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Language Attitudes of University of Cape Town Linguistics Students towards Codeswitching

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Language Attitudes of University of Cape Town Linguistics Students towards Codeswitching

A thesis submitted in partial fulfillment of the requirement for the degree of Bachelor of Arts in Interdisciplinary Studies from The College of William & Mary

by

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Chapter 1: Introduction

There are eleven official languages in Post-Apartheid South Africa, both under the interim constitution enacted in 1993 and the subsequent Constitution of 1996 (Federal Research Division [FRD], 1997a). These include English, Afrikaans, and the nine "Bantu" languages\(^1\) - Xhosa, Zulu, Venda, Sotho, Southern Sotho, Tsonga, Ndebele, Swazi, and Venda. The Bantu languages are a branch of the Niger-Congo language family of Africa, and English and Afrikaans are both considered Indo-European languages (Mesthrie, 2002). While the high number of official languages does not even begin to describe the actual linguistic diversity of the country – consider local varieties of these languages, lingua francas, pidgins, and other varieties imported through migration (both forced and voluntary) – it establishes a setting in which linguistic diversity is both promoted and required by the government. The 1996 constitution requires each government in South Africa (provincial, municipal, etc.) to use at least two languages in its official business; each government is to balance the needs and preferences of its people, taking both usage and practicality into account when making these choices (Mesthrie, 2002).

Naturally, the history of the region and this current legislation create a multitude of attitudes towards these languages. Under the policies of the National Party, which took control of the government in 1948 and began the apartheid government, the Afrikaner leaders declared English and Afrikaans the official languages and essentially utilized the Bantu languages to oppress the black South Africans (FRD, 1997a). Every black person

\(^1\) This term is used to describe the languages of South Africa in the Niger-Congo language family (Mesthrie 2002). It was first introduced by Bleek in 1857 from the Nguni plural prefix aba- and term for "person," ntu (Herbert & Bailey, 2002). The terms "indigenous" or "native" are sometimes also used to define these languages exclusively from English and Afrikaans, but these are misnomers, considering that Afrikaans also developed in South Africa (Roberge 2002).
was assigned to a different residential area in the country according to her perceived ethnic identity, which was primarily determined by the language variety she spoke; the government imposed a tribal label on each, creating what they thought was the actual structure of black South African society (FRD, 1997b). This structure was imposed based on the belief that inter-ethnic mixing results in conflict and thus different ethnicities must be kept apart and develop separately as nations. The reality was that black South Africans were forced to either minimize or completely renounce their actual heritage in place of the one assigned to them by the government; not until the mid-1990s, when apartheid was dismantled, did they begin to reclaim their former heritages (FRD, 1997b). The resulting constitutions recognize the importance of this reclamation through the subsequent elevation of the Bantu languages.

The historically intense contact between the various language groups in South Africa creates an environment in which multilingualism is the norm. It is still difficult to account for the extent of the multilingualism (Mesthrie, 2002), but the history of colonialism and apartheid provide a general schematic of which languages are spoken where (FRD, 1996b). In the province of the Western Cape, the region where the study took place, the three languages with the most first-language speakers are Afrikaans, Xhosa, and English (Statistics South Africa, 2005). There is a great deal of evidence of both lexical borrowings and codeswitching amongst all three varieties (Branford & Claughton, 2002; McCormick, 2002) in the region in general. Even though English is the official language of instruction and administration at the University of Cape Town, and students need to prove a level of proficiency for admission the university is still committed to promoting awareness of multilingualism and multilingual proficiency.
Founded in 1829 as a high school for boys named South African College, UCT formally became a university in 1918. It admitted black students for the first time in the 1920s, and now over half of its enrollment of 25,500 students is black ("About UCT," 2012). UCT boasts its campus as "one of the most diverse…in South Africa" ("Our History," 2013, para. 12).

Consequently, the complex history of South Africa and the complex multilingual environment in the Western Cape and UCT itself set an excellent stage for the study of attitudes towards the linguistic phenomenon of codeswitching.

Chapter 2: Purpose

The purpose of the study was to determine the attitudes of South African linguistics students at the University of Cape Town towards codeswitching. The researcher elicited attitudes towards Afrikaans-English codeswitching, Xhosa-English codeswitching, and the phenomenon of codeswitching in general. The study also addressed, with a secondary emphasis:

(1) How these attitudes related to the participants' attitudes towards Xhosa, English, Afrikaans, and/or other varieties that they speak,

(2) How these attitudes related to what languages they speak and the linguistic landscape of the University of Cape Town, and

(3) How these attitudes related to additional factors, such as gender, age, level of linguistics education, and field of study.

The primary importance of this study lays in its focus on attitudes towards the phenomenon of codeswitching. Research on codeswitching is always in demand, since it
is a phenomenon with so many variables and extremely difficult to describe. Also, the field of language attitudes is especially wanting in the area of attitudes towards codeswitching; in most passages on it, one usually only receives a few sentences indicating that there is a conflict between the wide use of codeswitching and the generally negative attitudes towards its use in multilingual communities (Bokhorst-Heng & Caleon, 2009; Garrett, 2010). It thus has the potential to augment the existing literature on attitudes towards codeswitching. Finally, given that the research is on South Africa, where massive language policy and planning has occurred over the last two decades by the post-apartheid government, it could be useful to scholars researching or writing about education policy in South Africa.

Chapter 3: Literature Review

3.1 Codeswitching – Definitions and Social Motivations

Attempting to provide a definition of codeswitching here would be counterproductive at best, as there is incredible variation in the field, even in regards to what defines a "code" to or from which one "switches." Gardner-Chloros (2009) discussed the difficulty in terminology faced by those studying codeswitching (if not all linguistics), more specifically referencing the directionality of the definition. She explained that the term "codeswitching" was originally developed to define pre-existing data, in which two interlocutors alternate between two (or more) languages in the same conversation. Historically, linguists borrowed the term "code" from the field of computer science and replaced the term "variety" with it; "switching" refers to the alternation between different codes discussed in early models of the phenomenon, although advances
have shown that it is not as simple as the terminology implies (Gardner-Chloros, 2009). McCormick's (2002) definition reflected the difficulty of classification: "Codeswitching can be used as a superordinate term, broadly defined as the juxtaposition or alternation of material from two (or more) languages or dialects" (p. 216).

There are two main approaches to codeswitching: the markedness approach and the conversational analysis approach. The Markedness Model of codeswitching is a socio-pragmatic model of codeswitching, introduced by Myers-Scotton (1993). This model improves upon Gumperz's (1982) interactional/interpretive model of codeswitching, which defined two types of codeswitching (situational vs. metaphorical) and emphasized codeswitching being a contextualization cue. Under the markedness paradigm, speakers choose codes (in this study, a code is a language, but in others it can be any variety of language) in order to index specific rights-and-obligations sets (RO sets), which are "abstract construct[s], derived from situational factors, standing for the attitudes and expectations of participants towards one another" (Myers-Scotton, 1993, p. 85). All choices a speaker makes in a conversation are seen as either expected (unmarked) or unexpected (marked), with the expectations being projected onto conversations by the external social norms of and desired relationships between the respective interlocutors. Thus, the model claims that speakers switch in order to change to a different position in a conversation. Such indexing can accomplish anything from signaling social distance to constructing an identity, which is how Ramsay-Brijball (2004) utilized the model in her poststructuralist approach to studying Zulu L1 speakers; Ramsay-Brijball described how codeswitching is a strategy – a means of "attaining a sense of shared power and solidarity among bilingual speakers...[and] achieving social,
economic, and political goals" (p. 151). Furthermore, the choice to codeswitch can also be marked or unmarked (Gardner-Chloros, 2009, p. 69).

Another important aspect of Myers-Scotton's (1993) model is the proposed module of linguistic competence, the "markedness metric" (p. 79). As Myers-Scotton claimed, humans use this internal metric in order to measure how marked or unmarked a linguistic code choice is within a given social context; thus, the metric is universal (Myers-Scotton subscribed to Chomsky's [1980] proposed pragmatic competence), but the ability applies only with an understanding of the specific social context (p. 80). For example, customers in an Asian restaurant may hear Chinese spoken by their waitress, but they are in no position to evaluate the markedness of her switch from English to Chinese unless they are especially knowledgeable of that social setting of working in that specific restaurant.

Scholars such as Li Wei and Auer have stated that Myers-Scotton's model does not fit within a Conversational Analysis (CA) approach of considering the local, internal motivations for codeswitching (Gardner-Chloros, 2009). For example, Li Wei (1998) stated:

The notion of 'indexicality' in Myers-Scotton's 'markedness' theory of code-switching may be a convenient tool for the analyst to predict code choice and assign some social value to particular instances of code-switching. It is, however, hardly the way conversation participants themselves interpret each other's linguistic choices and negotiate meaning. (p. 159)

Li Wei proposed that the primary motivations for codeswitching stem from the specific conversation at hand, rather than a pre-determined RO set. He argued that interlocutors do not have time to consider factors external to the conversation when speaking, especially when the internal factors are much more pressing and eminent. Thus, Li Wei
saw the choice to switch codes not as an indexing of external values, but rather as a signal to an interlocutor of a change within the conversation. This signal has been built into the CA approach to codeswitching in terms of "sequential development of interaction" (Li Wei, 1998, p. 162), which is a main component of CA in general. Furthermore, the external factors emphasized by the markedness approach are not eliminated, but are instead limited by the context of the conversation and the interlocutors' position within that conversation.

3.2 Language Attitudes and Ideologies

In his text on language attitudes, Garrett (2010) provided many definitions of the term "attitude" itself, including Sarnoff's (1960) definition: "a disposition to act favorably or unfavorably to a class of objects" (p. 261). Garrett further emphasized that attitudes are a psychological construct, and as such, they cannot be observed directly, so in order to study them one must infer information from their manifestations. He described attitudes as being constructed from three parts: cognition (beliefs about the world and relationships between objects within it), affect (positive or negative feelings about those beliefs), and behavior (resulting predispositions). Attitude theories have varied in how they explain the connections between these parts and the extent of their interdependence.

In Garrett's (2010) overview of the main approaches to language attitudes studies, he gave examples of studies in the three broad approaches: direct approach, indirect approach, and societal treatment studies. Garrett started with the direct approach, defining it by the respondents being asked direct questions in hopes of "overt elicitation of attitudes" (p. 39). An example of this approach is Garrett, Bishop, and Coupland's (2009) study of attitudes towards the Welsh language in Wales and Welsh communities in North
America and Patagonia; the study also examined the Welsh identity of individuals in these communities. The survey given to participants had four categories, each of which contained short answer questions and/or seven-point scales: (1) What do you think about the Welsh language?, (2) What do you know about Wales?, (3) What do you feel about Wales?, and (4) What Welsh things do you do? The results concerning language showed that the Patagonians felt that the Welsh language had more vitality than the other groups, the group from Wales had the least hope for the future of the Welsh language, all three groups showed a personal commitment to the language, and ceremonial and family domains were rated the highest in priority of Welsh language use. Garrett et al.'s approach was direct, since questions directly asked about the Welsh language and participants' thoughts on its vitality, future use, and appropriate domains of usage.

Garrett (2010) also provided an overview of the indirect approach, noting that the main methodology within this approach is the matched guise technique, described below. The key factor is that the respondents do not know exactly what is being studied; they are not made aware that the researcher is interested in their attitudes towards language. Each of the studies outlined under Section 3.3, Language Attitudes towards Codeswitching, is an example of an indirect approach.

Finally, Garrett (2010) stressed the importance of societal treatment studies to understanding a community's language attitudes. A form of this is studying the linguistic landscape of a community, which Garrett defined as "the language presence in the physical environment: e.g. road signs, street names, posters, signs in shops" (p. 228). He referenced Landry and Bourhis's (1997) study and their "informational" and "symbolic" functions of the linguistic landscape, stating:
At the informational level, [the linguistic landscape] can serve to show boundaries of language groups...where territories are not linguistically homogenous, the landscape can give information on the sociolinguistic composition of the language groups in the territory, and also on the relative statuses of the languages and their speakers. One language might predominate, for example, while another may be excluded from some types of signs. (2010, p. 152)

Garrett also discussed the symbolic function, stating, "The prevalence of one language might signify the strength of that language group on the institutional and demographic dimensions, and also in terms of status" (p. 152).

Reh (2004) examined the linguistic landscape of Lira Town in Uganda by studying the use of English and Lwo, the local language, on signs. She found a difference in both prominence and function between the uses of the two languages; English dominated the signs in which it appeared with Lwo, and Lwo only appeared in everyday signs with little to no relevance to government, education, or the economy. Reh argued that these differences lead to the attitude that Lwo is not necessary to one's advancement in society. An additional important finding of Reh's study was that the attitudes in Lira Town were changing – political signs and advertisements were beginning to use the local language, demonstrating the effects of social forces on attitudes. Garrett acknowledged that Reh's and similar studies have given research "insights...into social attitudes towards language, along with some of the ideological struggles accompanying them" (p. 158).

Language attitudes differ from language ideologies in that attitudes are more unconscious, while ideologies are more constructed (Myers-Scotton, 2006, p. 110). Garrett (2010) briefly discussed language ideologies in his text, noting, "Ideology comprises a set of assumptions and values about how the world works, a set which is associated with a particular social or cultural group" (p. 34). Woolard (1992) presented
four main points that arise when discussing ideologies: they are "conceptual or ideational," they "are viewed as derived from, rooted in, reflective of, or responsive to the experience or interests of a particular social position," they have a "central notion…of distortion, falsity, mystification, or rationalization," and there is "an innate connection to social power and its legitimation" (p. 237-8). This last point especially makes language ideologies important when considering language variation, language change, politics of language (e.g. official and national languages), and language standardization, all of which involve language attitudes influenced by such ideologies.

3.3 Language Attitudes towards Codeswitching

Research on languages attitudes focused on codeswitching has been relatively lacking (Bokhorst-Heng & Caleon, 2009; Garrett, 2010). Gardner-Chloros (2009) provided some insights into such attitudes: "To sum up, [codeswitching] is: (1) thought to be an easy or lazy option; (2) generally disapproved of, even by those who practice it; (3) below the full consciousness of those who use it" (p. 15).

Gibbons (1983) and Bokhorst-Heng & Caleon (2009) provided two examples of such studies in this area. Both studied attitudes towards codeswitching using the matched guise technique, described below. In Gibbons' study of University of Hong Kong students' attitudes towards Cantonese, English, and codeswitching between the two varieties (what he refers to as MIX), he took a recording of a conversation using MIX and produced Cantonese and English versions of it. In his results, Gibbons reported that the participants viewed the MIX speakers in the recordings with antipathy and saw them as arrogant (p. 143); however, MIX was also viewed as an "intermediate" between Cantonese and English in regards to a Westernization factor. This portrayed the use of
MIX as what Gibbons called a "strategy of neutrality; speakers do not wish to appear totally westernized or uncompromisingly Chinese in orientation" (p. 145). As far as comparing the results for MIX with those for Cantonese and English, Gibbons noted that MIX and Chinese are only rated similarly in the negative attributes associated with Chinese speakers, while the factors in which MIX and English were rated similarly are overall positive attributes.

A similar study was Bokhorst-Heng and Caleon's (2009) study of language attitudes of bilingual, primary school (all Primary Five-level) students in Singapore towards their Mother Tongue (Mandarin, Malay, or Tamil), English, and codeswitching between the two varieties. In regards to both solidarity and status factors, the ratings for the codeswitching speakers were comparable to those for the speakers of the respondents' mother tongues: higher in solidarity and status than for English. Bokhorst-Heng and Caleon noted that the results for solidarity are "congruent with the ideological positioning of the Mother Tongue vis-à-vis English as the 'cultural tie'" (p. 244) and that the results for status had a "possible explanation…that English is not the sole dominant language of any ethnic group" (p. 244). They further noted that the results indicate that the respondents "perceived [codeswitching] as a medium that is on par with [mother tongue]…[which resonated] with Trudgill's (1974) notion of 'covert prestige'" (p. 244). Trudgill (2003) defined covert prestige as "the favourable connotations that nonstandard or apparently low-status or 'incorrect' forms have for many speakers" (p. 30). He reported this attitude in his study on Norwich working-class speech, showing that the variety was used by men in the community despite a lack of overt reporting of its usage in favor of middle-class speech (1972).
3.4 Language Ideologies about Codeswitching

In addition to the ideologies presented above concerning codeswitching, such as Gibbons' (1983) result that codeswitching is a neutral strategy and Bokhorst-Heng & Caleon's (2009) idea that codeswitching is similar to speaking the mother tongue, Garrett (2010) discussed a few towards the use of codeswitching as a code in itself. Some scholars discussed codeswitching "in terms of 'laziness' and 'impurity,' qualities extended to speakers as much as referring to language" (Garrett, 2010, p. 12); such judgments have been formed in comparison to monolingual speech. On a more positive side, codeswitching could also be viewed as accommodating (Garrett, 2010), since switching bridges two separate speech communities by including speakers from either one.

Woolard (1998) presented some ideologies on codeswitching when discussing ideologies in the context of language contact:

The belief that distinctly identifiable languages can and should be isolated, named, and counted enters not only into minority and majority nationalisms but into various strategies of social domination…Language mixing, codeswitching, and creolization thus make speech varieties particularly vulnerable to folk and prescriptivist evaluation as grammarless and/or decadent and therefore as less than fully formed" (p. 17).

Each separate language, in turn, has tended to be associated with a nationalist language ideology, or a belief that "each collectivity (particularly a nation) expresses its own character (Volksgeist) in and through its language…we can call this ideology essentialist since it assumes a ‘natural’ (or perhaps God-given, weltgeist-derived) link between a nation and its language" (Auer, 2005, p. 406). Such essentialist language ideologies have led to findings such as those of Kroskrity (1998), who found that Arizona Tewa speakers denied that they codeswitched, even though they did switch between Hopi and Tewa in...
order to index multiple identities. Kroskrity posited that this was due to "a popular confusion between culturally devalued 'codemixing' and codeswitching" (p. 113). Stroud's (1998) findings in the village of Gapun in Papua New Guinea contrasted Kroskrity's, though – Stroud showed that "code-switches [could] be read as embodying the potential for the participants in the kros to entertain and construct multiple interpretations of what is said. Such a use of language [kept] with villagers' local language ideology of speech" (p. 335). Thus, some cultures have been shown to appreciate the dynamism available through codeswitching.

3.5 Language Attitudes in South Africa

Adegbija (1994) stated that, despite the "densely multilingual nature" of sub-Saharan Africa and the vast number of national and transnational issues related to language, there were very few studies on language attitudes at the time of his study. Adegbija outlined the overall results of these few studies as: (1) the past of colonialism was a dominant factor, (2) there was a generally positive attitude towards European languages due to associated status, (3) the solidarity that comes with mother tongues and national languages resulted in a positive attitude, (4) both indigenous and European languages sometimes received an ambivalent attitude, (5) ethnolinguistic minorities were more attached to their own languages, and (6) acceptance of European languages was growing due to their unifying potential and the development of native varieties. De Klerk and Bosch (1995) presented a matched guise study in the Eastern Cape of South Africa that agrees with these results. They showed that the speaker with an Afrikaans accent received the most negative ratings compared to speakers with English and Xhosa accents,
and the same applied to speakers of Afrikaans, although they were only rated slightly more negatively than speakers of Xhosa were.

Ramsay-Brijball’s (2004) study of attitudes towards codeswitching in South Africa looked at identity constructions through Zulu-English codeswitching by L1 Zulu students on the Westville campus of the University of KwaZulu-Natal. Ramsay-Brijball (2002) stated that while codeswitching is used extensively by L1 Zulu speakers, many speakers denied using codeswitching and "believe [codeswitching] is destroying the Zulu language" (p. 220). She used a questionnaire survey and conducts interviews with Zulu L1, "final level" students from the Westville campus and uses audio recordings of naturally occurring conversational codeswitching (2004). The participants were split into an Experimental Group (EG) made up of students studying Zulu (language, literature, and culture) and a Control Group (CG) of students in other programs. Thus, the EG students were taught in Zulu, while the others were taught in English. Ramsay-Brijball used this delineation in order to study the effect of four factors: program of study, language of instruction, language attitudes, and diglossic relationship of Zulu and English. In her discussion on the relationship between her findings and language attitudes, Ramsay-Brijball (2004) noted a generally positive, intrinsic attitude towards Zulu, marked by the preferred language choices in different settings and answers to interview questions. When questioning how important and necessary the two varieties are in their lives, respondents ranked these factors higher in English than in Zulu. However, 87.6% said that English was both important and necessary, while 72% said the same for Zulu, showing a high score for both. Ramsay-Brijball (2004) attributed these high scores to the assumed prestige of English and the covert prestige of Zulu. In her earlier study, Ramsay-Brijball
(2002) reported a similar covert prestige for Zulu-English codeswitching among "urbanized" Zulu L1 speakers (p. 220). In relation to the diglossic relation between the two varieties, Ramsay-Brijball (2004) concluded that the use of codeswitching allowed speakers "to access the social, academic, and economic benefits of using English while simultaneously maximizing their access to the cultural benefits of using Zulu" (p. 159). Using just one would not express the other part of the identity that the students on the Westville campus desired to attain.

3.6 Matched Guise Technique

Lambert and other colleagues in the field of social psychology developed the "subjective reaction test," in which the investigator plays recordings of different speakers presenting the same content, while respondents fill-out the same questionnaire for each speaker between recordings (Hudson 1980, p. 203). In order to "reduce the effects of differences in voice quality between speakers," Lambert then developed the matched guise technique, a variety of the subjective reaction test that he used in his research on French-English bilinguals in Montreal (Lambert, Hodgson, Gardner, & Fillenbaum, 1960).

Using the matched guise technique, the researcher traditionally records a single speaker reading aloud the same text multiple times. With each recording, the speaker changes a single quality of her voice, in most studies either her accent or language variety; all other aspects of her speech remain as constant as possible. Each different voice is a different "guise" – respondents, though, ideally believe that they are listening to a different speaker in each recording, and they fill out scales after each speaker under this theoretical deception. As Holmes (2008) described, "they are asked to evaluate the
personality of the speakers rather than the language variety itself [but]...the personality of the speakers is constant for the pairs of voices, [so] this cannot in principle be an influence on the responses" (p. 419). Thus, the respondents are theoretically answering the questions utilizing their own, private attitudes towards the linguistic variable being studied and not any actual change in the speaker.

One common variation of the matched guise technique is what Garrett (2010) called the "verbal guise technique" (pp. 41–42). The process and theory is the same as for the matched guise technique, except for that the recorded speakers do change – this enables the investigator to obtain speakers who are native speakers of the varieties one is testing. Using this variation of the methodology potentially sacrifices some validity of the data, since more than just the language is changing with each successive track; however, it also eliminates potential issues, such as the accent-authenticity and mimicking-authenticity questions that Garrett raised (p. 58). Furthermore, if one speaker is producing several different language varieties in a matched guise study, there is a reasonable concern that he is exaggerating the differences in these varieties while he is supposed to be producing natural speech; using different speakers reduces such a concern (Hudson, 1980, p. 205).

There are many different attitudinal scales an investigator can use to collect this quantitative data. Some researchers (e.g. Lambert et al., 1960) have used traditional Likert scales, in which the respondents are given as attitude statement concerning the speaker and asked to rate their agreement on a simple five-point scale (e.g. “rate from 1 to 5...”). Semantic differential scales, developed by Osgood (1957), are also popularly used to measure responses to the matched guise technique; the general requirements for
such a scale are a number of equidistant points on each scale and an adjective and its opposite marking the two ends of the scale (Garrett 2010, p. 55). Labels for semantic differential scales have come from pilot work and previous research, and many studies – according to Garrett (2010, p. 55) – have used labels from Zahn and Hopper’s (1985) large factor analysis on semantic differential labels.

Chapter 4: Theoretical Framework

This study used McCormick's (2002) definition of codeswitching: "the juxtaposition or alternation of material from two (or more) languages or dialects" (p. 216). The participants' self-identified uses of and attitudes towards codeswitching were evaluated within the general framework of Myers-Scotton's (1993) markedness model, introduced above. This study assumed the markedness metric when considering participants' attitudes towards codeswitching; the students validly used their markedness metrics when forming their attitudes, as they were assumed to be well acclimated to the UCT setting. This study further engaged the markedness model to describe the choice of codeswitching in itself.

A core definition of attitudes used for this study comes from Sarnoff (1960): "a disposition to act favorably or unfavorably to a class of objects" (p. 261). In order to elicit respondents' attitudes towards language through evaluative scales, this study required such an evaluative definition of attitudes. As was discussed above, the study required not only a definition, but also a construction of attitudes; Garrett's (2010) tripartite construction, as presented above, fit well with the purposes of this study and others on language attitudes.
Some supplemental questions in the study elicited intrinsic and extrinsic values towards language varieties. As defined by Ramsay-Brijball (2004), intrinsic attitudes relate to the "perceived sentimental value" (p. 156) of a variety, while extrinsic attitudes relate to the usefulness of that variety.

**Chapter 5: Method**

Data was collected using two different methods: (1) a matched guise study with supplemental questionnaire, (2) qualitative interviews. A secondary emphasis was put on photographing the linguistic landscape of the UCT campus. Undergraduate participants were recruited through visits to Linguistics classes at the beginning of the spring 2012 semester at the University of Cape Town; fourth-year honors students and faculty participants were recruited through personal conversations outside of a classroom setting. In the visits to undergraduate level 2 and 3 classes, the researcher was introduced at the end of class by the instructor as an "American linguistics student here doing research who would like to talk to you," and then the researcher described the study to the participants, naturally leaving out the purpose. Once the description was complete, students were invited to sign-up for sessions with the researcher to conduct the study. This process was the same for level 1 students, except for that the introduction and description occurred in the middle of class, as those students had the option to complete the study then and there. There were 84 undergraduate students, 4 fourth-year honors students, and members of the faculty in the Linguistics Department at UCT who participated in the study in any fashion (counting even attempts to complete the matched guise study). More about the participants can be found in Section 5.3.
5.1 Matched Guise Technique

5.1.1 Plan of matched guise technique.

While studies of language attitudes towards the phenomenon of codeswitching are few in number (Garrett, 2010, p. 78), many have incorporated the matched guise technique (e.g., Gibbons, 1983; Ramsay-Brijball, 2004; Bokhorst-Heng & Caleon, 2009). The present study employed the verbal guise variation discussed above, using audio clips taken from four feature films produced in South Africa with South African actors: "Cape of Good Hope" (2004), “Gangster’s Paradise: Jerusalema” (2008), “Max and Mona” (2004), and "White Wedding" (2009). In these clips, the characters spoke in one of the varieties being studied; i.e., they codeswitched between two of the three major languages of the Western Cape – Afrikaans, English, and Xhosa – or spoke only one of those varieties. The clips were each about 20 seconds in duration. Table 1 provides a summary of the clips used.
Table 1

*Summary of Voice Clips used for Matched Guise Study*

<table>
<thead>
<tr>
<th>Film (Year)</th>
<th>Voice</th>
<th>Length (seconds)</th>
<th>Character</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>01</td>
<td>23</td>
<td>Lindiwe</td>
<td>Xhosa-English Codeswitch</td>
</tr>
<tr>
<td></td>
<td>02</td>
<td>19</td>
<td>Mama</td>
<td>English</td>
</tr>
<tr>
<td>&quot;Cape of Good Hope&quot; (2004)</td>
<td>03 / 04&lt;sup&gt;a&lt;/sup&gt;</td>
<td>24</td>
<td>Stephen / Lindiwe</td>
<td>Afrikaans / Afrikaans</td>
</tr>
<tr>
<td></td>
<td>05</td>
<td>16</td>
<td>Kate</td>
<td>English</td>
</tr>
<tr>
<td></td>
<td>06</td>
<td>18</td>
<td>Mama</td>
<td>Xhosa</td>
</tr>
<tr>
<td></td>
<td>07</td>
<td>17</td>
<td>Mama</td>
<td>Xhosa-English Codeswitch</td>
</tr>
<tr>
<td></td>
<td>08</td>
<td>16</td>
<td>Lindiwe</td>
<td>English</td>
</tr>
<tr>
<td></td>
<td>09</td>
<td>22</td>
<td>Morne</td>
<td>English</td>
</tr>
<tr>
<td>&quot;Gangster’s Paradise: Jerusalema&quot; (2008)</td>
<td>10</td>
<td>22</td>
<td>Lucky</td>
<td>English</td>
</tr>
<tr>
<td>&quot;Max and Mona&quot; (2004)</td>
<td>11</td>
<td>14</td>
<td>Norman</td>
<td>Afrikaans-English Codeswitch</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>17</td>
<td>Norman</td>
<td>Afrikaans-English Codeswitch</td>
</tr>
<tr>
<td>&quot;White Wedding&quot; (2009)</td>
<td>13</td>
<td>20</td>
<td>Ayanda</td>
<td>Xhosa</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>17</td>
<td>Valerie</td>
<td>Xhosa</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>21</td>
<td>Ayanda</td>
<td>Xhosa-English Codeswitch</td>
</tr>
</tbody>
</table>

<sup>a</sup>Voices 03 and 04 were the same sound clip, but participants heard them twice, rating the first speaker on Voice 03 and the second on Voice 04.

*Note.* Voice = arbitrarily assigned number for each clip heard in study; Character = whose voice was rated.

These specific clips and movies were chosen for multiple reasons; first and foremost was the availability of clear, non-inflammatory language use in these feature films from South Africa. A list of occurrences of Afrikaans, English, and Xhosa was compiled for each of these four movies as well as "Disgrace" (2008), "Son of Man" (2006), and "Tsotsi" (2005). Once this was done, any clips that had a mixed language variety, which is different from codeswitching in that the alternation is almost unidentifiable and shows no pattern, were eliminated. For example, Tsotsitaal – an
Afrikaans language variety described by McCormick (2006) as a "street patois [that]...cuts across language groups, denoting an urban, street-wise and nonconservative identity" (p. 102) – is used frequently in "Tsotsi." Next, clips using inflammatory language or language regarding potentially sensitive topics, such as religion or politics, were also eliminated, which narrowed down the selection to being from the four movies above. Finally, the clips for the study were chosen based on the need for the specific varieties being studied and at least two samples each of those varieties. Furthermore, if a character spoke multiple languages within a film, the researcher was sure to include each of those clips for later comparison. In order to cancel out the potential effects of fatigue and ordering – participants can lose focus as a study goes on, and the attitudes towards one clip can affect those towards the subsequent one (Garrett, 2010, p. 64) – the clips were played in a random order for each group of participants, and these orders were chosen using a random sorting function in the programming language Python. There were six different orders total as outlined in Table 2. Participants were assigned a group based on what session of the study they attended, and some groups were assigned to more than one session in an attempt to even-out numbers.
Table 2

Order of Voices for each Participant Group

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
<th>7th</th>
<th>8th</th>
<th>9th</th>
<th>10th</th>
<th>11th</th>
<th>12th</th>
<th>13th</th>
<th>14th</th>
<th>15th</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>6</td>
<td>8</td>
<td>5</td>
<td>10</td>
<td>9</td>
<td>11</td>
<td>4</td>
<td>1</td>
<td>15</td>
<td>12</td>
<td>7</td>
<td>6</td>
<td>3</td>
<td>13</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>B</td>
<td>6</td>
<td>15</td>
<td>10</td>
<td>14</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>9</td>
<td>6</td>
<td>13</td>
<td>11</td>
<td>8</td>
<td>7</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>C</td>
<td>10</td>
<td>10</td>
<td>13</td>
<td>15</td>
<td>7</td>
<td>11</td>
<td>9</td>
<td>12</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>6</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>D</td>
<td>17</td>
<td>12</td>
<td>8</td>
<td>15</td>
<td>13</td>
<td>9</td>
<td>14</td>
<td>3</td>
<td>1</td>
<td>7</td>
<td>10</td>
<td>11</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>E</td>
<td>0</td>
<td>12</td>
<td>4</td>
<td>13</td>
<td>1</td>
<td>11</td>
<td>7</td>
<td>8</td>
<td>14</td>
<td>15</td>
<td>5</td>
<td>2</td>
<td>6</td>
<td>9</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
<td>14</td>
<td>12</td>
<td>6</td>
<td>2</td>
<td>9</td>
<td>4</td>
<td>8</td>
<td>15</td>
<td>11</td>
<td>1</td>
<td>10</td>
<td>7</td>
<td>13</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>

*Note.* The bolded numbers indicate those voices that occurred second in their respective sound clips.
n = the number of participants in this group completing the matched guise questionnaire, listening to every clip and filling-out every scale.
5.1.2 Execution of matched guise technique.

The study was conducted on-campus at the University of Cape Town. Students taking level 2 or level 3 of linguistics were recruited in their classrooms and then invited to come to a specific room in the Arts Block (the building in which the Linguistics Department is housed) at a pre-scheduled time to complete the matched guise study. These participants comprised Groups A, B, and C as described in Table 2, and there were five sessions completed of the study – one group A, two group B's, and two group C's.

To obtain level 1 participants, the researcher organized with their tutors to bring the materials for the study to the review sessions of three specific level 1 linguistics classes in academic buildings. During those sessions, eligible students were given the option of participating in the study. Each class had a different group assignment: D, E, or F. Groups E and F did not have enough time to complete the study, which explains those entries for $n$ in Table 2.

When level 2 or 3 participants entered the room, they were asked to sit down anywhere at the large table in the room. Once all were seated, the door was closed, and the researcher explained the informed consent form, one of which had been placed in front of every chair (see Appendix A for a sample consent form). Once all participants had signed the form and the researcher had collected the forms, the materials were handed out; these materials comprised the "Matched Guise Questionnaire" and the "Supplement Questionnaire," samples of which can be found in Appendix A and Appendix B, respectively. Next, the process of the matched guise study was explained to the participants. The only difference between this entire process and the process for level 1 students is that students were already in the room and seated before the researcher
arrived and handed-out the consent form to begin the above agenda. Finally, the researcher answered any questions before beginning to play the clips.

After each clip was played, the participants filled out 18 semantic differential scales evaluating the voice. The voice numbers in bold indicate recordings in which the rated voice was the second speaker; as codeswitching is primarily a conversational phenomenon, the clips used were mostly conversations with two speakers, and otherwise had only one (only voices 07, 10, and 12). Labels for these scales were acquired from other studies on language attitudes and scale labeling, as well as other matched guise studies. These sources are outlined in Table 3.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Left-end Label</th>
<th>Right-end Label</th>
<th>Source; correlated factors or component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>Rich</td>
<td>Zahn and Hopper (1985); weighted highly on &quot;Superiority&quot; component</td>
<td></td>
</tr>
<tr>
<td>Unclear</td>
<td>Clear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unintelligent</td>
<td>Intelligent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disadvantaged</td>
<td>Advantaged</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stumbling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shy</td>
<td>Talkative</td>
<td>Zahn and Hopper (1985); weighted highly on &quot;Dynamism&quot; component</td>
<td></td>
</tr>
<tr>
<td>Passive</td>
<td>Active</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unaggressive</td>
<td>Aggressive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weak</td>
<td>Strong</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lazy</td>
<td>Energetic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unfriendly</td>
<td>Friendly</td>
<td>Zahn and Hopper (1985); weighted highly on &quot;Social Attractiveness&quot; component</td>
<td></td>
</tr>
<tr>
<td>Unpleasant</td>
<td>Pleasant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inconsiderate</td>
<td>Considerate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unkind</td>
<td>Kind</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cold</td>
<td>Warm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unlikeable</td>
<td>Likeable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humble</td>
<td>Proud</td>
<td>Gibbons (1983) and Githiora (2008)(^b); positively correlated with &quot;humility&quot; in Gibbons and &quot;trustworthy,&quot; &quot;confident,&quot; and &quot;gentle&quot; in Githiora</td>
<td></td>
</tr>
<tr>
<td>Untalented</td>
<td>Talented</td>
<td>none</td>
<td></td>
</tr>
</tbody>
</table>
Note. Components listed from Zahn and Hopper (1985) are the results of a "Principal Axes Factor Analysis (Oblique Rotation)" (p. 118). 

"Stumbling" was used by the researcher instead of "Disfluent" (Zahn and Hopper, 1985, p. 118), as he had concern of the reliability of the latter term. Untalented-Talented was a scale invented by the researcher in hopes of adding a "Superiority" scale potentially more related to codeswitching.

Participants were instructed to choose one rating on a scale from 1 to 6 for each scale. If they asked questions about the scale labels during the experiment, such as "What do you mean by 'talented'?" they were instructed to provide a rating based on their own interpretation of the label.

After they had filled out the semantic differential scales for each recording, the participants were asked to fill out a "Supplement Questionnaire" regarding their personal linguistic experience. On this, they evaluated their own attitudes towards language on similar scales; these scales directly assessed their attitudes towards language using an approach similar to Ramsay-Brijball's (2004) study of Zulu L1 undergraduate students by asking about the "importance to identity" and "necessity to success in life" of each variety in order to elicit respondents' intrinsic and extrinsic attitudes, respectively, towards that variety. The researcher took Ramsay-Brijball’s study a step further and asked about the importance and necessity of codeswitching to the respondents as well. At the end of the questionnaire, participants were also asked to provide some personal information, such as their gender, age, and field of study, so that this information could be later correlated with the responses.

5.2 Interviews

5.2.1 Undergraduate student interviews.

After the matched guise study, students were invited to participate in follow-up interviews regarding their linguistic experience. These interviews were held within the week following the matched guise study, whenever the students were free. The goal of
these interviews was to elicit the participants' attitudes more directly, complementing the "indirect" nature of the matched guise technique, while still attempting to lead the participant towards specific topics through natural conversation. Ten students took this opportunity; six of them were alone, and four were in pairs. In the interview, the investigator first asked them questions about their responses to the Supplemental Questionnaire, choosing a language they reported that they spoke and asking them about the people with whom they spoke it. These questions were meant to initiate a conversation about language; the researcher would subsequently use the participants' answers – literally using their own words and phrases – to steer the conversation "naturally" towards language attitudes and codeswitching. If a question did not yield any useful language for a follow-up, the investigator would ask about a different language, and ideally, the next answer would yield such language. This process was loosely based on Oppenheim's (1992) "non-directive approach" to the depth interview, with the "hidden agenda" topics being language attitudes and codeswitching. If the interview did not yield any attitudes at all, the investigator would switch to asking the participants directly about specific ratings their intrinsic and extrinsic scales (i.e., "I see that when rating the statement 'Speaking Afrikaans is important to my identity,' you rated it low. Is there a reason for that, or?"). Such direct questions still fell under the goal of complementing the indirect matched guise technique. Students were also asked what languages they heard on campus, what languages they see and hear in the media, and what languages they see used in signs and advertisements on campus. At the conclusion of the interview, students were asked how they felt about the matched guise study, how many speakers they believed they were rating overall, and if there were anything that they wished to add for
the record. A general schedule for the undergraduate student interviews can be found in Appendix D.

5.2.2 Honors student and faculty interviews.

In addition to the interviews conducted with undergraduate linguistics students, there were seven other interviews conducted – four with fourth-year "honors" students (i.e., they had already earned their bachelor's degree and were using a fourth year to earn a "Bachelor of Arts Honours") and three with faculty in the Linguistics department. These participants did not complete any part of the questionnaires mentioned above; thus, their only participation in the study was through these interviews. Two of the honors students interviewed together and the other six participants interviewed alone.

The interviews with honors students followed the same exact sequence of the interviews with undergraduate students, with the exception that the investigator first elicited what languages they spoke before going ahead with the schedule, since they had not filled out the supplement questionnaire that the undergraduates had filled out (see Appendix B). Furthermore, none of the questions pertaining to the matched guise were asked, since these participants had not taken part in that experiment. Thus, these interviews were structured using the same non-directive approach (Oppenheim, 1992), leading the participants in the direction of attitudes towards codeswitching. The investigator also asked them the same questions about what languages they see (e.g., on signs) and hear around them and gave them the same opportunity to "add anything for the record" at the conclusion of our interview. Some of these interviews were more direct than indicated in the student interview schedule, since the honors students were more
aware of the study and its purpose. The interview schedule for honors students was the same as for the undergraduates (see Appendix D).

These interviews with faculty were structured slightly differently, since upon his arrival in Cape Town, the researcher had been unsure of to which faculty he would have access, if any. Due to having access to only linguistics faculty, the researcher chose to use a more direct approach; it felt appropriate to be more direct with participants who were aware of the study and its goals (the researcher needed their permission to obtain student participants) and were accomplished researchers in their own right. In these interviews, the researcher made sure to ask about what languages they spoke, what they taught, what languages they heard spoken on campus, how they personally defined codeswitching, and what their thoughts on codeswitching were. A general interview schedule for faculty can be found in Appendix E.

5.3 Photographs of Signage and Language in Visible Use

The matched guise and interview approaches were combined with general observations of the linguistic landscape of the campus and other instances of language in use. Each day that the researcher went to campus and returned to Observatory, he would take pictures of any signs or advertisements he saw that employed language as he walked through campus. This amounted to nine trips from Observatory to UCT and eight trips from UCT to Observatory. The researcher personally defined "campus" as the area bordered by Ring Road in the West, Main Road in the East, Chapel Road in the North, and Stanley Road in the South. Figure 1 displays a map of the campus with these streets marked.
On each trip to or from campus, the researcher made a conscious effort to change my path slightly to cover as much of campus as possible. The researcher also took pictures of language in use on buses, trains, and vans that students use for daily transportation. Furthermore, the researcher collected many advertisements and student publications that used language. As Garrett (2010) noted, such observations are important in language attitudes studies for a deeper understanding of the data; the linguistic landscape of a population is both a product of and an influence on their language attitudes.

5.4 Participants

Eighty-four undergraduate students participated in the matched guise study in any way, although only 42 of those participants gave an answer to every scale. However, 81 completely answered the supplemental questionnaire and personal information following the matched guise study. The only requirement for student participation was that participants be above the age of 18 and affiliated with the University of Cape Town as a student. Two participants who had never taken any Linguistics course were also included.
to test for any differences between not taking any linguistics courses at all. Consequently, there were 79 total undergraduate Linguistics students who participated by completely filling out the Supplemental Questionnaire out of 220, or 36% of, undergraduate students enrolled in Linguistics courses at UCT in July 2012. Table 4 summarizes the personal data provided by these participants.
Table 4

Participant Data – Completed Supplements

<table>
<thead>
<tr>
<th>Level</th>
<th>n</th>
<th>%</th>
<th>% Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>none</td>
<td>3</td>
<td>4</td>
<td>n/a</td>
</tr>
<tr>
<td>1</td>
<td>54</td>
<td>67</td>
<td>33</td>
</tr>
<tr>
<td>2</td>
<td>18</td>
<td>22</td>
<td>43</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>7</td>
<td>40</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Languages Spoken</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>81</td>
<td>100</td>
</tr>
<tr>
<td>Afrikaans</td>
<td>54</td>
<td>67</td>
</tr>
<tr>
<td>Bantu Language</td>
<td>18</td>
<td>22</td>
</tr>
<tr>
<td>Xhosa</td>
<td>8</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>63</td>
<td>78</td>
</tr>
<tr>
<td>Male</td>
<td>18</td>
<td>22</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Languages Spoken</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monolingual: English</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Bilingual: English and Afrikaans</td>
<td>30</td>
<td>37</td>
</tr>
<tr>
<td>Bilingual: English and Bantu Language</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Multilingual: ENG, AFR, and 1 or more</td>
<td>17</td>
<td>21</td>
</tr>
<tr>
<td>Multilingual: ENG, Bantu, and 1 or more</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Multilingual: ENG, AFR, Bantu, and 1 or more</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Multilingual: Other</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>17</td>
<td>21</td>
</tr>
<tr>
<td>19</td>
<td>27</td>
<td>33</td>
</tr>
<tr>
<td>20</td>
<td>15</td>
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<tr>
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<td>17</td>
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<tr>
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<tr>
<td>23</td>
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<td>1</td>
<td>1</td>
</tr>
<tr>
<td>32</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Family Languages(^a)</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>72</td>
<td>89</td>
</tr>
<tr>
<td>Afrikaans</td>
<td>25</td>
<td>31</td>
</tr>
<tr>
<td>Bantu Language</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td>Xhosa</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Note. This is data of participants who completed the Supplemental Questionnaire. All data is self-reported. Level = level of study in Linguistics Department. % Level = percentage of number of students in Level. \(^a\)Family Languages are those languages that participants report speaking with their families.

It is worth noting again that "Bantu Language" is defined as any language within the Narrow Bantu sub-branch of the Niger-Congo language family, as defined in Ethnologue (2009).

"Family Languages" was reported here since there was no question on the supplement eliciting participants' "first" language, but rather a question asking, "What language(s) do you speak with your family?" The researcher chose this question over
eliciting an L1, foreseeing potential issues with participants who were multilingual from before primary school. Furthermore, family languages still inform about participants' potential intrinsic values (Ramsay-Brijball, 2004). There were also questions asking what languages the participants speak overall, with friends, and on campus. Some languages that participants reported themselves as "speaking" were eliminated from select categories (categories being family, friends, campus, and overall) due to the qualifications the participants reported themselves. First, any language reported as being spoken with family was kept in every category in which it was reported. Next, if a participant reported that they were studying a language, it was removed from their data (except for family, although very few reported speaking a studied language with family), as this study was not interested in language spoken in the classroom, even if it were with friends. Finally, many participants reported that they spoke a certain language, but qualified their proficiency as "informal," "broken," "low," or "little." The researcher chose not to consider this when compiling the data, since a reported low proficiency could indicate any situation from a lack of usage of Xhosa in formal settings to only knowing a middle-school level of Afrikaans. In other words, the researcher did not want to discount the possibility of truncated repertoires (Blommaert, 2010, p. 103-106), and instead chose to give credit wherever it could be due. More about languages spoken with friends and on campus will be discussed in the analysis section.

As was mentioned earlier, only 42 participants fully completed the matched guise study, listening to all fifteen voices and rating each of them on all eighteen scales. For consideration of the matched guise data, any participant who did not have all of these 15
x 18 = 270 data points was eliminated. Thus, it is important to consider these 42 participants separately in Table 5.

Table 5

*Participant Data – Completed Matched Guise Scales*

<table>
<thead>
<tr>
<th>Level</th>
<th>n</th>
<th>%</th>
<th>Languages Spoken</th>
<th>Languages Spoken</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>none</td>
<td>2</td>
<td>5</td>
<td>n/a</td>
<td>English</td>
<td>81</td>
<td>100</td>
</tr>
<tr>
<td>1</td>
<td>17</td>
<td>40</td>
<td>10</td>
<td>Afrikaans</td>
<td>54</td>
<td>67</td>
</tr>
<tr>
<td>2</td>
<td>18</td>
<td>43</td>
<td>43</td>
<td>Bantu Language</td>
<td>18</td>
<td>22</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>12</td>
<td>33</td>
<td>Xhosa</td>
<td>8</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>31</td>
<td>74</td>
</tr>
<tr>
<td>Male</td>
<td>11</td>
<td>26</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>19</td>
<td>13</td>
<td>31</td>
</tr>
<tr>
<td>20</td>
<td>9</td>
<td>21</td>
</tr>
<tr>
<td>21</td>
<td>9</td>
<td>21</td>
</tr>
<tr>
<td>22</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>23</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>29</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>32</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Note. These are participants who completed the Matched Guise Questionnaire. All data is self-reported.

Finally, the relevant data for the ten undergraduate students who chose to participate in the follow-up interviews is considered in Table 6.
Table 6

Participant Data – Undergraduate Interviews

<table>
<thead>
<tr>
<th>Level</th>
<th>n</th>
<th>%</th>
<th>% Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>none</td>
<td>0</td>
<td>0</td>
<td>n/a</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>30</td>
<td>20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Languages Spoken</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>Afrikaans</td>
<td>7</td>
<td>70</td>
</tr>
<tr>
<td>Bantu Language</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Xhosa</td>
<td>1</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>7</td>
<td>70</td>
</tr>
<tr>
<td>Male</td>
<td>3</td>
<td>30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Languages Spoken</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monolingual: English</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Bilingual: English and Afrikaans</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>Bilingual: English and Bantu Language</td>
<td>1</td>
<td>10%</td>
</tr>
<tr>
<td>Multilingual: ENG, AFR, and 1 or more</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>Multilingual: ENG, Bantu, and 1 or more</td>
<td>1</td>
<td>10%</td>
</tr>
<tr>
<td>Multilingual: ENG, AFR, Bantu, and 1 or more</td>
<td>1</td>
<td>10%</td>
</tr>
<tr>
<td>Multilingual: Other</td>
<td>2</td>
<td>20%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>4</td>
<td>40%</td>
</tr>
<tr>
<td>20</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>21</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>25</td>
<td>1</td>
<td>10%</td>
</tr>
<tr>
<td>29</td>
<td>1</td>
<td>10%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Family Languages</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>8</td>
<td>19%</td>
</tr>
<tr>
<td>Afrikaans</td>
<td>2</td>
<td>5%</td>
</tr>
<tr>
<td>Bantu Language</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Xhosa</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

Note. This is data of participants in undergraduate interviews. All data is self-reported.

5.5 Data Collection and Analysis Methods

The researcher collected all data on campus at UCT between July 21 and August 3, 2012, the first two weeks of UCT's Spring 2012 semester.

5.5.1 Matched guise and supplement questionnaire data.

The Matched Guise Questionnaire and subsequent Supplement Questionnaire were completed on paper. Each participant was assigned a code to keep confidentiality,
and the associated code was written on the top of her questionnaires before the study.

Each code had a letter followed by a number, with the letter corresponding to their group as described in Table 2. Furthermore, each subject and language was given a three-letter code to make analysis easier; the three-letter language codes match the ones used in the online database Ethnologue (2009).

Each participant's data were input into a separate Microsoft Excel sheet structured the same as that pictured in Figure 2.

<table>
<thead>
<tr>
<th>Participant: A1</th>
<th>Supplement Answers</th>
<th>Scale Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>1601</td>
<td>1</td>
<td>101</td>
</tr>
<tr>
<td>1602</td>
<td>1</td>
<td>101</td>
</tr>
<tr>
<td>1603</td>
<td>1</td>
<td>101</td>
</tr>
<tr>
<td>1604</td>
<td>1</td>
<td>101</td>
</tr>
<tr>
<td>1605</td>
<td>1</td>
<td>101</td>
</tr>
<tr>
<td>1606</td>
<td>1</td>
<td>101</td>
</tr>
<tr>
<td>1607</td>
<td>1</td>
<td>101</td>
</tr>
<tr>
<td>1608</td>
<td>1</td>
<td>101</td>
</tr>
<tr>
<td>1609</td>
<td>1</td>
<td>101</td>
</tr>
<tr>
<td>1610</td>
<td>1</td>
<td>101</td>
</tr>
<tr>
<td>1611</td>
<td>1</td>
<td>101</td>
</tr>
<tr>
<td>1612</td>
<td>1</td>
<td>101</td>
</tr>
<tr>
<td>1613</td>
<td>1</td>
<td>101</td>
</tr>
<tr>
<td>1614</td>
<td>1</td>
<td>101</td>
</tr>
<tr>
<td>1615</td>
<td>1</td>
<td>101</td>
</tr>
<tr>
<td>1616</td>
<td>1</td>
<td>101</td>
</tr>
<tr>
<td>1617</td>
<td>1</td>
<td>101</td>
</tr>
<tr>
<td>1618</td>
<td>1</td>
<td>101</td>
</tr>
</tbody>
</table>

*Figure 2.* Sample participant data sheet used in Microsoft Excel to store data.

Since the order of the voice clips was changed for each group, and the order of the scales was different for groups D through F, the researcher then wrote macros in Excel to reorganize the data to match the existing orders in Group A. Then, a macro in Excel was written to take all of the data a put it in one sheet displaying all of the data collected from the Matched Guise and Supplement Questionnaires.

Personal data from the Supplement Questionnaire such as gender, age, and languages were first input into Matlab to obtain the participant data found in section 5.4. This enabled the matched guise data and other supplement data to be analyzed according
to specific subsets of participants, using Matlab scripts to analyze their data exclusively from others. The additional data from the Supplement Questionnaire, which consisted of the answers to questions on intrinsic and extrinsic attitudes (as described in section 3.4), was analyzed for means and standard deviations across various subsets of participants. These subsets include separating the participants based on languages spoken, family languages, age, gender, and level of study in linguistics. The results were then graphed using Matlab, and those graphs are presented below.

The data from the Matched Guise Questionnaire was first mean-centered and then subjected to a Principal Components Analysis (PCA) as outlined in Johnson and Wichern (1998), finding the linear combinations of the eighteen semantic differential scales that maximize the variance in the total data. The purpose of such an analysis was to reduce the 18 scales down to fewer components in order to make the data more accessible and the subsequent analysis of these new "principal" components more practical. Furthermore, by choosing components that maximize the variance, redundancy in the data was minimized and underlying motivations in the data could be revealed. Gibbons (1983) used PCA in his comparable matched guise study on attitudes of Chinese university students towards Chinese-English mixing, and this was the exact approach to analysis laid-out by McKenzie (2010) in his discussion on measuring language attitudes in Japan. Since approaches to PCA can vary, the following decisions in the analysis are noted here:

1. The PCA was conducted on the entirety of the results (i.e., the data was not split into subsets first and then the analysis conducted separately). While it could be a concern that these data come from different sources when
considering the different voices and languages that are rated, the scales and instructions were still the same, and the attitudes were still coming from the same participants for every voice. Gibbons (1983) arrived at this same decision.

2. The data was mean-centered along each scale prior to analysis. This was done simply to make the results more accessible. In other words, this study was able to examine the results according to their distance from zero rather than some number between 1 and 6. This did not affect the analysis (Johnson & Wichern, 1998, p. 471).

3. The researcher chose to conduct PCA on the covariance matrix, as opposed to the correlation matrix. This decision was made because all data was collected on the same scales from 1 to 6, and it is important to use the correlations when adjusting for differences in magnitudes and/or units (Leemis, 2011).

4. There were no adjustments made to account for participants who consistently rated voices high or low. Looking at various subsets of participants, the researcher noted that the histograms of their ratings for all of the voice recordings follow an almost normal distribution. Furthermore, each participant used either the entire scale or at least the range from 2 to 5.

Once the PCA was completed, the results were used to project the data onto the new axes according to the principal components (linear combinations of the original 18 scales). Using these new data points, called "component scores," one-way Repeated Measures ANOVA (rANOVA) was performed on each set of component scores to analyze the differences in the mean scores from the subsets of participants discussed above, as well
as the differences in the mean scores on the different languages of the recordings. Most notably, the mean component scores were compared for the voices utilizing varieties of codeswitching versus those utilizing the varieties that are switched between in those recordings. Gibbons (1983) used the results of his PCA in a similar manner.

5.5.2 Interview data.

Interviews were collected on a Zoom H2 audio recording device, and the files were taken from the memory card and stored as WAV files on the researcher's personal computer under the participant's code. If the participant had not completed the matched guise study (e.g. faculty and graduate students), they were assigned the group letter N and a number, starting at number 1, in the order that they were interviewed.

After all of the interviews were collected, the researcher broadly transcribed them in Microsoft Word documents using a foot pedal in conjunction with the NCH software Express Scribe, which allows use of the foot pedal to play the recording in the background. The transcriptions were also saved according to the participants' code numbers. Notes on each interview were also taken during transcription and saved as text files in the same manner. All transcriptions and notes were saved on the researcher's personal computer.

Once all of the recordings were transcribed, a modified grounded theory analysis (GTA) was conducted on the transcriptions. As described by Birks and Mills (2011), the purpose of this type of analysis is to generate theory from the data, rather than project an existing theory onto the data to explain it. The researcher went through the transcripts using QDA Miner 4 from GCH Software, coding small pieces, with the codes for this study primarily denoting what language was being discussed and what factor or features
were relevant to that speech act. As the coding continued, new codes were formed,
certain codes were combined together, and others are grouped under higher-level
categories; this is called "constant comparative analysis" (Birks & Mills, 2011, p. 12).
This approach was considered a modified version of GTA, since the interviews were not
analyzed before subsequent interviews were conducted, and consequently were not
selectively constructed with the aim of filling-in gaps in the data (Birks & Mills, 2011).
The result is a presentation of a theory with the power to explain the data; in this case, it
was specifically a presentation of the directly elicited attitudes, explaining the underlying
ideologies as evidenced by the participants.

5.5.3 Mixed methods approach to analysis.
As this study utilized a mixed methods approach, the analysis also involved
triangulation of all results. As discussed in Chapter 3, the attitudes shown through
analysis of the matched guise study were indirectly elicited, while those shown through
the interviews are were more directly elicited (Garrett, 2010). Thus, when comparing and
contrasting them, this essential difference between these two sets of data was kept in
mind. Differences were interpreted as a difference between participants' underlying
attitudes and their overt attitudes, while similarities were interpreted as a match between
those two types in the triangulation.

Chapter 6: Results

6.1 Matched Guise Questionnaire Results
As mentioned above, the data from the matched guise questionnaire, completed
by 42 participants, was subjected to a Principal Components Analysis (PCA). The PCA
yielded a covariance matrix with the eigenvalues and eigenvectors shown in Table 7 and
Figure 3, respectively (Note: if D is the diagonal matrix of the eigenvectors, V is the augmented columns of eigenvectors, and Σ is the covariance matrix of the data, then $\Sigma V = VD$).
### Table 7

**Entries of Diagonal Matrix \( D \)**

<table>
<thead>
<tr>
<th>( i )</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
</tr>
</thead>
<tbody>
<tr>
<td>( D_{ii} )</td>
<td>0.25</td>
<td>0.29</td>
<td>0.30</td>
<td>0.33</td>
<td>0.37</td>
<td>0.43</td>
<td>0.50</td>
<td>0.60</td>
<td>0.61</td>
<td>0.76</td>
<td>0.93</td>
<td>0.97</td>
<td>1.45</td>
<td>2.87</td>
<td>6.08</td>
<td>7.23</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* \( D_{ii} \) = the entry in the \( i \)th row of the \( i \)th column of the matrix \( D \).

---

**Figure 3.** \( V \): matrix of augmented eigenvectors of the covariance matrix. The order of the columns, considering them from left-to-right, is from the eigenvector associated with the least eigenvalue to that associated with the greatest eigenvalue.
A Scree Plot of the eigenvalues in Figure 4 showed that the first four components should be retained for analysis (throwing away all after the "elbow"); thus, those eigenvalues and eigenvectors were considered for further analysis.

*Figure 4*. Scree plot for eigenvalues of the covariance matrix. The elbow of the graph, often used for choosing the number of principal components, is marked with a red circle. Consequently, the first four principal components were analyzed using the information in Table 8.
Table 8

Descriptions of First Four Principal Components

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7.2334</td>
<td>29%</td>
<td>Rich</td>
<td>0.2803</td>
<td>.4148</td>
<td>0.1566</td>
<td>.2219</td>
<td>0.3491</td>
<td>.4100</td>
<td>-0.3769</td>
<td>-0.3733</td>
</tr>
<tr>
<td>2</td>
<td>6.0834</td>
<td>24%</td>
<td>Clear</td>
<td>0.3325</td>
<td>.4628</td>
<td>0.1654</td>
<td>.2205</td>
<td>0.2966</td>
<td>.3276</td>
<td>0.5419</td>
<td>0.5048</td>
</tr>
<tr>
<td>3</td>
<td>2.8692</td>
<td>11%</td>
<td>Intelligent</td>
<td>0.2865</td>
<td>.4506</td>
<td>0.0749</td>
<td>.1128</td>
<td>0.1866</td>
<td>.2329</td>
<td>-0.0178</td>
<td>-0.0188</td>
</tr>
<tr>
<td>4</td>
<td>1.4517</td>
<td>6%</td>
<td>Friendly</td>
<td>0.2789</td>
<td>.4301</td>
<td>-0.1855</td>
<td>-0.2739</td>
<td>-0.2244</td>
<td>-0.2747</td>
<td>-0.0067</td>
<td>-0.0069</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td>Fluent</td>
<td>0.2891</td>
<td>.4194</td>
<td>0.1963</td>
<td>.2727</td>
<td>0.1191</td>
<td>.1372</td>
<td>0.5427</td>
<td>0.5269</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td>Active</td>
<td>0.1263</td>
<td>.1808</td>
<td>0.3668</td>
<td>.5026</td>
<td>-0.2864</td>
<td>-0.3252</td>
<td>-0.1057</td>
<td>-0.1013</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td>Advantaged</td>
<td>0.3061</td>
<td>.4326</td>
<td>-0.1963</td>
<td>.2268</td>
<td>0.4005</td>
<td>.4492</td>
<td>-0.4439</td>
<td>-0.4199</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td>Considerate</td>
<td>0.2500</td>
<td>.3944</td>
<td>-0.1963</td>
<td>.2268</td>
<td>0.4005</td>
<td>.4492</td>
<td>-0.4439</td>
<td>-0.4199</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td>Talkative</td>
<td>0.0575</td>
<td>.0846</td>
<td>0.3237</td>
<td>.4561</td>
<td>-0.3226</td>
<td>-0.3768</td>
<td>0.0679</td>
<td>0.0669</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td>Aggressive</td>
<td>-0.1506</td>
<td>-0.2131</td>
<td>0.4032</td>
<td>.5463</td>
<td>-0.1523</td>
<td>-0.1710</td>
<td>-0.0798</td>
<td>-0.0755</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td>Strong</td>
<td>0.0724</td>
<td>.1109</td>
<td>0.3287</td>
<td>.4822</td>
<td>-0.2206</td>
<td>-0.2682</td>
<td>0.0374</td>
<td>0.0383</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td>Energetic</td>
<td>0.1693</td>
<td>.2707</td>
<td>0.1723</td>
<td>.2637</td>
<td>-0.2290</td>
<td>-0.2905</td>
<td>-0.0712</td>
<td>-0.0761</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td>Kind</td>
<td>0.2409</td>
<td>.3873</td>
<td>-0.2249</td>
<td>-0.3463</td>
<td>-0.2001</td>
<td>-0.2554</td>
<td>-0.0498</td>
<td>-0.0536</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td>Pleasant</td>
<td>0.2985</td>
<td>.4639</td>
<td>-0.1530</td>
<td>-0.2277</td>
<td>-0.2327</td>
<td>-0.2759</td>
<td>-0.0464</td>
<td>-0.0483</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td>Warm</td>
<td>0.2806</td>
<td>.4274</td>
<td>-0.1820</td>
<td>-0.2655</td>
<td>-0.2540</td>
<td>-0.3070</td>
<td>-0.0337</td>
<td>-0.0344</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
<td>Proud</td>
<td>-0.0044</td>
<td>-0.0063</td>
<td>0.3533</td>
<td>0.4917</td>
<td>-0.1311</td>
<td>-0.1512</td>
<td>-0.1250</td>
<td>-0.1215</td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
<td>Likeable</td>
<td>0.2503</td>
<td>.4038</td>
<td>-0.1706</td>
<td>-0.2636</td>
<td>-0.1929</td>
<td>-0.2469</td>
<td>-0.0656</td>
<td>-0.0708</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
<td>Talented</td>
<td>0.2162</td>
<td>.3662</td>
<td>0.0481</td>
<td>0.0780</td>
<td>0.0101</td>
<td>0.0135</td>
<td>-0.1345</td>
<td>-0.1525</td>
</tr>
</tbody>
</table>

Note. Variance Exp. = amount of variance explained by each vector, calculated using the eigenvalues, which equals the variance of their respective principal component; thus, the proportion of total variance explained by the kth principal component = \( \frac{\lambda_k}{\lambda_1 + \lambda_2 + \ldots + \lambda_p} \), when considering p variables (Johnson & Wichern,
1998). Vector = eigenvector associated with each principal component; a principal component is a linear combination of the ratings on each scale, so the entries in each "vector" column are the coefficients in that linear combination representing the relative weight of the scale in that principal component. Corr. = correlation between eigenvector and scale associated with that row; each entry in a "correlation" column represents the correlation between the component and the scale and is calculated using the formula \[ r_{x_i,k} = \frac{\sum_{i=1}^{n} x_{i,k} \cdot \sigma_{x_i,k}}{\sqrt{\sum_{i=1}^{n} x_{i,k}^2}} \], \( i, k = 1, 2, \ldots, p \).

*Only the right-hand label is shown for each scale.
Johnson and Wichern (1998) claimed that both the coefficient of each scale within and the correlation of scales with the component are important when considering what a principal component represents, since the component coefficients are multivariate (i.e., they consider all of the scales) within the component, while the correlations are univariate (i.e., they only consider one scale). For clarity, each scale will subsequently be referenced by its "positive" term (i.e., instead of the "Shy-Talkative" scale, this paper will use "Talkative").

It was noted first that the following scales were correlated more positively on the first principal component than others: Rich, Clear, Intelligent, Friendly, Fluent, Advantaged, Considerate, Kind, Pleasant, Warm, Likeable, and Talented. Furthermore, the coefficients of these scales within the first principal component were greater than those of the other scales were. None of the scales was significantly negatively correlated. These scales were a combination of the categories that Zahn and Hopper (1985) called "Superiority" and "Social Attractiveness" (p. 118); however, given that both the most highly correlated scale was Pleasant, followed by Clear and Intelligent, and that the study was conducted on a university campus by students studying linguistics, the researcher chose to call this component "Social Desirability."

Next, considering the second principal component, it was noted that the following scales were correlated more positively than others were: Active, Talkative, Aggressive, Strong, and Proud. These scales also had the greatest coefficients within the second principal component vector. None of the scales was significantly negatively correlated. These scales fell within the category that Zahn and Hopper (1985) called "Dynamism" (p. 118), so that is the label the researcher chose to give this second component.
Considering the third component, the most positively correlated scales were Advantaged and Rich, and the most negatively correlated scales are Active and Talkative. While these correlations could have indicated a component of "non-dynamic superiority," the relatively low positive correlation of scales such as Talented and Intelligent, combined with the fact that these scales were all correlated in the opposite direction from the other scales weighted heavily on 'social desirability,' problematized such a definition. Consequently, including this component would not have augmented the subsequent analysis in a meaningful way.

Although eliminating the third component would have ultimately led to eliminating the fourth component as well, support could still be provided for doing so. It was noted that the most positively correlated scales with this component were Clear and Fluent, while the most negatively correlated were Advantaged and Rich. Again, a category of "non-advantaged clarity/fluency" could be proposed, but such a category would not have added significantly to the subsequent analysis. Furthermore, although some of these scales were lower in magnitude in their correlations on the first principal component, all four of them were already accounted for in that component.

Further support for eliminating the third and fourth components from the analysis below could be found in the row in Table 8 labeled "Variance Exp." This showed that together, the first and second principal components accounted for 53% of the variance in the matched guise data. Adding the third component would have raised this amount to 64%, and adding the fourth component would have brought the total to 70%. However, 53% of the variance sufficed for this analysis, especially given that this data was also triangulated with data from the Supplement Questionnaire, interviews, and linguistic
landscape study. The researcher also noted that Gibbons (1983) accounted for only 55.8% of the total variation with the components from his PCA on matched guise data.

Therefore, the result of the PCA on the matched guise questionnaire data was two components, 'social desirability' and 'dynamism,' accounting for 53% of the variance in the data. Their coefficient vectors and correlations with scales were recopied in Table 9 for clarity.

Table 9

**Descriptions of Resulting Two Principal Components**

<table>
<thead>
<tr>
<th>Scale</th>
<th>Component 1 – Social Desirability</th>
<th>Component 2 – Dynamism</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Eigenvalue</td>
<td>7.2334</td>
</tr>
<tr>
<td></td>
<td>Variance Exp.</td>
<td>29%</td>
</tr>
<tr>
<td>Poor–Rich</td>
<td>0.2803</td>
<td>.4148</td>
</tr>
<tr>
<td>Unclear–Clear</td>
<td>0.3325</td>
<td>.4628</td>
</tr>
<tr>
<td>Unintelligent–Intelligent</td>
<td>0.2865</td>
<td>.4506</td>
</tr>
<tr>
<td>Unfriendly–Friendly</td>
<td>0.2789</td>
<td>.4301</td>
</tr>
<tr>
<td>Stumbling– Fluent</td>
<td>0.2891</td>
<td>.4194</td>
</tr>
<tr>
<td>Passive–Active</td>
<td>0.1263</td>
<td>.1808</td>
</tr>
<tr>
<td>Disadvantaged–Advantaged</td>
<td>0.3061</td>
<td>.4326</td>
</tr>
<tr>
<td>Inconsiderate–Considerate</td>
<td>0.2500</td>
<td>.3944</td>
</tr>
<tr>
<td>Shy–Talkative</td>
<td>0.0575</td>
<td>.0846</td>
</tr>
<tr>
<td>Unaggressive–Aggressive</td>
<td>-0.1506</td>
<td>-.2131</td>
</tr>
<tr>
<td>Weak–Strong</td>
<td>0.0724</td>
<td>.1109</td>
</tr>
<tr>
<td>Lazy–Energetic</td>
<td>0.1693</td>
<td>.2707</td>
</tr>
<tr>
<td>Unkind–Kind</td>
<td>0.2409</td>
<td>.3873</td>
</tr>
<tr>
<td>Unpleasant–Pleasant</td>
<td>0.2985</td>
<td>.4639</td>
</tr>
<tr>
<td>Cold–Warm</td>
<td>0.2806</td>
<td>.4274</td>
</tr>
<tr>
<td>Humble–Proud</td>
<td>-0.0044</td>
<td>-.0063</td>
</tr>
<tr>
<td>Unlikeable–Likeable</td>
<td>0.2503</td>
<td>.4038</td>
</tr>
<tr>
<td>Untalented–Talented</td>
<td>0.2162</td>
<td>.3662</td>
</tr>
</tbody>
</table>

These component vectors, since they represented the coefficients of two linear combinations of the 18 scales, were subsequently used to project each participant's 18
ratings for each voice onto two continuous scales, one for 'social desirability' and another for 'dynamism'. Using these new data points – herein called the "component scores" – given by participants for each voice, the component scores were then subjected to a Repeated Measures Analysis of Variance. This was an appropriate method for comparing the means in this set of data, since every subject was subjected to the same factors (i.e., every participant listened and responded to the same voices, and rated them on the same scales). For this analysis, the two components were considered separately, as they were formed using different linear combinations of the original eighteen scales.

Since it was impractical to consider all fifteen voices at once in the analysis, the data for the fifteen voices were split into five groups based on language(s) spoken: Afrikaans, English, Xhosa, Afrikaans-English Codeswitching, and Xhosa-English Codeswitching. The data from each group were then subjected to rANOVA twice, the first analysis being on 'social desirability' component scores, the second on 'dynamism' component scores. Using these results, subsequent rANOVAs were then performed on subsets of each group to determine which pairs of voices within the groups elicited significantly different attitudes (p < 0.05), and which did not (p ≥ 0.05). Finally, using these results, a "representative" from each group was chosen – each representative displayed a marginal mean component score, for both scales, that was near the overall marginal mean component scores for its group. The full process and details can be found in Appendix F. The results of choosing representatives are reported in Table 10.
Table 10

*Voice Representatives for each Language Variety*

<table>
<thead>
<tr>
<th>Language Variety</th>
<th>Representative</th>
<th>MM Social Desirability</th>
<th>MM Dynamism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afrikaans</td>
<td>Voice 03</td>
<td>0.310</td>
<td>-0.916</td>
</tr>
<tr>
<td>Afrikaans-English CS</td>
<td>Voice 12</td>
<td>-1.158</td>
<td>0.494</td>
</tr>
<tr>
<td>English</td>
<td>Voice 08</td>
<td>1.125</td>
<td>1.091</td>
</tr>
<tr>
<td>Xhosa-English CS</td>
<td>Voice 07</td>
<td>0.309</td>
<td>-2.106</td>
</tr>
<tr>
<td>Xhosa</td>
<td>Voice 14</td>
<td>-1.225</td>
<td>0.439</td>
</tr>
</tbody>
</table>

*Note.* MM Social Desirability = marginal mean 'social desirability' component score of voice. MM Dynamism = marginal mean 'dynamism' component score of voice.

The attitudes elicited by each of these voices were then compared to each other, again using rANOVA. Again, the 'social desirability' and 'dynamism' components were treated separately.

First, attitudes towards 'social desirability' were examined. Figure 5 graphically displays the values given in Table 10 for 'social desirability'.

*Figure 5.* Marginal mean component scores by voice: Social Desirability. Important primarily for comparison of, rather than the exact values of, the marginal mean component scores.
In observing Figure 5, one can note that Afrikaans-English Codeswitching received on mean a lower component score for 'social desirability' than English and Afrikaans spoken monolingually, while Xhosa-English Codeswitching received on average a component score between that of English and Xhosa for 'social desirability.' These relationships were examined more closely with further rANOVAs.

These subsequent rANOVA revealed that the component scores of Voice 03 were significantly different from those of Voice 12 for 'social desirability,' $F(1, 41) = 7.971$, $p = 0.007$. The same was the case for the differences between the 'social desirability' component scores of Voices 08 and 12, $F(1, 41) = 16.181$, $p < 0.001$. However, the test failed to reject the null hypothesis; thus, there was not a significant difference between Voice 03 and Voice 08 in the component scores for 'social desirability,' $F(1, 41) = 3.692$, $p = 0.062$. Figure 6 graphs the relationships between the marginal mean component scores for Voices 03, 08, and 12.

![Figure 6. Marginal mean component scores by voice: Social Desirability. Compares only those scores for Afrikaans, Afrikaans-English Codeswitching, and English.](image)
Further rANOVA on the other group of voices – Voices 08, 07, and 14 – revealed that 'social desirability' component scores for Voice 08 and Voice 14 were significantly different, $F(1, 41) = 17.821, p < 0.001$, as were the component scores of Voices 07 and Voice 14, $F(1, 41) = 12.177, p = 0.001$. However, the test failed to reject the null hypothesis; thus, there was not a significant difference between Voice 07 and Voice 08 in the component scores for social desirability, $F(1, 41) = 2.342, p = 0.134$. Figure 7 graphs the relationships between the marginal mean component scores for Voices 07, 08, and 14.

![Figure 7](image.png)

Figure 7. Marginal mean component scores by voice: 'social desirability'. Compares only those scores for English, Xhosa-English Codeswitching, and Xhosa.

Next, a similar procedure was followed for the 'dynamism' component. Figure 8 is a graph of the marginal mean component scores for "dynamism".
Figure 8. Marginal mean component scores by voice: Dynamism. Important primarily for comparison of, rather than the exact values of, the marginal mean component scores.

Observations of this figure were similar in nature to those made on Figure 5 - Xhosa-English Codeswitching on average received a lower component score for 'dynamism' than monolingual English and Xhosa, while Afrikaans-English Codeswitching received on average a component score between that of English and Afrikaans for 'dynamism'. These relationships were examined more closely with further rANOVAs.

Further rANOVA revealed that the component scores of Voice 03 were significantly different from those of Voice 08 for 'dynamism,' $F(1, 41) = 21.895$, $p < 0.001$. The same was the case for the differences between the 'dynamism' component scores of Voices 03 and 12, $F(1, 41) = 9.654$, $p = 0.003$. However, the test failed to reject the null hypothesis; thus, there was not a significant difference between Voice 08 and Voice 12 in the component scores for 'dynamism,' $F(1, 41) = 2.457$, $p = 0.125$. Figure 9 graphs the relationships between the marginal mean component scores for Voices 03, 08, and 12.
Figure 9. Marginal mean component scores by voice: Dynamism. Compares only those scores for Afrikaans, Afrikaans-English Codeswitching, and English.

A final rANOVA was performed on the 'dynamism' component scores for Voices 07, 08, and 14. This analysis revealed that 'dynamism' component scores for Voice 07 and Voice 08 were significantly different, $F(1, 41) = 50.822, p < 0.001$, as were the component scores of Voices 07 and Voice 14, $F(1, 41) = 33.093, p < 0.001$. However, the test failed to reject the null hypothesis; thus, there was not a significant difference between Voice 08 and Voice 14 in the component scores for 'dynamism,' $F(1, 41) = 2.882, p = 0.097$. Figure 10 graphs the relationships between the marginal mean component scores for Voices 07, 08, and 14.
Figure 10. Marginal mean component scores by voice: Dynamism. Compares only those scores for English, Xhosa-English Codeswitching, and Xhosa.

Two-Way ANOVA was also used to test for any significant effects of independent variables on the component scores given by participants for the two codeswitching voices discussed above: Voice 07 (Xhosa-English) and Voice 12 (Afrikaans-English). Participants were divided into subsets based on various independent variables: languages spoken, languages spoken with family, age, gender, whether or not they were majoring in linguistics, and level of study in linguistics. In every case, for both 'social desirability' and 'dynamism', the null hypothesis was not rejected, and thus any differences or interactions between the factors were not statistically significant.

6.2 Supplement Questionnaire Results

The Supplement Questionnaire began with four pairs of scales, meant to elicit directly attitudes toward English, Afrikaans, Xhosa, and codeswitching. For example, participants had to rate on a scale of one to six their personal agreement with the statement "Speaking Afrikaans is important to my identity," then rate on the same scale "Speaking Afrikaans is necessary to my success in life." To elicit the same data for
codeswitching, the statements started "Being able to switch between two or more languages…" As was mentioned above, the scales concerning "importance" were meant to elicit a participant's intrinsic attitudes towards a language variety, while those concerning "necessity" elicited extrinsic attitudes (Ramsay-Brijball, 2004); thus, the ratings were directly interpreted as ratings of those values, on a scale of 1 to 6.

Figure 11 plots the means of the ratings of intrinsic values of all 81 participants towards each language variety, while Figure 12 plots the means of the ratings of extrinsic values:

![Diagram](image)

Figure 11. Mean intrinsic value rating by language variety (n = 81).
Figure 12. Mean extrinsic value rating by language variety (n = 81).

These charts are discussed below in the Discussion section, and that discussion takes into account the participant data shown in the Methodology section. For example, it is important to note that although the intrinsic values of Xhosa were rated very low, participants who recorded that they speak Xhosa with their family comprised only 3% of those completing supplements.

To examine the effects of languages spoken a little more closely, the following charts are provided. Figure 13 shows the mean intrinsic value ratings for each language variety, separating the participants into five groups; the second and fourth groups in Table 4 under "Number of Languages Spoken" were combined, as were the third and fifth groups. Figure 14 accomplishes the same description for mean extrinsic value ratings.
Figure 13. Mean intrinsic value rating by languages spoken (n = 81). CODE Intrinsic is the value rated was the intrinsic value of the language variety with the associated code.

Figure 14. Mean extrinsic value rating by languages spoken (n = 81). CODE Extrinsic is the value rated was the extrinsic value of the language variety with the associated code.

Dividing the participants into other subsets did not reveal anything concerning the mean intrinsic and extrinsic attitudes of the participants, besides that most had similar attitudes. Figures 15, 16, and 17 display these results.
Figure 15. Mean intrinsic or extrinsic value rating by level of study in linguistics.

Figure 16. Mean intrinsic or extrinsic value rating by whether or not a linguistics major.
Each of these figures shows very close and similar trends between subsets; thus, the participants differed in neither their intrinsic nor their extrinsic attitudes along these independent variables.

6.3 Interview Results – Grounded Theory Analysis

The final coding of the modified grounded theory analysis yielded five categories, each of which is outlined below using quotes from participants. The theory generated from each category in conjunction with existing literature can be found in Section 7.3.

6.3.1 Category 1: The linguistic landscape.

Linguistics students at UCT noticed their linguistic surroundings and believed the landscape favors English. For example, one student noted:

I think it's always really funny on signs, how English is generally at the top. And then it's generally Afrikaans, and then an African language. Sometimes there's an African language, but normally, it's like, English is at the top of signs, and there's not always an African language. And it feels very token. (N3)²

² As mentioned above, each participant was given a letter and number as a participant code. These codes will be used to cite quotes in this section.
Students also noted that "[shop owners] always buy, like, a smaller amount of the Afrikaans thing called Die Burger [di børɡər] ("The Citizen"), and they only buy, like, twenty of those, and they'll have Cape Times (English-language newspaper) stacked to the roof kind of a thing" (C1). The students recognized that this could be a function of their location: "but there's more English papers I think. Especially in Cape Town, because it's mainly English" (C2). But, still, "English is the commonest" (B6).

After English, Afrikaans was the language most mentioned as being part of the students' linguistic landscape, usually in comparison to Xhosa not being included. For example, one student talked about her library: "Um, like the main sign that say 'Library,' you know, that’s had the Xhosa name on it for years, but like the sign with closing times and opening times, that’s the one that I’m thinking of, which has been only in the last year or two that they’ve put the Xhosa on there" (B6). This was the case even outside of signs: "And, yeah, usually Afrikaans and English, when I went to the police station, the form I had to fill…was only written in Afrikaans and English" (B6). Some students "][didn't] actually see it on signs anywhere" (undergraduate), and those that did see all three languages on signs noted that "they're, like governmental signs that say, like, 'This is the District of Cape Town'" (C2). Some students "][felt] that Xhosa is really, like, it's sidelined. It's kind of marginalized" (B2). Again, though, some students were also careful to note "but, that's because where I live, it's a very white area" (A10).

When discussing the media, the focus of the interviews was on how delineated the sources within each type of media are by language. For example, with television: "So SABC-1 is Nguni language channel, SABC-2 is – what is it – it's like Afrikaans…And SABC-3 was like, the spare language channel, but it's predominately, like, English
international" (N3). Similar delineation was found in papers, and "the radio stations as well, there's always, like, Afrikaans radio station and English radio station" (C1).

All monolingual options were definitely mentioned for each form of media. However, students were quick to note, "But they're never mixed. They don't mix on the TV or in the media at all" (C1). Some students were less extreme and allowed that on African language media, such as "Umflogo FM, which is just Xhosa…the language they speak is so mixed. It's just like really slang, really relaxed mixing…But otherwise I don't find that there's much, uh, language change on radio stations" (E1). Similar comments were made in relation to soap operas on the television, such as "Sewende Laan" and "Generations." The characters in these shows used mixtures of Afrikaans, Xhosa, and Zulu according to the students, and "you could ask half of campus, they'll be able to tell you what is going on with the plot" (N3), so students watched these shows. The Daily Sun, which was the only paper mentioned to mix its languages, was also called "the pits of journalism…the quality of language and writing and everything is just terrible" (E1).

When asked further about switching languages in the media, one student replied, "[Television is] a very formal way of getting news across to people, so they want to try to avoid codeswitching" (C1). This brings the analysis into the next category.

6.3.2 Category 2: Codeswitching is informal.

The avoidance of codeswitching in the news due to issues of formality matched with many students' evaluation of codeswitching as only appropriate for informal settings. Some related this to jobs, saying, "I'm not sure in a professional capacity that codeswitching is appropriate" (N2), while others were more general, saying, "like you won't do it in formal company or stuff like that" (C2).
Still others took the notion of formality further and evaluated why they believed codeswitching to be informal. For a few, the influence was their parents. One stated, "They're trying to encourage me not to mix" (A10), and another admitted, "I don't do it as much with my parents anymore because it's established we should not" (E2). For other students, the influence seemed to be that they equated codeswitching with playful or slang language: "It's not proper, which is kind of what makes it humorous and light-hearted, I don't think you'd ever do it in a serious situation" (E1). They stated that they use codeswitching when "it's a part of an inside joke or something" (E2), "speaking colloquially" (undergraduate), or "some really, very rude Afrikaans word" (N5). More is discussed below concerning the students' equating codeswitching to slang.

Other adjectives similar to "informal" were used to describe codeswitching in the interviews. For example, one student replied in the following way when asked to evaluate switching between two or more languages:

I don't think I would do it. I like sort of linguistic purity. And, I feel like if you know the word for what you wanna say, say it in the language that you're speaking in. And, be speaking that language. Um, I understand why people do it, although, I sometimes feel it's a bit lazy, um, so instead of recalling the word in the language you're speaking, you just go for the first one that comes to your mind. Um, which I think sometimes I perceive it as sloppy. (N2)

The thought of codeswitching as lazy or requiring less effort, which related well to the idea of informality, was shared by other participants but not with the same exact evaluation. For example, another student described a similar situation to the "laziness" in the above quote, but not as negatively: "sometimes your brain can't get to the English when…you're using both languages all the time, but your brain can't get to the right word to pick so it just throws in whatever definition it know of whichever language. And it
puts it in there" (C2). Another participant spoke of this idea positively, stating, "With family it's better - it's half the conversation and it makes - it's easier to communicate sometimes" (E2).

Sharing in the feeling of linguistic purity, one student stated, "If I was speaking to my grandparents, for example, [or] if I was speaking to a professor who happened to be Afrikaans, I'd speak to them in complete Afrikaans. I wouldn't mix any languages, I wouldn't, yeah. I really, really don't like it when people mix languages" (N3). Denoting certain contexts as inappropriate for codeswitching introduces the next category.

6.3.3 Category 3: Codeswitching requires a specific context.

Overall, the students seemed to agree that codeswitching has its appropriate context – there is an appropriate time, place, and/or reason to codeswitch, and appropriate people with which to do so. For many students, the interlocutors determined the context – "it sort of depends on who you're with" (A10). Examples included "when I'm speaking to both my parents" (undergraduate), "if I'm in a conversation with an Afrikaans [friend], and an English friend is there" (N3), "with my friends" (E2), "with the younger ones [in my family]…with my mother" (N1), or "with my brother" (N5). For others, the setting is what mattered, stating they codeswitch "in shops" (B2), "when I'm in a bigger group of people" (C1), and "screaming at the ref on the TV" (N5). Reasons for codeswitching were also touched-upon in terms of appropriateness by a participant: "what I don't like is when people will kind of make the languages, like, bad, and they're just sort of replacing words. Like if you're gonna say it, say the full sentence- say it with a reason, like the reason why you're switching languages, like cause a friend is coming" (N3).

Students further provided examples of inappropriate codeswitching; for example:
Um, one of my best friend’s girlfriends is Afrikaans. And, so, she’ll sort of like, when she’s speaking to us she’ll speak English, but then she’ll sort of randomly start throwing in Afrikaans words, um, and, it’s really funny because she expects us to understand. And, for the most part we do, like, we’re getting a lot better than we used to be. Um, but every now and then she’ll say something and we’ll just look at her blankly and we’re like “What are you saying to us?” (A10)

Another undergraduate gave the following example against codeswitching: "Some people, like, they know what the Afrikaans is – it's just a very normal word – but they just say the English word" (N3). This participant was unique in commenting on the speaker knowing the word, since many gave the situation in which the speaker does not know or cannot find a word as examples of codeswitching, without commenting negatively. For example, one participant explained, "But, um, sometimes you can't find a word in one language, and so you just borrow from another language, and, yeah. I think you see that, like, here a lot" (N3). Another, similar situation was when "there are specific words that don't exist in that language, that [people codeswitching] know only the equivalent in English" (N1). This topic of switching because one needs a word from another language brings the discussion into the next category, with one final quote bridging the gap: "When I'm speaking Afrikaans, I could switch out of necessity, because I don’t know the word. It’s not a case of, you know, I’m-I’m just using both languages cause I know them" (A10).

**6.3.4 Category 4: Codeswitching provides additional access.**

That final quote – "I’m just using both languages cause I know them" (A10) – not only represented a situation that the participant felt it was okay to switch languages, but it also indexed a property of codeswitching discussed by many interviewed participants – that codeswitching provides access to more than one language. This is a sentiment that
came up often when discussing the importance of codeswitching to student's identity. Many felt the same as a graduate student who stated, "I think that being a bilingual is more important than codeswitching itself" (N1). Access specifically to English was another common trend. Some examples were specifically from class, since UCT is an English-medium school: "Sometimes someone will turn around and they'll explain in like, Xhosa or Zulu to like, the person behind them. And there's, like, a lot of codeswitching, cause you're using academic language there" (N3). English was also the default language that participants' referenced using when they could not find the word or phrase in Afrikaans or Xhosa.

In terms of Afrikaans, another student talked about codeswitching giving him access to Afrikaans and thus his identity as an Afrikaner:

I'm generally in an English environment, so it's going to English schools and English universities, all my friends are English. Yet, I am- I'm still an Afrikaans person and I'm part of the identity. Um, and so it's always just been something- I don't know, it's nice to be able to surprise some people with something- you just switch off to Afrikaans. (E1)

When speaking about access to another language, students also referenced the semantic capabilities of that additional language when codeswitching. For instance, one participant spoke about her ability to emphasize in Afrikaans: "Some things a better said in another language. Um, like sayings. You can't translate a saying in Afrikaans to English. Because of the structure, and because it just sounds better in Afrikaans, or a different language. So it's an emphasis, yeah" (N1). Other examples spoke about the access to "slang" words, such as "smash" in English and "gees" [xis] in Afrikaans (N5) to express different emotions in specific instances. These words provide meanings the participants felt are only captured in the respective languages.
Finally, this category would not be complete without noting the fact that the majority of the participants found codeswitching generally interesting. From "I think it's quite cool that they can do that" (C2) to "I think it's pretty neat" (B2) to "I think it's fascinating" (B6), participants tended to portray a positive attitude toward codeswitching when initially prompted. At first, it may seem out of place to note this attitude in this category, until one recalls that all of the participants were linguistics students, who in general also portrayed an interest in topics involving multilingualism, confirmed in interviews with their professors. Thus, this generally positive view did relate to the idea of codeswitching providing access to more than one language.

6.3.5 Category 5: Codeswitching can be both inclusive and exclusive.

Due to this access to additional languages, students also expressed that codeswitching can add to the diversity of a situation, making others feel more included through a shared language. For example, when asked for her thoughts on codeswitching, one participant responded, "I think that it's very… I don't know, I really like walking around campus and hearing all the different languages and things like that, it just –it feels so diverse, and-and you feel like, we're just-it feels accepting of other cultures" (A10). A similar feeling was shared by another student when she noted, "I think it makes people feel a lot more integrated, and I think it definitely creates a feeling of a lot more understanding, that you're willing…for them to use some of their language, I think it kind of pushes you to make an effort to understand what's going on a bit more" (E1). Furthermore, an Afrikaner student claimed that he feels more included in "such an English environment" through his own codeswitching (N3). Other participants made similar statements in reference to their identity as South Africans. One student, answering
whether or not switching was important to her identity, stated, "Yeah, I wouldn't be South African if I couldn't" (A10). This sentiment related well to the feeling of codeswitching as being inclusive.

Other students, though, felt that codeswitching opens opportunities for exclusion rather than inclusion. One exemplary description of this was the following:

I think that codeswitching…at times, like sometimes it's very exclusionary. Cause then, like, if you codeswitch when some- around someone who doesn't speak the language, like…if you're around, like, peers and [they] do it and you can't be part of the conversation. You know, so that's sometimes annoying…like, at our [high] school it was very segregated…Like most white people were friends with white people, black people were friends with black people. So, um…because the black people could speak English really well, like, they could speak English like a first language…white people couldn't do this, but black people would often talk about white people in Xhosa to each other. And, like, we knew enough, because they- they were really good at codeswitching, and they, like, would sometimes not realize they'd be doing it, and we could hear, when they spoke English words that they were talking about us. So it was sometimes, like, off-putting, cause we'd be like, "Okay." Yeah, so that was sometimes annoying. (C2)

This is the opposite action expressed by some students, who claimed that they will take an action of inclusion rather than exclusion with codeswitching. An example more relevant to UCT students was provided by another participant:

Um, I like it. I think there's times when the switching can be used to exclude, and that's not great. I can be sitting on the Jammie (UCT bus system), talk to someone you don't know, like randomly start a conversation, and then he's sitting next to a friend of his and they're both, say, Xhosa-speaking, you talk to him, other guy joins the conversation but speaks in Xhosa to him. So he's comfortably in the conversation, but he's not speaking English, and he knows I don't understand them- that I don't understand Xhosa, or he assumes I don't. And immediately, I'm like, out, all of sudden. So that's not great. (N5)
This aspect of codeswitching providing to access to additional language varieties informed some of the few negative attitudes towards codeswitching expressed by those participants interviewed.

Chapter 7: Discussion of Results

7.1 Discussion of Matched Guise Questionnaire Results

7.1.1 Principal components analysis results

As noted in the Quantitative Results, there were two final principal components decided for the study: 'social desirability' and 'dynamism'. The respective vector weights and correlations for each of the 18 original scales are found in Table 9, which is reprinted here for reference:
Table 9

*Descriptions of Resulting Two Principal Components*

<table>
<thead>
<tr>
<th>Scale</th>
<th>Component 1 – Social Desirability</th>
<th>Component 2 – Dynamism</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Eigenvalue</td>
<td>7.2334</td>
</tr>
<tr>
<td></td>
<td>Variance Exp.</td>
<td>29%</td>
</tr>
<tr>
<td>Poor–Rich</td>
<td>Vector Corr.</td>
<td>0.2803 .4148 0.1566 .2219</td>
</tr>
<tr>
<td>Unclear–Clear</td>
<td>Vector Corr.</td>
<td>0.3325 .4628 0.1654 .2205</td>
</tr>
<tr>
<td>Unintelligent–Intelligent</td>
<td>Vector Corr.</td>
<td>0.2865 .4506 0.0749 .1128</td>
</tr>
<tr>
<td>Unfriendly–Friendly</td>
<td>Vector Corr.</td>
<td>0.2789 .4301 -0.1855 -0.2739</td>
</tr>
<tr>
<td>Stumbling–Fluent</td>
<td>Vector Corr.</td>
<td>0.2891 .4194 0.1963 .2727</td>
</tr>
<tr>
<td>Passive–Active</td>
<td>Vector Corr.</td>
<td>0.1263 .1808 0.3668 .5026</td>
</tr>
<tr>
<td>Disadvantaged–Advantaged</td>
<td>Vector Corr.</td>
<td>0.3061 .4326 0.1676 .2268</td>
</tr>
<tr>
<td>Inconsiderate–Considerate</td>
<td>Vector Corr.</td>
<td>0.2500 .3944 -0.1963 -0.2965</td>
</tr>
<tr>
<td>Shy–Talkative</td>
<td>Vector Corr.</td>
<td>0.0575 .0846 0.3237 .4561</td>
</tr>
<tr>
<td>Unaggressive–Aggressive</td>
<td>Vector Corr.</td>
<td>-0.1506 -0.2131 0.4032 .5463</td>
</tr>
<tr>
<td>Weak–Strong</td>
<td>Vector Corr.</td>
<td>0.0724 .1109 0.3287 .4822</td>
</tr>
<tr>
<td>Lazy–Energetic</td>
<td>Vector Corr.</td>
<td>0.1693 .2707 0.1723 .2637</td>
</tr>
<tr>
<td>Unkind–Kind</td>
<td>Vector Corr.</td>
<td>0.2409 .3873 -0.2249 -0.3463</td>
</tr>
<tr>
<td>Unpleasant–Pleasant</td>
<td>Vector Corr.</td>
<td>0.2985 .4639 -0.1530 -0.2277</td>
</tr>
<tr>
<td>Cold–Warm</td>
<td>Vector Corr.</td>
<td>0.2806 .4274 -0.1820 -0.2655</td>
</tr>
<tr>
<td>Humble–Proud</td>
<td>Vector Corr.</td>
<td>-0.0044 -.0063 0.3533 0.4917</td>
</tr>
<tr>
<td>Unlikeable–Likeable</td>
<td>Vector Corr.</td>
<td>0.2503 .4038 -0.1706 -0.2636</td>
</tr>
<tr>
<td>Untalented–Talented</td>
<td>Vector Corr.</td>
<td>0.2162 .3662 0.0481 0.0780</td>
</tr>
</tbody>
</table>

Looking first at Component 1, one can note that factors from both the Social Attractiveness (e.g., Friendly, Kind) and Superiority (e.g., Rich, Fluent) factors from Zahn and Hopper were correlated highly in this one component, rather than being from one or the other. A possible cause for this similarity was the location of the study: data was collected on a university campus, where intelligence is rewarded and occupations are aspired to; moreover, the tested population was linguistics students, who possibly valued fluency. This covered three scales from Zahn and Hopper's Superiority factor that the
students probably looked for in a friend. Thus, one could understand why they are strongly related to the Social Attractiveness scales.

Component 2 was interesting for the weakly negative correlation of Zahn and Hopper's (1985) Social Attractiveness scales, while their Superiority scales were positively correlated along Component 2. Thus, the 'dynamism' component split scales in its interpretation that worked together in that of the 'social desirability' component. This could have indicated that the students do not necessarily find 'dynamism' a socially attractive attribute, or at least not the scales correlated more highly than other scales with 'dynamism,' such as Proud, Aggressive, and Talkative. Either way, the 'social desirability' component in a way cancelled itself out in the calculation of 'dynamism' component scores, given that about half of the scales correlated highly with 'social desirability' had positive coefficients, and the other half had negative coefficients of similar magnitude. This allowed one to interpret more legitimately the 'dynamism' component in terms of its highly correlated scales: Active, Talkative, Proud, Aggressive, and Strong.

The only scale that did not correlate relatively high in either component was Energetic. This could have meant that Energy is found by the students to be neither socially desirable nor dynamic, which is interesting due to the Talkative's being correlated highly with 'dynamism'. An additional, possible explanation for Energy being correlated so uniquely in comparison to the other scales was that it factors equally into both of them, since it had positive coefficients and correlations for both components that were similar in their magnitude. This avoided the comparison with Talkative; however, there was not sufficient evidence with either theory, and thus they have remained inconclusive.
The results of the Principal Components Analysis were used to inform discussion (see section 7.1) on the data for which they were principal components.

7.1.2 ANOVA Results

7.1.2.1 Representatives.

The representatives for each language variety from Table 10 are reprinted here:

Table 10

*Voice Representatives for each Language Variety*

<table>
<thead>
<tr>
<th>Language Variety</th>
<th>Representative</th>
<th>MM Social Desirability</th>
<th>MM Dynamism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afrikaans</td>
<td>Voice 03</td>
<td>0.310</td>
<td>-0.916</td>
</tr>
<tr>
<td>Afrikaans-English CS</td>
<td>Voice 12</td>
<td>-1.158</td>
<td>0.494</td>
</tr>
<tr>
<td>English</td>
<td>Voice 08</td>
<td>1.125</td>
<td>1.091</td>
</tr>
<tr>
<td>Xhosa-English CS</td>
<td>Voice 07</td>
<td>0.309</td>
<td>-2.106</td>
</tr>
<tr>
<td>Xhosa</td>
<td>Voice 14</td>
<td>-1.225</td>
<td>0.439</td>
</tr>
</tbody>
</table>

*Note.* MM Social Desirability = marginal mean 'social desirability' component score of voice. MM Dynamism = marginal mean 'dynamism' component score of voice.

Since the numbers reported on this table were marginal mean component scores, any possible interpretation that they had on their own is beyond the scope of this thesis. Thus, this discussion will focus on the results of comparing them through rANOVA.

7.1.2.2 Component 1 (Social Desirability).

Figure 5, which displays the marginal mean 'social desirability' component scores for each language representative, is reprinted here for visual reference.
The first set of rANOVAs run compared the effects of Afrikaans, Afrikaans-English codeswitching, and English voices on participants' 'social desirability' component scores. The results of these tests showed that the effects of the Afrikaans and Afrikaans-English codeswitching voices on the 'social desirability' component scores were significantly different ($F(1,41) = 7.971, p = 0.007$), as were the effects of the English and the Afrikaans-English codeswitching voices ($F(1,41) = 16.181, p < 0.001$). Thus, the participants found the Afrikaans-English codeswitching voice less socially desirable than both the English and Afrikaans. This could mark a dislike for mixing of languages in the same string of speech, even though 74% of participants reported speaking Afrikaans and English and thus potentially use Afrikaans-English codeswitching themselves. Such an interpretation agreed with one of Ramsay-Brijball's (2002) initial findings that students had a negative attitude towards codeswitching despite consistently utilizing it; this is

Figure 5. Marginal mean component scores by voice: Social Desirability. Important primarily for comparison of, rather than the exact values of, the marginal mean component scores.
especially possible, given the high weights of the Intelligent, Advantaged, and Fluent scales for the 'social desirability' component, which were all scales measuring superiority according to Zahn and Hopper (1985). However, this result could also occur due to the nature of the voice used for Afrikaans-English codeswitching – a voice that was male, was identified as black by one UCT faculty member, and could be thought of a boisterous. These traits of the voice could add to the effect on participants' 'social desirability' component scores.

However, the effects of the monolingual Afrikaans and English voices on the 'social desirability' component scores were not significantly different ($F(1,42) = 3.692, p = 0.062$). This could be attributed in part to 75% of the participants being multilingual Afrikaans and English speakers. The speakers in the two recordings were very different – the Afrikaans speaker was male and was later identified as white by a member of the faculty, while the English speaker was female and was identified as black. Thus, these differences either worked together to balance the scores between the two voices, or the languages were actually perceived on average as equally socially desirable for participants.

Another set of rANOVA tests were run to compare the different effects of the Xhosa, Xhosa-English codeswitching, and English voices on the participants' 'social desirability' component scores. The test results showed that the effects were significantly different between the English and Xhosa voices ($F(1,41) = 17.821, p < 0.001$), as they also were between the Xhosa-English codeswitching and monolingual Xhosa voices ($F(1,51) = 12.177, p = 0.001$). Thus, according to the rANOVA, the English and Xhosa-English codeswitching voices earned significantly higher 'social desirability' component scores.
scores than the Xhosa voice. It was important to recall at this point that scales measuring different extrinsic values – Intelligent, Rich, Fluent, Advantaged – were weighted highly on the 'social desirability' component in addition to the Friendly, Kind, and Likeable scales. Thus, while the participants rated the Xhosa speaker as less socially desirable that does not necessarily mean that they believed the Xhosa speaker was unfriendly. It could instead imply that they felt the Xhosa speaker was less advantaged than other voices they heard. Such a result was comparable to Ramsay-Brijball's (2004) results, since she concluded that her participants felt Zulu was less necessary than English. However, it is also important to note that only 24% of participants completing the matched guise speak any Bantu language at all, with only half of them (12%) speaking Xhosa; this could be an additional contributing factor to the voice's low 'social desirability' component score.

On the other hand, another rANOVA showed that there is not a significant difference between the effects of the English and Xhosa-English codeswitching voices on the 'social desirability' component scores ($F(1,42) = 2.342, p = 0.134$). Thus, participants found the two speakers on average to be almost equally socially desirable. This result is similar to that of Gibbons (1983) in that it portrays codeswitching as sharing positive traits with English – kindness, intelligence, warmth – in relation to Xhosa, which does not share as highly in these traits. Furthermore, Ramsay-Brijball (2004) found that codeswitching gives speakers "access [to] the social, academic, and economic benefits of using English" (p. 159), and these were all benefits reflected in the positives of the scales correlated highly with the 'social desirability' component.
7.1.2.3 Component 2 (Dynamism).

Figure 8, which displays the marginal mean component 2 scores for each language representative, is reprinted here for visual reference.

![Figure 8](image)

*Figure 8. Marginal mean component scores by voice: Dynamism. Important primarily for comparison of, rather than the exact values of, the marginal mean component scores.*

The first set of rANOVAs run compared the effects of Afrikaans, Afrikaans-English codeswitching, and English voices on participants' 'dynamism' component scores. The results of these tests showed that the effects of the Afrikaans and Afrikaans-English codeswitching voices were significantly different \( F(1,41) = 9.654, p = 0.003 \), as were the effects of the monolingual English and the Afrikaans codeswitching voices \( F(1,41) = 21.895, p < 0.001 \). Thus, the Afrikaans voice received a definitively lower 'dynamism' component score than both the English and Afrikaans-English codeswitching voices.

Noting the scales that correlated highly with the 'dynamism' component, this result implied that the participants found the Afrikaans voice less talkative, proud, aggressive,
and strong than the other two voices. It was difficult to interpret this result on these scales in terms of existing literature other than to note that De Klerk and Bosch (1995) found Afrikaans speakers to receive the lowest ratings on their matched guise scales. A possible explanation was that the speaker in the recording for Voice 03 is relatively soft-spoken, which could have manifested in a low 'dynamism' component score. Furthermore, given that Proud was a scale more highly correlated with 'dynamism', this result could also match Gibbons' (1983) participants' evaluation of codeswitching voices as arrogant.

An additional rANOVA showed that there is no significant difference between the effects of the English and Afrikaans-English codeswitching voices on the 'dynamism' component scores ($F(1,42) = 2.457, p = 0.125$). Thus, participants found the two speakers on average to be almost equally dynamic. While the scales more highly correlated with 'social desirability' were certainly more positive with a higher score, it was difficult to make the same assertion with 'dynamism.' For example, both "talkative" and "aggressive" could have negative connotations. However, if the adjectives "proud" and "strong" were considered "positive," this result could also have been compared to the result found in Gibbons (1983), since this would have been a sharing of positive traits between codeswitching and English.

Further rANOVAs were used to compare the effects of the Xhosa, Xhosa-English codeswitching, and English voices on the 'dynamism' component scores. The results portrayed that there was a significant difference between the effects of the English and Xhosa-English codeswitching ($F(1,41) = 50.822, p < 0.001$) voices, as well as between those of the Xhosa and Xhosa-English codeswitching voices ($F(1,51) = 33.093, p < 0.001$). Thus, the Xhosa-English codeswitching voice caused a lower 'dynamism'
component score than both the Xhosa and English voices. This result related well to Garrett's (2010) claim that a commonly shared ideology was that codeswitching is "lazy," which can also be interpreted as "less dynamic."

Finally, there was not a significant different in the effects of the monolingual Xhosa and English voices on the 'dynamism' component scores ($F(1,42) = 2.882, p = 0.097$). Thus, the participants felt that these two voices were almost equally dynamic. Although the speakers in these two recordings were not the same person, they were both women whose voices a UCT faculty member described as "black," so these similarities could explain the comparable 'dynamism' component scores.

### 7.1.2.4 Connecting briefly to literature.

It was important to note here that the rANOVA results portrayed neither the "strategy of neutrality" (Gibbons, 1983, p. 145) nor the idea of "[codeswitching] as a medium that is on par with [mother tongue]" (Bokhorst-Heng & Caleon, 2009, p. 244). The results of the tests consistently either showed a significant difference between codeswitching and the related monolingual varieties or failed to show a difference between codeswitching and English; this was true for tests of both sets of languages on both components. For some, the marginal mean component score for codeswitching did lie between those of English and the other monolingual language, but the sets of all component scores along the component were not affected differently enough by the different voices. The differences between these results and the ones presented by the authors above, though, can most likely be attributed to the immense differences in experimental design, for both experiments controlled many more factors, with the most important being content of recordings.
7.1.2.5 Independent variable analysis results.

As stated in the Matched Guise Results section, there were no significant differences in the component scores for either codeswitching voice between participants along any of the following variables: languages spoken, languages spoken with family, age, gender, whether or not they were majoring in linguistics, and level of study in linguistics. Before the data was collected, these results were expected for age and gender, but not necessarily for the other four factors. The level of linguistic study was also not surprising, but that was not until after the interviews confirmed that codeswitching is a topic that is part of the first level of linguistics. This also made the lack of significant difference between the component scores of linguistics and non-linguistics majors less interesting.

The results for languages spoken and languages spoken with family were still unexpected, as the researcher had been hypothesizing a difference along at least one of these independent variables. However, no such result manifested itself. This was most likely due to the make-up of the sample population – which has over 74% reporting as Afrikaans-speakers and 90% reporting that they speak English with their families. Thus, any component score will converge to the level expressed by the majorities discussed here, which was unfortunate for the researcher's analysis along different languages spoken.

7.2 Discussion of Supplement Questionnaire

A supplemental questionnaire was completed by each participant following the matched-guise study, and 81 participants filled it out in full. As a reminder: the participants were asked to rate four pairs of scales, and in each pair, there is one question
regarding the "importance" of the language variety, while the other addresses "necessity" of the language. The scales concerning "importance" were meant to elicit a participant's intrinsic attitudes towards a language variety, while those concerning "necessity" elicit extrinsic attitudes (Ramsay-Brijball, 2004). Figures 11 and 12, reprinted here, graphically display participants' intrinsic and extrinsic language attitudes.

**Figure 11.** Mean intrinsic value rating by language variety (n = 81).

**Figure 12.** Mean extrinsic value rating by language variety (n = 81).

Looking first at the ratings for codeswitching, it was noted that in Figure 11, the intrinsic value rating for codeswitching was about equal to that for English, while both
were below Afrikaans. The participant data again helped to explain this result: 31% of the participants spoke Afrikaans with their family, almost double the amount who spoke a Bantu language (17%). For these participants, codeswitching still enabled them to have access to their Afrikaans, which was intrinsically important to them due to family, in addition to English, which some stated in the interviews as important to their identity as students. Therefore, the results for Afrikaans speakers agreed with Ramsay-Brijball's (2004) evaluation of Zulu L1 speakers, in that codeswitching allowed speakers "to access the social, academic, and economic benefits of using English while simultaneously maximizing their access to the cultural benefits of using Zulu" (p. 159), but instead of Zulu, here Afrikaans was considered.

In Figure 12, the mean extrinsic value rating for codeswitching lay between those of Afrikaans and English. Thus, society was projecting onto them that codeswitching had a necessity for their success that lies between Afrikaans and English. This compared well with Gibbons' (1983) proposed "strategy of neutrality" – the students could have been viewing codeswitching as a choice marked between Afrikaans and English, since it utilizes both codes. Such an evaluation by the students made more sense in conjunction with their viewing codeswitching as allowing access to both codes rather than a mixture of the two in itself, which was part of the interview results discussion in section 7.3.

Next, it was observed that Xhosa had a lower mean rating on both scales in comparison to other languages. This was expected for extrinsic values, and many participants stated plainly in interviews that Xhosa was not necessary for success in life. The students were attending an English-medium institution, so unless they were studying a Nguni language, their proficiency in Xhosa had very little current bearing on success.
As for intrinsic value ratings, the low mean rating for Xhosa could be mostly explained by the very low percent of participants who reported speaking the language (10%). However, these results still agreed with Ramsay-Brijball's (2004) finding that her participants from KwaZulu-Natal gave both intrinsic and extrinsic values towards Zulu lower than those towards English.

The mean ratings on these two graphs for English were expected. Since the University of Cape Town is an English-medium school, one should expect the high mean extrinsic value – the participants need it to be successful, as is evident in Figure 12. Furthermore, about 10% of the 81 participants were monolingual English-speakers, and about 90% of the 81 participants spoke English with their families. Thus, the researcher expected the higher mean intrinsic value given in Figure 11.

There were two important observations to be made on the mean ratings for Afrikaans in these figures. The first was that the mean intrinsic attitude towards Afrikaans was rated more positively than English, despite the fact that Afrikaans speakers on average rated the two in the opposite manner; this is possibly due to the high number (30) of participants who only spoke English and Afrikaans, versus the number who only spoke English (10). The other important piece of data important to take away from these figures is the relatively negative rating in the mean extrinsic attitude toward Afrikaans when compared to that of English; participants on average did not feel that speaking Afrikaans necessary to their successes in life. Again, the students were attending an English-medium institution, in contrast to some other South African universities that are Afrikaans-medium, such as Stellenbosch University.
Next, the same results were given, but this time along five different groups based on languages spoken. Figures 13 and 14 show the mean intrinsic and extrinsic value ratings, respectively, for the four language varieties along five disjoint subsets based on languages spoken. When considering the reported attitudes towards codeswitching, it was first noted that the Bantu language-speaking participants showed a positive intrinsic attitude towards codeswitching in comparison to the other subsets (Figure 13); when looking at the personal data, one could expect this result, because most Bantu language speakers reported speaking at least languages with their families. A similar explanation could be given when considering the subset of Afrikaans speakers showing a relatively positive rating (Figure 13), since only two of that subset reported speaking only Afrikaans with their family. The overall positive mean extrinsic attitude towards codeswitching (Figure 14) was also expected due to the aforementioned "access" to more than one language provided by codeswitching to these linguistics students.

Other results shown here matched rather well with previous graphs and discussions, which fit with this questionnaire's designation as a supplement. Xhosa and Afrikaans had a low mean extrinsic value rating for each language group, while the mean rating for English was very high. English also received a high mean intrinsic value rating from every language group, since academics was part of students' identities. Monolingual English speakers gave codeswitching a low mean intrinsic value rating, most likely because they could not codeswitch. These were all expected results based on discussions and literature above. That Group 3 (English, Bantu, not Afrikaans) gave Xhosa a low mean intrinsic rating may seem surprising, until one notes that six out of the eight Xhosa speakers were in Group 5 and not Group 3.
As with the Matched Guise Questionnaire results, the results of Figures 15-17, which showed that the mean intrinsic and extrinsic value ratings did not vary by gender, whether or not the participant is majoring in linguistics, or level of linguistics study. These were expected results.

7.3 Discussion of Grounded Theory Analysis

The goal of this discussion is to compare the already detailed categories with the pre-existing literature discussed above and any additional, relevant data.

7.3.1 Category 1: The linguistic landscape

The researcher included this category in the Grounded Theory Analysis results due to Garrett's (2010) emphasis on the insights such information provides to the understanding of both attitudes towards language and the underlying social ideologies. Looking at the results, there seemed to be an emphasis in the data on the overall inclusion or exclusion of certain languages from certain types of signs. As a few participants noted, Xhosa is predominately only included in official, government signs, and is always placed below Afrikaans, which is always placed below English. A few examples of such signs are depicted in Figures 18, 19 and 20.
Figure 18. A warning sign on a fence on the UCT campus. Languages: English, Afrikaans, Xhosa.

Figure 19. A sign on a train near the UCT campus. Languages: English, Afrikaans, Xhosa.
The three signs depicted in Figures 18, 19, and 20 used English, Afrikaans, and Xhosa, and placed them in that order from top to bottom. Furthermore, they were all official signs of either the government (Images 1 and 2) or the university (Image 3). Utilizing Landry and Bourhis's (1997) framework of informational and symbolic functions, signs like these could inform students "three languages are only necessary when enforced by government policy" or "UCT only needs to use Xhosa for its crest and offices dealing with international relations." Furthermore, placing English above Afrikaans, and Afrikaans above Xhosa has important symbolic implications that could have heavily influenced students' relative attitudes towards those varieties, as could the lack of inclusion of Afrikaans and/or Xhosa in the signs depicted in Figures 21, 22, and 23.
Figure 21. Instructions in an on-campus telephone booth. Languages: English and Afrikaans.

Figure 22. Fire exit sign on side of an academic building. Languages: English.
The signs and advertisements in Figures 21, 22, and 23 could symbolically tell students on campus, "Whatever function this text is fulfilling, we do not need Afrikaans and/or Xhosa to fulfill it."

An additional, important attribute of these texts – as well as many others not pictured here, including newspapers and pamphlets found on campus – was that they use all languages separately. Languages were not switched or mixed on signs, and if two or more were utilized, they were clearly separated and give the same exact message. This matched the description given by students in their comments on the linguistic landscape, which included discussions about television and radio as well. Altogether, according to
Landry and Bourhis (1997), this non-mixing and non-codeswitching landscape could have essentially informed students "codeswitching is improper" and symbolically tell them "languages should not be mixed," the former of which was an attitude found in category 2.

### 7.3.2 Category 2: Codeswitching is informal.

Above was presented the most probable influence for this category: the UCT linguistic landscape. The parts of the landscape that did utilize codeswitching – certain TV shows and newspapers – were not formal and are in some cases labeled "horrible" by participants in the interviews. This evaluation of codeswitching was not mirrored exactly in the literature, but is instead related to attitudes found in Garrett (2010), such as "lazy" and "impure" (p. 12) and Gibbons (1983), such as "arrogant" (p. 143). Furthermore, Woolard's (1998) findings matched this category well, as she found people believed codeswitching "grammarless and/or decadent" (p. 17). All of these could make codeswitching seem incorrect for formal company.

### 7.3.3 Category 3: Codeswitching requires a specific context

The main attitude in this category was that there is a correct time, place, and manner in which to codeswitch; Myers-Scotton's (1993) markedness model provided overwhelming support for participants having such an attitude. The quotes used to form category 3 are essentially conscious testaments of the internal markedness metric proposed by Myers-Scotton (p. 95), as they were evaluating when, with whom, and in what manner it is appropriate to switch between two languages in the same conversation. This interpretation worked in two ways, depending on how one views codeswitching. On the one hand, if one thinks of codeswitching as the use of two or more codes, as the
participants did, then the markedness model applies in that participants were using their internal metric to say, "Introducing this second code into this conversation is improper at this time and with this person." On the other hand, if one views codeswitching as a separate code itself, which the participants could have been doing in providing statements concerning codeswitching in general (i.e., not specific types thereof), then the model still applies, as participants were using the metric to state, "In this situation, using codeswitching to express myself is okay."

7.3.4 Categories 4 and 5: Access and inclusion/exclusion

These categories were definitely the most saturated, primarily because they sat on a boundary that many researchers have struggled with – that between codeswitching and language borrowing. However, in obtaining data for these categories, the researcher was sure to:

1. Establish a situation in which the participant had either utilized or heard codeswitching and not borrowing, and only after this

2. Ask questions about that situation and attitudes towards it.

Thus, the non-directive approach to interviews worked in the researcher's favor here, as it enabled him to use the participants' own experiences to frame the conversation, rather than inadvertently work within a mistaken definition.

Given this, they were still rather saturated, as the linguistics students had plenty to say about multilingualism. Many of the evaluations of codeswitching providing multilingual access could be understood in the context of multilingual South Africa; participants related the importance of codeswitching to their identities as South Africans or Western Cape citizens. Furthermore, much of the literature either alluded to or directly
stated that people view codeswitching as multilingual access. Ramsay-Brijball (2004) discussed the academic access of English versus the cultural access of Zulu, Gibbons (1983) presented MIX as neutral in his Westernization factor between Chinese and English, and Adegbija (1994) showed how indigenous languages provide solidarity within groups, while English provided heightened status.

Finally, codeswitching as providing additional codes worked well within the markedness model's notion of indexing (Myers-Scotton, 1993). Through the interviews, participants spoke to how codeswitching either allowed them to express certain elements of their identities or indexed their identity as a South African through being a code itself. Regardless of whether or not these codes were marked, they were still there and accessed through codeswitching, and the participants showed an awareness of that socio-pragmatic access in the interview data.

7.4 Triangulation of the Data

As was noted in the Chapter 5, the Matched Guise Questionnaire data, Supplement Questionnaire data, and interview data all provided different views of the languages attitudes of UCT Linguistics students. The matched guise study, as presented by Garrett (2010), indirectly elicited language attitudes, the interview questions indirectly arrived at direct elicitations of attitudes, and the Supplement Questionnaire asked participants directly to rate languages on certain scales. Thus, these results could be both compared to create a fuller picture of the students' attitudes and contrasted to see what participants overtly express versus what was shown through indirect elicitation.
7.4.1 Matched guise 'social desirability' component.

The rANOVAs completed on the 'social desirability' component scores from the matched guise data revealed that participants found the Afrikaans-English codeswitching voice less socially desirable (according to the component) than the monolingual Afrikaans and English voices, while they also found the monolingual Xhosa voice less socially desirable than the English and Xhosa-English codeswitching voices.

The other sources of data for this study did not separate Afrikaans-English codeswitching from Xhosa-English codeswitching; furthermore, the 'social desirability' component used a combination of factors that potentially go into both intrinsic and extrinsic attitudes (i.e., the Friendly scale could be considered intrinsic, while the Intelligent scale could be extrinsic). These complications made comparing the Matched Guise and Supplement Questionnaire data difficult. The results for mean intrinsic value ratings of codeswitching did match better with the 'social desirability' component scores; codeswitching was rated between English and Xhosa, but below English and Afrikaans. Thus, one could stretch to say this showed a strong relation between hidden and overt attitudes.

The interviews, on the other hand, provided plenty of information of 'social desirability' of codeswitching speakers. The positives could be primarily drawn from categories 3, 4, and 5 of the Grounded Theory Analysis. Participants found the appropriate times to codeswitch were mostly with friends and family, and people who codeswitch were being inclusive of others by accessing more than one code. In addition, it was "cool," "neat," and "fascinating." However, negatives in terms of 'social desirability' also arose – codeswitching was seen as an informal act (going mainly against
the scales Rich and Advantaged) and could simultaneously be used to exclude others through switching to an unshared code. It is important to note here that each of these items was discussed at different points for both Afrikaans-English and Xhosa-English codeswitching. Since the interview data was positive for codeswitching in terms of intrigue and social attractiveness, while negative in terms of social status, the directly elicited attitudes in the interviews seemed to reflect codeswitching having "covert prestige" (Trudgill, 1974). Consequently, the direct attitudes did not match the indirectly elicited attitude for Afrikaans-English codeswitching in the matched guise data, but they did match those for Xhosa-English codeswitching, since its marginal mean component score lay between those for Xhosa and English.

7.4.2 Matched guise 'dynamism' component

The rANOVAs completed on the 'dynamism' component scores from the matched guise data revealed that participants found the Xhosa-English codeswitching voice less dynamic (according to the component) than the monolingual Xhosa and English voices, while they also found the monolingual Afrikaans voice less dynamic than the English and Afrikaans-English codeswitching voices. Given the difficult of extracting factors from 'dynamism' to compare with intrinsic and extrinsic values, these results will only be compared with the interview data.

In the 'dynamism' component, the highly correlated scales were Talkative, Proud, Strong, Aggressive, and Active. The category from the Grounded Theory Analysis that most relates was category 3: codeswitching provides access to another language. Given the overwhelming consensus of participants within this category, one would expect codeswitching voices to have marginal mean 'dynamism' component scores higher than
those of the monolingual voices would; however, this was not the case. There was a possibility that participants interpreted scales such as Proud, Talkative, and Aggressive with a purely negative connotation, negatively affecting the correlation between the two sets of data. Nonetheless, there was certainly a dichotomy between the indirectly and directly elicited attitudes in terms of 'dynamism'.

7.5 Putting it All Together

The discussions in Subsections 7.4.1 and 7.4.2 brought together the results from the individual 'social desirability' and 'dynamism' components and the interview results from the GTA. Here, all of the results will be brought together and connected with the literature.

Overall, the results of the present study were ambiguous and vague. The rANOVA on the principal component scores revealed higher 'social desirability' of Xhosa-English codeswitching and lower 'social desirability' of Afrikaans-English codeswitching in comparison to monolingual Xhosa and Afrikaans, respectively, while also revealing the reverse situation for 'dynamism.' The interviews revealed slightly more, as participants felt that their environment disfavors codeswitching because it is informal, but they felt it is also a fascinating phenomenon that provides access to additional languages and identities. However, they also saw it as both inclusive and exclusive. Thus, both the indirect and direct attitudes elicited through this study are ambiguous at best.

This does not mean that the present study cannot be compared to or augment the existing literature – the value of the study has still been fulfilled. Such ambiguity can be compared to the findings of Gibbons (1983), Kroskrity (1998), and Ramsay-Brijball (2002; 2004) and simultaneously contrasted with Stroud (1998) and Bokhorst-Heng and
Caleon (2009). First to contrast. While category 4 of the GTA did evidence that students appreciated the access available to them through codeswitching, and the matched guise study showed a similar, more neutral attitude towards codeswitching that was indirectly elicited, there was no resounding, overall positive attitude towards codeswitching as was found in Gapun by Stroud, where the villagers fully realized and appreciated the access to multiple identities available to them through the phenomenon. Furthermore, both the Afrikaans-English and Xhosa-English codeswitching voices consistently had significantly different effects from monolingual Afrikaans and Xhosa, respectively, on both the 'social desirability' and the 'dynamism' component scores. Thus, there were no findings such as Bokhorst-Heng and Caleon's (2008), that "[codeswitching] is…on par with [the mother tongue]" (p. 244). This contrast as further supported by the participants speaking about codeswitching in terms of both English and another, not just the latter.

The comparisons to existing literature went further than the contrasts. Although the results were not as definitively neutral as Gibbons' (1983) were, there was still some indication of his "strategy of neutrality" through the ambiguity of the matched guise results and the dichotomy in the directly elicited attitudes. Furthermore, the intrinsic and extrinsic values elicited through the supplement questionnaire placed codeswitching on about the same level as English and Afrikaans intrinsically, and between the two extrinsically (Figures 11 and 12). Thus, despite there being no definitive evidence that participants saw codeswitching as a compromise between two varieties, some of the data could support such a claim. This also agreed with Ramsay-Brijball's (2004) findings of codeswitching's place as a compromise between the English and Zulu identities of students at the University of Kwa-Zulu Natal.
The conflicting, directly elicited attitudes of students towards codeswitching in the interview data, when considered alongside the ambiguous, indirectly elicited attitudes found in the matched guise study data, portrayed a form of covert prestige as defined by Trudgill (1972). While the participants indicated that codeswitching was informal and had no place in an academic environment – or any formal environment – they simultaneously indicated an appreciation for other elements of codeswitching, such as its access, inclusion, and linguistic form. It would be difficult to "tease out" such an intricate attitude in the matched guise data, but the apparent ambiguity slightly supported this, especially since the 'social desirability' component correlated positively with scales associated with both overt and covert prestige. Similar results were found by Kroskrity (1998) and Ramsay-Brijball (2002), both of whom reported participants denying that they codeswitch, even though they actually did so constantly to index multiple identities. The result for this study was not as definitive as the results of Kroskrity, Ramsay-Brijball, or even Trudgill, since very few multilingual participants actually denied codeswitching, but it was still a "softened" form of covert prestige through the opposing attitudes involving status.

Chapter 8: Conclusions

The original thesis questions are reprinted to discuss conclusions.

What are attitudes of South African linguistics students and at the University of Cape Town towards codeswitching? There seemed to be an element of covert prestige for codeswitching amongst the linguistics students at the University of Cape Town. In interviews, students had a high regard for its versatility and "coolness," and were able to
identify situations with both friends and family in which it is appropriate. However, the phenomenon was also deemed informal and exclusive at times. The faculty members concurred in their interviews that the students truly enjoy learning about codeswitching and writing papers on it. Furthermore, the matched guise study did show inconclusive results in terms of the 'social desirability' component, which has an ambivalent relationship with covert prestige.

How do these attitudes relate to the participants' attitudes towards Xhosa, English, Afrikaans, and/or other varieties that they speak? The participants definitely seemed to form their attitudes towards codeswitching in relation to their attitudes towards the respective languages. This came through definitively when discussing items found in categories 4 and 5 of the Grounded Theory Analysis. English commanded such a high yet organic prestige on campus that it earned higher marginal mean component scores than any other variety for both principal components, though the results were only significantly different from Afrikaans-English codeswitching for 'social desirability' and from Xhosa-English codeswitching for 'dynamism.' Codeswitching was not deemed more necessary than English was, nor was it more important for identity than Afrikaans, in both the Supplement Questionnaire and the interviews. It was difficult to compare it validly to Xhosa, given the relative number of Xhosa-speaking participants. Thus, while attitudes towards codeswitching were not consistently reflective of its being a neutral strategy between two language varieties, they did portray consideration of the two varieties involved.

How these attitudes relate to what languages they speak? The matched guise data showed no significant differences in questionnaire ratings in terms of languages spoken.
When considering the supplement results of attitudes towards codeswitching, Bantu language-speaking participants showed a very positive intrinsic attitude towards codeswitching in comparison to the other subsets (Figure 13); the same case occurred with the subset of Afrikaans speakers showing a relatively positive rating (Figure 13). Monolingual English speakers rated codeswitching lower than any other language grouping. Xhosa and Afrikaans had a low mean extrinsic value rating for each language group, while the mean rating for English was very high (Figure 14). The extrinsic value ratings towards codeswitching were consistently between those for English and the other two for each language grouping (Figure 14). Though not explicitly reported above, the same attitudes were shared in the interviews by members of the different language groupings. Thus, the two sources of direct attitudes at least agreed with one another.

How do these attitudes relate to additional factors, such as gender, age, level of linguistics education, and field of study? There were no demonstrated significant effects of any of these variables in any piece of the data. Gender and age were not expected to show significant differences, field of study did not vary as much as expected, and level of linguistics education was affected by students learning about codeswitching early in level one.

In order to interpret the findings stated above appropriately and more conclusively, much more research is required. First, it would be helpful to investigate the potential differences between attitudes towards Afrikaans-English codeswitching and Xhosa-English codeswitching. The matched guise data showed some differences, but the interviews did not investigate that point well enough, as that was not the focus of the
present study. Refining the questions to look for those potential differences would elicit useful comparisons, and could help to understand some of the ambiguity in the data.

An additional area of refinement for the present study is a better approach to working on the boundary between borrowing and codeswitching. This study took a descriptive approach, working with a broad definition of codeswitching and allowing participants to define it for themselves to observe what they believed they were commenting on. However, if one were to find a way to exclude borrowing from the conversation without derailing the non-directive approach of the interviews, such an exclusion would be useful.

Finally, the fact that these attitudes were elicited in an educational setting, along with the interview data showing that many comments were made with education in mind, shows that this study can be used in comparison to and augmentation of the existing research on language planning and educational policy-making in the post-apartheid South Africa. More specifically, students' attitudes towards codeswitching are important when one considers the idea of utilizing codeswitching in the classroom, especially when tensions have already been found (Probyn, 2009). Just as students' attitudes have been considered in the past when deciding which monolingual varieties to use in South African classrooms, so should their attitudes towards codeswitching, especially as scholars continue to find it a useful tool in education (Ncoko, 2000). More research is needed first, though, into what factors are informing the various facets of the covert prestige for codeswitching found here in the attitudes of UCT linguistics students.
References

University of Cape Town.


The general nature of this study conducted by Michael Schilling of the College of William and Mary has been explained to me. I understand that I will be asked to both answer questions regarding both my opinions of different speakers on an audio recording and answer basic questions about myself in a recorded interview setting. My participation in this study should take a total of about two (2) hours. I understand that my responses will be anonymous and that my name will neither be asked for or used in any part of this study. I know that I may refuse to answer any question asked and that I may discontinue participation at any time, up to and including after I have completed both parts of this study. Potential risks resulting from my participation in this project have been described to me. I am aware that I may report dissatisfactions with any aspect of this experiment to the Chair of the Protection of Human Subjects Committee, Dr. Lee Kirkpatrick, at 757-221-3997 or consent@wm.edu. I am aware that I must be at least 18 years of age to be eligible to participate. My signature below signifies my voluntary and eligible participation in this project, and that I have received a copy of this consent form.

Signature: _______________________________ Date: ______________
Appendix B: Matched Guise Questionnaire

**Voice #1**: Please listen to the speakers in the recording. For each scale provided, please rate the **second** speaker on the six-point scale that represents your evaluation of that speaker for the listed characteristics. In other words, place your evaluation on the scale in completing the sentence, "The speaker sounds ___" for each scale.

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**Voice #2**: Please listen to the speakers in the recording. For each scale provided, please rate the **first** speaker on the six-point scale that represents your evaluation of that speaker for the listed characteristics. In other words, place your evaluation on the scale in completing the sentence, "The speaker sounds ___" for each scale.

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Appendix B: Matched Guise Questionnaire

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Participant Code: ___

Voice #3: Please listen to the speakers in the recording. For each scale provided, please rate the first speaker on the six-point scale that represents your evaluation of that speaker for the listed characteristics. In other words, place your evaluation on the scale in completing the sentence, "The speaker sounds _____" for each scale.
Appendix B: Matched Guise Questionnaire

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Voice #4: Please listen to the speakers in the recording. For each scale provided, please rate the second speaker on the six-point scale that represents your evaluation of that speaker for the listed characteristics. In other words, place your evaluation on the scale in completing the sentence, "The speaker sounds _____" for each scale.

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<tr>
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Participant Code: ____

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</table>

Voice #5: Please listen to the speakers in the recording. For each scale provided, please rate the second speaker on the six-point scale that represents your evaluation of that speaker for the listed characteristics. In other words, place your evaluation on the scale in completing the sentence, "The speaker sounds _____" for each scale.

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<tr>
<td>1 2 3 4 5 6</td>
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<tr>
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<td>Kind</td>
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<tr>
<td>1 2 3 4 5 6</td>
<td>1 2 3 4 5 6</td>
</tr>
<tr>
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<td>Pleasant</td>
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<tr>
<td>1 2 3 4 5 6</td>
<td>1 2 3 4 5 6</td>
</tr>
<tr>
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<tr>
<td>1 2 3 4 5 6</td>
<td>1 2 3 4 5 6</td>
</tr>
<tr>
<td>Humble</td>
<td>Proud</td>
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<tr>
<td>1 2 3 4 5 6</td>
<td>1 2 3 4 5 6</td>
</tr>
<tr>
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Appendix B: Matched Guise Questionnaire

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<td>Passive Person</td>
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Participant Code: ____

**Voice 6:** Please listen to the speakers in the recording. For each scale provided, please rate the first speaker on the six-point scale that represents your evaluation of that speaker for the listed characteristics. In other words, place your evaluation on the scale in completing the sentence, “The speaker sounds _____” for each scale.

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<tbody>
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<tr>
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<tr>
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### Appendix B: Matched Guise Questionnaire

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**Voice #2:** Please listen to the speakers in the recording. For each scale provided, please rate the **first** speaker on the six-point scale that represents your evaluation of that speaker for the listed characteristics. In other words, place your evaluation on the scale in completing the sentence, “The speaker sounds _____” for each scale.

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</table>

**Voice #7:** Please listen to the speakers in the recording. For each scale provided, please rate the **first** speaker on the six-point scale that represents your evaluation of that speaker for the listed characteristics. In other words, place your evaluation on the scale in completing the sentence, “The speaker sounds _____” for each scale.

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Participant Code: __________

Page 5 of 12
Appendix B: Matched Guise Questionnaire

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Voice #8: Please listen to the speakers in the recording. For each scale provided, please rate the first speaker on the six-point scale that represents your evaluation of that speaker for the listed characteristics. In other words, place your evaluation on the scale in completing the sentence, "The speaker sounds _____" for each scale.

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Appendix B: Matched Guise Questionnaire

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Voice PP: Please listen to the speakers in the recording. For each scale provided, please rate the first speaker on the six-point scale that represents your evaluation of that speaker for the listed characteristics. In other words, place your evaluation on the scale in completing the sentence, "The speaker sounds _____" for each scale.

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Participant Code: ___
### Appendix B: Matched Guise Questionnaire

**Voice #10:** Please listen to the speakers in the recording. For each scale provided, please rate the first speaker on the six-point scale that represents your evaluation of that speaker for the listed characteristics. In other words, place your evaluation on the scale in completing the sentence, “The speaker sounds _______” for each scale.

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**Voice #11:** Please listen to the speakers in the recording. For each scale provided, please rate the first speaker on the six-point scale that represents your evaluation of that speaker for the listed characteristics. In other words, place your evaluation on the scale in completing the sentence, “The speaker sounds _______” for each scale.

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Participant Code: __________
### Appendix B: Matched Guise Questionnaire

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**Voice #12:** Please listen to the speakers in the recording. For each scale provided, please rate the **first** speaker on the six-point scale that represents your evaluation of that speaker for the listed characteristics. In other words, place your evaluation on the scale in completing the sentence, “The speaker sounds _____” for each scale.
Appendix B: Matched Guise Questionnaire

<table>
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**Voice #13**: Please listen to the speakers in the recording. For each scale provided, please rate the first speaker on the six-point scale that represents your evaluation of that speaker for the listed characteristics. In other words, place your evaluation on the scale in completing the sentence, "The speaker sounds _____" for each scale.

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<td>Aggressive</td>
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<table>
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<tr>
<th>Characteristic</th>
<th>Scale 1</th>
<th>Scale 2</th>
<th>Scale 3</th>
<th>Scale 4</th>
<th>Scale 5</th>
<th>Scale 6</th>
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<tr>
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<tr>
<td>Humble</td>
<td>1 2 3 4 5 6</td>
<td>Proud</td>
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<tr>
<td>Unlikely</td>
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<tr>
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<td>1 2 3 4 5 6</td>
<td>Talented</td>
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</table>

**Voice #14**: Please listen to the speakers in the recording. For each scale provided, please rate the first speaker on the six-point scale that represents your evaluation of that speaker for the listed characteristics. In other words, place your evaluation on the scale in completing the sentence, "The speaker sounds _____" for each scale.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Scale 1</th>
<th>Scale 2</th>
<th>Scale 3</th>
<th>Scale 4</th>
<th>Scale 5</th>
<th>Scale 6</th>
</tr>
</thead>
<tbody>
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<tr>
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<td>Intelligent</td>
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</table>
Appendix B: Matched Guise Questionnaire

Voice #15: Please listen to the speakers in the recording. For each scale provided, please rate the first speaker on the six-point scale that represents your evaluation of that speaker for the listed characteristics. In other words, place your evaluation on the scale in completing the sentence, "The speaker sounds ______" for each scale.
Appendix B: Matched Guise Questionnaire

<table>
<thead>
<tr>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<tr>
<td>Kind</td>
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<td>Unpleasant</td>
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<td>Pleasant</td>
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<td>Humble</td>
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<td>Unlikeable</td>
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<tr>
<td>Likeable</td>
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</tr>
</tbody>
</table>
Appendix C: Supplement Questionnaire

Please read the following statements, putting yourself in the place of the person speaking the statement. Please rate your level of agreement or disagreement towards each statement on the scale provided.

Speaking Xhosa is important to my identity.

1 2 3 4 5 6
Disagree -------------------------------- Agree

Speaking Xhosa is necessary to my success in life.

1 2 3 4 5 6
Disagree -------------------------------- Agree

Speaking English is important to my identity.

1 2 3 4 5 6
Disagree -------------------------------- Agree

Speaking English is necessary to my success in life.

1 2 3 4 5 6
Disagree -------------------------------- Agree

Speaking Afrikaans is important to my identity.

1 2 3 4 5 6
Disagree -------------------------------- Agree

Speaking Afrikaans is necessary to my success in life.

1 2 3 4 5 6
Disagree -------------------------------- Agree

Additional Questions

Please answer the following questions in the space provided.

1. What are you studying or planning to study at university?
2. How old are you?
3. What is your gender?
4. What languages and/or language varieties do you speak?
5. What languages and/or language varieties do you speak with your family?
6. What languages and/or language varieties do you speak with your friends?
7. What languages and/or language varieties do you speak on campus?
1. Opening question: You mentioned in your questionnaire that you speak __________. When do you speak this language, or do you speak it all of the time?

(For Honors Students – open by asking what languages they speak.)

2. 2 choices
   a. If Question 1 yields useful language for a follow-up question, ask that.
   b. Otherwise: You also mentioned that you speak ______. When do you speak this language, or do you speak it all of the time?

3. 2 choices
   a. If Question 2 yields useful language for a follow-up question, ask that.
   b. Otherwise: You also mentioned that you speak ______. When do you speak this language, or do you speak it all of the time?

4. What languages do you hear spoken on campus?

5. What languages do you hear or see in the media?

6. What languages do you see used on campus? For example, on signs and in advertisements?

7. 2 choices
   a. If the topic of code-switching has already been discussed, use any language that has come from this discussion to ask a follow-up question.
   b. Otherwise: (For undergraduates) You answered a question in the **Final Questions** section of your questionnaire that asked about your ability to switch between two or more languages. When do you switch between two or more languages, or do you do so all of the time?
8. Form a follow-up question or multiple from the discussion on Question 4 to directly elicit attitudes towards code-switching.

9. (For undergraduates) How did you feel about the recordings you listened to while filling-out the questionnaire?

10. (For undergraduates) How many speakers did you believe you were evaluating while listening to the recordings?

11. Is there anything else that you would like to add for the record?
1. Opening question: What languages do you speak?

2. 2 choices
   a. If Question 1 yields useful language for a follow-up question, ask that.
   b. Otherwise: How long have you been working at the University of Cape Town?

3. 2 choices
   a. If Question 2 yields useful language for a follow-up question, ask that.
   b. Otherwise: What languages do you find are most spoken here?

4. Follow-through: make sure that at least 2(b) and the question "What is your area of specialty and what do you teach here?" have been asked.

5. 2 choices
   a. If the topic of code-switching has already been discussed, use any language that has come from this discussion to ask a follow-up question.
   b. Otherwise: Do you ever hear more than one language spoken in the same conversation here at the University?

6. Form a follow-up question or multiple from the discussion on Question 4 to directly elicit attitudes towards code-switching.

7. Is there anything else that you would like to add for the record?
Appendix F: Repeated Measures ANOVA Results for choosing Language Representatives

<table>
<thead>
<tr>
<th>Choice</th>
<th>Component</th>
<th>Voices</th>
<th>Hypothesis Test Result</th>
<th>Interpretation</th>
<th>Marginal Means Found [component(voice#)]</th>
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</thead>
<tbody>
<tr>
<td>V14</td>
<td>Social Desirability XHO - ALL</td>
<td>null hyp rejected</td>
<td>V13, V06, and V14 different effects</td>
<td>SC(06) = -1.2, SC(13) = 1.03, SC(14) = -1.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social Desirability XHO - V06 and V14</td>
<td>null hyp not rejected (tenable)</td>
<td>V06 and V14 same effects</td>
<td>SC(06) = -1.2, SC(14) = -1.2</td>
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<tr>
<td></td>
<td>Dynamism</td>
<td>XHO - ALL</td>
<td>sphericity fails - no decision</td>
<td>none</td>
<td>D(06) = -.09, D(13) = .85, D(14) = .44</td>
</tr>
<tr>
<td>Dynamism</td>
<td>XHO - V06 and V14</td>
<td>null hyp not rejected (tenable)</td>
<td>V06 and V14 same effects</td>
<td>D(06) = -.09, D(14) = .44</td>
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<tr>
<td></td>
<td>Dynamism</td>
<td>XHO - V06 and V13</td>
<td>null hyp not rejected (tenable)</td>
<td>V06 and V13 same effects</td>
<td>D(06) = -.09, D(13) = .85</td>
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<tr>
<td></td>
<td>Dynamism</td>
<td>XHO - V13 and V14</td>
<td>null hyp not rejected (tenable)</td>
<td>V13 and V14 same effects</td>
<td>D(13) = .85, D(14) = .44</td>
</tr>
<tr>
<td>V08</td>
<td>Social Desirability ENG - ALL</td>
<td>null hyp rejected</td>
<td>different effects</td>
<td>SC(02) = -1.6, SC(05) = 1.9, SC(08) = 1.1, SC(09) = 2.5, SC(10) = 1.2</td>
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<tr>
<td></td>
<td>Social Desirability ENG - V05, V08, V09, V10</td>
<td>null hyp not rejected (tenable)</td>
<td>V05 and V09 same effects</td>
<td>SC(05) = 1.9, SC(09) = 2.5</td>
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<tr>
<td></td>
<td>Social Desirability ENG - V05, V08</td>
<td>null hyp not rejected (tenable)</td>
<td>V08 and V10 same effects</td>
<td>SC(08) = 1.1, SC(10) = 1.2</td>
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<td></td>
<td>Social Desirability ENG - V08, V09</td>
<td>null hyp not rejected (tenable)</td>
<td>V08 and V09 different effects</td>
<td>SC(08) = 1.1, SC(09) = 2.5</td>
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<td>Social Desirability ENG - V09, V10</td>
<td>null hyp not rejected (tenable)</td>
<td>V09 and V10 same effects</td>
<td>SC(09) = 1.9, SC(10) = 1.2</td>
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<tr>
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<td>Dynamism</td>
<td>ENG - ALL</td>
<td>null hyp rejected</td>
<td>different effects</td>
<td>D(02) = 1.8, D(05) = 2.1, D(08) = 1.1, D(09) = .05</td>
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<td>Dynamism</td>
<td>ENG - V05, V08, V09</td>
<td>null hyp rejected</td>
<td>V05, V08, and V09 different effects</td>
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<td>ENG - V05, V08</td>
<td>null hyp rejected</td>
<td>V05 and V08 different effects</td>
<td>D(05) = 2.1, D(08) = 1.1</td>
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<tr>
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<td>Dynamism</td>
<td>ENG - V08, V09</td>
<td>null hyp rejected</td>
<td>V08 and V09 different effects</td>
<td>D(08) = 1.1, D(09) = .015</td>
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<tr>
<td></td>
<td>Dynamism</td>
<td>ENG - V09, V10</td>
<td>null hyp not rejected (tenable)</td>
<td>V09 and V10 same effects</td>
<td>D(09) = .015, D(10) = -.48</td>
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<tr>
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<td>Dynamism</td>
<td>ENG - V02, V05</td>
<td>null hyp not rejected (tenable)</td>
<td>V02 and V05 same effects</td>
<td>D(02) = 1.8, D(05) = .21</td>
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<tr>
<td></td>
<td>Dynamism</td>
<td>ENG - V02, V09</td>
<td>null hyp not rejected (tenable)</td>
<td>V02 and V09 same effects</td>
<td>D(02) = 1.8, D(08) = 1.1</td>
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<tr>
<td>V03</td>
<td>Social Desirability AFR - ALL</td>
<td>null hyp rejected</td>
<td>V03, V04 different effects</td>
<td>SC(03) = .31, SC(04) = -.66</td>
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<tr>
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<td>Dynamism</td>
<td>AFR - ALL</td>
<td>null hyp rejected</td>
<td>V03, V04 different effects</td>
<td>D(03) = -.92, D(04) = 2</td>
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<tr>
<td>V07</td>
<td>Social Desirability XHO-ENG CS - ALL</td>
<td>null hyp not rejected (tenable)</td>
<td>V01, V07, and V15 same effects</td>
<td>SC(01) = .64, SC(07) = .31, SC(15) = -.38</td>
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<tr>
<td></td>
<td>Dynamism</td>
<td>XHO-ENG CS - ALL</td>
<td>null hyp rejected</td>
<td>V01, V07, and V15 different effects</td>
<td>D(01) = 1.8, D(07) = 2.1, D(15) = .15</td>
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<tr>
<td></td>
<td>Dynamism</td>
<td>XHO-ENG CS - V01, V07</td>
<td>null hyp not rejected (tenable)</td>
<td>V01 and V07 same effects</td>
<td>D(01) = 1.8, D(07) = 2.1</td>
</tr>
<tr>
<td>V12</td>
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<td>null hyp rejected</td>
<td>V11 and V12 different effects</td>
<td>SC(11) = 2.8, SC(12) = 1.2</td>
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<tr>
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<td>Dynamism</td>
<td>AFR-ENG CS - ALL</td>
<td>null hyp not rejected (tenable)</td>
<td>V11 and V12 same effects</td>
<td>D(11) = .44, D(12) = .49</td>
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