DIFFERENCES BETWEEN MONOLINGUAL AND BILINGUAL INDIVIDUALS ON PERCEPTIONS OF CODE-SWITCHING: IS IT LINGUISTIC INCOMPETENCE OR A UNIQUE COGNITIVE ABILITY?

by

Kuntala Shabnam Parama

An Abstract
of a thesis submitted in partial fulfillment of the requirements for the degree of Master’s of Science
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ABSTRACT

by

Kuntala Shabnam Parama

Code-switching refers to a bilingual mode of speaking in which the speakers switch back and forth between the first language (L1) and second language (L2) (Grosjean, 2010). Historically, code-switching has been discouraged in educational institutions, perceived as language decay, or as having a negative influence on the individuals’ proficiency in one or both languages (Aitchison, 1991). However, this ability is important because bilinguals have the ability to learn a third language faster than monolinguals (Abu-Rabia & Sanitsky, 2010). Further, if there are misperceptions about code-switching in monolingual individuals, bilingual individuals could become victims of unfair discrimination. The present study examined whether there are perceptual differences between monolingual and bilingual individuals about code-switching. In this study, participants watched a video and responded to some questionnaires. Although inconclusive, our results suggested that there are no perceptual differences between monolingual and bilingual individuals about code-switching as evidence of linguistic incompetence but that bilinguals in general perceive code-switching to be indicative of unique cognitive ability.
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CHAPTER 1
INTRODUCTION

The purpose of this investigation was to examine whether there are perceptual differences between monolingual and bilingual individuals about code switching. Generally, the term code-switching refers to the ability to switch between two languages during a conversation. Code-switching can be viewed not as a limitation of the bilingual speaker, nor even as a deficit of vocabulary, but rather as the selection of words/languages which are readily available to the speaker (Lance, 1975). Code-switching can be considered as a “bilingual mode of speaking” (Valdes-Fallis, 1978, p. 67). It is a very common phenomenon in bilingual conversation. In early research, code-switching had been considered a form of interference between First language (L1) and Second language (L2) (Duran, 1994). Also, code-switching had been considered an abnormal means of communication to monolingual individuals just because the whole process was not very clear to them (Duran, 1994). But in recent years it has been considered an important aspect in terms of revealing the complex methods of comprehension and the processing of two languages in the human brain (Gardner Chloros, 2009).

Code-switching has been widely studied in research on bilingualism. According to Grosjean (2010), code switching is a distinctive way of speaking in which the speaker switches back and forth between L1 and L2. During the switch, usually the speaker moves to the other language completely in search of “a word, phrase or sentence” and then returns to the root language (Grosjean, 2010, p. 743). Linguists around the world have been conducting research on the cognitive aspects of bilingualism for the past 25 years (Groot & Christoffels, 2006). In this
regard, Kroll (2008) stated that, “The presence of activity among both languages when only one language is required, in the absence of a serious disruption to performance, suggests that proficient bilinguals have acquired not only linguistic proficiency but also the cognitive skills that allow them to juggle the two languages with ease” (Kroll, 2008, p.1). She also added that this “juggling” ability of bilinguals helps them to resolve “cognitive conflict” throughout their lives (Kroll, 2008, p. 1).

Groot and Christoffels (2006) focused on the different forms of language processing that monolingual and bilingual speakers use (Groot & Christoffels, 2006). Monolingualism refers to the ability to speak, read, write and comprehend one language only. It does not mean that monolinguals are unable to learn a second language (L2). A monolingual can become a bilingual at any point of his/her life. A person is not determined to be monolingual by society or a geographical boundary; rather it is the sole choice of the speaker if he/she wants to remain monolingual throughout life or become bilingual at some point. However, bilingual speakers’ ability to have command over two languages is mostly neglected (Groot & Christoffels, 2006). In terms of competence, linguists mostly neglected “bilingual’s language competence” and they never really accepted the fact that bilinguals’ grammar to communicate in two languages might be different from the monolinguals’ grammar (Grosjean, 1989, p. 5). According to Grosjean (2012), “The effects of bilingualism have been closely scrutinized, and bilinguals themselves rarely evaluate their language competencies as adequate. They have a tendency to assume and amplify the monolingual view of bilingualism and thus criticize their own bilingualism” (Grosjean, 2012, p. 377).
It is not wise to define bilingualism from a monolingual perspective (Grosjean, 1989). Bilinguals possess the ability to speak and comprehend two languages in contrast to monolinguals’ ability in one. Bilinguals have competence in both a First language (L1) and a Second language (L2). However, the L2 acquisition takes place in such a sophisticated way that there are hardly any conflicts while using both languages simultaneously. Rather, a spontaneous and crafty combination of languages is observed while bilinguals deal with both of the languages (Bassetti & Cook, 2011). Language comprehension and processing in the brain work in two different ways for monolinguals and bilinguals. In this regard, Genesse (2001) stated, “Studies of speech perception in children exposed to two languages from birth suggest that they probably have the cognitive-perceptual capacities that are prerequisite to establishing simultaneous differentiated representations of more than one language from the very outset of exposure to two languages” (p. 164). That is why it is not always possible to accurately perceive bilingual competence from a monolingual perspective.

During code-switching, speakers usually switch between two languages within the same conversation, sometimes in the same sentence (Poplack, 1980). Therefore, a competent bilingual speaker who switches codes must have a sound knowledge of both L1 and L2 in terms of grammar and structure. Thus, whenever he or she switches codes during a conversation, it does not seem unnatural or exaggerated to other bilinguals.

Historically, code-switching has been discouraged in educational institutions, perceived as a sign of language decay, or as having a negative influence on proficiency in one or both languages (Aitchison, 1991). Studies have shown that, from a monolingual perspective, monolinguals perceive code switching as a sign of inadequacy in L2 (Hughes, Shaunessy, Brice,
Ratiliff & McHatton, 2006). However, according to Fakeye (2012), code-switching should be encouraged in educational settings, so that L2 learners are motivated to learn new things and are able to maintain good rapport with their teachers.

Unfortunately, there has been little research examining bilinguals’ perception towards code-switching. It has been observed that bilingual children (in primary school settings) born and brought up in a foreign land feel more comfortable speaking in L2 with their monolingual friends in school environments but feel uncomfortable revealing their bilingual identity to their peers. They feel inhibited from speaking their language (L1) even in family settings (Pagett, 2006). Pagett’s study suggested that bilingual children in primary school settings feel negative about code-switching (Pagett, 2006). It is plausible that those children also might perceive code-switching as a sign of linguistic incompetence when they grow older (Pagett, 2006).

Again, there are some studies that indicate the signs of unique cognitive abilities in bilinguals. In terms of unique cognitive ability, Biyalystok (2009) claimed that the effects of bilingualism were difficult to explain. She added, “the language deficit and the control advantage interact to create a complex picture of cognition that is different for bilinguals and monolinguals, but not in a way that can be simply defined as better, worse, or indifferent” (Biyalystok, 2009, p. 9). Bilinguals are able to use “two languages—separately or together—for different purposes in different domains of life, with different people” (Grosjean, 1989; p. 6). Additionally, even though bilinguals are able to “juggle” between languages, when they talk to monolinguals in L2, L1 is “never totally deactivated” (Grosjean, 1989; p. 7). Thus, it is not accurate to describe bilinguals as “two monolinguals in one mind” (Grosjean, 1989).
The present study helped us understand how monolinguals perceive individuals who speak more than one language. Understanding these perceptions would be useful for several reasons. For example, if monolinguals perceive bilinguals as less competent due to their tendency to switch codes, it might give us perspective on direct or indirect connections between monolinguals’ misperceptions and xenophobia or implicit racism. Also, it would also help us understand possible relationships between misperception of bilinguals and unfair discrimination. It is important mostly because, monolinguals have negative perceptions about bilinguals (Grosjean, 2010). Monolinguals consider bilingualism as a “grammarless mixture” of L1 and L2 and as an “insult to the monolingual’s rule-governed language” (Grosjean, 1982; p.146). Also, migrated bilinguals in a monolingual society are often stigmatized and discriminated against by monolinguals and this hostility is not towards the language but towards the bilingual culture (McLaughlin, 1978). In this regard, it is relevant to mention that there is a tendency in researchers to evade topics that deal with different genders and races to protect themselves from controversies. By neglecting to investigate these sensitive issues, eventually minority groups suffer. For example, Sieber and Stanley (1988) pointed out, “Although ignoring the ethical issues in sensitive research is not a responsible approach to science, shying away from controversial topics, simply because they are controversial, is also an avoidance of responsibility” (p. 55). Similarly, Scarr (1988) indicated, “By not asking direct questions about the nature and origins of racial and gender differences in behavior, researchers have failed to investigate the strengths of underrepresented groups and failed to assess their ways of functioning well. Ignorance of the importance of racial and gender differences in this society has not served those very groups that many investigators believed they were protecting” (p. 56)
Unfortunately, many monolinguals still fail to value the linguistic assets of bilinguals in terms of communication and understanding (Grosjean, 2010). Therefore, it would be unwise to hold back bilinguals from contributing to society based on any misperceptions. For example, research shows that bilinguals have the ability to learn a third language faster than monolinguals (Abu-Rabia & Sanitsky, 2010), therefore bilingualism can be considered an advantage. Because both monolinguals and bilinguals have strengths and weaknesses, working side by side can be a boon to the society. They can complement each other by focusing on their strengths and compensating for weaknesses.

**Hypotheses**

Historically, there is evidence that code switching has been widely perceived as interfering with learning and as a sign of language deficit (Grosjean, 1989). However, if we consider its’ creative, socio cultural and resourceful sides, code-switching can be seen as a special means for bilinguals to advance their learning ability (Dahl, Rice, Steffensen & Amundsen, 2010). More precisely, second language learners can learn L2 more effectively with the help of the structure of their native grammar and language structure. This is why skillful use of code switching can be considered an asset whereas amateur use of code switching can be seen as a vulnerability (Dahl et al., 2010).

This present study addressed two hypotheses about perceptions of code-switching. First, we hypothesized that monolinguals would perceive code switching as a sign of linguistic incompetence, demonstrated by higher ratings of their perception of code-switching as an indicative of incompetence on a response scale as compared to bilinguals’ ratings on the same measure. Second, we hypothesized that monolinguals would provide lower ratings than
bilinguals on items assessing their perceptions of code switching representing a unique cognitive ability.
CHAPTER 2
LITERATURE REVIEW

Bilingualism

According to Grosjean (2010), bilinguals communicate in two or more languages in their daily lives. Bilinguals are seen around the world and are very predominant in Europe and North America (Grosjean, 2010). There has been less research in Asia and Africa on the numbers of bilinguals, but an estimated 55 million bilinguals currently live in the United States (Grosjean, 2010). Migration, higher levels of education and job opportunities are the most commonly cited reasons behind the large number of bilinguals in the United States (Grosjean, 2010). Students who pursue higher education in countries like the United Kingdom, France, United States, Russia and other countries, tend to become active bilinguals (Grosjean, 2010). Grosjean (2010) suggested that, bilinguals usually can use two or more languages in their daily lives. He pointed out that in recent years, immigrants are also often bilinguals as they necessarily need to learn the language of the foreign land and they also continue talking in their first language (L1) in their native communities. Their offspring, as a result, learn to become bilinguals.

Bilinguals are Not Two Monolinguals in One Person

Grosjean (1989) suggested that bilinguals are not two monolinguals in one mind, rather they possess a special linguistic capability. Previously, researchers assumed that bilinguals were “two monolinguals in one person” (p.3), and thus they suggested that research on bilinguals should be approached in the same way as research on monolinguals. Grosjean (1989) stated that the monolingual perception is that “true” bilinguals are supposed to know two languages very well. Bilinguals who do not know two languages well are not considered “proper” bilinguals.
Grosjean (1989) criticized the monolingual approach of testing bilinguals’ linguistic skills with monolingual linguistic tests as researchers did not consider the necessity of creating different linguistic tests for bilinguals. In most cases, neurolinguists or speech pathologists tend to use “standard monolingual tests” with their bilingual clients to evaluate their linguistic competence (p.5). Unfortunately, these tests hardly consider the bilingual strategy of using different languages in different situations and the context of switching codes in their mode of conversation (Grosjean, 1989). Further, Grosjean (1989) pointed out the negative outlook of monolinguals towards bilingualism which frames code-switching or borrowing as “language interference” (Grosjean, 1989, p. 5). He added that less research has been conducted to investigate how bilinguals speak two languages simultaneously, especially in terms of code-switching and borrowing. He suggested that the monolingual view has never grasped the idea of different grammar and linguistic competence possessed by bilinguals. Monolinguals neither take into account the fact that L1 competence can change when L2 acquisition takes place, nor that L2 can have strong influences over L1. In terms of testing bilingual participants, many speech pathologists and neurologists use monolingual tests and do not take into account the fact that bilinguals might have different cognitive and linguistic abilities. Grosjean (1989) suggested that bilinguals perceive themselves as linguistically incompetent on both L1 and L2, which is similar to monolingual perception towards bilinguals’ competence in both languages. Bilinguals feel they are not competent in L1 nor L2. Because bilinguals use two languages for different purposes, they are not “completely fluent” in both languages. Grosjean (1989) suggested that bilinguals have developed a special competency with which they can combine two languages or speak in any of the languages individually whenever necessary. The bilingual “communicative
competence” is applicable for different situations in daily life and cannot be accurately judged from a monolingual point of view (Grosjean, 1989, p. 6). Thus, Grosjean (1989) said, “We should stress how important it is to have a clear understanding of the monolingual view of bilingualism and of the impact it has had on our thinking. We may then be ready to consider bilinguals, not as two monolinguals in one person, but as different, perfectly competent speaker-hearers in their own right” (p. 6).

Selinker (1972) stated that “successful” bilinguals have similar competence to monolinguals and native-like fluency in L2. He added that bilinguals possess a genetically encoded ability which can be labelled as “latent psychological structure” (p. 212). This unique ability allows them to interpret word meanings while learning the second language. Similarly, Biyalystok (2009) suggested that bilinguals have different cognitive functioning than monolinguals, but the differences are not easy to explain.

**Bilingual Perception towards Bilingualism**

Though bilinguals learn L1 from their parents and use it at home, they may feel uncomfortable speaking L1 in public places. They may not want to reveal their bilingual identity in front of others (Pagett, 2006). Bilinguals usually feel less confident in giving formal speeches publicly without any practice in L2, and sometimes they suffer from an identity crisis between native and second language cultures (Grosjean, 2010). According to Grosjean (2010), bilinguals do not consider themselves as linguistically competent as monolinguals in L2. They also blame themselves for not having sound knowledge in both languages (Grosjean, 2010). Some of them tend to be overly concerned about their accents, tendency to mix languages, and limited knowledge of the L2 (Grosjean, 2010).
Monolingual Perception towards Bilingualism

Cook (1997) suggested that monolinguals have a dubious view towards bilingualism. Monolinguals tend to believe that members of the human race are supposed to know only one language (Cook, 1997). The people who usually use two languages to communicate are viewed as eccentric (Cook, 1997). Cook described the monolingual depiction of a bilingual person having two mouths whereas a monolingual person has one mouth. From a monolingual perspective, bilingualism is seen mostly negatively (Grosjean, 2010). Monolinguals consider bilingualism as a “grammarless mixture” of L1 and L2 and as an “insult to the monolingual’s rule-governed language” (Grosjean, 1982; p. 146). Bilinguals who belong to a higher socioeconomic status may be envied by monolinguals for having the ability to speak two languages. In contrast, bilinguals that belong to a lower socio economic status may be despised by monolinguals (Grosjean, 2010). In addition, bilinguals who are immigrants in a monolingual society are often stigmatized and discriminated against by monolinguals (McLaughlin, 1978). The hostility is not towards language but towards bilingual culture (McLaughlin, 1978).

Migrated bilingual parents consider L1 a symbol of prestige, identity and heritage, whereas bilingual children consider L2 a means of conformity to the current environment. They accept L2 more positively than do their parents (Bolonyai, 2009). Unfortunately, many monolinguals still fail to value the linguistic assets of bilinguals in terms of communication and understanding (Grosjean, 2010).

Cognitive Functioning and Bilingualism

In terms of cognitive functioning, McLaughlin (1978) suggested that including nonverbal elements in an intelligence test (For example, the Pintner Nonlanguage Test or the Spearman
Visual Perception Test) for a bilingual child does not adversely affect his/her IQ score (McLaughlin, 1978, p. 169). However, the score is usually poor when the test contains a large “language component” (McLaughling, 1978; p. 181). Thus, in terms of nonverbal elements, monolinguals and bilinguals score similarly. He also added that, if the bilingual child has minimal exposure to L2, his/her performance is affected negatively in educational settings, specifically in verbal skills. However, he also pointed out that, even though bilingual children might face difficulties with verbal skills in their early grades, they eventually overcome their vulnerability and become competent in that specific area. Further, bilingual children have demonstrated “greater cognitive flexibility” in comparison to monolingual children (McLaughlin, 1978, p.184). Bilinguals can use their knowledge of L1 to learn L2 effectively and skillfully. Thus, they can strengthen their skills in terms of rules of both languages. McLaughlin (1978) pointed out that some researchers have blamed bilingualism for handicapping children educationally. Those researchers have also indicated that bilinguals have a higher risk of dropping out of school and remaining unemployed. But again, McLaughlin (1978) presented some counter arguments based on the work of other groups of researchers, who consider bilingualism as conferring an educational advantage. He added that, compared to monolingual children, bilinguals are more aware of their reputations and thus are very conscious of their achievements in any field. Further, bilinguals are inspired to learn subjects like geography and history, whereas monolingual children tend to lack such interest (Mclaughlin, 1978). As a result, bilinguals obtain “social and professional advancement” in “education, religion, diplomacy, writing and business” (Mclaughlin, 1978, p. 176). According to Abu-Rabia and Sanitsky (2010), bilingual learners tend to be faster than their monolingual counterparts in terms of learning new
languages. Thus, bilinguals possess a unique cognitive ability which makes them learn a third
language faster than their monolingual counterparts learn a second language.

**Benefits of Bilingualism**

Researchers have demonstrated the importance and advantages of bilingual individuals. For example, McLaughlin (1978) suggested that bilinguals “have an interest in geography and history that monolingual children lack and are more motivated to learn the subjects. Their bilingualism gives them an advantage for social and professional advancement, particularly in the fields of education, religion, diplomacy, writing, and business. They may become interested in travel and art because of their bilingualism” (McLaughlin, 1978, p. 176). Additionally, Biyalystok (2009) pointed out that bilinguals “showed signs of dementia four years later than the monolinguals- with a mean age of 71.4 and 75.5 for monolinguals and bilinguals, respectively” (Biyalystok, 2009, p. 9). She found significant difference between the two groups. This difference indicated a “generalized power of bilingualism” that preserved “cognitive functioning even with the challenges of impending disease” (Biyalystok, 2009, p. 9). According to Abu-Rabia and Sanitsky (2010), “There is ample evidence that bilingualism provides an academic advantage over monolingualism. This study extended information about the academic benefits of more than one language by investigating whether bilingualism contributes to trilingualism compared to the contribution of monolingualism to bilingualism” (Abu-Rabia & Sanitsky, 2010, p. 174). According to Grosjean (2010), bilinguals are sometimes able to get favors from other bilinguals by persuading them through code-switching (CS). In this regard Grosjean (2010) demonstrated incidents where people saved their own lives by being bilinguals. One person was a Bangladeshi who was able to save his life from the Pakistani Platoon during the 1971 liberation
war as he knew Urdu along with Bangla. Another person was spared by the Nazis during the Holocaust even after letting 12 Jewish children flee, just because she knew French.

**What is Code-Switching (CS)?**

Code-switching is a bilingual means of communication in which bilinguals use two or more languages alternatively for communication (Gardner-Chloros, 2009). According to Gardner-Chloros (2009), “Code-switching embraces various types of bilingual behavior such as switching within and between utterances, turns and sentences. A theoretically neutral and less confusing term adopted for code-switching is a *language interaction*” (Gardner-Chloros, 2009; p. 202). The term code-switching originally had no relation to language; it was borrowed from the field of communication technology (Gardner-Chloros, 2009). In present days, it is used widely regarding language and other fields. According to Gardner-Chloros (2009), during the 1950s and 1960s, some psychologists assumed that when bilinguals switched codes (languages), something very close to “flicking an electric switch” took place in their brains. The process of switching back and forth between languages in the same conversation is compared to the electrical switching mechanism. Later, it was assumed that there are different switch mechanisms regarding “listening and understanding” (control input) and “speaking” (control output). But Gardner-Chloros (2009) admitted that CS is a more complicated phenomenon and it is very difficult to define the term precisely. An example of code-switching between French and English cited by Grosjean (1982) is: “Va chercher Marc (go fetch Marc) *and bribe him* avec un chocolat chaud (with a hot chocolate) *with cream on top*” (Grosjean, 1982; p. 4). Here in this single sentence the speaker has switched back and forth between French and English.
CS In Written Form

CS has a long history mainly as a spoken language phenomenon, from a sociolinguistic point of view. Due to colonization, the colonized people became skilled in two languages and instinctively developed the skill to switch codes while speaking. According to Grosjean (2010), alternation of two languages is known as code-switching. The speaker seeks words, phrases or sentences by shifting completely to L2 and finally returns to L1. In spite of its negative connotations, code switching (CS) is considered a strict grammatical procedure, implemented by bilingual speakers who are competent in both languages (Grosjean, 2010). There are also examples of CS in written texts. For instance, “Cicero’s letters to his friend Atticus” included both “Latin and Greek.” In present times, lifestyle magazines such as Latina contain Spanish-English CS (Chloros, 2009).

Is CS a Conscious Process?

Schwieter and Sunderman (2008) suggested that, during the process of CS from L1 to L2 or vice-versa, bilinguals do not need to make extra effort to control any of the languages when the speakers are highly proficient in L2. The whole process takes place instinctively and spontaneously. The term “inhibitory control” means restricting intrusion of L2 while conversing in L1 (Schwieter & Sunderman, 2008, p. 217). Proficient bilinguals do not need to rely on “inhibitory control” while they switch codes (Schwieter & Sunderman, 2008, p. 219). Thus, the transition from L1 to L2 does not necessarily need to be conscious; rather the whole process is driven subconsciously and effortlessly. According to Toribio (2001) CS is a skillful and appropriate expression of bilinguals in terms of expertise in L1 and L2. She suggested that CS is an innate ability; it is not taught or learned. Bilinguals can sense where to use and where not to
use CS. She also points out that CS is independently motivated by universal principles of grammar. According to Poplack (1983), CS takes place naturally and spontaneously. Therefore, it can be assumed that CS is a well-organized and structured means for bilinguals to express themselves in both languages in a relevant manner. It might be considered a strength rather than a weakness.

**Do Monolinguals Switch Codes?**

It should be mentioned that even monolinguals switch codes between dialects, registers, levels of formality and intonations. Monolingual CS patterns can be caused by “discourse styles” and “registers” within people in a specific group who know each other. The term “discourse styles” means social use of language which conveys meaning of broad historical aspects, (Henry & Tator, 2002). According to Trudgill (2001), a register is quite different from dialect or style. Register is reflected in speakers’ vocabulary when a certain topic is discussed. For example, the language or register of law includes ‘tort’, ‘hereafter’, ‘felony,’ etc. (Trudgill, 2001).

Monolinguals CS to express intimacy and oneness. Switching between different dialects or varieties of language is sometimes done on purpose. For example, CS may be done to draw someone’s attention, or to make a speech or advertisement more attractive and unusual (Gardner-Chloros 2009).

**Linguistic Functions of Code-Switching**

According to Poplack (1980), code switching arises when the speaker has a greater linguistic competence in two or more languages. She also suggested that CS does not arise due to inadequate knowledge of either of the languages. Further, she pointed out that CS is a demonstration of bilingual competence rather than deviant behavior. According to Valdes-Fallis
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(1978), CS is “not random,” or a momentary form of shift. Poplack (1980) suggested that, “Code switching is the alternation of two languages within a single discourse, sentence or constituent” (Poplack, 1980, p. 583), for example, “Leo un Magazine” (I read magazine) (Poplack, 1980, p. 583). CS is considered a natural way of speaking for bilinguals (Auer & Eastman, 2010). Generally, bilinguals who are proficient in both (L1 & L2) languages can switch codes skillfully (Poplack, 1980).

Poplack (1980) reported the following example of code-switching. A person named Sally describes the importance of knowing Spanish for Puerto Ricans and while saying this she switches to English – “SI TU ERES PUERTORRIQUENO (if you are Puerto Rican), your father’s a Puerto Rican, you should at least DE VEZ EN CUANDO (sometimes), you know, HABLAR ESPANOL (speak Spanish)” (Poplack, 1980 p. 594). Poplack (1987) differentiated CS from “mixing”, “borrowing” or “interference”. Code mixing “is a mixture between two or more languages in which there is a dominant language and inserted with different language to make it sound cool and give appropriate context to the audience or listener” (Sumarsih, Siregar, Bahri, & Sanjaya 2014, p. 79). For example, “This morning I hanter my baby tu dekat babysitter tu lah” (This morning I took my baby to the babysitter- mixture of English and Malay; Aronoff & Rees-Miller, 2003, p. 526). According to Grosjean (2010), “borrowing is the integration of one language into another” (Grosjean, 2010; p. 827). The term “borrowing” applies to “loan words.” For example, the word ‘Verandah’ has a Bangla/Bengali synonym ‘Baranda’. During colonization this word entered into Bangla vocabulary and since then it is part of the language. Poplack (1983) pointed out that interference might be considered as a sporadic but spontaneous action. This is how the speakers distinguish themselves from conventional rules (Poplack, 1983).
For example, different languages have different semantic and syntactic rules. In such situations if a bilingual individual applies his/her L1 grammatical rules while speaking or writing L2, interference occurs (Bhela, 1999). For example, “Ami (subject) bhaat (object) khai (verb)” is the Bangla translation of “I (subject) eat (verb) rice (object).” In English grammar, we follow the rule ‘subject + verb + object’ to form a sentence. But in Bangla, we follow the rule ‘subject + object + verb’ to form a sentence. So if a bilingual applies the Bangla sentence structure rule to form a sentence in English, it will cause interference. Poplack (1987) suggested that it is a spontaneous act where the bilingual speakers use codes from both languages. She also added that CS is not an outcome of “incomplete acquisition” or “language loss.” Further, she mentioned that CS should be distinguished from “speech errors” and “interference” (Poplack, 1987, p. 72).

Lipski (1978) suggested that CS may seem superficial and might be considered a random means of communication, but in reality it follows stringent patterns of sentence structure. He highlighted the different grammatical structure of CS but at the same time pointed out its lexical and syntactic limitations. He described CS as interference in conversation. Further, he mentioned that only “true bilinguals” or those who are competent in both languages are able to switch codes properly.

In an attempt to identify why people use CS, Grosjean (2010) suggested that better expression in the other language (L2) might drive the speaker to switch codes. He stated that, sometimes the speaker switches codes only because the suitable word(s) for the conversation is available in the other language. In addition, he suggests that when a bilingual reports the speech of an L2 speaker to another bilingual, he/she prefers to switch codes. For example, if an L1 speaker describes the speech of an L2 speaker to his L1 peer, he/she would very likely describe it
in L1. According to Lance (1975), insufficient vocabulary is not always the reason behind CS. Sometimes CS takes place even if the speaker knows the appropriate word in either language. However, Gardner-Chloros (2009) suggested that CS helps us to define how the comprehension and processing of two languages take place in the brain. By analyzing CS analysis in speech we may learn what parts of grammar can be switched, and what parts cannot be switched. It is a means to understand grammar more precisely.

**Social Functions of Code-Switching**

CS is a means of communication by which bilinguals can isolate themselves from others in a society. In this regard Grosjean (2010) stated, “Code-switching is also used as a communicative or social strategy, to show speaker involvement, mark group identity, exclude someone, raise one’s status, show expertise, and so on” (p. 787). Here Grosjean has tried to demonstrate CS as a common signal among bilinguals. It is assumed that CS might help to bring bilinguals together and create a sense of belongingness. Similarly, when they switch codes they reveal their bilingual identity to each other. But Grosjean (2010) cautioned bilinguals to CS carefully especially when it takes place within themselves and in front of a L2 speaker. This approach could be “risky” and to some extent rude, when bilinguals ignore the presence of a L2 speaker. Grosjean (2010) stated, “But this can be a risky communicative strategy, in addition to being perceived as impolite, as the person being excluded may know the other language well enough to understand what has just been said” (Grosjean, 2010, p. 795). Sometimes CS is applied for “showing expertise” and “raising one’s status,” (Grosjean, 2010, p. 787). It is considered an expertise when a person can switch between two languages spontaneously during a single conversation. Similarly, the ability to switch codes is seen as a mark of a higher social
status. It is perceived that people who can switch codes skillfully are from a higher economic status and well educated background. Further, sometimes CS is considered a mark of prestige and superiority. For example, in India, people are required to learn three languages. They learn Hindi as a lingua franca, one provincial language and English for official purposes. Thus, when someone wants to isolate oneself from others and demonstrate his/her dominance he/she may switch codes into English (Bhatt & Bolonyai, 2011). Bhatt and Bolnyai (2011) suggested that bilinguals CS when they feel that the monolingual code is insufficient to interpret the expression precisely. The main purpose of CS is to interact with specificity to bilingual counterparts with brief but effective expression. The person who switches codes makes sure by conversation beforehand that his/her counterpart(s) have/has the same L1 and are fully aware of the (L1) cultural, historical, political and religious connotations. They also suggest that sometimes bilinguals switch codes to demonstrate equality among the native speakers and create a distance with the L2 speakers (Bhatt & Bolonyai, 2011). Bhatt and Bolnyai (2011) pointed out that CS includes the L1 speakers in a conversation, but excludes L2 speakers. In this regard, Hughes, Shaunessy, Brice, Ratliff and McHatoon, (2006) stated, “code-switching can be perceived as a negative social trait by members excluded from the group (i.e., monolingual speakers)” (p. 8).

CS and Social Cues

CS is a common signal for bilinguals to communicate among themselves within a specific social setting. In this regard Li Wei (1998) suggested, “Bilingual speakers change from one language to another in conversation not because of some external value attached to those particular languages, but because the alternation itself signals to their co-participants how they wish their utterances to be interpreted on that particular occasion” (Wei, 1998, p. 161). He also
indicated that when CS takes place in interaction, bilinguals take the conversational context into account. Further he added that the main focus of linguists should be on the technique which bilingual speakers follow to present, understand, accept or reject their identity, attitude and relationship through the shifting procedure of interaction. In this regard, Sophocleus (2011) suggested that CS is a strategy of highlighting bilingual speakers’ “social identity” in terms of others. In addition she stated “careful analysis of all interactions” and the cultural connection of bilinguals help to determine their “personal identities” and “their interpersonal relationships in social interaction” (Sophocleus, 2011, p. 203). CS is a means to define authority or “status” difference. It also reflects the topic and setting where the interaction takes place (Sophocleus, 2011).

CS is an Expression of Power and Solidarity

In a social context CS can also be seen as a means of expressing power and solidarity (Bhatt & Bolonyai, 2011). Bhatt and Bolonyai (2011) suggested that by switching codes, bilinguals usually integrate L1 speakers in a group and try to discard L2 speakers from a group. In bilingual classrooms, CS is considered as a means for solidarity with native speakers (Gulzar, 2010). Gulzar (2010) suggested that CS is required in bilingual classrooms to teach the target language. He added that switching codes can enhance the progress of learning the L2. CS can establish the bridge between L1 and L2 in terms of requirements to acquire a new language. Further, he suggested “it is essential for teachers and educators to understand the utility and significance of code-switching in the bilingual classroom discourse” (p. 38). Finally, he warned about the disadvantage of insensible use of CS, which can eventually affect the L2 learning process negatively. If CS is encouraged as a tool of symbolic power to children, it would be
difficult to guide them to preserve their mother tongue and identities (Palmer, 2009). It is the
teachers’ responsibility to guide children to know linguistic balance and identities (Palmer, 2009).
If their identities are preserved and reinforced, it is easier for the children to achieve academic
competence in any setting. Palmer (2009) also suggested that, in terms of identity and preserving
unity, it is important to have proficiency in both L1 and L2.

Is CS a Tool for Dominance?

Palmer (2009) mentioned that CS is a social tool of dominance in bilingual society. She
provided an example of a Spanish-English bilingual community where people usually switch
from Spanish to English when they want to exhibit superiority. On the other hand, in a
monolingual public school setting, if some Spanish students switch to Spanish from English and
talk within the group, the English speaking monolinguals feel insulted and dominated by the
Spanish bilinguals, since they are excluded from the conversation. Palmer (2009) also
highlighted an important issue about the bilingual classroom setting: in Spanish class, the
English speakers never hesitate to mix English if they do not find the right vocabulary in Spanish,
in the presence of Spanish speakers. In contrast, Spanish speakers are not bold enough to mix
Spanish while they are interacting in English even in the presence of a Spanish speaking group.
Palmer (2009) indicated another interesting aspect that, when bilingual children play together
and they are happy and relaxed, they interact very smoothly and do not even think about
dominating others or discarding someone from the group by CS. But usually during a
conversation, if someone switches from L1 to L2, it is considered a mark of dominance and it is
also a cue of exclusion from the group. Surprisingly, the parents of Spanish-English speakers
have a mixed outlook on CS. Spanish speaking parents consider it very rude, especially when
their children switch from Spanish to English in front of elders. On the other hand, English speaking parents feel proud when their children understand the jokes of Spanish speakers in a restaurant or any public place. Palmer (2009) highlighted that even though the bilingual children are instructed not to CS in classroom settings and are especially asked to follow the language separation rule for learning, they spontaneously use CS whenever the situation demands. The children sometimes CS to “exert power” over their peers and exclude them from the group. But their acquisition of L2 and their performance in the classroom is hardly hampered. They function smoothly in both languages.

**Does CS Facilitate L2 learning?**

Qing (2012) suggested that CS in bilingual teaching makes students work more confidently. It is a way of expressing solidarity and a means of showing conformity with their peers. By switching codes, they feel themselves as a part of the whole group. In China, teachers usually switch codes when they teach L2 grammar. Following this method, the teachers make the students concentrate more and create an ambience for smooth interaction between them and the students. In addition, the L2 grammar is taught in a less complicated manner by CS. So, in this case, CS maintains the harmony of learning and emotional stability. As a result, the students are able to learn L2 effectively without getting stressed. Moreover, Qing (2012) pointed out that CS enhances the L2 learning process. Because the learners are provided with grammar of both languages, “successful acquisition” of L2 takes place. In addition, this procedure of using CS does not discriminate among students with various levels of proficiency (p. 32). In addition, by CS, the teachers set equilibrium of status for both L1 and L2, which inspires the learners in a
positive way. Therefore, Qing strongly encourages the use of CS in bilingual learning settings, especially for language acquisition purposes.

**Restriction of CS Impedes Language Development**

In the 1960s, in Quebec, French was considered a “minority language” among the Canadian English speakers (Palmer, 2009, p. 45). They followed a “strict separation” procedure of languages to isolate French and English in the classroom (Palmer, 2009, p.45). The rule was that during the French instruction period only the bilingual students were allowed to speak in French. The idea was initiated to let the target language (L2) develop effectively (Palmer, 2009). Later in the United States this strategy was followed for the development of two languages in bilingual classrooms, but eventually this procedure seemed problematic and counterproductive (Palmer, 2009). Palmer (2009) suggested this “strict separation of language” is a threat to “biliteracy” (p. 45). If CS is restricted in bilingual classrooms completely, the spontaneous flow of language development is barred. It is harmful in terms of acquisition and development in both languages. This type of “unnatural separation of language will not allow natural bilingual language development, and will hinder the development of either languages” (Reyes, 2001 as cited in Palmer, 2009, p. 45).

**Disadvantages of CS**

There are also disadvantages for bilinguals who use CS, especially when the bilingual speaker is not good at any of the languages; it becomes frustrating for the speaker to not be able to express him/herself properly (Grosjean, 2010). Moreover, some purist bilinguals, who are overly concerned about getting the languages contaminated, express themselves hesitantly and struggle to use CS (Grosjean, 2010). In some cases, monolinguals and even bilinguals also
criticize code switching, because both groups consider this act an impure blend of two languages (Grosjean, 2010). In this context Grosjean (2010) suggested, “Code-switching has often been criticized, mainly by monolinguals but also by some bilinguals. Many feel that it creates an unpleasant mixture of languages, produced by people who are careless in the way they speak” (p. 751). Usually, CS is considered in very negative terms, for example Franglais (mixture of French and English,) and Tex-Mex (mixture of Spanish and English in the American Southwest; Grosjean, 2010). From an Asian perspective, CS does not seem to have a positive connotation either- for example ‘Hinglish’ is known as the mixture of Hindi and English and ‘Benglish’ is known as the blend of Bengali (Bangla) and English.

**Misconceptions about CS**

In terms of misconceptions about CS, Miccio, Hammer and Rodriguez (2009) suggested that CS is not responsible for language delay in bilingual children. Some speech-language pathologists “who are unfamiliar with CS as a linguistic skill” may forbid switching codes to bilingual parents and children (Miccio et. al., 2009, p. 245). By doing so, they instill the derogatory message that CS is damaging, especially in terms of “delayed language acquisition” or “language disorder” (Miccio et. al., 2009, p. 245). If the bilingual family eventually stops switching codes after this warning, the bilingual children will be deprived of the “rich linguistic environment” (Miccio et. al., 2009, p. 245). This forced termination of spontaneous CS would be rather harmful for children in terms of language acquisition and proficiency. Miccio et al. (2009) suggested, “There is a widespread misconception that the bilingual child does not truly engage in CS as a proficient bilingual adult would, but is instead using a “mixed-up” language that signals lack of linguistic and sociocultural knowledge or the cognitive inability to separate
the two languages” (p. 244). So, during the initial stage of learning the L2, bilingual children might be less competent in using both L1 and L2. At this stage, they might be taken to a speech-language pathologist by the guardians/parents. But as soon as the bilingual children become proficient in both languages, they are able to switch codes efficiently. The proficiency depends on the environment in which a bilingual child grows up and the feedback he/she gets from caregivers, teachers, home and peers. Also, their peers play a very important role in terms of proficiency in both languages (Miccio et al., 2009).

**Perception of CS In Terms of Social Class, Gender and Culture**

In terms of acceptance of CS, Gardner-Chloros (2009) suggested, “subjects from lower occupational groups had the most favourable attitude towards CS; in fact, the more educated the respondents the less favourable attitudes towards CS” (p. 81). She added that CS is more welcomed by younger people than the older community. She also pointed out that it is gaining gradual acceptance in modern society and becoming popular in many bilingual cultures. Further, Gardner-Chloros (2009) pointed out an interesting aspect which explains CS and its relation to gender. Based on previous research, she described some studies that show no difference in terms of CS. For example in UK, Greek-Cypriot and Punjabi communities’ researchers tested this hypothesis separately collecting transcription recordings from their respective communities. Though both communities had differences in terms of amount and type of CS they used, they did not find any significant difference in use of CS between men and women (Gardner-Chloros, 2009). On the other hand, some other studies show significant differences between the genders in terms of using CS. For example, in a study in Gambia it has been found that “men used CS twice as much as women” (Haust, 1995 as cited in Gardner-Chloros, 2009, p. 83). Gardner-Chloros
(2009) argued that this difference between genders in terms of using CS, varies from culture to culture. She mentioned, “Gender is not a fixed, stable and universal category whose meaning is shared within or across cultures. It cannot be separated from other aspects of social identity and its meaning varies in different domains” (Gardner-Chloros, 2009, p. 83).

**Bilingual Perception towards CS**

According to Gardner-Chloros (2009), not only monolinguals, but also bilinguals believe that CS takes place due to laziness. When bilingual speakers do not find the right word in one language during a conversation, they find it easier to CS. They may have a guilty feeling for this action because they feel it is not right. Researchers are still inquisitive about whether CS takes “less or more effort than monolingual speech” (Gardner-Chloros, 2009, p. 15). Usually code-switchers do not want to admit that they are able to CS and some research has shown that they do not feel proud of their ability to CS. It is not clear to bilingual speakers whether CS is an easy act or very complicated task. They do not consciously feel the level of complexity. It is assumed that bilinguals who are competent in both languages CS smoothly and confidently. In terms of receptive and productive skills, CS is not a very easy task especially because the whole process takes place in split seconds. Even though bilingual speakers consider CS a violation of purity they are usually unaware that they commit a complex cognitive task by switching codes (Gardner-Chloros, 2009).

Derived from the literature review we hypothesized that the monolingual participants in the present study would perceive code switching as sign of linguistic incompetence, demonstrated by higher ratings of their perception of CS as an indicative of incompetence on a response scale as compared to bilinguals’ ratings on the same measure. On the other hand, we
hypothesized that monolinguals would provide lower ratings than bilinguals on items assessing their perceptions of code switching representing a unique cognitive ability.

In summary, the main purpose of this research was to explore the perceptual differences between monolinguals and bilinguals about code-switching.
Participants

The final sample included 77 participants (49 monolingual and 28 bilingual). The mean age was 22.52 ($SD = 6.731$). The sample included 32.5% male participants and 67.5% female participants. In terms of ethnicity, the sample was composed of Asian participants (19.5%), Caucasian/ White participants (51.9%), African American participants (7.8%), Hispanic participants (3.9%) and other ethnicities (16.9%). The monolingual participants were 63.6% of the sample and bilingual participants were 36.4% of the sample.

Participants were students (18 years and above) attending the University of Central Missouri (UCM). The sample included both undergraduate and graduate students, mostly from the Department of Psychological Science and some from other disciplines. Forty-nine monolingual and twelve bilingual participants registered for the study through SONA. SONA is an online registration system for research participation. Both undergraduate and graduate students can participate through this system. As an incentive, the SONA participants were awarded three credits which could be used as extra points for their courses. Unfortunately, I did not get enough bilingual participants through SONA. Additional participants were recruited through email announcement via the university’s international student listserv and through verbal announcements to classes in the Modern Language Department. The email sent to the international student listserv contained all necessary information about the study and the instructions for participation. Further, I verbally announced the study in Elementary German and Elementary Spanish classes in the Modern Language Department as I still had an insufficient number of bilingual participants. Due to the time constraints, we stopped collecting data after
testing 28 bilingual participants. Those participants who were recruited through email received either a set of pens or notebooks as compensation in exchange for completing the study. After the participants signed up through SONA, by responding to the email, or by responding to the verbal announcement, they were requested to attend a participation session at a specific time to complete the demographic questionnaire and another questionnaire used to determine whether the participant was monolingual or bilingual. Then they were asked to respond to the video and post video questionnaire. Testing took place in a small room in a classroom building.

**Design**

This was a quasi-experimental design. The quasi-independent variable was language status (monolinguals or bilinguals). Appendix B includes the questions that determined whether the participants were monolinguals, bilinguals or multilinguals. The dependent variables were perception of CS as indicative of linguistic incompetence (PLI- Perception of Linguistic Incompetence) and perception of CS as indicative of unique cognitive ability (PUCA- Perception of Unique Cognitive Ability).

**Materials**

The demographic questionnaire included five questions in terms of age, sex, ethnicity, first language, second language and ability in multiple languages (see Appendix A). The questionnaire used to determine whether the participants were monolinguals, bilinguals or multilinguals (PMBM- participants were monolingual/bilingual or multilingual) included questions on fluency; comprehension; ability to speak, read and write; satisfaction; and level of linguistic skill (See Appendix B). Items included, “I can speak more than one language fluently” or “I can understand more than one languages”, or “I can speak, read, write and understand more
than two languages”. The participants were instructed to select either “yes” or “no.” Item 6 on the questionnaire included the option for the multilinguals. We coded “yes” responses on that particular option as multilinguals. In addition to the demographic questionnaire and the PMBM questionnaire, the participants watched a video which contained a conversation among three bilingual persons who switched codes. The video was displayed to give a real life example of code-switching to the participants so that they could be familiar with the behavior that they will be asked to evaluate. (See Appendix C). The clip was derived from a TV program in which the speakers talked about music piracy. During this conversation they frequently switched codes between Bangla and English. The duration of the video was approximately five minutes. Also, there were two sets of questionnaires measuring perceptions of CS. The first set of questions was intended to measure the viewers’ perceptions towards the speakers in the video (Appendix D). Items on the first set of questions included statements such as, “The speakers do not seem to have completely learned both languages.” The second set of questions was intended to measure the participants’ perceptions towards bilinguals in general (Appendix E). This second set of questions included statements such as, “Bilinguals do not learn both languages completely”. This questionnaire utilized a five-point response scale (1 = strongly disagree, 5 = strongly agree). I calculated a total of the responses for items relating to linguistic incompetence and another total of responses for unique cognitive ability. Cronbach’s alpha and factor analysis were employed to test the internal consistency of the instruments and to determine the factor structure of the instruments.
Reliability Analysis

Nine items were chosen (item numbers 1, 4, 6, 9, 10, 12, 14, 16 & 17) from the seventeen items on the post video questionnaire that indicated measured perceptions of linguistic incompetence (Appendix D). I discarded item number eight as it did not correspond to PLI or PUCA. The content of item 8 “The speakers seem to have better expression in English” was not clearly related to either PLI or PUCA. Cronbach’s Alpha for this set of items was .703. Here the linguistic incompetence score (the mean of the above items) from the PLI questionnaire represents participants’ perceptions of the extent to which CS among speakers in the video reflected linguistic incompetence, with higher scores representing more incompetence.

Seven items were chosen (item numbers 2, 3, 5, 7, 11, 13 & 15) from the post video questionnaire that indicated measured perceptions of unique cognitive ability (Appendix D). I discarded item number eight as it did not correspond to PLI or PUCA. The content of item 8 “The speakers seem to have better expression in English” was not clearly related to either PLI or PUCA. With those seven items, the Cronbach’s Alpha was .670. After deleting item number five, the Cronbach’s Alpha increased to .717. Here the unique cognitive ability score (the mean of the above items) from the post video questionnaire represents participants’ perceptions of the extent to which code-switching among speakers in the video represents unique cognitive ability, with higher scores representing more unique ability.

Nine items were selected (item numbers 1, 4, 6, 9, 10, 12, 14, 16 & 17) from the eighteen items on the general questionnaire that indicated perceptions of linguistic incompetence (Appendix E). I discarded item number eight and number eighteen as they did not correspond to either linguistic incompetence or unique cognitive ability. The content of item 8 “Bilinguals have
better expression in English” was not directly related to either PLI or PUCA. With those nine items, the Cronbach’s Alpha was .735. Here the linguistic incompetence score (the mean of the above items) from the general questionnaire represents participants’ perceptions of the extent to which code-switching among bilinguals in general represents linguistic incompetence, with higher scores representing more incompetence.

Finally, I selected seven items (item numbers 2, 3, 5, 7, 11, 13, 15) from the eighteen items on the general questionnaire that indicated perceptions of unique cognitive ability (Appendix E). I discarded item number eight and item number eighteen as they did not correspond to either linguistic incompetence or unique cognitive ability. The content of item 8 “Bilinguals have better expression in English” was not directly related to either PLI or PUCA. The Cronbach’s Alpha was initially .580. Then I deleted two more items based on the reliability analysis and the Cronbach’s Alpha increased to .647 and .710 respectively. Here the unique cognitive ability score (the mean of the above items) from the general questionnaire represents participants’ perceptions of the extent to which code-switching among bilinguals in general represents unique cognitive ability, with higher scores representing more unique ability.

Factor Analysis

I conducted exploratory factor analysis for the post video questionnaire. First, I included 16 items (item numbers 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, 17) from the post video questionnaire in one factor analysis (see Appendix D). I discarded item number eight on the post video questionnaire as it did not correspond to either linguistic incompetence or unique cognitive ability. The factor extraction method was Principal Component Analysis. The rotation method was Oblimin with Kaiser Normalization. This rotation method was used because it
allows the resulting factors to be related to each other. Based on the results, factor loadings for two factors were interpreted. As shown in the scree plot (Figure 1), the point of inflection occurs after the second factor. Therefore, I interpreted only the first two factors.

Figure 1. Scree Plot of Video Questionnaire
Table 1

*Structure Matrix*

<table>
<thead>
<tr>
<th>Questions</th>
<th>Component 1</th>
<th>Component 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>When the speakers in the Video switch between languages, one language interferes with the other language</td>
<td>.171</td>
<td>-.135</td>
</tr>
<tr>
<td>Speakers’ natural ability to switch</td>
<td>-.166</td>
<td>.296</td>
</tr>
<tr>
<td>Speakers have a well-organized means of communication</td>
<td>-.123</td>
<td>.724</td>
</tr>
<tr>
<td>Speakers seem to have an artificial way of speaking two languages simultaneously</td>
<td>.159</td>
<td>.104</td>
</tr>
<tr>
<td>The speakers seem to switch between languages spontaneously</td>
<td>.080</td>
<td>-.114</td>
</tr>
<tr>
<td>The speakers do not show complete fluency in both languages</td>
<td>.702</td>
<td>-.072</td>
</tr>
<tr>
<td>By switching between languages, the speakers demonstrate their strength in two languages</td>
<td>-.746</td>
<td>.348</td>
</tr>
<tr>
<td>It seems the speakers switch between languages because they do not have enough vocabulary in their first language</td>
<td>.105</td>
<td>-.046</td>
</tr>
<tr>
<td>It seems the speakers switch between languages because they do not have enough vocabulary in their second language</td>
<td>.353</td>
<td>-.170</td>
</tr>
<tr>
<td>The speakers demonstrate a complex cognitive task by</td>
<td>-.295</td>
<td>.674</td>
</tr>
</tbody>
</table>
PERCEPTUAL DIFFERENCES OF CODE-SWITCHING

switching back and forth between languages

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>The speakers do not seem to have completely learned both languages</td>
<td>.508 0.005</td>
</tr>
<tr>
<td>The speakers have structured means of communication</td>
<td>-.300 .798</td>
</tr>
<tr>
<td>The speakers seem to have a lazy means of communication</td>
<td>.354 -.402</td>
</tr>
<tr>
<td>The speakers seem to demonstrate expertise in both languages</td>
<td>-.853 .323</td>
</tr>
<tr>
<td>The speakers are violating purity of language</td>
<td>.192 -.263</td>
</tr>
<tr>
<td>The speakers seem to have a random means of communication</td>
<td>-.001 -.602</td>
</tr>
</tbody>
</table>

Note. Factor loadings on each item for the first two factors. The bolded items indicate the strong factor loadings.

The first factor on the post video questionnaire had heavy factor loadings on item numbers 6, 7, 12 and 15 (see Appendix D). These items focused on speakers’ fluency, strength in two languages, learning ability and expertise. On the other hand, the second factor had heavy factor loadings on item numbers 3, 11, 13 and 17 (see Appendix D). These items focused on speakers’ abilities of well-organized communication, complex cognitive ability to switch codes, structured means of communication, and random means of communication. After analyzing the factor loadings for the two factors, the first factor was labeled “Fluency” and the second factor was labeled “Structured Communication.” These two factors on post video questionnaire did not
PERCEPTUAL DIFFERENCES OF CODE-SWITCHING

completely match with the items selected for the measures of PLI and PUCA that were used for the $t$-test analyses reported in the results section, but indirectly related to these concepts of PLI and PUCA.

Again, I conducted exploratory factor analysis for the general questionnaire. I included 16 items (item numbers 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, 17) from the general questionnaire in one factor analysis (see Appendix E). I discarded item number eight and eighteen on the general questionnaire as they did not correspond to either linguistic incompetence or unique cognitive ability. The factor extraction method was Principal Component Analysis. The rotation method was Oblimin with Kaiser Normalization. This rotation method was used because it allows the resulting factors to be related to each other. Based on the results, factor loadings for two factors were interpreted. As shown in Figure 2, the scree plot indicated that the point of inflection occurs after the second factor. Those factors explain less variance than the first two factors. Therefore, I interpreted only the first two factors.
Figure 2. Scree Plot of General Questionnaire

Table 2

Structure Matrix

<table>
<thead>
<tr>
<th>Questions</th>
<th>Component 1</th>
<th>Component 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bilinguals have natural ability to switch between languages</td>
<td>-1.05</td>
<td>.882</td>
</tr>
<tr>
<td>When bilinguals switch between languages one language interferes with the other language</td>
<td>.108</td>
<td>-.015</td>
</tr>
<tr>
<td>Statement</td>
<td>Correlation</td>
<td>Significance</td>
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<tr>
<td>Bilinguals have a well-organized means of communication</td>
<td>-.203</td>
<td>-.044</td>
</tr>
<tr>
<td>Bilinguals have an artificial way of speaking two languages simultaneously</td>
<td>.062</td>
<td>-.008</td>
</tr>
<tr>
<td>Bilinguals switch between languages spontaneously</td>
<td>.198</td>
<td>.662</td>
</tr>
<tr>
<td>Bilinguals do not show complete fluency in both languages</td>
<td>.603</td>
<td>.208</td>
</tr>
<tr>
<td>By switching between languages bilinguals demonstrate their strength in two languages</td>
<td>-.277</td>
<td>.078</td>
</tr>
<tr>
<td>Bilinguals switch between languages because they do not have enough vocabulary in their first language</td>
<td>.600</td>
<td>.048</td>
</tr>
<tr>
<td>Bilinguals switch between languages because they do not have enough vocabulary in their second language</td>
<td>.186</td>
<td>-.269</td>
</tr>
<tr>
<td>Bilinguals demonstrate a complex cognitive task by switching back and forth between languages</td>
<td>-.254</td>
<td>.060</td>
</tr>
<tr>
<td>Bilinguals do not learn both languages completely</td>
<td>.751</td>
<td>.046</td>
</tr>
<tr>
<td>Bilinguals have structured means of communication</td>
<td>-.243</td>
<td>.074</td>
</tr>
<tr>
<td>Bilinguals have a lazy means of communication</td>
<td>.734</td>
<td>-.400</td>
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</tbody>
</table>
Note. Factor loadings on each item for the first two factors. The bolded items indicate the strong factor loadings

The first factor on the general questionnaire had strong factor loadings on item numbers 6, 9, 12, 14, 16 and 17 (see Appendix E). These items focused on speakers’ fluency, vocabulary collection, language learning ability, tendency to violate language rules and means of communication. On the other hand, the second factor included item numbers 2 and 5 (see Appendix E). These items focused on speakers’ ability to switch. After analyzing the two factors and noting the factor loadings, it seemed that the first factor indicated “Language and Communication” and the second factor indicated “Switching Ability.” These two factors on general questionnaire did not completely match with the items selected for the measures of PLI and PUCA that were used for the t-test analyses in the results section, but indirectly related to these concepts of PLI and PUCA.

Procedure

In order to prevent bias towards the bilingual international samples, I recruited three Research Assistants (RAs) (graduate students who were not international students) to collect the data. The entire study was administered one on one, i.e. the participants were tested individually. First, the RAs gave each participant a general description about the study, including the
statement that the research would explore how people perceive conversations between individuals speaking different languages. Then the participants read and signed consent forms. After this, the RA’s provided a demographic questionnaire to the participants. Next, they provided the participants the PMBM questionnaire. The RAs classified the monolinguals as those who responded ‘no’ to all six questions while those who provided “yes” responses to a minimum of five of the six questions and specifically responded “yes” to the item number seven and eight were classified as bilinguals. If participants gave “yes” responses on item six, they were considered to be multilinguals. After that, the RAs displayed a slide (See Appendix C) which explained what code-switching was and it described the reasoning for showing the video. The slide contained the definition of code-switching and contained the message that the video was shown to give the participants an idea how code-switching takes place in real life scenario. Then the RAs showed the video clip that contained the conversation of three bilingual speakers who switched codes during their conversation. Participants from both groups (monolinguals and bilinguals) watched the video individually. After the video was over, the RAs administered the post video questionnaires to determine the perception of participants’ observation of the video and to determine the participants’ perception towards bilinguals in general. Half of the participants responded to the questionnaire about the participants in the video first and half responded to the questionnaire about bilinguals in general first; the order of the questionnaires was counter balanced. The post video session questionnaire was used to measure participants’ perception towards code switching. After the video and questionnaire session participants were debriefed about the study.
CHAPTER 4
RESULTS

I used $t$-tests to analyze my results by comparing the mean PLI and PUCA scores of the monolinguals to those of the bilinguals. An independent samples $t$-test indicated no significant difference between monolinguals ($M = 2.83$, $SD = .70$) and bilinguals ($M = 2.92$, $SD = .58$) on PLI scores based on the video questionnaire $t (75) = .57$, $p = .57$, $r^2 = .00$.

An independent samples $t$-test indicated no significant difference between monolinguals ($M = 3.54$, $SD = .74$) and bilinguals ($M = 3.58$, $SD = .61$) on PUCA scores based on the video questionnaire $t (75) = .26$, $p = .80$, $r^2 = .00$.

Table 3

*Independent samples $t$-test*

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<tr>
<th></th>
<th>Monolinguals M</th>
<th>SD</th>
<th>Bilinguals M</th>
<th>SD</th>
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<tbody>
<tr>
<td>PLI Video questionnaire</td>
<td>2.83</td>
<td>.70</td>
<td>2.92</td>
<td>.58</td>
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<tr>
<td>PUCA Video questionnaire</td>
<td>3.54</td>
<td>.74</td>
<td>3.58</td>
<td>.61</td>
</tr>
<tr>
<td>PLI General questionnaire</td>
<td>2.59</td>
<td>.61</td>
<td>2.83</td>
<td>.75</td>
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<tr>
<td>PUCA General questionnaire</td>
<td>3.29</td>
<td>.73</td>
<td>3.71</td>
<td>.73</td>
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</table>

*Note.* Means of monolingual and bilingual individuals’ scores on post video and general questionnaires (standard deviations in parentheses).

An independent samples $t$-test indicated no significant difference between monolinguals ($M = 2.59$, $SD = .61$) and bilinguals ($M = 2.83$, $SD = .75$) on PLI scores based on the general questionnaire $t (75) = 1.53$, $p = .13$, $r^2 = .03$. 

An independent samples *t*-test indicated a significant difference between monolinguals (*M* = 3.29, *SD* = .73) and bilinguals (*M* = 3.71, *SD* = .73) on PUCA scores based on the general questionnaire *t* (75) = 2.49, *p* = .02, *r*² = .07. Bilinguals had significantly more positive perceptions than monolinguals about code-switching representing a unique cognitive ability.
The main purpose of this research was to explore perceptual differences between monolinguals and bilinguals about CS. This study involved monolingual and bilingual individuals. The study was conducted to test differences in perceptions about CS between the two groups, if there were any.

This study addressed two hypotheses about perceptions of code-switching for both measures of linguistic incompetence (PLI) and the measure of unique cognitive ability (PUCA). The results did not show a significant difference between monolingual and bilingual individuals in terms of PLI and PUCA based on the CS video questionnaire. Similarly the results in the general questionnaire did not show any significant difference between monolingual and bilingual individuals in terms of PLI. One possible explanation for these results is that code-switching during conversation in the video might not have been very clear for the participants to understand. It is possible for the participants to think that the video may have been too short to understand. Also, the video clip was taken from a Bangladeshi TV channel and the speakers in the video switched between Bangla and English. The participants who were not familiar with Bangla might have experienced confusion. Also, the video may have been too short to convey the meaning of CS properly.

These findings are in contrast with the prior research. Previous research suggested that monolinguals perceived CS as a sign of inadequacy in L2 (Hughes, Shaunessy, Brice, Ratiliff & McHatton, 2006). Besides, CS had often been vilified by both monolinguals and bilinguals, suggesting that it was an offensive blend of languages and a sign of speakers’ carelessness.
PERCEPTUAL DIFFERENCES OF CODE-SWITCHING (Grosjean, 2010). But the findings of the present study did not conform to the findings of the previous research. A possible explanation for the results of the present study is that monolinguals were unable to understand the cognitive complexity involved in CS. This would explain why the results from the general questionnaire did show a significant difference between monolingual and bilingual perceptions of CS as indicative of unique cognitive ability. It seems that bilinguals had a stronger perception of code-switching as a unique cognitive ability when they evaluated themselves based on the general questionnaire.

In terms of perceptions from the video, we can assume that when the bilingual participants watched the video they evaluated those speakers differently from how they evaluated their own abilities as bilinguals. This would be consistent with the presence of an actor observer bias. In this regard, Jones and Nisbett (1971) suggested that, “There is a pervasive tendency for actors to attribute their actions to situational requirements, whereas observers tend to attribute the same actions to stable personal dispositions” (p. 80). Further, Aronson (2012) pointed out an actor observer bias as “the tendency for actors to attribute their own behavior to situational factors and to see other people’s behavior as caused by their stable personality dispositions” (p. 431).

Similarly, the bilinguals may not have empathized with the speakers in the video in terms of the cognitive challenges they faced in switching codes, but when thinking about their own abilities, they provided higher ratings of bilinguals. So, the bilingual participants probably did not perceive the speakers in the video to have a unique cognitive ability even if the speakers were bilinguals. But when they responded to the general questionnaire, there is a chance that they placed them in superior position compared to monolinguals and perceived themselves as
better than their counterparts. The findings from this study do not completely support the idea that monolinguals perceive CS as a “linguistic incompetence” or that the bilinguals perceive CS as a “unique cognitive ability.” As a result we cannot completely reject or support our hypotheses.

Limitations

We intended to test 100 (approximately 50 monolingual and 50 bilingual) participants but unfortunately we did not get equal numbers of bilingual and monolingual participants. The questionnaires that were used for the present research were self-created by the researcher for the study. One of the limitations of the questionnaire was that participants had to self-assess fluency on the questionnaire which was used to determine whether the participants were monolinguals or bilinguals (see Appendix B). Therefore, someone who was not fluent but self-assessed as fluent might have perceived code-switching from a different perspective.

Although the reliability analysis showed reasonably good reliability for the PLI and PUCA scores, the factor analysis was not completely consistent with the two factors of linguistic incompetence and unique cognitive ability. Also, the participants were all college students who represented a part of the society but not the general population. Further, we did not obtain equal numbers of bilingual and monolingual participants for the study. If the participant numbers were equal for both groups, we might have obtained different results. Moreover, bilingual participants were recruited in three different ways (through SONA, email in the international-listserv and verbal announcement in the modern language department). Therefore, the sample of bilinguals may have differed from the monolinguals in ways other than bilingualism.
We observed in the results section that an independent samples $t$-test indicated a significant difference on PUCA score between monolinguals and bilinguals based on the general questionnaire. Though the results were significant, the $r^2$ was small, indicating that whether participants were monolingual or bilingual explained only 7% variance in PUCA scores.

Future studies should include more representative samples of monolingual and bilingual participants. The participants could be recruited from various institutions other than university settings only. Instead of self-report surveys, the participants can be interviewed. Further, the method of Costa and Santesteban (2004; as cited in Schwieter & Sunderman, 2008) could be used to measure verbal fluency. “A picture-naming task with language switches was conducted in which language learners were instructed to name the pictures in either their L1 or L2 as determined by a color cue to indicate language of production” (Schwieter & Sunderman, 2008, p. 222).

In summary, we can conclude that even if there are perceptual differences between monolinguals and bilinguals about CS, they both have strengths and weaknesses. Society can benefit from their equal contributions. Though previous research suggested that monolinguals perceived CS as indicative of “linguistic incompetence” of bilinguals, we did not find any such evidence in our study. Even though our findings partially support the claim about bilinguals, we cannot fully support our hypothesis that bilinguals perceive CS as an indicative of “unique cognitive ability.” Bilinguals’ greater perception of CS as indicative of unique cognitive ability, compared to monolinguals, was supported for the general questionnaire but not for the video questionnaires. So, our findings demonstrated contrast with the previous literature. Since both monolinguals and bilinguals can complement each other by focusing on their strengths and
compensating for weaknesses, it would be unwise to minimize either of the groups’ contributions to society based on any prejudice.
References


http://dx.doi.org/10.1177/1367006910371024


http://dx.doi.org/10.5539/ass.v8n8p149


http://dx.doi.org/10.1017/S1366728906002537


Appendix A

**Demographic Questionnaire**

1. What is your age in years? _______

2. What is your sex?
   - Female ______  Male ______

3. What is your Ethnicity? __________

4. What is your first language? ____________

5. Do you speak any additional languages? If so, please list them below.
Appendix B

Determining Monolingualism, Bilingualism and Multilingualism

* Items to measure whether the participant is a Monolingual or a Bilingual

* Please circle the response for each question which is most accurate for you.

1. I can speak more than one language fluently. Yes / No
2. I can read more than one language fluently. Yes / No
3. I can write in more than one language. Yes / No
4. I can understand more than one language. Yes / No
5. I am able to think in more than one language. Yes / No
6. I can speak, read, write and understand more than two languages. Yes/No

If you speak more than one language, please circle your response for questions 7 and 8.

7. I am satisfied with my linguistic competence in my second language. Yes / No
8. I am able to mix my first and second language comfortably during a conversation with my friends and family. Yes / No
Appendix C

The following video includes example of code-switching. Generally it is way of speaking for bilinguals where they switch between two languages during a conversation. In the video you will watch three bilingual persons talking. They are talking about saving the music industry from piracy. During the conversation they frequently switch codes. This video is a demonstration of switching codes in real life setting.

https://www.dropbox.com/s/g073bhjd9qe7wyh/musicbuzzsave_1_mpeg2video.mpg
Appendix D

Post Video Questionnaire

Questionnaire to determine the perceptual differences between monolingual and bilingual individuals on code-switching: Is it linguistic incompetence or a unique cognitive ability?

* Items to measure whether the participants perceive code-switching (CS) as linguistic incompetence or unique cognitive ability on a 5-point scale

1 = Strongly disagree, 2 = disagree, 3 = Not sure, 4 = Agree, 5 = Strongly agree

* You may have noticed in the video that the speakers switched back and forth between two languages - this is known as code-switching (CS). We would like your opinions about the speakers that you observed in this video.

* Circle the options which best represents your opinion

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<tbody>
<tr>
<td><strong>1.</strong> When the speakers in the video switch between languages, one language interferes with the other language.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tbody>
<tr>
<td><strong>2.</strong> The speakers seem to have natural ability to switch between languages.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td><strong>3.</strong> The speakers have a well-organized means of communication.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>4. The speakers seem to have an artificial way of speaking two languages simultaneously.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>5. The speakers seem to switch between languages spontaneously.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>6. The speakers do not show complete fluency in both languages.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>7. By switching between languages, the speakers demonstrate their strength in two languages.</td>
<td>1</td>
<td>2</td>
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<td>4</td>
<td>5</td>
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<tr>
<td></td>
<td>Statement</td>
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<tr>
<td>8</td>
<td>The speakers seem to have better expression in English.</td>
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<tr>
<td>9</td>
<td>It seems the speakers switch between languages because they do not have enough vocabulary in their first language.</td>
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<td>10</td>
<td>It seems the speakers switch between languages because they do not have enough vocabulary in their second language.</td>
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<tr>
<td>11</td>
<td>The speakers demonstrate a complex cognitive task by switching back and forth between languages.</td>
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<tr>
<td>12</td>
<td>The speakers do not seem to have completely learned both languages.</td>
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</tbody>
</table>
13. The speakers have a structured means of communication.

14. The speakers seem to have a lazy means of communication.

15. The speakers seem to demonstrate expertise in both languages.

16. The speakers are violating purity of language.

17. The speakers seem to have a random means of communication.
Appendix E

General Questionnaire

- Bilinguals can speak two languages and they frequently switch between languages.
- Now we would like your opinions on people switching between languages in general. When responding to these items, please think about your opinions in general rather than the speakers in video. Circle the options which best represents your opinion.
- 1 = Strongly disagree, 2 = disagree, 3 = Not sure, 4 = Agree, 5 = Strongly agree

<table>
<thead>
<tr>
<th></th>
<th>Question</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<tbody>
<tr>
<td>1</td>
<td>When bilinguals switch between languages, one language interferes with the other language.</td>
<td></td>
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<tr>
<td>2</td>
<td>Bilinguals have natural ability to switch between languages.</td>
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</table>
3. Bilinguals have a well-organized means of communication.

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4. Bilinguals have an artificial way of speaking two languages simultaneously.

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<td>1</td>
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5. Bilinguals switch between languages spontaneously.

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6. Bilinguals do not show complete fluency in both languages.

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</table>
7. By switching between languages, bilinguals demonstrate their strength in two languages.

8. Bilinguals have better expression in English.

9. Bilinguals switch between languages because they do not have enough vocabulary in their first language.

10. Bilinguals switch between languages because they do not have enough vocabulary in their second language.
11. Bilinguals demonstrate a complex cognitive task by switching back and forth between languages.

12. Bilinguals do not learn both languages completely.

13. Bilinguals have a structured means of communication.

14. Bilinguals have a lazy means of communication.
15. Bilinguals demonstrate expertise in both languages. | 1 | 2 | 3 | 4 | 5 |

16. Bilinguals violate the purity of language. | 1 | 2 | 3 | 4 | 5 |

17. Bilinguals have a random means of communication. | 1 | 2 | 3 | 4 | 5 |

18. Do you ever switch back and forth between languages? | 1 | 2 | 3 | 4 | 5 |