Chapter 6

Bilingualism and Self-Perception: Self-Efficacy through the Veil of Two Languages

Maura A. E. Pilotti and Khadija El Alaoui

Additional information is available at the end of the chapter

http://dx.doi.org/10.5772/intechopen.72740

Abstract

This chapter is concerned with the relationship between language, as the vehicle of a person's culture, and self-assessment of one's capabilities (i.e., self-efficacy) via conventional self-report measures. It relies on the assumption that a language "is 'a veil' over the reality of the culture in which it is used, involving an agreement of its users about what there is to be seen and how it should be seen". Thus, the information weighted and integrated into judgments of one's self-efficacy is filtered through, and thus it is shaped by cultural schemas which are elicited by the language used to formulate such judgments. Evidence that supports this viewpoint is reviewed.

Keywords: culture, self-efficacy, identity, cognition, bilingualism

1. Introduction

The research discussed in this chapter focuses on the construct of self-efficacy, which Bandura [1, 2] has defined as the belief in one's capabilities to initiate, manage and execute a variety of actions with the purpose of attaining desired goals. Self-efficacy beliefs are known to be key determinants of people's current and future behavior. For instance, individuals who possess high self-efficacy compared with those who have low self-efficacy tend to undertake challenging activities, are persistent, devote substantial effort to initiated activities, and experience fewer adverse emotional reactions if difficulties are encountered [1, 3, 4]. Self-efficacy beliefs also play an important role in shaping people's self-regulatory processes, such as goal setting and self-monitoring [5, 6].

The authors' research stems from the recognition that although the construct of self-efficacy exists in a variety of cultures, the information that people disclose about their self-efficacy is likely to be shaped by not only the self-report instrument used to gather information about such

a construct, but also the language in which it is written. Current work relies on two key assumptions: (a) a language carries its culture, including its unique denotations, connotations, prescriptions, and reactions [7, 8]; and (b) although translations of expressions used in measurement scales to refer to a person's capabilities are considered linguistic equivalents, they may not be culturally equivalent. Thus, a bilingual speaker's responses to a scale, which gathers information about his/her beliefs in personal capabilities, can unintentionally adjust to the language in which the scale is written and, consequently, to the unique denotations, connotations, prescriptions, and reactions of its accompanying culture. This particular adjustment performed by the bilingual speaker is likely to induce different answers to ostensibly the same statements presented in his/her two languages, because each statement remains conceptually unlike the other.

Supporting evidence is provided by the authors' empirical studies of Arabic-English bilinguals who estimated their capabilities through a self-efficacy scale either written in English or translated into Arabic. Evidence is explained by relying on a social constructionist framework [9, 10], according to which different languages, such as Arabic and English, can elicit different culturally oriented selves who are nevertheless connected to a single speaker [11]. Specifically, a solipsistic self, which is assumed to be prompted by English, is a self that is construed as autonomous and attuned to internal goals, thoughts, and motives. It is thus that of a person who is inclined to see himself/herself as the only one that really matters. Instead, a contextualized self, which is assumed to be evoked by Arabic, is a self that is interdependent at its core. It is the self of a person who recognizes that in-group goals take priority over personal goals. Does the bilingual speaker who is the vehicle of these two cultures indeed modulate his/her estimates of self-efficacy to adjust to the perspective of the self, either solipsistic or contextual, which is active at any given time? Section 3, which is devoted to our research methodology and findings, addresses this question. A narrative of the context that both motivated and permitted the research is outlined first.

2. The selected context: The Kingdom of Saudi Arabia (KSA)

KSA is currently a country where the clash between traditions and Western influences, in the form of values and norms, is simmering so powerfully at the surface of an ostensibly unruffled social and cultural system that its clatters are impossible to ignore. For instance, a cacophony of voices rarely heard before is manifest in the upsurge of social media use. At the same time, the ensuing impassioned conversations remain concealed in people's smart phones and computers as overt public gatherings remain unfeasible or tightly regulated [12–15]. Similarly, women may wear abayas and hijabs when visiting mixed-gender locales, such as shops and restaurants, but underneath, they often wear jeans, t-shirts and other Western-style garments. Most importantly, among the large contingent of young people who live in KSA, English is quickly moving from merely being the language of business transactions to being the language through which education is imparted and friends are made [13, 16]. If the use of a foreign language increases within a social group, not only its perceived utility is likely to be more widely recognized, but also people's contact with, understanding of, and internalization of the culture that the language smuggles in tend to be greatly enhanced. Thus, signs of change in KSA may

appear to the untrained observer as whispers rather than rumbles, but they are as palpable and persistent as the well-known elaborateness of Arabs' verbal communication patterns [17].

According to scholarly narratives, a few key dimensions can be used to differentiate the traditional culture of KSA from the culture of English-speaking countries, such as the USA, including vertical collectivism and uncertainty avoidance [18, 19]. From the vantage point of a person's identity within the group to which he/she belongs, collectivism refers to viewing oneself as related to others in mutual interdependent relationships. When an interdependent self-shapes people's interactions with each other, associations within the group to which one belongs and its goals are likely to be highly valued. In contrast to collectivism, individualism refers to a viewpoint of a person's identity whereby one sees himself/herself as largely independent of the in-group (i.e., self-reliant). Accordingly, one's personal goals supersede those of the group.

If collectivism dictates preservation of in-group social bonds, thereby making one's actions expressly guided and highly regulated by group norms, individualism dictates independence and self-interest, thereby making relationships time-bound contracts based on a balance of costs and benefits. In either context, the dimension of verticality refers to the mere fact that the collective to which one belongs is recognized as hierarchically organized, and, within it, diversity and inequality are tolerated. The most visible by-product of verticality in collectivism is service to or even sacrifice for the in-group, whereas in individualism it is competition. Interestingly, the traditional culture of KSA has been labeled as being vertical collectivistic with a high level of uncertainty avoidance. Namely, it is a culture that views change as well as the ambiguity and uncertainty that tend to accompany it with apprehension. As such, it is a culture that has high regard for the preservation of the status quo through conformity to group norms and values. In contrast, the culture of the West, embodied by the USA, has been defined as being vertical individualistic with low uncertainty avoidance. Of course, it is important to bear in mind that the aforementioned distinctions are starkly dichotomous, but, in reality, the boundaries imposed by conceptual categories are often blurred.

3. The research context: questions, methodology and findings

Young people in KSA are uniquely positioned to embody both cultural orientations as Arabic-English bilingualism has gradually permeated educational institutions, social networks, values and informal norms across the country. Indeed, Murphy [13] noted that two KSAs are visible even to casual, untrained observers, one driven by religious traditions and tribal commitments, and one that imitates manners and follows ideas of the Western world, often epitomized by the English language spoken in the USA. Similarly to water spilled on a table, the impact of bilingualism and its offshoot, biculturalism, is not uniform. At one time, it may touch some objects while it leaves others untouched, whereas at another time, a different pattern emerges. It can even soak some of these objects while it merely pats the surface of others, depending on the contextual factors present. For instance, if a bilingual speaker's communicative behavior is considered, context may involve the setting where an event occurs, the situation faced, and the nature of the people present [see 9, 20–22]. Thus, the key issue is not so much the extent to which largely opposite cultural orientations shape, broadly speaking, the mind of KSA nationals,

but rather how specific areas of thought, emotion, and behavior, at a given point in time, are shaped by each orientation, thereby expressing temporary dominance over the other.

The methodological approach taken by our interdisciplinary research group is to attempt to address this issue by first selecting a key construct of human existence (e.g., self-efficacy), and then determining the role played by each cultural orientation in it among KSA youth. The key premise upon which this methodological approach relies is two-fold: First, besides the properties possessed by human language that make it a unique communication system among those used by other species (e.g., recursion), one property that is particularly notable in every-day life is language's ability to be the vehicle of the culture held by the collective who makes use of it. As such, it permits each member to transmit and share key aspects of that culture, such as norms and values, to express a common identity, as well as to selectively perceive and interpret events in and outside the collective to which one belongs. A suitable metaphor to describe the latter is that a language "is 'a veil' over the reality of the culture in which it is used, involving an agreement of its users about what there is to be seen and how it should be seen" [23, p. 89]. If a language, as a communication system within a people, ensures the transmission and sharing of a culture, its use can be expected to prime (i.e., make available in one's mind) the selected culture. Second, when bilingual individuals rely on one of the languages they possess as the current mode of communication, they are likely to experience and exhibit a distinctive self which is the expression of the culture associated with their linguistic selection.

Important to note is that the premises of our interdisciplinary research and its findings neither espouse linguistic determinism nor blindly adopt linguistic relativism. They merely rely on the idea that language can prime (activate in one's mind) a culture. Priming refers to the incidental (i.e., automatic) activation of knowledge by the current environment [24]. Priming has been assessed through a variety of materials (e.g., spoken and written words, pictures, drawings, and sounds) and tasks (e.g., stem completion, fragment completion, and lexical decision) in which accuracy and speed are usually the criteria used to measure participants' responses. Of course, a prime is not equivalent to a hypnotist's command which can trigger in a person's mind a precise thought and a correspondingly precise action. Priming heavily relies not only on specific knowledge of objects and events in one's environment as well as knowledge of the range of potential responses to such objects and events, but also on pre-existing associations between contents of the environment and one's knowledge. Although its impact is much more subtle and heavily dependent on previously acquired knowledge, it has been reported to occur in a variety of domains of human action and thought where the presentation of a stimulus (e.g., the word "furniture") can change a person's response to a subsequent stimulus (e.g., the speed and accuracy at which he/she identifies "chair" as a word from a list of both words and non-words; [25]). For instance, the presentation of stimuli related to either the concept of rudeness or the concept of politeness can lead research participants to behave in ways consistent with the activated concept [24]. Similarly, the presentation of stimuli related to the concept of old age can steer young adults to adopt a slower walking speed than that of young adults exposed to neutral stimuli [24]. Priming effects involve not only content, but also form as in the case of syntactic priming. Namely, participants' exposure to a sentence with a particular syntactic construction can affect the subsequent processing of an otherwise unrelated sentence with the same structure [26]. Of course, the influence of priming on observable

http://dx.doi.org/10.5772/intechopen.72740

behavior is simply the epiphenomenon of its impact on cognition. Thus, it is not surprising that the presentation of stimuli related to hostility can make research participants more likely not only to behave in a hostile manner, but also to perceive hostility in others [27, 28].

In sum, evidence of priming indicates that knowledge, including schemas and other organized mental databases, can become activated, and thus accessible to a person, from events unfolding in his/her environment. Furthermore, evidence shows that one's tendency to behave in a manner consistent with a schema is increased when the latter is activated. Grounded in this knowledge, the primary aim of our research is to examine whether priming occurs by means of the language in which instruments of self-assessment are written. Yet, even if it is agreed that a culture shapes human cognition and behavior, can two cultures naturally coexist in a bilingual speaker as two separate but interacting selves? It is reasonable to assume that in the process of learning a language, bilingual individuals interiorize the values, norms, and concepts, including role expectations and attitudes, of the culture expressed by each of the languages they are mastering [29]. Furthermore, because each universe of linguistic and cultural knowledge, habits and skills has its unique functional utility, often linked to particular settings and motives [30], both universes can not only co-exist, but also be employed strategically in the service of one's goals. Thus, bilingual speakers can be primed by either of the two languages they possess. Namely, at any given time and under proper environmental conditions, they can be expected to express in their cognition and behavior the unique features of the culture linked to the language in use.

Obviously, in research pertaining to bilingualism, comparability of results of different cultural schemas rests, first and foremost, on translations that maintain the original meaning and intent of the source-language in which the selected assessment instrument was written (i.e., fidelity). Moreover, translations must remain comprehensible and culturally relevant to individuals for whom the receptor-language is the native language (i.e., dynamic equivalence; [29, 31]). Yet, the prerequisite to assess the role of language as a prime for culture is that the two languages (e.g., Arabic and English) must activate somewhat unique cultural schemas. Furthermore, to attribute such a role to language, each schema must shape the person's responses to the selected instrument *in accordance with* the norms and values of the activated schema. Consistency between the expected content of the activated cultural schema and participants' responses is critical since behavioral differences as a function of language can be disputed as merely arising from a deficient translation.

Among the many psychological constructs that define human existence, self-efficacy emerges as the ideal testing ground for assessing the role of language as a prime for culture, especially if the selected languages pertain to cultural orientations whose key dimensions stand in opposition to one another. For the purpose of our research, self-efficacy is selected as the object of study not only because of the central function that this psychological construct plays in human cognition and behavior, but also because of scant cross-cultural research on self-efficacy beliefs that includes the Arab world. According to Bandura [1], general self-efficacy beliefs refer to cognitions about one's competence to initiate, manage and execute a variety of actions across domains with the purpose of attaining sought-after goals. Self-efficacy, which depends on one's ability to self-reflect, is a fundamental aspect of human agency that captures the essence of most human actions. Namely, actions are, by and large, motivated and guided by the conviction

that they produce effects, and thus that a person is able to exercise some measure of control over his/her own functioning as well as over events in his/her life [2]. Self-efficacy beliefs are the product of a complex self-appraisal process which requires that the person selects, weights, and integrates information about his/her performance from four key sources: (a) direct experiences of success and failure; (b) vicarious experiences through the observation and consideration of the behavior of models; (c) feedback from respected others; and (d) emotional and physical reactions exhibited while dealing with a variety of circumstances.

Culture can affect self-efficacy beliefs by guiding the selection of, the weight attributed to, and the integration of the information about the self obtained from each of the sources that are used to nurse such beliefs across the lifespan [32]. In a vertical-collectivistic culture with high uncertainty avoidance (e.g., KSA), one may expect a heavily structured educational system and family environment where children's self-appraisal largely depends on demonstrating required competencies to the collective. Self-appraisal is also influenced by feedback from authority figures (i.e., teachers and parents) whose experience and wisdom are neither to be questioned nor contradicted. Accordingly, children are perceived as passive vessels of the culture that they are required to assimilate and replicate [13]. Thus, the goal is not only to reach performance indicators that are recognized by the collective, one of which is the quality of rote memorization [33], but also to ensure that goal attainment is at the service of the collective. In contrast, in a vertical-individualistic culture with low uncertainty avoidance (e.g., USA), one may expect an educational system that is child-focused rather than teacher-focused, as well as a family environment where children's self-appraisal is more subjective, and less dependent on authority figures, since the judgment and knowledge of the latter can be questioned. In this type of culture, ambiguity does not tend to be perceived as a threat, but rather as a challenge.

In vertical individualism, competition may be expected to be tangible, often entailing harsh comparisons with peers, broadcasting successes, and understating or hiding failures. In vertical collectivism, on the other hand, performance differences are likely to be accepted if they serve the collective of interdependent selves, but are rejected if they are viewed as self-serving. Thus, although in the latter, the goal is to reach recognized performance indicators, broadcasting one's achievements as personal successes is likely to be perceived as contrary to serving and sacrificing for the collective. In KSA, the value of modesty emerges from its collectivistic framework and has had as its primary promoter an educational system that emphasizes memorization at the expense of exploration of ideas [34–36]. As a result, a unique interpretation of the value of modesty has been practiced, which by confounding humility with conformity, is likely to render overt expressions of self-confidence objectionable.

If vertical collectivism values modesty and vertical individualism does not [37], how will Arabic-English bilingual young adults who are natives of KSA respond to a scale that measures self-efficacy which, by definition, requires respondents to overtly estimate their own capabilities? Will each of the two languages in which the scale can be written prime distinct cultural schemas and thus lead to reports of self-efficacy consistent with the contents of the primed schemas? To answer these questions in our preliminary studies[1], we examined the self-efficacy reports of Arabic-English

[1]Portions of these data have been published elsewhere: El Alaoui, K., Mulhem, H., Pilotti, M. A. E., Amir, S., & Tallouzi, E. (2017). Arabic-English bilingual speakers' reactions to the statements of the new general self-efficacy scale. The International Journal of Learner Diversity and Identities, 24(2), 21–38.

bilingual speakers. All are female college students (n = 627) who attend a private university in the Eastern Province of KSA (age range: 18–25). Arabic is participants' first language, whereas English is their second language, mostly learned and practiced at school and among peers.

Participants' mean age of acquisition of the second language was 5.71 (SD = 2.86), and mean proficiency, measured by the Shipley vocabulary test [38], was 66.80% (SD = 16.17). For university admission, participants had demonstrated English language proficiency through standardized English proficiency tests (i.e., IELTS, Aptis, or TOEFL). The Shipley test was selected for its good psychometric properties [39], and demonstrated ease of administration in educational, cognitive, and clinical research. It served as a current measure of second language proficiency. As bilingual speakers, participants were expected to have developed two cultural selves, one linked to the communal cohesion of the KSA cultural tradition and one linked to the individualistic values produced by the forces of industrialization and economic mobility of the Eastern Province of KSA [40]. As KSA nationals, participants were considered carriers of the value of modesty, which is a key aspect of vertical collectivism, but a trait discouraged by vertical individualism. As females in KSA, the value of modesty was expected to be highly relevant to their cultural schema of vertical collectivism, because females in KSA are the primary recipients of onerous restrictions of movement, thought and affect, which are purportedly intended to ensure and guard their virtues [41–44].

The New General Self-Efficacy (NGSE) scale, developed by Chen, Gully, and Eden [45], was selected over other self-report measures for (a) its focus on assessing a general sense of mastery that is not associated with a particular situation, domain or behavior, (b) its desirable psychometric properties [see 45], (c) brevity and thus ease of administration, and (d) the absence of data gathered with this tool in KSA. The NGSE tool includes eight general statements of performance capabilities, each one containing the pronoun *I*. It required participants to report the extent of their agreement with each statement on a 5-point Likert scale from *strongly disagree* to *strongly agree*. The Arabic translation of the NGSE measure was based on a consensus model whose goals was to obtain a culturally sensitive adaptation of the scale which maintained the meaning and intent of the original English version [29, 31, 46]. Participants were randomly assigned to either the Arabic or English version of the NGSE measure. Their task was to complete it along with a vocabulary test [38] as well as to answer a few demographic questions.

At the time of the administration, existing evidence of potential differences in self-efficacy between respondents from individualistic and collectivistic cultures was unclear. For instance, Scholz et al. [46] found lower scores for Japanese participants, but not for participants from other collectivistic cultures. Wu [47] using the same data found no relationship between self-efficacy and degree of individualism and collectivism. However, the assessment instrument of general-self-efficacy was administered in the participants' first language. Thus, the extent to which languages can activate distinctive cultural schemas in the same respondents had not been tested. Furthermore, to our knowledge, no evidence existed from a vertical collectivistic culture, such as that of KSA, where religion (i.e., Islam) has wide-ranging prescriptive norms on modesty and on serving the collective.

In our preliminary studies, significant lower self-efficacy scores were obtained in the Arabic condition (M = 2.18; SD = .46) than in the English condition (M = 3.87; SD = .53; $F(1, 625)$ = 1825.43, MSE = .24, $p < .05$, *partial Eta*^{2} = .75 (See **Figure 1**). The language in which the assessment tool

was administered was not linked to group differences in either vocabulary scores or age of acquisition, $F \leq 2.48$, *ns*. Similarly, no significant relationships, as measured by Pearson correlation coefficients, were found between self-efficacy scores and either vocabulary scores or age of acquisition.

If Arabic indeed activates the cultural schema of vertical collectivism, in which modesty is relevant, whereas English activates the cultural schema of vertical individualism, in which modesty is discouraged, then a direct test of participants' attitude toward modesty should produce results consistent with the revealed self-efficacy pattern. To test this hypothesis, a sample of Arabic-English bilingual females from the same population described above completed a measure of modesty, a general self-efficacy measure (n = 204), or both (n = 196). Instructions and measuring instruments were consistently presented to each participant in either Arabic or English. Random assignment to language condition was again utilized. As in all studies, each participant was also asked to complete an English vocabulary test [38], and respond to a few questions regarding the time and mode of second language acquisition. For this sample, the mean age of acquisition of the second language was 7.85 (SD = 3.83), and mean proficiency, measured by the Shipley vocabulary test [38], was 67.69% (SD = 20.83). The NGSE scale of Chen et al. [45] was again adopted to estimate self-efficacy. The Modest Responding scale [48, 49] was selected to assess participants' value of modesty because it distinguished one's internal disposition toward modesty (e.g., "I prefer to keep my accomplishments to myself than talk about them"), or disinclination toward modesty/propensity to brag (e.g., "When people tell me about one of their successes, I like to tell them about one of mine"), from one's view of modest responses as being socially desirable (e.g., "I believe it's impolite

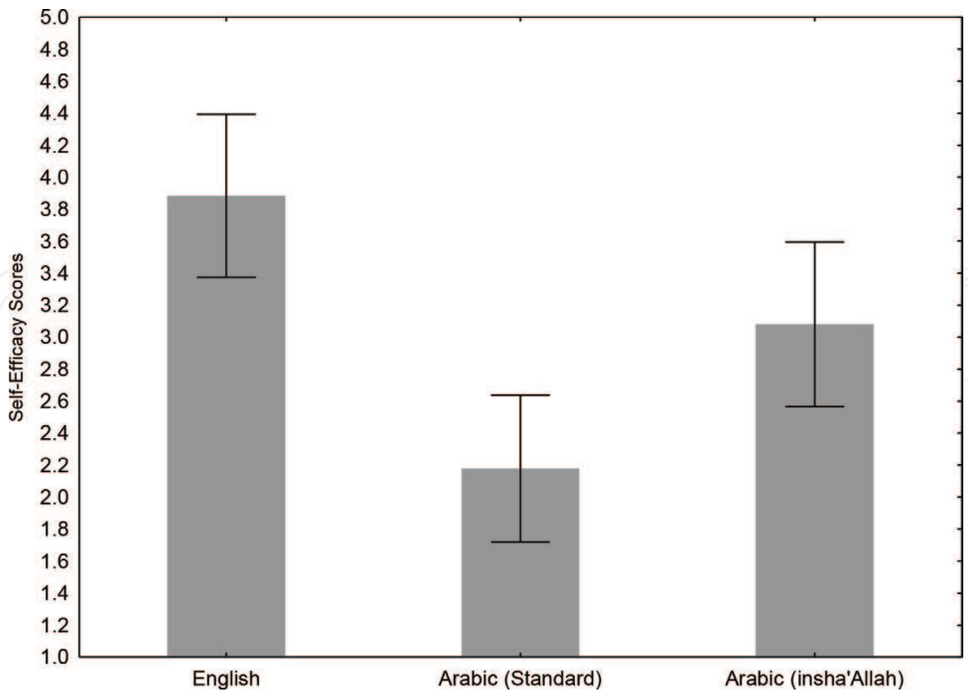

Figure 1. Mean self-efficacy scores and standard deviations of the NGSE scale administered in English, Arabic, or Arabic with the qualifier *insha'Allah* added to each of the eight statements.

to talk excessively about one's achievement, even if they are outstanding"). Each statement of the measurement instrument was to be answered on a 7-point Likert scale that ranged from *strongly disagree* to *strongly agree*.

Language primed both self-efficacy and desire to be perceived as modest, and did so in a manner consistent with our predictions. Specifically, Arabic compared with English led to lower self-evaluations of mastery, $F(1, 202) = 581.27$, $MSE = .34$, $p < .001$, *partial* $Eta^2 = .742$ ($M = 2.00$; $SD = .57$ and $M = 3.97$, $SD = .59$, respectively), and higher desire to be perceived as modest by others, $F(1, 194) = 7.42$, $MSE = .80$, $p = .007$, *partial* $Eta^2 = .037$ ($M = 4.68$, $SD = .87$ and $M = 4.33$; $SD = .92$, respectively; see **Figure 2**). Inclination toward modesty ($M = 4.02$; $SD = .81$), disinclination toward modesty ($M = 4.50$; $SD = .81$), English vocabulary scores and age of acquisition were not significantly different between language conditions, $Fs < 1$, *ns*. The findings that young female students exhibited lower self-efficacy along with a desire to be perceived as modest are consistent with those of earlier studies where the salience of a role or norm induced behavior consistent with the activated role or norm [50–55]. They are also consistent with the view [see 37] that the value of modesty, serving as a self-restraint, is integral to the cultural schema of vertical collectivism (as activated by Arabic), and inconsistent with the cultural schema of vertical individualism (as activated by English). Actually, the latter has been often mentioned as promoting self-enhancement, which refers to the tendency of one's self-perceptions to be self-serving and more positive than those produced by the judgment of others, such as peers and independent observers [56, 57]. Most importantly, what seems to matter in the cultural schema of vertical collectivism is not a person's disposition to be modest, an internal attribute, but rather the perceptions that others have of the person as someone who upholds modesty.

Self-enhancement and modesty can be seen as opposite devices to nurture a solipsistic self-perception and a communal (i.e., other-focused) self-perception, respectively. If self-enhancement is associated with vertical individualism, where self-interest and competition

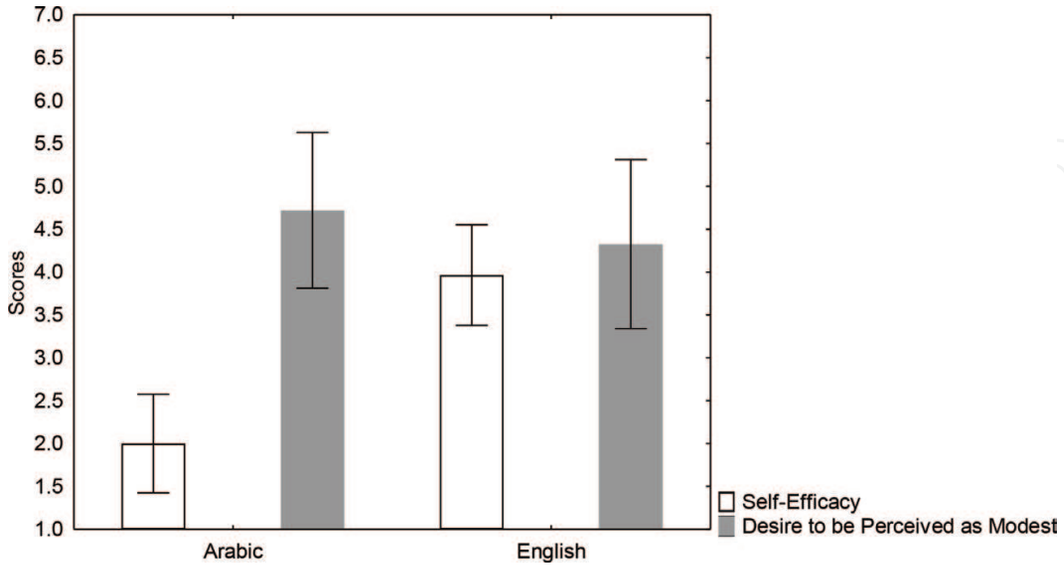

Figure 2. Mean self-efficacy scores, mean desire to be perceived as modest, and standard deviations as a function of the language in which the NGSE scale (range: 1–5) and the Modest Responding scale (range: 1–7) were administered.

reign, and modesty is nurtured by vertical collectivism, where service to and sacrifice for one's community are valued, one may ask how these two self-orientations can co-exist in the bilingual speaker. Perhaps, the most parsimonious account of the co-existence of opposite viewpoints is that they serve as presentation tactics through which to facilitate one's interactions with others in different contexts. Although presentation tactics can be seen as producing changes that merely scratch the surface of one's identity, the extent to which their impact seeps from the surface to the very core of that identity is to be further investigated. In fact, in our research, Arabic was associated with not only enhanced concern to be seen as modest, but also with reports of lower self-efficacy. Furthermore, since modesty emerged mostly as a concern for the views that others have of oneself, it is reasonable to ask whether the impact of this outward orientation is to make people who have interiorized vertical collectivism particularly susceptible to expressions that mitigate the boastful tone implicit in the NGSE scale. To find a preliminary answer to this question, a change to the Arabic translation of the NGSE measure was introduced based on careful consideration of the pragmatics of the expression *insha'Allah* إن شاء الله.

Insha'Allah, is a common expression that saturates social exchanges of KSA natives and of Arabs in general, which is habitually used to denote that events in one's life are ultimately in the hands of a higher power [58]. According to Nazzal [59], in addition to confirming one's cultural and religious identity, the expression has three pragmatic functions, which serve to mitigate the intended meaning of a (a) rejection of a request, (b) prediction of future events, and (c) implicit acceptance of a statement or course of action. We examined the extent to which the latter function of insha'Allah can indeed counteract participants' discomfort with self-enhancement and, at the same time, preserve the value of modesty (as a self-restraint for public consumption and thus simply as a self-presentation tactic). To do so, insha'Allah was added to each of the eight statements of the Arabic version of the NGSE instrument (n = 136). Not surprisingly, it had the effect of enhancing the self-efficacy reports of students pooled from the same population of the earlier studies (n = 329; insha'Allah version: M = 3.08; SD = .51; original version: M = 2.18; SD = .46, respectively), $F(1, 463) = 346.73$, MSE = .23, $p < .001$, *partial Eta*^{2} = .428 (see **Figure 1**). Although the self-efficacy level of students given the insha'Allah Arabic version of the NGSE measure improved, it was still statistically lower than the level obtained by a random sample of students (n = 293) given the English version of the NGSE in the earlier studies, $F(1, 427) = 228.76$, MSE = .26, $p < .001$, *partial Eta*^{2} = .349 (original version: M = 3.88; SD = .51, respectively). Thus, the addition of insha'Allah attenuated, but did not eliminate the restrictions about self-enhancement that are an integral part of the vertical collectivistic culture of KSA.

Important to note is that modesty often appears to be a different object of study, depending on the vantage point of the researchers who study it. For instance, psycholinguists have focused on politeness in communication practices, personality psychologists have attempted to determine whether modesty is a human disposition, whereas social psychologists have preferred to conceptualize it as a self-presentation tactic relevant to impression management [see 60]. Our finding that participants desired to be seen as modest supports the latter viewpoint, best exemplified by the definition of Cialdini and de Nicholas [61] that modesty is "the under-representation of one's positive traits, contributions, expectations, or accomplishments" (p. 626). Yet, because

evidence of modesty was elicited by the Arabic language relative to the English language, modesty can be said to be a marker of vertical collectivism, but not of vertical individualism where self-enhancement tactics, to a certain extent, may be necessary for one's survival in a competitive environment.

4. Conclusions

In sum, languages are not only a sign of group membership, and a medium through which social relationships are established, maintained or even interrupted, but also a medium through which the contents of cultures, including norms and values, are expressed and transmitted inside and outside a collective as well as interiorized or rejected by the members of that collective [62]. As such, a language embodies a culture which can shape in its image the realities that its speakers perceive in everyday life (including self-perceptions of attributes, dispositions, intentions and actions). Thus, merely using a language can activate its corresponding culture which then influences speakers' thoughts and actions, especially when thoughts and actions directly concern the self (e.g., self-efficacy reports). Our findings are consistent with those of studies showing that bilinguals' responses, including self-reports and perceptions, memory records, and emotional responses, vary with the language used to elicit such responses [see 63–69]. In particular, the research discussed in this chapter suggests that bilingual speakers can activate, through the use of Arabic, a cultural schema (i.e., vertical collectivism) that is opposite in nature to the schema activated by English (i.e., vertical individualism). Thus, bilingual speakers can be said to possess not only two languages, but also two cultures, which like code-switching (i.e., the use of more than one language in the same conversation; [70]), can be exercised strategically as self-presentation tactics and practices may dictate [10]. Yet, it is reasonable to ask whether the two culturally construed identities that bilinguals possess will merge into a complex, multifaceted whole or sharpen their distinctions as experience with the two languages increases. The answer to this question may come from data about the plasticity of the brain [71–73], which are yet to be conclusive. Nevertheless, if the interactions between two interiorized cultures, whose values and norms mostly conflict with each other, resemble those exhibited by two languages, each culture is unlikely to lose its distinctiveness. In the everyday life of a young adult, the coexistence of two languages may be effortful, produce interference and errors, and yield less-than-optimal performance on comprehension and production tasks. However, in old age, bilingualism has been shown to enhance executive functioning and even protect the latter against age-related declines [74]. Thus, it is entirely possible that the effects of biculturalism on the human brain will be found to resemble those currently attributed to bilingualism.

Rarely, bilingualism is fully balanced (i.e., speakers who are equally and entirely fluent in both languages). Most bilingualism is unbalanced since the first language (L1), whose acquisition has usually occurred early in life, is more dominant than the second language (L2). Studies have shown that in highly proficient bilinguals, largely overlapping brain areas are activated by the two languages, even in spite of differences in age of acquisition [75–77]. Our participants' use and knowledge of Arabic and English can be described as illustrating unbalanced

bilingualism with Arabic being the dominant language, learned at an early stage in life and spoken in a wide variety of contexts, and English being more likely to be linked to formal education and peers' social networks. Thus, it is interesting that even unbalanced bilingualism permits the activation of opposing cultural schemas, each related to one of the languages that the speaker is currently using. It is reasonable to expect languages to preserve their functional utility and coexist as largely distinct entities in the speakers' minds if each language is attached to cultural norms and values relevant to the speaker's community. It is the task of future research to determine the extent to which the same pattern may be obtained with less proficient bilinguals. Similarly, it is an open question whether our findings may generalize to older participants, males, participants whose financial resources are less plentiful, and those who live in countries of the Arab world where industrialization has been accompanied by a more visible relaxation of traditional norms. For instance, it may be of interest to determine whether differences in the extent to which young adults of several Arab countries are connected to their families financially (i.e., monetary reliance), emotionally (i.e., need for family approval), and functionally (i.e., sharing of daily routines; [78]) translate into differences in self-efficacy beliefs, either general or related to specific domains of knowledge and practice. Lastly, important to note is that cultural differences, which are observed with explicit self-appraisal measures, tend to be less likely to be observed with implicit measures, such as the Implicit Association Test [79]. Thus, results reflected in explicit self-appraisal measures, such as ours, may be merely inflated by self-presentation practices and concerns [80] or be the undiluted expression of such practices and concerns. Methodological issues besides the explicit versus implicit nature of the assessment measure will also need to be considered in future research (e.g., comparisons involving bilingual individuals or different groups of monolingual individuals).

Acknowledgements

The research mentioned in this chapter is based on discussions conducted by an interdisciplinary group of researchers, including besides the authors, Dr. Siddiqua Aamir, Ms. Khadijah Aldabbagh, Ms. Mona M. A. al-Mqbas, Ms. Houda Debbabi, Dr. Amani K. Hamdan, Dr. Huda Mulhem, and Mrs. Ebtesam Ahmad Tallouzi. We thank all collaborators for sharing their valuable insights into the complexities of the phenomena that we have explored empirically. We also thank the students who provided reliable data as well as helpful commentaries and observations that comprise the indispensable pillars of our inquiry into the human mind in diverse cultures.

Notes

Maura A. E. Pilotti and Khadija El Alaoui, College of Sciences and Human Studies, Prince Mohammad Bin Fahd University, P.O. Box 1664, Al Khobar 31952, Kingdom of Saudi Arabia. Correspondence concerning this article should be addressed to either author.

Author details

Maura A. E. Pilotti* and Khadija El Alaoui

*Address all correspondence to: maura.pilotti@gmail.com

Prince Mohammad Bin Fahd University, Al Khobar, Saudi Arabia

References

[1] Bandura A. Self-Efficacy: The Exercise of Control. New York: Freeman & Company; 1997

[2] Bandura A. Social cognitive theory: An agentic perspective. Annual Review of Psychology. 2001;**52**(1):1-26. DOI: 10.1146/annurev.psych.52.1.1

[3] Pajares F. Current directions in self-efficacy research. Advances in Motivation and Achievement. 1997;**10**(149):1-49

[4] Pajares F, Kranzler J. Self-efficacy beliefs and general mental ability in mathematical problem-solving. Contemporary Educational Psychology. 1995;**20**:426-443. DOI: 10.1006/ceps.1995.1029

[5] Pajares F. Gender and perceived self-efficacy in self-regulated learning. Theory Into Practice. 2002;**41**(2):116-125. DOI: 10.1207/s15430421tip4102_8

[6] Zimmerman BJ, Bandura A. Impact of self-regulatory influences on writing course attainment. American Educational Research Journal. 1994;**31**:845-862. DOI: 10.3102/00028312031004845

[7] Müller M. What's in a word? Problematizing translation between languages. Area. 2007;**39**(2):206-213. DOI: 10.1111/j.1475-4762.2007.00731.x

[8] Ochs E, Schieffelin BB. The theory of language socialization. The Handbook of Language Socialization. 2011;**71**:1-21. DOI: 10.1002/9781444342901.ch1

[9] Hong YY, Morris MW, Chiu CY, Benet-Martinez V. Multicultural minds: A dynamic constructivist approach to culture and cognition. American Psychologist. 2000;**55**(7):709-720. DOI: 10.1037/0003-066X.55.7.709

[10] Pavlenko A, editor. Bilingual Minds: Emotional Experience, Expression, and Representation. Clevedon: Multilingual Matters; 2006

[11] Triandis HC, Chan DKS, Bhawuk DP, Iwao S, Sinha JB. Multimethod probes of allocentrism and idiocentrism. International Journal of Psychology. 1995;**30**(4):461-480. DOI: 10.1080/00207599508246580

[12] Askool SS. The use of social media in Arab countries: A case of Saudi Arabia. In: Cordeiro J, Krempels KH, editors. Web Information Systems and Technologies. Berlin: Springer-Verlag Berlin Heidelberg; 2013. pp. 201-219

[13] Murphy C. A kingdom's Future: Saudi Arabia Through the Eyes of Its Twentysomethings. Washington, DC: Wilson Centre; 2013

[14] Sait SM, Al-Tawil KM. Impact of internet usage in Saudi Arabia: A social perspective. International Journal of Information Technology and Web Engineering (IJITWE). 2007;**2**(2):81-115. DOI: 10.4018/jitwe.2007040104

[15] Simsim MT. Internet usage and user preferences in Saudi Arabia. Journal of King Saud University-Engineering Sciences. 2011;**23**(2):101-107. DOI: 10.1016/j.jksues.2011.03.006

[16] Prokop M. Saudi Arabia: The politics of education. International Affairs. 2003;**79**(1):77-89. DOI: 10.1111/1468-2346.00296

[17] Feghali E. Arab cultural communication patterns. International Journal of Intercultural Relations. 1997;**21**(3):345-378. DOI: 10.1016/S0147-1767(97)00005-9

[18] Hofstede G. Culture's Consequences: International Differences in Work-Related Values. Beverly Hills: Sage; 1980

[19] Singelis TM, Triandis HC, Bhawuk DP, Gelfand MJ. Horizontal and vertical dimensions of individualism and collectivism: A theoretical and measurement refinement. Cross-Cultural Research. 1995;**29**(3):240-275. DOI: 10.1177/106939719502900302

[20] Chen SX, Bond MH. Explaining language priming effects: Further evidence for ethnic affirmation among Chinese-English bilinguals. Journal of Language and Social Psychology. 2007;**26**(4):398-406. DOI: 10.1177/0261927X07306984

[21] Hong YY, Chiu CY, Kung TM. Bringing culture out in front: Effects of cultural meaning system activation on social cognition. Progress in Asian Social Psychology. 1997;**1**:135-146

[22] Kagan J. Five Constraints on Predicting Behavior. Cambridge, MA: MIT Press; 2017

[23] Kim YY. Communication and Cross-Cultural Adaptation: An Integrative Theory. Philadelphia: Multilingual Matters; 1988

[24] Bargh JA, Chen M, Burrows L. Automaticity of social behavior: Direct effects of trait construct and stereotype activation on action. Journal of Personality and Social Psychology. 1996;**71**(2):230. DOI: 10.1037/0022-3514.71.2.230

[25] Schacter DL, Chiu CYP, Ochsner KN. Implicit memory: A selective review. Annual Review of Neuroscience. 1993;**16**(1):159-182. DOI: 10.1146/annurev.ne.16.030193.001111

[26] Branigan HP, Pickering MJ, Liversedge SP, Stewart AJ, Urbach TP. Syntactic priming: Investigating the mental representation of language. Journal of Psycholinguistic Research. 1995;**24**(6):489-506. DOI: 10.1007/BF02143163

[27] Bargh JA, Pietromonaco P. Automatic information processing and social perception: The influence of trait information presented outside of conscious awareness on impression formation. Journal of Personality and Social Psychology. 1982;**43**(3):437-449. DOI: 10.1037/0022-3514.43.3.437

[28] Carver CS, Ganellen RJ, Froming WJ, Chambers W. Modeling: An analysis in terms of category accessibility. Journal of Experimental Social Psychology. 1983;**19**(5):403-421. DOI: 10.1016/0022-1031(83)90019-7

[29] Sperber AD. Translation and validation of study instruments for cross-cultural research. Gastroenterology. 2004;**126**:S124-S128. DOI: 10.1053/j.gastro.2003.10.016

[30] Auer P, editor. Code-Switching in Conversation: Language, Interaction and Identity. London: Routledge; 2013

[31] Nida E. Principles of correspondence. In: Venuti L, editor. The Translation Studies Reader. New York: Routledge; 2012. pp. 1126-1140

[32] Oettingen G. Cross-cultural perspectives on self-efficacy. In: Bandura A, editor. Self -Efficacy in Changing Societies. New York: Cambridge University Press; 1995. pp. 149-176

[33] Yusuf M. Memorization as a learning style: A balance approach to academic excellence. OIDA International Journal of Sustainable Development. 2010;**1**(6):49-58

[34] Alamer SM. Challenges facing gifted students in Saudi Arabia. Research on Humanities and Social Sciences. 2014;**4**(24):107-112

[35] al-Hashimi AT. Methods of teaching Islamic education. Damascus, Syria: ar-Rissalat. [in Arabic]; 2000

[36] Rugh WA. Education in Saudi Arabia: Choices and constraints. Middle East Policy. 2002;**9**(2):40. DOI: 10.1111/1475-4967.00056

[37] Kurman J. Why is self-enhancement low in certain collectivistic cultures. Journal of Cross Cultural Psychology. 2003;**34**:496-510. DOI: 10.1177/0022022103256474

[38] Shipley WC. A self-administering scale for measuring intellectual impairment and deterioration. Journal of Psychology. 1940;**9**:371-377. DOI: 10.1080/00223980.1940.9917704

[39] Goodman JT, Streiner DL, Woodward CA. Test-retest reliability of the Shipley-Institute of Living Scale: Practice effects or random variation. Psychological Reports. 1974; **35**(1):351-354

[40] Ali AJ. The Islamic work ethic in Arabia. The Journal of Psychology. 2001;**126**(5):507-519. DOI: 10.1080/00223980.1992.10543384

[41] al-Hashimi MA. The Ideal Muslimah: The True Islamic Personality of the Muslim Woman. Riyadh: International Islamic Publishing House; 1996

[42] al-Olayan FS, Karande K. A content analysis of magazine advertisements from the United States and the Arab world. Journal of Advertising. 2000;**29**(3):69-82. DOI: 10.1080/00913367.2000.10673618

[43] Luqmani M, Yavas U, Quraeshi Z. Advertising in Saudi Arabia: Content and regulation. International Marketing Review. 1989;**6**(1). DOI: 10.1108/EUM0000000001503

[44] Syed J. An historical perspective on Islamic modesty and its implications for female employment. Equality, Diversity and Inclusion: An International Journal. 2010;**29**(2):150-166. DOI: 10.1108/02610151011024475

[45] Chen G, Gully SM, Eden D. Validation of a new general self-efficacy scale. Organizational Research Methods. 2001;**4**(1):62-83. DOI: 10.1177/109442810141004

[46] Scholz U, Doña BG, Sud S, Schwarzer R. Is general self-efficacy a universal construct? Psychometric findings from 25 countries. European Journal of Psychological Assessment. 2002;**18**(3):242. DOI: 10.1027//1015-5759.18.3.242

[47] Wu CH. Factor analysis of the general self-efficacy scale and its relationship with individualism/collectivism among twenty-five countries: Application of multilevel confirmatory factor analysis. Personality and Individual Differences. 2009;**46**(7):699-703. DOI: 10.1016/j.paid.2009.01.025

[48] Cialdini RB, Wosinska W, Dabul AJ, Whetstone-Dion R, Heszen I. When social role salience leads to social role rejection: Modest self-presentation among women and men in two cultures. Personality and Social Psychology Bulletin. 1998;**24**(5):473-481. DOI: 10.1177/0146167298245003

[49] Whetstone MR, Okun MA, Cialdini RB. The Modest Responding Scale. Paper Presented at the Convention of the American Psychological Society; August 1992; San Diego

[50] Berkowitz L, Daniels LR. Affecting the salience of the social responsibility norm. Journal of Abnormal and Social Psychology. 1964;**66**:275-281. DOI: 10.1037/h0040164

[51] Cialdini RB, Reno RR, Kallgren CA. A focus theory of normative conduct. Journal of Personality and Social Psychology. 1990;**58**:1015-1026. DOI: 10.1037/0022-3514.58.6.1015

[52] Deaux K, Major B. Putting gender into context: An interactive model of gender related behavior. Psychological Review. 1987;**94**(3):369. DOI: 10.1037/0033-295X.94.3.369

[53] Kramer RM, Goldman L. Helping the group or helping yourself? Social motives and group identity in resource dilemmas. In: Schroeder DA, editor. Social Dilemmas: Perspectives on Individuals and Groups. Westport: Praeger; 1995. pp. 49-67

[54] Messick DM. Equality as a decision heuristic. In: Mellers BA, Baron J, editors. Psychological Perspectives on Justice: Theory and Applications. New York: Cambridge University Press; 1993. pp. 51-68

[55] Turner JC, Hogg MA, Oakes PJ, Reicher SD, Wetherell MS. Rediscovering the Social Group: A Self-Categorization Theory. Oxford: Basil Blackwell; 1987

[56] John OP, Robins RW. Accuracy and bias in self-perception: Individual differences in self-enhancement and the role of narcissism. Journal of Personality and Social Psychology. 1994;**66**(1):206. DOI: 10.1037/0022-3514.66.1.206

[57] Taylor SE, Brown JD. Illusion and well-being: A social psychological perspective on mental health. Psychological Bulletin. 1988;**103**(2):193. DOI: 10.1037/0033-2909.103.2.193

[58] Mehawesh MI, Jaradat AA. Inshallah: Extensive flouting of Grice's maxim of quality. Asian Social Science. 2015;**11**(4):319. DOI: 10.5539/ass.v11n4p319

[59] Nazzal AR. The pragmatic functions of the recitation of Qur'anic verses by Muslims in their oral genre: The case of Insha'Allah, 'God's willing'. Pragmatics. 2005;**15**(2/3):251-273. DOI: 10.1075/prag.15.2-3.05naz

[60] Chen S, Bond MH, Chan B, Tang D, Buchtel EE. Behavioral manifestations of modesty. Journal of Cross-Cultural Psychology. 2009;**40**(4):603-626. DOI: 10.1177/0022022108330992

[61] Cialdini RB, de Nicholas ME. Self-presentation by association. Journal of Personality and Social Psychology. 1989;**57**(4):626. doi:10.1037/0022-3514.57.4.626

[62] Saville-Troike M. Cross-cultural communication in the classroom. In: Alatis JE, editor. Current Issues in Bilingual Education. Washington, DC: Georgetown University Press; 1980. pp. 348-355

[63] Bond MH. How language variation affects inter-cultural differentiation of values by Hong Kong bilinguals. Journal of Language and Social Psychology. 1983;**2**(1):57-66. DOI: 10.1177/0261927X8300200104

[64] Koven M. Two languages in the self/the self in two languages: French Portuguese bilinguals' verbal enactments and experiences of self in narrative discourse. Ethos. 1998; **26**(4):410-455. DOI: 10.1525/eth.1998.26.4.410

[65] Kuroda Y, Hayashi C, Suzuki T. The role of language in cross national surveys: American and Japanese respondents. Applied Scholastic Models and Data Analysis. 1986;**2**:43-59. DOI: 10.1002/asm.3150020105

[66] Marian V, Kaushanskaya M. Self-construal and emotion in bicultural bilinguals. Journal of Memory and Language. 2004;**51**:190-201. DOI: 10.1016/j.jml.2004.04.003

[67] Panayiotou A. Switching codes, switching code: Bilinguals' emotional responses in English and Greek. Journal of Multilingual and Multicultural Development. 2004; **25**(2/3):124-139. DOI: 10.1080/01434630408666525

[68] Ross M, Xun WQE, Wilson A. Language and the bicultural self. Personality and Social Psychology Bulletin. 2002;**28**(8):1040-1050. DOI: 10.1177/01461672022811003

[69] Trafimow D, Silverman E, Fan RM-T, Law JSF. The effects of language and priming on the relative accessibility of the private self and the collective self. Journal of Cross-Cultural Psychology. 1997;**28**:107-123. DOI: 10.1177/0022022197281007

[70] Milroy L, Muysken P. One Speaker, two Languages: Cross-Disciplinary Perspectives on Code-Switching. Cambridge, UK: Cambridge University Press; 1995

[71] Bialystok E. The bilingual adaptation: How minds accommodate experience. Psychological Bulletin. 2017;**143**(3):233. DOI: 10.1037/bul0000099

[72] Chiao JY et al. Dynamic cultural influences on neural representations of the self. Journal of Cognitive Neuroscience. 2010;**22**(1):1-11. DOI: 10.1162/jocn.2009.21192

[73] Costa A, Sebastián-Gallés N. How does the bilingual experience sculpt the brain? Nature reviews. Neuroscience. 2014;**15**(5):336-345. DOI: 10.1038/nrn3709

[74] Bialystok E, Craik FI, Luk G. Bilingualism: Consequences for mind and brain. Trends in Cognitive Sciences. 2012;**16**(4):240-250. DOI: 10.1016/j.tics.2012.03.001

[75] Abutalebi J, Cappa SF, Perani D. The bilingual brain as revealed by functional neuroimaging. Bilingualism: Language and Cognition. 2001;**4**(02):179-190. DOI: 10.1017/S136672890100027X

[76] Crinion J, at al. Language control in the bilingual brain. Science. 2006;**312**(5779):1537-1540. DOI: 10.1126/science.1127761

[77] Perani D et al. The bilingual brain. Proficiency and age of acquisition of the second language. Brain. 1998;**121**(10):1841-1852

[78] Dwairy M, Achoui M, Abouserie R, Farah A. Adolescent-family connectedness among Arabs a second cross-regional research study. Journal of Cross-Cultural Psychology. 2006;**37**(3):248-261. DOI: 10.1177/0022022106286923

[79] Greenwald AG, McGhee DE, Schwartz JL. Measuring individual differences in implicit cognition: The implicit association test. Journal of Personality and Social Psychology. 1998;**74**(6):1464-1480. DOI: 10.1037/0022-3514.74.6.1464

[80] Yamaguchi S et al. Apparent universality of positive implicit self-esteem. Psychological Science. 2007;**18**(6):498-500. DOI: 10.1111/j.1467-9280.2007.01928.x