi̯
202	smoke (n)	tʃŭʔà	tʃʼú:ʔà	tʃʼú:ʔɑ́	tʃʼú:ʔà
203	ashes	màk'ó	màk'ó	màk'ó	màk'ó
204	stick (n)	kàl:ó	kàl:ó	kɑ́l:ó	kàl:ó
205	stone	ʃútʃu̯	ʃútʃu̯	mɑ́lò	màló
206	smooth	lé:k'ò	lí:k'ò	ʃúgó	lík:ò
207	earth, ground	gɑ́dè	gɑ́dè	gɑ̀dé	gɑ̀dɛ̀

#	Gloss	Dhaach'e Gamo	Bulke Shara	Arba Mele	Fuse Dimelle Zergulla
208	mud	ùɾkʾá	ùɾkʾá	ùrkʾá	ùɾkʾá
209	clay	mànə̀ mèɗízà ùɾkʾà	méɗə̋sàkʰà	méɗə̀sàkʰá	ʒíːtʃʾà
210	sand	ántʃʾó	àntʃʾó	átʃʾé	átʃʾè
211	dust	gùdùlːá	gùdùlːá	gúdúlːá	tsʾúɾà
212	gold	wɛ́ɾkʾè	wɛ́ɾkʾè	wɛ́rkʾé	wɛ́ɾkʾè
213	silver				
214	money	bíɾà	mìʃːé	míʃːé	mìːʃɛ́
215	buy	ʃàmːídɛ̀sː	ʃàŋgíkósɛ́ːnɛ̀	ʃámàtʰèsìdè	ʃə́mətʰìsìnːì
216	sell	baìzídɛ̀sː	baìsíkósɛ́ːnɛ̀	baísətʰèsìdè	baísətʰìsìnːì
217	market	géjá	gàːjé	gàːjá	gàːjá
218	mountain	zùmá	bòtʃʰé	bòtʃʰé	zùmːá
219	wind	tʃʾèɾkó	tʃʾàɾkʰó	tʃʾàɾkʰó	àgétsʰi̯
220	cloud	gúlè	gúːlè	gúːlè	dʃ̀ːlúgù
221	rain (n)	íɾà	íɾà	íɾá	íɾà
222	rainbow	zùlːá	zùlːá	zùlːá	zùlːá
223	lightning	wóldə́ntsi̯	wàlkʾántsʰi̯	wòlʔántsʰi̯	wòlʔántsʰi̯
224	thunder	dàdá	dədá	dàdá	dədə́
225	dew	tsʾàːzó	tsʾàːzé	tsʾàːzó	tsʾàːzó
226	river	ʃóːɾè	ʃóːɾè	ʃəɸé	bòɾké
227	canoe	wògòló	wògòló	wòlògó	gòːŋgɛ́
228	bridge	zókːo̯	zókʰò	zókʰːó	zokʰːo, dìdːílɛ̀
229	water	hàːtsé	hàːtsʰé	wàːtsʰé	wàːtsʰɛ́
230	well (n)	pulto, múltʃʾà	púltò	ɸúltʰó	púltʰò
231	lake	àbːá	àbːá	àbːá	bəgə́dè
232	sky	səló	səló	səló	səló
233	evening	òmáɾìs	síːɸásu̯	tʃʾéːmó	gəlbó
234	moon	àgénà	àgínà	ágúnːá	àgúnːà
235	star	tsʾòlíntɛ̯	tsʾòlíntʰɛ̯	tsʾòːlíntʰɛ́	tsʾòːlíntʰɛ̀
236	sun	àwá	àwá	àwá	àwá, kʾòːsː
237	white	bóːtsu̯	bóːtsʰu̯	bóːtsʰu̯	bóːtsʰɐ̯
238	black	kàɾétsi̯	kʰàɾétsʰi̯	kʰártsʰi̯	kʰártsʰi̯
239	red	zòʔó	zòʔó	zóʔó	zóʔò
240	green	tʃʾílìlà	jìlkʾá, ɟìlkʾá, ʒìlkʾá	ʒílːá, ɟílːá	ʒìlːá, ɟìlːá
241	yellow	gələ́ldò	gàlə́ldò	gələ́ldə́	gələ́ldò, gələ́lʔò
242	brown	bùnːí	gùtsʾúnè	búnːí	búnːí

#	Gloss	Dhaach'e Gamo	Bulke Shara	Arba Mele	Fuse Dimelle Zergulla
243	knife	màʃːá	màʃːá	màʃːá	màʃːá
244	sharp (edge)	k'árà	k'árà	árèsːi̪	árès
245	dull	dúnʔè	dúnʔè	dúlmésːi̪	dúrmìs
246	bow	ts'ìké	k'ósːè	dòŋːgé	ʒíːʃi̪
247	arrow	jíːʃi̪	k'ósːè	ʒíʃːi̪	dòŋːgé
248	spear	tòrá	tòːrá	tòrá	tʰòːrá
249	throw	haìːrídès:	ts'óːŋgékósé:nɛ̀	ítʃ'ətʰèsìdè	ítʃʰətʰìsìnːì
250	shield	gòndálè	gòndálːè	gòndálé	gòndálːè
251	war	ólétètsi̪	óːlà	ólà	ólà
252	fight (v)	tʃ'ədétìdès:	òlútːákósínɛ̀	òlútʰːòtʰèsìdè	òlútʰòtʰìsìnːì
253	bad	íːtà	íːtʰà	íːtʰá	íːtʰà
254	good	lóʔò	lóʔò	lóʔó	lóʔò
255	wide	áːkò	áːkʰò, áːxò	pʰátʃʰá, ɸátʃʰá	dálgà
256	narrow	kúnʔè	kunʔe, ts'úːntsʰu̪	kʰúnʔé, kʰúndɛ̆	kúnʔè
257	straight	móːlè	móːlè	móːlé	móːlè
258	crooked	wóbːà	wóbːè	wóbːé	wóbːè
259	long	àdùsːé	àdùsːé	dìtʃ'ó	dìtʃ'ó
260	short	k'ántsi̪	k'ə́ntsʰi̪	hátʰá	hátʰà
261	big	gìtá	gìtʰá	àɗɑ́	àɗɑ́
262	small	gúːtsu̪	gúːtsʰu̪	gàʃɛ́	èːrési̪
263	thick	órdè	órdè	órdé	órdè
264	thin	láːlɛ̀	láːlè	láːlé	hé:gò
265	heavy	dèːts'ó	dèːts'ó	déːts'ó	dèːts'ó
266	light (not heavy)	ʃaìːkó	ʃaìːkó, ʃaìːxó	héːgó	hɛ́ːfɛ̀lɛ̀, héːgù
267	old (not new)	tʃ'émà	gáldà	tʃ'ímá	tʃ'ímà
268	new	òːrə́tsi̪	òːrátsʰi̪	òːrə́tsʰi̪	òːrə́tsʰi̪
269	none	aìkókà báːwà	ìsìnìkʰáβárèsà	àːkʰoìkʰà bàʔá	ákʰoìnì báʔà
270	left (side)	hàdírísi̪	hàdúrsu̪	hàdúrtsʰi̪	hàdúrtsʰe̪, hàdúrse̪
271	right (side)	òʃətʃi̪	òʃátʃʰi̪	òʃítʃʰi̪	òʃítʃʰi̪
272	yes	éʔé	éːʔè	hóː	hóʔò
273	no	àkːáj	əkːə́j	íʔé	báːʔà
274	hard	mínò	mínò	mínó	ts'ìːgó
275	soft	ʃúgò	ʃúgò, ʃúɣò	ʃùgétʰètsʰi̪	líkːò

#	Gloss	Dhaach'e Gamo	Bulke Shara	Arba Mele	Fuse Dimelle Zergulla
276	many	dɛ́rò	də́rò	gà:mé	màtʃʰó
277	few	gú:tsu̯	è:ɾík'ó	è:ɾés:i̯	ts'í:k'ìsi̯
278	up	púdè	púdè	òdɛ̀tsʰá	ú:dè
279	down	dúgè	dúgè, dúɣè	sùlɛ̀tsʰá	sú:lè
280	this	haìsí	háj:	hán:ó	hàjá
281	that	sè:kaísà	sòjí	sèjá	sɛ́n:ó
282	who?	òné	ó:dèj	ó:dé	ó:dè
283	whose?	ònajísè	ò:déjés:á	ò:dèjìs:á	ó:dés:ùwà
284	what?	à:zé	á:làj	á:lá	á:làj
285	when?	aìdé	aídè	á:ndé	án:dɛ̀
286	yesterday	k'ám:à	k'ám:à	k'ə́m:á	zìgín:è
287	where?	áwà	ànà	ánà	án:à:
288	here	há:ni̯	haígà, haíɣà	haígà	háj:gà
289	how?	wá:nídì	waídí	wà:kʰídí	wá:kídì
290	why?	á:zəzi:	á:sì	à:làɾó	á:làʔùtʰ:è
291	clothing	màjó	àɸíl:à	màʔó	màʔó
292	wet	tʃ'áɓà	íɾts'à	wó:k'á	íɾts'à
293	dry (adj)	mélà	mɛ́là	mɛ́lá	mélà
294	dirty	í:tà	k'ítʰà	k'ítʰá	k'ítʰà
295	garbage	wóɾàwódǐdaìsà	wóɾàwódɛ̌:sà	í:tʰá	bù:ɾɛ́
296	pour (water)	dù:k'ídès:	dù:k'ékósé:nè	kʰítʰòtʰèsìdè	dù:k'é
297	empty (adj)	aíkó bá:wà	à:làkʷòjbàɾìsá	bàʔó	mélà
298	full	kúmɛ̀tsi̯	kʰú:mùtsʰu̯	kʰúmùtsʰu̯	kúmùtsʰu̯
299	bathe (v. int.)	mètʃ'ètídès:	mètʃ'útʰìkósé:nè	ʃògútʰòtʰèsìdè	ʃògútʰòtʰìsìn:ì
300	lie down	gɛ́d:ígìdès:	gèd:íkósé:nè	k'àhíntʰòtʰèsìdè	gòdɛ́ɗòtʰìsìn:ì
301	yawn	làʔídès:	lə́wíkósé:nè	ʃáʔàntʰòtʰèsìdè	láwátʰìsìn:ì
302	sleep (v)	ìtʃ:ídès:	ítʃʰ:íkósé:nè	gìhə́tʰèsìdè	wójʔòtʰìsìn:ì
303	I	táná	tání	tʰá:, táʔá	tʰáná
304	you (ms)	nènákò	nèní	ná:, náʔá	néná
305	he	ìzákò	èsí	ɛ́s:à	ésà
306	we (inc.)	nùná	nùná	nú:	nùn:á
307	we (exc.)	nùní	nùní	nùní	nùn:ì
308	you (pl)	íntɛ̀nà	íntʰìná	wútʰònà	hó:tʰùnà
309	they	ízétà	ùsùná	úsónà	úsùnà
310	push (v)	sùgédìs:	údìkósé:nè	úɗòtʰèsìdè	úɗòtʰìsìn:ì

#	Gloss	Dhaach'e Gamo	Bulke Shara	Arba Mele	Fuse Dimelle Zergulla
311	pull (v)	gò:tʃídès:	gò:tʃʰíkósé:nɛ̀	gótʃʰ:ətʰèsìdè	gótʃʰətʰìsìn:ì
312	jump (v)	gòp:ídès:	ɗíkʰ:íkósé:nɛ̀	ɗòl:òtʰèsìdè	ɗől:ótʰìsìn:ì
313	road				
314	fence	àts'èrídès:	kʰétʃʰà	k'étʃʰá	k'étʃʰà
315	gate	wùlá	ìβó	ìbó	ìbìtsʰé
316	all	ùb:ɑísà	ùdá	ùd:á	ùd:á
317	and	...ɾá...ɾà	...ɾá...ɾà	...ɾá...ɾà	...ɾá...ɾà
318	at	...ból:à	...gál:à	...gən:á	...gál:à
319	go	bídès:	hàŋ:gíkósé:nɛ̀	hámàtʰèsìdè	hámàtʰìsìn:ì
320	know	érídès:	èɾíkósé:nɛ̀	èɾátʰèsìdè	èɾátʰìsìn:ì
321	other	hàɾá	hàɾá	hàɾá	hàɾá
322	scratch	k'á:tʃˀídès:	k'á:tʃʰìkósé:nɛ̀	há:tʃˀòtʰèsìdè	k'á:tʃˀòtʰìsìn:ì

Appendix II

DIAGNOSTIC ITEMS

The following is a comparison of the Shara and Mele data from this study to the East Ometo diagnostic items listed by Bender (2003:150). These items are isoglosses that identify the East Ometo sub-group. Bender (2003:148) found them to be unique to the sub-group and took them to be diagnostic in the sense that the presence of one of these words would indicate that the speech variety in question is East Ometo. The diagnostic items in bold type are stronger isoglosses, and the italicized ones are weaker. The shading is meant to help the reader see which diagnostic items are found in Shara and Mele.

Item #	Gloss	Diagnostic item	Shara	Mele
316	all	**ud+**	uda	ud:a
203	ashes	**muk'+o**	muk'o	muk'o
32	back	*ɗat+e*	ɗat:e	ɗatʰe
18	beard	**ba:t'+a**	bu:tʃʰe	bu:tʃʰe
261	big	**arʔ+o**	gitʰa	ada
118	brother (elder)	**indo-na+a**	bairaitʃʰe	aŋgusuitʃʰe
227	canoe	*zaɓ+a*	wogolo	wologo
117	child	*ʃa+to*	ʃa:tʰo	ʃa:tʰo
200	cold/cool	**toj+a**	irts'a	k'oitʃ'e
167	crocodile	**ʃeɓ(ɓ)+o**	haj:laʃo	dʒəro
72	cut	*ʔi:ts-*	k'əntsʰikose:ne	i:ts'otʰeside
186	door	*si/um+*	iβo	ibo
211	dust	**ts'ur+a**	gudul:a	gudul:a
207	earth, ground	*gad+e*	gade	gəde
89	fall (v)	*ʔung-*	u:mbikose:ne	umbotʰeside
75	fat (n)	**hand+a**	handa	mo:ɗe
314	fence	**k'/t'etʃ+**	kʰetʃʰa	k'etʃʰa
252	fight (v)	*ʔof-*	olut:akosine	olutʰ:otʰeside
163	frog	*ʔo:k'er+*	gopartʃoɗe	o:k'ərə
91	grave	**bos+a**	bo:sa	bo:sa

Item #	Gloss	Diagnostic item	Shara	Mele
274	hard	*ts'i:go*	mino	mino
44	heart	**muts'ur+o**	wozɪnɑ	wozəne
148	hit	*ots'-*	gʷid:ikose:ne	gu:idotʰeside
143	honey	**ʃid+a**	e:sẹ	ʃidɑ
198	hot	**bin**:**+a**	hoʔo	bin:ɑ
130	hunt (v)	*sof+a*	ʃɑŋkɑtʰikose:ne	hɑs:otʰeside
173	hyena	**tolk+o**	godɑre	tolkʰo
312	jump (v)	*gol-*	ɗikʰ:ikose:ne	ɗol:otʰeside
34	knee	**boʔ+**	gulbəte	gulbətʰe
231	lake	**bagad+e**	ɑb:ɑ	ɑb:ɑ
12	lip	*moiɗ+o*	moiɗo	moiɗo
276	many	**lag+o**	dəro	gɑ:me
218	mountain	*botʃ+e*	botʃʰe	botʃʰe
6	mouth	*bad+e*	bi:de	bɑ:de
93	one	**biz+o**	ɪstɑ	bɪz:o
310	push (v)	**ʔuɗʔ-**	uɗikose:ne	uɗotʰeside
210	sand	**ʃe**:**tʃ'+e**	ɑntʃ'o	ɑtʃ'e
57	seed	*di:tf+a*	zeʁetsʰị	buduthụ
244	sharp (edge)	*ari/es*	k'ɑrɑ	ɑres:ị
250	shield	*ʃer+e*	gondɑl:e	gondɑle
260	short	**hat+a**	k'ənthị	hatʰɑ
42	skin	*k'ol+e*	gɑlbɑ	k'ole
232	sky	**ʔap+a**	səlo	səlo
204	stick (n)	**kal**:**+o**	kəl:o	kəl:o
190	stool	*di(ŋ)k+*	dutsʰe	ɑrdʒotʰɑ
257	straight	*mol+o*	mo:le	mo:le
236	sun	*k'os+*	ɑwɑ	ɑwɑ
264	thin	**he**:**g+o**	lɑ:le	lɑ:le
105	think	*moɗ-*	ezgikose:ne	moɗotʰeside
48	thorn	*ako/ul+a*	ɑkul:ɑ	ɑkʰ:ulɑ
249	throw	*ijtf'-*	ts'o:ŋgekose:ne	itʃ'ətʰeside
180	want	**worg-**	worgikose:ne	worgotʰeside
66	weed (n)	*h/wo:d+e*	ʃɑrɑfɑ	ho:de

Item #	Gloss	Diagnostic item	Shara	Mele
230	well (n)	**pult+o**	pulto	ɸultʰo
292	wet	**tim+a**	irtsʼɑ	woːkʼɑ
219	wind	**ʔagets+**	tʃʼɑrkʰo	tʃʼɑrkʰo
152	wing	**pange**	kʼefe	kʼeɸe
TOTAL	**57 (100%)**		**18 (32%)**	**30 (53%)**

Appendix III

SOCIOLINGUISTIC QUESTIONNAIRES

A. Identification of Respondent

1. Name
2. Sex
3. Age
4. Occupation
5. Religion
6. Education
7. Place of birth
8. Place of residence

B. Multilingualism

9. What is your first language?
10. Which other languages do you speak and understand? Do you speak one better than the others? Rank them.
11. Which of these can you read and write?
12. Apart from your own village, where have you lived at least for 1 year of your life?

12a. How long have you lived there?

12b. What languages did you speak there?

12c. Did the people there understand you well?

13. What was the first language your father learned as a child?

14. Which other languages does he speak and understand? Does he speak one better than the others? Rank them.
15. Can he read and write one of these languages?
16. What was the first language your mother learned?
17. Which other languages does she speak and understand? Does she speak one better than the others? Rank them.
18. Can she read and write any of these?
19. Which languages do your parents speak to each other?
20. Which languages do your brothers and sisters speak and understand?
21. Can they read and write any of these?
22. What was the first language your husband/wife learned?
23. Which other languages does he/she speak and understand? Does he/she speak one better than the other? Rank them.
24. Can he/she read and write one of these languages?
25. What is the first language of your children?
26. Which languages do your children speak and understand? Do they speak one better than the other? Rank them.
27. Can they read and write one of these languages?
28. What language do children in this village learn first?
29. Do many children learn another language before they start school? Which?

30. Do young people in your village speak their mother tongue well, the way it ought to be spoken?

C. Language Use

31. Which language do you speak most often…with your father?
32. With your mother?
33. With your brothers and sisters?
34. With your husband/wife?
35. With your children?
36. With your friends?
37. In your village?
38. At the local market?
39. With the elders of your village?
40. In the fields / at work?
41. At the big market?
42. At the clinic?
43. In church / mosque / traditional religious ceremonies?
44. With the administrators of the district?
45. When you are dreaming?
46. When you are praying at home?
47. When you are angry?
48. When you are counting money or things?

D. Attitudes to Languages

49. Is it good to allow a young (MT speaker) man or woman to marry a woman or man who is not a (MT) speaker?
50. Does this happen very often?
51. Which language is best for a teacher to use in school? Why?
52. Which languages should be taught in school?
53. If a young person speaks (L2 / trade language) at home, would an old person be unhappy about it?
54. What is the most useful language to know around here?
55. Is it OK for your child to marry a non-MT speaking person?

E. Attitudes to Dialects

56. Which villages speak MT exactly like you? (List them.)
57. Which villages speak your language differently- but you can still understand them?
58. Which speak it so differently that you don't understand?
59. Which is the best village for an outsider to live in to learn your language?
60. Are there MT people who speak it poorly? Where do they live?

F. Social Interaction Patterns

61. Which villages do most of your wives come from?
62. Which villages invite you for feasts and dances?

63. Which villages do you trade with?

64. Which language(s) is/are used for communication when you go to the villages mentioned above?

G. Language Vitality

65. Do you think that your people are in the process of changing? Do they adopt the customs of (an)other group(s)?

66. Do you know any MT people who do not speak MT anymore? Are there very many? Where do they live?

67. Do you think that young MT people speak MT less and less?

68. When the children of this village grow up and have children of their own, do you think those children will speak your language?

H. Development of the Language

69. Which language do you think would be best to choose for making books and newspapers? Why?

70. Do you think it would be good to have something published in your language? What would you like most?

70a. Would it be good to have other written MT materials (books, magazines, or newspapers)?

71. If there were schools to teach you how to read and write in your language, would you come to them?

72. Would you like your children to learn to read and write the mother tongue?

73. If there were books in your language, would you be willing to pay for them- say 2 Birr? [About the equivalent of a quarter (US$ 0.25) - insert an appropriate amount in local currency here]

74. Have you ever seen anything written in your language? What?

75. Have you ever tried to write in your language?

76. Is there a program on radio in your language? Do you listen to it?

77. Would you like to hear your language on the radio?

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* Note that the entries involving Ethiopian authors lack a comma between the main author's names (for example, "Azeb Amha. 1996."). This is common practice in the area of Ethiopian studies. Normally, the second name in Ethiopia is not a family name, but rather the personal name of the individual's father. For this reason, Ethiopian authors are typically listed with their personal name first, father's name second and no comma in between. These entries are alphabetized accordingly, based on the author's personal name. Entries involving non-Ethiopian authors are generally listed with the surname first, followed by a comma, and are alphabetized accordingly.

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