Influence of ethnicity labels on evaluation of the non-native accents

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Abstract

Both accent and label influence the evaluative reaction of individuals. The literature about the perception of accent shows that Western Europe-accented English is perceived the most positively regarded in English-speaking countries whereas Middle Eastern-accented English is rated the least positively regarded accent. Furthermore, labelling accents might be evaluated in extreme: therefore, I labelled the accents with the congruent ethnicity label, with the incongruent label and without label (neutral label) to test the present study's aims. The aims of the present study are to investigate how evaluation of the two non-native speakers' accents, French accent vs. Arabic accent, would be distinguished under the congruent ethnicity label, incongruent ethnicity label and neutral label, in terms of competence, socio-intellectual status, aesthetic quality, religiosity, familiarity, reliability, and security. I found that the French-accented English speaker was evaluated more favourably than the Arabic-accented English speaker under all conditions and all traits except religiosity, in which French was evaluated as less religious than Arabic accent. Moreover, interaction between the labels and the accents were significant in terms of religiosity and socio-intellectual status, and changed perception of the accent in terms of some traits. The accents with a congruent ethnicity label, however, did not exert evaluation of the accent in terms of all traits, even though abandoning the label increased the evaluative reaction towards the accents in terms of some traits.

Key words: ethnicity label, non-native accent, French accent, Arabic accent.

Introduction

Individuals evaluate and categorise others in everyday life, and their evaluations and categorisations are shaped by many different aspects, such as labels, their way of speech/accent, and appearances. First impression of people, for example, may be influenced by accent (Lippi-Green, 1994), because one's accent evokes a perception of a speaker at first contact related to attributions of social status, solidarity, national origin or ethnicity of human beings, as well as their personal traits regarding intelligence and kindness (e.g., Nesdale & Rooney, 1990; Lippi-Green, 1994;). When one listens to another, the speaker's accent brings to mind much social information about the speaker (Giles & Johnson, 1987; Lippi-Green; 1997; Edwards, 1999). Hence, accent can be a reason for categorisation or discrimination or judgment.

Labels or objects with a corresponding label also influence perception and judgement, or can exert an effect of judgement and perception (Foroni & Rothbart, 2013). Purkiss et al. (2006), for example, found that when two ethnic cues, Hispanic ethnic name and accent, were combined together at a job interview, if this combination corresponded with each other, judgements against candidates were extremely negative compared to other conditions. Hence, the aims of the present dissertation are to investigate (1) how two foreign-accented English speakers (foreign accent); one an Arabic-accented English speaker (Arabic accent), the other a French-accented English speaker (French accent), are perceived by native British English speakers in terms of competence, socio-intellectual status, aesthetic quality, dynamism, religiosity, reliability, familiarity, and security; and (2) how perception of the listeners changes when the accents are labelled with their congruent ethnicities or with incongruent ethnicities, or when they are left without a label (neutral). Hence, I questioned how each accent is perceived under the different label conditions: neutral vs. congruent vs incongruent.

Influence of non-native accent on evaluations

Accent denotes a way of pronunciation by a particular group of individuals in a group's region, social class, ethnicity and so forth (Giles, 1970). When we explore Giles's (1970) definitions about accent, we can conclude that accent is strongly part of tradition and family stock; hence, it is very difficult to alter. Individuals have their own manner of pronunciations. This manner of pronunciation is identified as an accent, and it is generally judged negatively by others who do not speak with the same accent if they have some negative perception against individuals who speak with that accent.

We can say that accent is a phenomenon that adults, children, and even babies, discriminate against, and that categorise speakers who do not speak their accents or standard accents. Of course, perception of accent by babies and early-age children are naïve compared to that of adults. Studies from developmental psychology, for example, show that language including accent is perceptible even in early life (for instance, new born infants from French-speaking families can distinguish English sentences from Japanese sentences, see Nazzi, Bertoncini, & Mehler, 1998). Indeed, naïve listeners such as five-month-old infants (e.g., Nazzi, Jusczyk & Johnson, 2000; Kinzler, Dupoux, & Spelke, 2007), 10-month-old infants (e.g., Chung, 2002; Kinzler, Dupoux, & Spelke, 2007) and five-year-old children (e.g., Kinzler, Shutts, Dejesus, & Spelke, 2009) prefer their native language to a foreign language or accent, they trust people who speak with their accent (Kinzler, Corriveau, & Harris, 2011). Five-year-old American children, for instance, chose a person who speaks the same language or uses the same accent as them (American English) as a friend, rather than a foreign language speaker or a foreign-accented English speaker (Kinzler, Shutts, Dejesus, & Spelke, 2009). Girard, Floccia, and Goslin (2008) also found that whereas 5-6 years old children in France distinguished

between foreign accent and native accent, they did not differentiate within native accents of France (southern- and northern-accented French).

Although individuals who speak with non-standard accents (regional) are perceived more negatively than standard-accented speakers in many ways such as attractiveness, competence, social status, and aesthetic quality (e.g., Giles, 1970; Bishop, Coupland, & Garret, 2005; Rakić, Steffens, & Mummendey, 2011a), some substantial research indicates that non-native accent, which is identified to be spoken fluently, as a second language, by individuals who are non-native to that language (Moyer, 2004), is generally judged more negatively comparing to native accents including regional accents (e.g., Lippi-Green, 1997; Dovidio, Gluszek, John, Ditlman, & Lagunes, 2010). Lindemann (2003; 2005), for example, found that non-native speakers are more likely to be evaluated to have lower social status, to be less competent, such as having lower education and less intelligence. Moreover, research has shown that discrimination against non-standard-accented speakers does not just exist in an employment company (e.g., Hansen, Rakić, & Steffens, 2014; Kalin & Rayko, 1980) but it is also present in the courts (e.g., Frumkin, 2007) and housing (e.g., Zhao, Ondrich, & Yinger, 2006). Among non-standard accents, non-native accents are, specifically, judged as less truthful compared to native speakers in the USA (Lev-Ari & Keysar, 2010). It can be inferred that effects of accent on the perception of speakers' credibility can lead to discrimination against non-native speakers. It can cause people to perceive non-natives as less competent.

Dovidio et al. (2010) express that speaking with a regional accent may raise a sense of uniqueness and unfamiliarity in a social context, but this unfamiliarity does not address a deviation of ethnic dimensions from the listeners' ethnicity. Hence, speaking with a non-native accent serves as a cue that the person is an out-group member (Kinzler et al., 2009). Nowadays, it is estimated that the population of native English speakers is quite lower than non-native

English speakers (Kaur & Raman, 2014). Gulszek and Dovidio (2010) reported from the United Nations Departments of Economic and Social Affairs in 2006 that international migration was predicted to be around 191 million people, and that over 54 million dwelled in English-speaking countries. Unfortunately, they generally suffer negative perception in terms of social, financial, political and legal effects because of their foreign accents (Lippi-Green, 1997; Kinzler, et al., 2009; Pantos & Perkins, 2012). The effects of speakers' pronunciation, however, are differently perceived. For instance, having a strong accent and being an out-group member are negatively evaluated (Kinzler et al., 2009; Hitlan, Kelly, Scheman, Schneider, & Zarate, 2006). Different ethnic backgrounds are also differently perceived (e.g., Latinos and Asian compared to European, see Dovidio et al., 2010).

Some researchers, however, claim that familiarity and socio-political factor might shape perception of the accent (e.g., Lindemann, 2005) even though Suter (1976) expresses that if the speaker's language is similar to the listener's language, the speaker may be perceived to have a weaker accent by the listeners. For example, It can be disputable there has not been enough study, but there is evidence that babies from French-speaking families do not distinguish between French and English sentences, but they can differentiate French sentences from Japanese sentences (Nazzi, Bertoncini, & Mehler, 1998). This finding might be related to familiarity or language rhythm, and it is more likely that unfamiliar settings can evoke anxiety (Woodrow, 2006), but plenty of studies have shown that non-native accent is perceptible for native speakers. Flege (1984), for instance, indicates that adult native English listeners in the USA can identify French speakers and they can even detect the French-accented English speakers' accents in a short speech.

Literature about language attitude and social psychology shows that French-accented English is perceived socially more attractive and more prestigious compared to Italian, German,

Asian, Welsh, and Indian accents in the UK; in fact, it is rated more positively than some native regional accents, such as a Liverpool accent (see Giles, 1970; Bishop, Coupland, & Garret, 2005). A study conducted by Lindemann (2005) shows that Western Europeans' accented English (speakers from France, Italy and Germany) are rated as the most correct, pleasant, and friendly, and the least stigmatized, compared to other non-native English speakers such as speakers from China, Iraq, India and Russia. Lindemann (2005) expresses that socio-political factors and familiarity might be the reason for positive and negative evaluation of the speakers.

In contrast to the evaluation of those with French-accented English, Arabic people and in some case their accents are judged negatively in English-speaking countries. A body of research about ethnic discrimination in online rental housing with an audit technique in Canada shows that Arabic/Muslim men with an ethnic name face the greatest discrimination, at 12%. The levels of discrimination for other ethnic backgrounds of people are Asian men, 7%, Arabic/Muslim women and blacks, 5% (Hogan & Berry, 2011). In addition, the Centre for Studies of Arab & Muslim Issues (CSAMI) (2014) reports that around 50% of participants who attended the study have had a negative experience attaining employment in the UK. They are, overall, ethnically discriminated against and judged as religious (CSAMI, 2014).

A study about the effect of foreign-accented speech in the context of the courtroom in the USA shows that non-native-accented people are evaluated to be less favourable than non-accented ones in terms of credibility, accuracy, descriptiveness and prestige of witnesses (Frumkin, 2007). Three different non-native-accented speeches were evaluated in the study: Mexican Spanish, German, and Lebanese Arabic. German-accented testimony was assessed more favourable than other two non-native accented testimonies, whereas the Lebanese Arabic-accented testimony was rated the lowest. It can be seen that while the Arabic accent is evaluated the least favourably, the Western European accent is perceived the most favourably.

Additionally, in a master thesis about perception of accents, Arabic vs. Spanish vs. native English, in the USA shows that an Arabic speaker, overall, is evaluated the least intelligent and the least laid-back, but the most religious one; furthermore, an Arabic-accented speaker is ranked to be more reliable than a Spanish-accented English speaker, but less reliable than the native English speaker (Niedt, 2011).

In conclusion, it can be said that language and accent, which is a fundamental dimension of ethnic identity, is often used for social categorisation (Rakić, Steffens, & Mummendey, 2011a). Pronunciation plays an essential role in distinguishing individuals in terms of gender, age, ethnicity/race, social class/status, region and personal traits (e.g., Garcia-Marques & Mackie, 1999; Lippi-Green, 1997). Non-native accents, generally, have more negative judgement attached to them compared to a standard or regional native accent. More specifically, native English speakers evaluate the Western European accent the most positive than others' accents in English-speaking countries, whereas the Arabic accent is perceived the most negatively in the USA.

Influence of label on evaluations

Apart from perception of accent, which is one of the ethnic cues, if someone is directly labelled with their own ethnicity or with another's ethnicity, what will happen? Indeed, we know that perception is shaped by labels (e.g., Allport, 1979; Carnaghi et al., 2008) that are associated with categories or more specifically, social categories (Rothbart, Davis-Stitt, & Hill, 1997; Krueger & Clement, 1994). Lupyan's (2008) research, for example, indicates that word types shape our perception on object categories even at early ages. Noun-type labels, e.g., he is a Frenchman, are more effective than verb-type labels, e.g., he speaks French, and adjective-type labels, e.g., he is French, (e.g., Carnaghi et al., 2008; Gelman & Heyman, 1999; Allport, 1979).

These structure labels (types of words: noun, verb, and adjective) include the same information in some points, but the noun form is more categorised (Carnaghi et al., 2008), because noun forms have a greater impact on impression: “nouns categorise events, imply multiple qualities and have an either-or quality, and have a subordinate status in speech production and sentence comprehension” (Carnaghi et al., 2008, p.841). Hence, noun-type labels include more effective memory cues (Carnaghi et al., 2008). Linguistic category model (LCM), however, focuses on four influential types of words: three types of verbs (state verb such as like and hate, interpretive action such as help and cheat, and descriptive action verb such as call and kiss) and adjectives related to interpersonal domains; noun form is not considered in the study (Semin & Fiedler, 1988), but it is more likely that noun form activates congruent stereotypes and leads to more discrimination, because noun forms have inductive potential and influence impression formation (Carnaghi et al., 2008).

Labels increase the level of effects on perception and judgement. Existence of category labels and their strength greatly influence judgement and the categorised object (Foroni & Rothbart, 2011). Foroni and Rothbart (2011) also express that increasing strength of the labels increases the effect of judgment if individuals are tagged with the same label rather than a different label. Purkiss et al. (2006), for instance, evaluated how two ethnic cues, Hispanic name and accent, influence evaluations at work interviews in the USA. They figured out that applicants who were assumed to have an ethnic name and congruent accent were evaluated less positively than applicants who were assumed to have an ethnic name without an accent, or applicants who were assumed to have a non-native ethnic name with or without an accent. In contrast, recent research shows that there is no difference whether labels are valid or they are not given (Foroni & Rothbart, 2013). In addition, Foroni and Rothbart (2013) examined whether effects are still present when labels are removed, and they found that participants still judge

individuals when labels are abandoned. They, however, indicated that when labels are released, if the labels correspond with the objects rather than having a different label, the labelling impacts increase significantly.

As can be seen above, both label and accent influence perception and social categorisation, and if I test perception of the accents alone or I tag the accent with an ethnic label, what will happen? I hypothesised that (1) a French accent would be perceived to have higher socio-intellectual status, to be more aesthetic, competent, familiar and secure, but less religious than Arabic accent under the neutral label and congruent ethnicity label conditions; and (2) the accents with congruent ethnicity labels would be evaluated more extremely than the accents with neutral and incongruent ethnicity label. However, I did not have any prediction about how releasing incongruent ethnicity labels would change perception of the accents.

Methodology[1]

Participants

A total of 60 native British English speakers (29 male and 31 female) living in Lancaster, generally studying at Lancaster University, and whose first mother tongue is English, participated in this study. The age of participants ranged from 18 to 64 years (M = 22.15, SD = 7.74). The sample of participants was heterogeneous in terms of language interest, having friendships with foreign or Arab or French people, level of study, and study programmes. They took part in the experiment through an individual session of 10-15 minutes. They were debriefed and rewarded with a chocolate bar at the end of the experiment.

[1] Before I conducted this experiment, I wrote a report for Analysing and Interpreting Psychological Data II module on the same topic. I created an imaginary data for the report. Hence, although the current study is indigenous, some part of the current study might show some similarities with the report such as study design.

Materials

Several male speakers read the same text named "The Rainbow Passage" (see Appendix 1), which was taken from *International Dialects of English Archive*[2]. I selected two readers, a French speaker from Paris, France and an Arabic speaker from Palestine, who were thought to be suitable for the study in terms of recording quality, accent, fluency and clarity of the readings. Both speakers were 26-year-old male students at Lancaster University. The French-accented speaker studied at the master level, and the Arabic-accented speaker studied at the PhD level. I recorded the speakers' voices in the same physical environment with the same devices (computer and microphone). Both of the recordings read by the speakers were approximately 126 seconds long. As I focused on the first impression that the speakers made on listeners, I cut out some parts of the passage with the Audacity programme to keep the listener's interest alive and to prevent them from getting bored of listening. After cutting the same parts out of both recordings, the records were, overall, 70 seconds. Then, two different native British English speakers analysed selected recordings according to recorded quality, accents, fluency and clarity before conducting the experiment. They determined the quality of the recordings were similar and marked the accents fluent, but they indicated that some words from both recordings were not understandable. Additionally, they correctly categorized that recording 1 (the French-accented speaker) belonged to a French person and recording 2 (the Arabic-accented speaker) belonged to a Middle Eastern person.

After hearing each speaker, participants evaluated the speakers' accents on different dimensions, using the Speech Dialect Attitudinal Scale (SDAS), which consists of socio-intellectual status (SIS), aesthetic quality (AQ), and dynamism (DY) developed by Mulac (1975, 1976); a shortened Competence scale taken from Rudman & Glick (1999); and four additional

[2] http://www.dialectsarchive.com/the-rainbow-passage

questions including evaluations of the speaker's religiosity, reliability, security, and familiarity (i.e., unreligious-religious, unreliable-reliable, insecure-secure, and familiar-unfamiliar). Those four additional questions were assessed on a 7-point scale, ranging from 1 to 7, similar to the SDAS items, while the shortened Competence scale including 5 questions was evaluated on a 5-point scale ranging from 1 to 5 (see Appendix 2).

Next, participants responded to the SDAS and Competence scales for each speaker: for the French accent SIS (α = .62), AQ (α = .80), DY (α = .36), and Competence scale (α = .70); for the Arabic accent SIS (α = .69), AQ (α = .76), DY (α = .66), and Competence scale (α = .76). As can be seen, the dynamism scale for the French accent was evaluated under .6 which is not a positive score for reliability. Then, I analysed each item of the dynamism scale's direction for French accent and I found that it was not evaluated in the same direction. The accents also did not differ significantly in rating of perceived dynamism. Hence, dynamism scale was not analysed in detail.

Finally, participants filled out a demographic information form (e.g., age, gender, study and ethnicity) and some other information such as their direct friendship with native French or Arabic speaker(s) (see Appendix 3). Data collection and the study were created with the PsyScript programme[3], developed by the psychology department at Lancaster University.

Procedure

The study was designed as a 2 (accents: a French accent vs. an Arabic accent) x 3 (labels: the accents with the incongruent ethnicity label vs. the accents with the congruent ethnicity label vs. the accents with neutral label, without label) x 2 (order of the accents: Arabic accent-French accent vs. French accent-Arabic accent) experiment designed with repeated measures on the first

[3] http://www.lancaster.ac.uk/psychology/research/research-software/psyscript2/

factor to test my hypotheses. Because of varying conditions, first, I constituted and at some points manipulated the study by adding the congruent and the incongruent ethnicity labels. The accents were labelled with congruent ethnicity or incongruent ethnicity, or they were not labelled with any ethnicity (neutral). Second, the orders of listening to the speakers and their evaluations were counterbalanced.

The experiment was conducted to participants individually. Each participant attended the study after being given a written information sheet and consent form. The participants were at their natural environment on the Lancaster University campus (e.g., library, learning zone, etc.) when the researcher asked them to join the study by providing them headsets and his own laptop to listen to the recordings and reply to questions. For collecting data and conducting the experiment, the PsyScript programme was used. All participants listened to the same text read by both the French and the Arabic accented speakers. The experiment was designed with six conditions, because the labels, the accents and order of the accents were independent variables. There were three labels (the accents with neutral label vs. the accents with the congruent ethnicity label vs. the accents with the incongruent ethnicity label) and two different orders of the speakers for each label. For example, in total, 10 participants evaluated the study by first listening to the French accent with congruent ethnicity label (you will now hear a French speaker); then listening to the Arabic accent with congruent ethnicity label (you will now hear an Arabic speaker): (coded as FAC). Another 10 participants assessed the study by listening to the Arabic accent with congruent ethnicity label first, and then the French accent with congruent ethnicity label (coded as AFC). The same procedure was followed for all other label conditions. The accents with the congruent ethnicity label meant that before hearing the Arabic accented speaker, participants were informed that they would listen to an Arabic speaker or before hearing the French accented speaker, they were informed that they would listen to a French speaker. The

accents with the incongruent ethnicity label was presented in a way that before participants heard the Arabic accented speaker, they were informed that they would listen to a French speaker; or before hearing the French accented speaker, they were informed that they would listen an Arabic speaker. Finally, after the evaluation of the accents, each participant were requested to fill out a demographic information form, afterwards I thanked and debriefed them.

Result

To test my hypotheses, the result is subcategorised based on different dependent variables and demographic information: Socio-intellectual Status (SIS), Aesthetic Quality (AQ), Dynamism (DY), Competence scale, and the four additional questions. The accents, the labels and order of the accents were independent variables, but the order of the accents turned out to have no significant effect (all $Fs \leq 1$), so all analyses reports were conducted without the order of the accents. Additionally, the accents were not evaluated significantly different in terms of dynamism, $F(1, 57) = .04$, $p=.84$, $\eta_p^2=.001$, and there was not any significant interaction between dependent variables as well, $F(2, 57) = .73$, $p=.49$, $\eta_p^2=.03$. Therefore, I will not report on these results in detail.

Competence

Overall, there was a significant main effect of the accents being rated in terms of competence, $F(1, 57) = 52.57$, $p<.001$, $\eta_p^2=.48$. The French accent was perceived more competent ($M = 3.65$, $SD = .54$) than the Arabic accent ($M = 2.93$, $SD = .69$). Interaction between the accents and the labels, however, were not evaluated significantly different, $F(2, 57) = 1.06$, $p=.35$, $\eta_p^2=.04$. This interaction shows that the rating of the accents did not significantly differ under the label conditions. In other words, the French accent was perceived more

competent than the Arabic accent under the all labels, but the accents with the congruent label did not have any extreme perception noted (see Appendix 4).

Socio-intellectual status

The accents, overall, were perceived significantly different in terms of socio-intellectual status, $F(1, 57) = 57.51$, $p < .001$, $\eta_p^2 = .50$. The French accent was evaluated to have higher socio-intellectual status ($M = 19.95$, $SD = 3.09$) than the Arabic accent ($M = 15.33$, $SD = 3.93$). Furthermore, there was a significant interaction between the accents and the labels, $F(2, 57) = 4.06$, $p = .02$, $\eta_p^2 = .13$. This interaction shows that the perception of the accents was rated differently in the label conditions. The French accent was evaluated higher in socio-intellectual status than the Arabic accent under the all label conditions. Moreover, the French accent with congruent ethnicity label was not evaluated strongly, whereas the Arabic accent with congruent ethnicity label was rated the most positively compared to the Arabic accent with other conditions (see Appendix 5).

Aesthetic quality

Overall, the accents were rated significantly different in terms of aesthetic quality, $F(1, 57) = 28.58$, $p < .001$, $\eta_p^2 = .33$, but interaction between the accents and the labels were not significantly different, $F(2, 57) = .40$, $p = .68$, $\eta_p^2 = .01$. The rating of the French accent, overall, was more aesthetic ($M = 20.21$, $SD = 4.02$) than the Arabic accent ($M = 16.32$, $SD = 3.91$), but the accents were not evaluated differently under the labels. Moreover, the French accent was perceived as more aesthetic than the Arabic accent under the all labels, but the accents with congruent label did not have any extreme perception noted (see Appendix 6).

Analysis of additional questions

There was a significant main effect of the accents being evaluated in terms of religiosity, $F(1, 57) = 18.35$, $p<.001$, $\eta_p^2 = .24$, security, $F(1, 57) = 34.10$, $p<.001$, $\eta_p^2 = .37$, reliability, $F(1, 57) = 9.19$, $p=.004$, $\eta_p^2 = .14$, and familiarity, $F(1, 57)= 18.17$, $p<.001$, $\eta_p^2 = .24$. The French accent was, overall, perceived as less religious ($M = 3.67$, $SD = 1.37$) than the Arabic accent ($M = 4.73$, $SD = 1.41$), as well as more secure ($M = 5.13$, $SD = 1.33$) than the Arabic accent ($M =$ 385. $SD = 1.95$), more reliable ($M = 4.62$, $SD = 1.26$) than the Arabic accent ($M = 3.93$, $SD =$ 1.42), and more familiar ($M = 3.83$, $SD = 1.68$) than the Arabic accent ($M = 4.88$, $SD = 1.36$)[4]. Moreover, there was only a significant interaction between the accents and the labels in terms of evaluation of religiosity, $F(2, 57) = 14.21$, $p<.001$, $\eta_p^2 = .33$. There was not any significant interaction between the accents and the labels in terms of reliability, $F(2, 57) = .53$, $p=.59$, $\eta_p^2 =$ .02, security, $F(2, 57) = 2.11$, $p=.13$, $\eta_p^2 = .07$, or familiarity, $F(2, 57) = .70$, $p=.50$, $\eta_p^2 = .02$.

Interaction between the accents and the labels in terms of the evaluation of the accents' religiosity showed that evaluation of the French accent under the congruent and incongruent ethnicity label were tested differently ($p=.001$). The French accent with French ethnicity label was perceived as less religious ($M = 2.95$, $SD = 1.28$) than the French accent with Arabic ethnicity label ($M = 4.45$, $SD = 1.28$). Similarly, the Arabic accent with the incongruent label was rated significantly different from the Arabic accent with neutral label ($p=.007$), as well as the Arabic accent with congruent ethnicity label ($p<.001$). Namely, the Arabic accent with French ethnicity label was perceived as less religious ($M = 3.75$, $SD = 1.21$) than the Arabic accent with neutral label ($M = 5.00$, $SD = 1.41$) and Arabic accent with Arabic ethnicity label ($M = 5.45$, $SD = 1.41$). There, however, were no significant differences about perception of the

[4] In this analysis, designing of the familiarity question was different from the other questions. Why is there a specific reason? Unreligious (1)-Religious (7), Insecure (1)-Secure (7), Unreliable (1)-Reliable (7), Familiar (1)-Unfamiliar (7). Hence, higher point for familiarity presents to be unfamiliar.

accents under the incongruent label in terms of security, familiarity, and reliability (see Appendix 7).

Bonferroni corrected post hoc tests also indicated that the accents with neutral label were evaluated significantly different in terms of religiosity (p=.002), security (p<.001), and familiarity (p=.02). The French accent with neutral label was perceived as less religious (M=3.60, SD=1.19) than the Arabic accent with neutral label (M=5.00, SD=1.41), more secure (M=5.70, SD=.92) than the Arabic accent with neutral label (M=3.65, SD=1.42), and more familiar (M=4.00, SD=1.89) than the Arabic accent with neutral label (M=5.00, SD=1.45). The accents with congruent ethnicity label were also significantly different in terms of religiosity (p<.001), security (p=.03), and familiarity (p=.002). The Arabic accent with Arabic ethnicity label was perceived as more religious (M=5.45, SD=1.05) than the French accent with French ethnicity label (M=2.95, SD=1.28), but less secure (M=3.85, SD=1.95) than the French accent with French ethnicity label (M=4.75, SD=1.52), and less familiar (M=4.80, SD=1.40) than the French accent with French ethnicity label (M=3.40, SD=1.65). In addition, the accents with the incongruent label was assessed significantly different in terms of reliability (p=.01) and security (p=.005). The French accent with Arabic ethnicity label was perceived as more reliable (M=4.85, SD=1.09) than the Arabic accent with French ethnicity label (M=3.85, SD=1.42), and more secure (M=4.95, SD=1.36) than the Arabic accent with French ethnicity label (M=3.75, SD=1.52).

Analysis of some dimensions

The present study also looked at whether (1) gender, or (2) having friendship with Arabic or French people, influenced perception of accents. Firstly, I looked at gender and found that, overall, different genders perceived the accents significantly different in terms of all dependent

variables, but there was not significant interaction between the accents and gender for all dimensions except the accents' religiosity. Different genders evaluated the accents differently in terms of reliability as well, even though there was not significant interaction. Gender influenced perception of the accents in terms of religiosity, $F(1, 57) = 15.10$, $p<.001$, $\eta_p^2 = .21$, and there was a significant interaction between gender and the accents, $F(2, 57) = 8.82$, $p=.004$, $\eta_p^2 = .13$. This interaction showed that participants' gender influenced their perception of the accents' religiosity. Namely, when we looked at simple main effects, Bonferroni corrected, it indicated that males perceived the accents significantly differently ($p<.001$), whereas female evaluation was not significantly different ($p=.51$). Although males perceived the French accent as less religious ($M=3.17$, $SD=1.23$) than the Arabic accent ($M= 5.10$, $SD=1.29$), females evaluated the French accent ($M=4.13$, $SD=1.36$) as nearly as religious as the Arabic accent ($M=4.39$, $SD=1.45$). Evaluation of the accents' reliability was perceived significantly different by female and male groups, $F(1, 57) = 9.11$, $p=.004$, $\eta_p^2 = .14$, but there was not significant interaction between the accents and gender, $F(2, 57) = .51$, $p=.48$, $\eta_p^2 = .01$. However, Bonferroni corrected post hoc tests indicated that males and females assessed the French accent significantly different (p=.03), whereas males and females did not evaluate the Arabic accent significantly different (p=.28). Females perceived the French accent as more reliable ($M=4.97$, $SD=1.11$) than did the males ($M=4.24$, $SD=1.33$). In addition, although males did not evaluate the accents significantly different ($p=.12$), females evaluated them significantly different ($p=.009$). Females judged the French accent as more reliable ($M=4.97$, $SD=1.11$) than the Arabic accent ($M=4.13$, $SD=1.41$).

Then, I analysed the effects of having friendship with Arabic or French people on participants' perception of the accents, and I found that participants who had or did not have friendship with Arabic people evaluated the accents significantly different in terms of

competence, aesthetic quality, reliability, religiosity, and security, but having friendship with French people only affected perception of the accents' religiosity and reliability.

The accents was perceived significantly different in terms of aesthetic quality, $F(1, 58) = 18.70$, $p<.001$, $\eta_p^2 = .24$, but interaction between having friendship with Arabic people and the accent was not significant, $F(1, 58) = .44$, $p=.51$, $\eta_p^2 = .01$. The French accent was, however, evaluated significantly different ($p=.04$). Participants who had friendship with Arabic people judged the French accent as less aesthetic ($M=18.33$ $SD=3.48$) than participants who did not have friendship with Arabic people ($M=20.84$, $SD=4.02$). The accents' competence was also evaluated significantly different, $F(1, 58) = 28.27$, $p<.001$, $\eta_p^2 = .33$, as well, as there was a significant interaction between having friendship with Arabic people and the accents in terms of rating competence, $F(1, 58) = 5.84$, $p=.02$, $\eta_p^2 = .09$. Bonferroni corrected tests indicated that the French accent was evaluated significantly different ($p<.001$). Namely, participants who had friendship with Arabic people perceived the French accent as less competent ($M=3.21$, $SD=.36$) than who did not have friendship with Arabic people ($M=3.80$, $SD=.51$). Moreover, participants who had friendship with Arabic people did not judge the accents significantly different ($p=.10$), whereas participants who did not have friendship with Arabic people evaluated them significantly different ($p<.001$). The French accent was assessed as more competent ($M=3.80$, $SD=.51$) than the Arabic accent ($M=2.94$, $SD=.74$) by participants who did not have friendship with Arabic people.

Moreover, the accents significantly differed in rating of perceived religiosity, $F(1, 58) = 6.91$, $p=.01$, $\eta_p^2 = .11$, reliability $F(1, 58) = 8.73$, $p=.005$, $\eta_p^2 = .13$, and security, $F(1, 58) = 19.06$, $p<.001$, $\eta_p^2 = .25$, but there was not a significant interaction between having friendship with Arabic people and the accent in terms of these dimensions. The accents were, however, evaluated differently, which the Bonferroni corrected test indicated. It showed that participants

who did not have friendship with Arabic people evaluated the accents significantly different in terms of religiosity (p=.001) and security (p<.001), whereas participants who had friendship with Arabic people did not. Namely, the French accent was perceived as less religious (M=3.53, SD=1.46) than the Arabic accent (M=4.76, SD=1.38) and more secure (M=5.22, SD=1.35) than the Arabic accent (M=3.67, SD=1.69) by the participants who did not have friendship with Arabic people. In addition, the Arabic accent's reliability was evaluated significantly different (p=.02) by participants who had or did not have friendship with Arabic people; whereas French accent's reliability was not assessed significantly different (p=.09). Interestingly, participants who had friendship with Arabic people judged the Arabic accent as less reliable (M=3.20, SD=1.08) than participants who did not have friendship with Arabic people (M=4.18, SD=1.45).

Finally, having friendship with French people only significantly influenced perception of the accents' reliability and religiosity, which Bonferroni corrected tests indicated, but there was not significant interaction between the accents and having friendship with French people in terms of reliability, $F(1, 58) = .27$, p=.61, $\eta_p^2 = .01$, and religiosity, $F(1, 58) = 2.87$, p=.10, $\eta_p^2 = .05$. Bonferroni corrected tests, however, presented that participants who had friendship with French people evaluated the accents significantly different in terms of religiosity (p<.001) and reliability (p=.02); but participants who did not have friendship with French people did not perceive the accents differently. French accent was perceived as less religious (M=3.40, SD=1.30) than the Arabic accent (M=4.97, SD=1.47) and more reliable (M=4.53, SD=1.28) than the Arabic accent (M=3.73, SD=1.41).

Discussion and Conclusion

There were two aims of this experiment: (1) to investigate which one of the foreign accents would be perceived as more positive; I hypothesised that the French accent would be

perceived as more positive than the Arabic accent, and (2) to investigate how the accents' evaluation would change when the accents were ethnically labelled or the speakers' accents and their ethnicities were incongruently manipulated. Hence, testing the second aim can be predicted under two conditions: that a prediction of the accent with congruent ethnicity label would be assessed in extreme (the French accent would be assessed the most positive and the Arabic accent would be rated the most negative), and a prediction of the accents with neutral label would be still assessed significantly. I found that the French accent was, overall, evaluated to have higher socio-intellectual status, to be more aesthetic, competent, familiar, reliable, and secure, but to be less religious than the Arabic accent. The results for investigating influence of the labels on perception of the accents indicated that, although the accents were not judged significantly different under the labels except for the accents' religiosity, the evaluation of the accents were slightly different under the labels. In addition, congruent ethnicity label did not always influence perception of the accents in extreme for all dimensions. The findings in detail are discussed below:

Firstly, there are great similarities between the findings of the present study and previous research in terms of evaluation of the non-native accents by native English speakers. As I referred earlier, having looked at how non-native accents were perceived and which one was less or more discriminated against, researchers have pointed out that Western European-accented speakers were perceived as more positive in the English-speaking countries (e.g., Bishop, Coupland, & Garret, 2005; Lindemann, 2005). For example, Lindemann (2005) found that, while participants from the USA positively evaluated Western European countries in terms of familiarity, friendliness, pleasantness, and correctness, and France is rated the second most positive one in the Western European countries after Italy (French-accented English is assessed as a poetic and romantic accent), they rated Middle Eastern countries as the lowest (many of

them are Arabic-speaking countries such as Iraq and Saudi Arabia). In addition, French-accented English is rated the most prestigious and attractive accent in the UK (e.g., Giles, 1970; Bishop, Coupland, & Garret, 2005). Apart from that, testimony of a Lebanese-Arabic accented speaker was judged to be the least prestigious and credible in the courtroom in the USA (Frumkin, 2007). Similar results were found in my experiment as well. It demonstrated that the French accent was, overall, evaluated more positively than the Arabic accent under all labels in terms of all dimensions.

The findings of the present study about perception of the Arabic accent related to religiosity are similar to that in previous studies. For instance, Niedt (2011) found that an Arabic accent in the USA is evaluated to be religious, and both Arabic males and females are judged as religious during the process of attaining a job and within the workplace in the UK (CSAMI, 2014). If we turn to the interaction between familiarity and accent, the recent finding about familiarity is also similar to that in Lindemann's (2005) study. Western European countries'-accented English is perceived as more familiar than Middle Eastern countries'-accented English (Lindemann, 2005). Lindeman (2005) also found that as a country, France is perceived to be the most familiar one among the Western European countries. Hence, Lindemann (2005) carefully expresses that familiarity and socio-political factors may be the reason why individuals are positively or negatively perceived. Moreover, Niedt (2011) found that the Arabic-accented English speaker was rated more reliable than Mexican Spanish-accented English speaker in the USA, but the finding from this present study about reliability did not reveal significant differences between the accents.

Secondly, evaluation of the accents under the labels conditions may change people's opinions; and more specifically, combination of the accents and congruent label may, expectedly, influence evaluation of the accents in extreme. The results of the accents under the

congruent ethnicity label indicated that the French accent was rated the least religious and the most familiar compared to the French accent with other labels, but unexpectedly, the accent was not perceived in extreme in terms of competence, socio-intellectual status, aesthetic quality, security, or reliability. The Arabic accent with congruent label was also perceived in extreme in terms of religiosity (the most religious, which was as anticipated) socio-intellectual status and reliability (the highest socio-intellectual status and the most reliable), which was unexpectedly compared to the Arabic accent with other labels. As we know, label affects categorisation and discrimination (e.g., Rothbart, Davis-Stitt, & Hill, 1997) and shapes people's perception (e.g., Allport, 1979). Previous studies about interaction between label and accent (Purkiss et al., 2006) and label and silhouette drawing of female body shapes (Foroni & Rothbart, 2011; 2013), which both looked at labels as an independent variable like my study, initiate that if labels are congruent with an accent or an object, categorisation and perception are evaluated in extreme. Purkiss et al. (2006) found that a combination of Hispanic name (ethnic name) and Hispanic accent was judged the least compared to other conditions (see introduction). The findings of the present experiment were not completely parallel with the previous researchers' findings. People who participated in this current experiment, for example, judged the French accent with congruent ethnicity in extreme in some traits such as religiosity and familiarity, but did not evaluate the accent the strongest in terms of competence, socio-intellectual status, reliability and security. The same evaluation was true for the Arabic accent as well (see Appendix 8).

The present study's results of the accents under the neutral label presented that the French accent was perceived as more positive than the Arabic accent, and perception of the accents did not change significantly, but the accents were rated the strongest in terms of some traits (for example, while French accent was assessed the strongest under neutral label in terms of competence, socio-intellectual status, aesthetic quality, and security, the Arabic accent was

evaluated the strongest in terms of aesthetic quality and familiarity). These findings show that abandoning the labels does not change the perception of the accents, but it can influence the accents in some areas. In the present study, the findings about interaction between label and accent are similar to the idea that, although label is stopped, it is still present, and participants still judge the object the same as the object with congruent label, even though judgement reduces in importance (Foroni & Rothbart, 2013). In the present study, all the findings are parallel with the previous findings of Foroni and Rothbart (the speakers without labels were perceived similar to the other two conditions: congruent and incongruent), but the evaluation of the speakers without label did not change in all traits; even they were perceived in extreme in some traits for both accents.

The results of the accents under the incongruent ethnicity labels also influenced the perception of the accents. For instance, the accents with incongruent ethnicity label were judged significantly different from other label conditions. The French accent under Arabic ethnicity label was evaluated the most religious compared to the French accent under the other labels; whereas the Arabic accent under French ethnicity label was perceived the least religious compared to the Arabic label with other labels. Even the French accent under the incongruent label was perceived as more religious than the Arabic accent with the incongruent ethnicity label. We can say that incongruent ethnicity label changed the perception of the accents in terms of religiosity, but it did not change the perception of the accents in terms of the other traits (the French accents under Arabic ethnicity label were rated significantly higher than the Arabic accent under French ethnicity label in terms of competence, socio-intellectual status, aesthetic quality, security, and reliability, see Appendix 8). The result of the present study about religiosity showed that ethnicity labels have a great impact on participants. When the accents and the ethnicity labels do not correspond to each other, judgment of religiosity is based on ethnicity.

We can also say that Arabic ethnicity is judged as religious. This finding is similar to the study done by CSAMI (2014), which shows that Arabic people are judged as religious in a job interview and within the workplace, in the UK. In addition, the present study's result is different from Foroni and Rothbart's (2013) study in that it shows the labels do not change perception on the object. It is true that abandoning label does not change perception of the accents, but when the accents are incongruently labelled with the ethnicities in terms of religiosity, the judgement shifted. This point, however, is not valid for all traits. Hence, further research about abandoning label should be conducted.

Finally, the present study also analyses whether gender and/or having friendship with Arabic and French people influence the perception of the accents. The results indicate that participants who had friendship with Arabic people did not judge the accents significantly different in terms of security and religiosity, whereas they, interestingly, evaluated the Arabic accent as less reliable than the French accent. Moreover, participants who had friendship with Arabic people perceived the French accent as less competent than participants who did not have friendship with Arabic people. However, participants who did not have friendship with Arabic people evaluated the French accent as more competent than the Arabic accent. In contrast, participants who had friendship with French people judged the French accent to be less religious and more reliable than the Arabic accent, whereas, participants who did not have friendship with French people did not perceive the accent significantly different. The male group also perceived the French accent as less religious than the Arabic accent, whereas the female group judged the French accent as nearly as religious as the Arabic accent. However, although the female group evaluated the French accent as more reliable than the Arabic accent as well as did the male group, the males judged the Arabic accent as reliable as French accent. Indeed, there are no studies on whether friendship affects perception of accent or not, but may be associated with

Lindemann's (2003; 2005) explanation that socio-political factors may be the reason for evaluative reaction on accent. Additionally, I think it is valuable to explore further whether having a good or bad relationship with someone of a certain ethnicity influences perception of accent.

Apart from the findings, the present study can be improved upon in some aspects. One limitation of the current experiment is that although I recorded the speakers' voices under the same conditions and at a suitable environment, which was important for controlling the quality of the recordings and background of the records' noise, I could not enable participants to do the experiment under a similar suitable condition due to time limitation. In other words, participating in the experiment under different conditions may influence the evaluation; even the dimensions of the scales and the questions were significantly evaluated and the dimensions were reliable except dynamism dimension. Dynamism dimension was not tested reliably for the French accent and its items were not evaluated consistently. Hence, I dropped the dynamism dimension from the study. I think that the dynamism dimension, which measures whether an accent is loud or soft, active or passive, strong or weak, and aggressive or unaggressive, might be affected by the environmental conditions of the experiment. Therefore, I recommend that researchers who will study accents and will include a segment in which participants listen to an audio, should pay attention to the environmental conditions of the experiment. The area should be kept silent and be suitable to making concentration easy.

The second important concern is about designing the label. As I discussed in the introduction, a noun word is more categorical compared to verb and adjective forms (Allport, 1979; Carnaghi et al., 2008). In my dissertation, although I used noun combination words, such as "you will now hear *an Arabic speaker*," I think it is not as strong as single noun form such as "you will now hear *an Arab* or *a French*." Although this strong noun form, however, was

considered previously, designing of the sentence was not as natural as noun combination form. Hence, I preferred to use noun combination form. I recommend future researchers to use the single noun form to test the influence of the label if they are not concerned about naturalness of the speech.

In conclusion, the results of the experiment indicate that native British English speakers perceive the Arabic accents and the French accents differently under the conditions of the congruent ethnicity label, the incongruent ethnicity label, and without label, in terms of competence, socio-intellectual status, aesthetic quality, religiosity, familiarity, and security. The French accents are judged more positively as they are rated higher in almost all the traits, except they are rated less religious than the Arabic accent. Another important finding from this experiment is related to influence of labels on perception of the accents. It shows that tagging the accents with congruent or incongruent ethnicity labels or leaving them without labels does not change the evaluation of the accent except with regard to religiosity, and that even giving congruent ethnicity labels with the accents does not have a strong effect on the perception for all the dimensions. Abandoning the labels does not change the judgements significantly, but strength of the judgements is affected for some traits. More interestingly, ethnic labels influence the perception of the accents' religiosity, and the accents with Arabic ethnic label are evaluated as more religious than the accents with French ethnicity label. Finally, the factors of gender and having friendship with Arabic or French people also influence the perception of the accents in terms of religiosity, familiarity and reliability.

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http://www.lancaster.ac.uk/psychology/research/research-software/psyscript2/

http://www.dialectsarchive.com/the-rainbow-passage

Appendixes

Appendix 1

The Rainbow Passage

When the sunlight strikes raindrops in the air, they act as a prism and form a rainbow. The rainbow is a division of white light into many beautiful colours. These take the shape of a long round arch, with its path high above, and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach, his friends say he is looking for the pot of gold at the end of the rainbow. Throughout the centuries people have explained the rainbow in various ways. Some have accepted it as a miracle without physical explanation. To the Hebrews it was a token that there would be no more universal floods. The Greeks used to imagine that it was a sign from the gods to foretell war or heavy rain. The Norsemen considered the rainbow as a bridge over which the gods passed from earth to their home in the sky. Others have tried to explain the phenomenon physically. Aristotle thought that the rainbow was caused by reflection of the sun's rays by the rain. Since then physicists have found that it is not reflection, but refraction by the raindrops which causes the rainbows. Many complicated ideas about the rainbow have been formed. The difference in the rainbow depends considerably upon the size of the drops, and the width of the coloured band increases as the size of the drops increases. The actual primary rainbow observed is said to be the effect of super-imposition of a number of bows. If the red of the second bow falls upon the green of the first, the result is to give a bow with an abnormally wide yellow band, since red and green light when mixed form yellow. This is a very common type of bow, one showing mainly red and yellow, with little or no green or blue.

Appendix 2

Speech Dialect Attitudinal Scale (SDAS)

Low social status						High social status
1	2	3	4	5	6	7
Ugly						Beautiful
1	2	3	4	5	6	7
Poor						Rich
1	2	3	4	5	6	7
Unpleasant						Pleasant
1	2	3	4	5	6	7
Week						Strong
1	2	3	4	5	6	7
Blue Collar						White collar
1	2	3	4	5	6	7
Passive						Active
1	2	3	4	5	6	7
Awful						Nice
1	2	3	4	5	6	7
Soft						Loud
1	2	3	4	5	6	7
Illiterate						Literate
1	2	3	4	5	6	7
Unaggressive						Aggressive
1	2	3	4	5	6	7
Sour						Sweet
1	2	3	4	5	6	7

Four Additional Questions

Insecure						Secure
1	2	3	4	5	6	7
Unreligious						Religious
1	2	3	4	5	6	7
Familiar						Unfamiliar

1	2	3	4	5	6	7
Unreliable						Reliable
1	2	3	4	5	6	7

Competent scale

Please rate the speaker 1 (not at all) -5 (very much) according to different characteristics below.

Did the applicant strike you as **competent**?

Not at all				very much
1	2	3	4	5

Did the applicant strike you as **confident**?

Not at all				very much
1	2	3	4	5

Did the applicant strike you as **determined**?

Not at all				very much
1	2	3	4	5

Did the applicant strike you as **ambitious**?

Not at all				very much
1	2	3	4	5

Would you characterize the applicant as someone likely to get ahead in their career?

Not at all				very much
1	2	3	4	5

Appendix 3

Demographic information Form

1- Gender: □ Male □ Female

2- Age: _____

3- Your current level of study:

□ Under-graduate □ Post-graduate (MSc) □ Post-graduate (PhD) □ Other

4- What do you study? _____

5- What is your ethnicity? _____

6- Do you speak, or have you studied, any other languages? If so, which?

□ Arabic □ Chinese □ French □ Germany

□ Italian □ Spanish □ Turkish □ Others …

7- Do you have any direct connection with non-native English speaker as friendship (not just social media friend)?

□ Yes □ No

8- Do you have any direct connection with native Arabic speaker as friendship (not just social media friend)?

□ Yes □ No

9- Do you have any direct connection with native French speaker as friendship (not just social media friend)?

□ Yes □ No

Appendix 4

Descriptive Statistics

	label	Mean	Std. Deviation	N
French_COMP	Neutral	3.7200	.41751	20
	Incongruent	3.6600	.48166	20
	congruent	3.5700	.69366	20
	Total	3.6500	.53820	60
Arabic_COMP	Neutral	3.0300	.70270	20
	Incongruent	2.7500	.64848	20
	congruent	3.0100	.72395	20
	Total	2.9300	.69265	60

Pairwise Comparisons

Measure: MEASURE_1

label	(I) speakers	(J) speakers	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
						Lower Bound	Upper Bound
Neutral	1	2	.690*	.172	.000	.346	1.034
	2	1	-.690*	.172	.000	-1.034	-.346
Incongruent	1	2	.910*	.172	.000	.566	1.254
	2	1	-.910*	.172	.000	-1.254	-.566
congruent	1	2	.560*	.172	.002	.216	.904
	2	1	-.560*	.172	.002	-.904	-.216

Appendix 5

Descriptive Statistics

	label	Mean	Std. Deviation	N
French_SIS	Neutral	20.8500	2.58080	20
	Incongruent	19.9500	3.41012	20
	congruent	19.0500	3.11997	20
	Total	19.9500	3.09414	60
Arabic_SIS	Neutral	14.1000	3.61139	20
	Incongruent	15.3500	3.57292	20
	congruent	16.5500	4.34650	20
	Total	15.3333	3.92587	60

Pairwise Comparisons

Measure: MEASURE_1

speakers	(I) label	(J) label	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
						Lower Bound	Upper Bound
1	Neutral	Incongruent	.900	.967	1.000	-1.484	3.284
		congruent	1.800	.967	.203	-.584	4.184
	Incongruent	Neutral	-.900	.967	1.000	-3.284	1.484
		congruent	.900	.967	1.000	-1.484	3.284
	congruent	Neutral	-1.800	.967	.203	-4.184	.584
		Incongruent	-.900	.967	1.000	-3.284	1.484
2	Neutral	Incongruent	-1.250	1.221	.930	-4.261	1.761
		congruent	-2.450	1.221	.148	-5.461	.561
	Incongruent	Neutral	1.250	1.221	.930	-1.761	4.261
		congruent	-1.200	1.221	.989	-4.211	1.811
	congruent	Neutral	2.450	1.221	.148	-.561	5.461
		Incongruent	1.200	1.221	.989	-1.811	4.211

Pairwise Comparisons

Measure: MEASURE_1

label	(I) speakers	(J) speakers	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
						Lower Bound	Upper Bound
Neutral	1	2	6.750*	1.054	.000	4.638	8.862
	2	1	-6.750*	1.054	.000	-8.862	-4.638
Incongruent	1	2	4.600*	1.054	.000	2.488	6.712
	2	1	-4.600*	1.054	.000	-6.712	-2.488
congruent	1	2	2.500*	1.054	.021	.388	4.612
	2	1	-2.500*	1.054	.021	-4.612	-.388

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Appendix 6

Descriptive Statistics

	label	Mean	Std. Deviation	N
French_AQ	Neutral	20.5000	3.62012	20
	Incongruent	20.1000	3.90546	20
	congruent	20.0500	4.65069	20
	Total	20.2167	4.01730	60
Arabic_AQ	Neutral	17.2000	3.67924	20
	Incongruent	15.3000	3.74306	20
	congruent	16.4500	4.24853	20
	Total	16.3167	3.91214	60

Pairwise Comparisons

Measure: MEASURE_1

label	(I) speakers	(J) speakers	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
						Lower Bound	Upper Bound
Neutral	1	2	3.300*	1.264	.011	.770	5.830
	2	1	-3.300*	1.264	.011	-5.830	-.770
Incongruent	1	2	4.800*	1.264	.000	2.270	7.330
	2	1	-4.800*	1.264	.000	-7.330	-2.270
congruent	1	2	3.600*	1.264	.006	1.070	6.130
	2	1	-3.600*	1.264	.006	-6.130	-1.070

Appendix 7

Religiosity

Descriptive Statistics

	label	Mean	Std. Deviation	N
French_Religious	Neutral	3.6000	1.18766	20
	Incongruent	4.4500	1.27630	20
	congruent	2.9500	1.27630	20
	Total	3.6667	1.37368	60
Arabic_Religious	Neutral	5.0000	1.41421	20
	Incongruent	3.7500	1.20852	20
	congruent	5.4500	1.05006	20
	Total	4.7333	1.41261	60

Pairwise Comparisons

Measure: MEASURE_1

speakers	(I) label	(J) label	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
						Lower Bound	Upper Bound
1	Neutral	Incongruent	-.850	.394	.106	-1.823	.123
		congruent	.650	.394	.315	-.323	1.623
	Incongruent	Neutral	.850	.394	.106	-.123	1.823
		congruent	1.500*	.394	.001	.527	2.473
	congruent	Neutral	-.650	.394	.315	-1.623	.323
		Incongruent	-1.500*	.394	.001	-2.473	-.527
2	Neutral	Incongruent	1.250*	.390	.007	.288	2.212
		congruent	-.450	.390	.760	-1.412	.512
	Incongruent	Neutral	-1.250*	.390	.007	-2.212	-.288
		congruent	-1.700*	.390	.000	-2.662	-.738
	congruent	Neutral	.450	.390	.760	-.512	1.412
		Incongruent	1.700*	.390	.000	.738	2.662

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Pairwise Comparisons

Measure: MEASURE_1

label	(I) speakers	(J) speakers	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
						Lower Bound	Upper Bound
Neutral	1	2	-1.400*	.431	.002	-2.264	-.536
	2	1	1.400*	.431	.002	.536	2.264
Incongruent	1	2	.700	.431	.110	-.164	1.564
	2	1	-.700	.431	.110	-1.564	.164
congruent	1	2	-2.500*	.431	.000	-3.364	-1.636
	2	1	2.500*	.431	.000	1.636	3.364

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Reliability

Descriptive Statistics

	label	Mean	Std. Deviation	N
French_Reliable	Neutral	4.4500	1.27630	20
	Incongruent	4.8500	1.08942	20
	congruent	4.5500	1.43178	20
	Total	4.6167	1.26346	60
Arabic_Reliable	Neutral	3.8500	1.30888	20
	Incongruent	3.8500	1.42441	20
	congruent	4.1000	1.58612	20
	Total	3.9333	1.42456	60

Pairwise Comparisons

Measure: MEASURE_1

label	(I) speakers	(J) speakers	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
						Lower Bound	Upper Bound
Neutral	1	2	.600	.390	.130	-.182	1.382
	2	1	-.600	.390	.130	-1.382	.182
Incongruent	1	2	1.000*	.390	.013	.218	1.782
	2	1	-1.000*	.390	.013	-1.782	-.218
congruent	1	2	.450	.390	.254	-.332	1.232
	2	1	-.450	.390	.254	-1.232	.332

Security

Descriptive Statistics

	label	Mean	Std. Deviation	N
French_Secure	Neutral	5.7000	.92338	20
	Incongruent	4.9500	1.35627	20
	congruent	4.7500	1.51744	20
	Total	5.1333	1.33362	60
Arabic_Secure	Neutral	3.6500	1.42441	20
	Incongruent	3.7500	1.51744	20
	congruent	3.8500	1.95408	20
	Total	3.7500	1.62215	60

Pairwise Comparisons

Measure: MEASURE_1

label	(I) speakers	(J) speakers	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
						Lower Bound	Upper Bound
Neutral	1	2	2.050*	.410	.000	1.228	2.872
	2	1	-2.050*	.410	.000	-2.872	-1.228
Incongruent	1	2	1.200*	.410	.005	.378	2.022
	2	1	-1.200*	.410	.005	-2.022	-.378
congruent	1	2	.900*	.410	.032	.078	1.722
	2	1	-.900*	.410	.032	-1.722	-.078

Based on estimated marginal means

Familiarity

Descriptive Statistics

	label	Mean	Std. Deviation	N
French_Familiar	Neutral	4.0000	1.89181	20
	Incongruent	4.1000	1.48324	20
	congruent	3.4000	1.63514	20
	Total	3.8333	1.67905	60
Arabic_Familiar	Neutral	5.0000	1.45095	20
	Incongruent	4.8000	1.28145	20
	congruent	4.8000	1.39925	20
	Total	4.8667	1.35880	60

Pairwise Comparisons

Measure: MEASURE_1

label	(I) speakers	(J) speakers	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
						Lower Bound	Upper Bound
Neutral	1	2	-1.000*	.420	.021	-1.841	-.159
	2	1	1.000*	.420	.021	.159	1.841
Incongruent	1	2	-.700	.420	.101	-1.541	.141
	2	1	.700	.420	.101	-.141	1.541
congruent	1	2	-1.400*	.420	.002	-2.241	-.559
	2	1	1.400*	.420	.002	.559	2.241

Appendix 8

Mean Differences of the accents under the label conditions

	Neutral Label		Incongruent Label		Congruent Label	
Dimensions	**French accent**	**Arabic accent**	**French Accent**	**Arabic accent**	**French Accent**	**Arabic accent**
Competence	3.72	3.03	3.66	2.75	3.57	3.01
	p<.001		*p*<.001		*p*=.002	
Socio-intellectual status	20.85	14.10	19.95	15.35	19.05	16.55
	p<.001		*p*<.001		*p*=.02	
Aesthetic quality	20.50	17.20	20.1	15.3	20.05	16.45
	P=.01		*p*<.001		*p*=.006	
Religiosity	3.60	5.00	4.45	3.75	2.95	5.45
	P=.002		*P*=.11		*P*<.001	
Reliability	4.45	3.85	4.85	3.85	4.55	4.10
	P=.13		*P*=.01		*p*=.30	
Security	5.70	3.65	4.95	3.75	4.75	3.85
	p<.001		*P*=.005		*p*=.03	
Familiarity	4.00	5.00	4.10	4.80	3.40	4.80
	P=.02		*P*=.10		*p*=.002	