Bilingualism: Language, Emotion, and Personality

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Abstract

This paper will examine the body of research regarding the development of bilingual children, especially those related to cognition, expression and self identity. The effects of language use on the emotional experience of bilingual children, and their expression of emotion, are also examined. Phonological awareness across languages in early bilingual learners is studied as well. Information from a study of the 'big five' across cultures (Benet-Martínez, V., & John, O. (1998, September). Los Cinco Grandes across cultures and ethnic groups: Multitrait-multimethod analyses of the Big Five in Spanish and English. Journal of Personality and Social Psychology, 75(3), 729-750.) is also included in this research. Convergent validity of the Spanish and English forms of the Strong-Campbell Interest Inventory for bilingual Hispanic high school students is reviewed as well. Notice of cautions about bilingualism and mental measures was taken in the review. Means of assessing bilingual and monolingual Latino students were accessed using research conducted on bilingualism and education. In addition variations in IQ testing and instruction were reviewed and evaluated.
Bilingualism: Language, Emotion, and Personality

Multiple papers on various aspects of bilingualism were read and examined. This paper is intended to summarize and relate these findings, bringing particular focus to early language development, emotion, expression and self identity in bilingual persons. Relevant papers on phonological awareness in early bilingual learners are reviewed first; then the effect of language use on the emotional development of bilingual children and how they express those emotions is explored. Next, the “big five” in bilingual people and convergent validity of the Spanish and English forms of the Strong-Campbell Interest Inventory are compared. This paper then covers means of assessing bilingual students, and variations in IQ testing and instructions. Finally these elements are all brought together in a discussion of bilingualism and language, emotions, expression, and personality.

Phonological Awareness

Phonological Awareness (PA) is the ability to recognize, discriminate, and manipulate linguistic sounds apart from their meanings. Liberman, Shankweiler, & Liberman (1989) document its importance as a skill used in learning to read in both English and Spanish. It was also determined that PA includes many subtasks, such as isolating, categorizing, blending, segmenting, and deleting sounds. However, little was known about the nature and relationships between PA tasks both within and across languages, especially for Spanish speakers. (Branum-Martin, L., Mehta, P., Fletcher, J., Carlson, C., Ortiz, A, Carlo, M. et al. (2006, February).

Branum-Martin et al (2006), Suggest that there were two rival theories regarding PA – one being that PA is language specific, the other that it represents single general ability. A framework to study young learners of the English language was designed which the authors believed could also be used for they study of construct validity of any skill learned in an academic requirement. A multilevel model for individual and classroom level measurement of of Spanish and English PA
was developed bringing together different hypothesis about the nature of PA and the role of instruction on the development of PA (Branum-Martin, L., Mehta, P., Fletcher, J., Carlson, C., Ortiz, A., Carlo, M., et al. (2006, February). Existing research was also brought into the new comprehensive model. Two basic questions were addressed in the study: 1) to what extent are PA tasks indicative of language-specific constructs versus a unitary construct across languages? and 2) the extent to which PA skills are related to reading skills within and across languages.

According to Branum-Martin et al (2006), the PA tasks define a unitary construct across languages at both the individual and classroom level, and PA tasks are highly correlated to reading skills both within and across languages. Impact of teaching methodology was not studied, as all classrooms utilized the transitional language instruction techniques. Differences in community were not factored into the model.

Language and Emotion

In published works, it has been shown that bilingual Spanish English speakers expressed more emotion in Spanish than in English. The greater emotional expressiveness suggests that therapeutic interactions in Spanish may be more effective in assessing depression and suicidal potential. This may be especially true in members of the Hispanic community because they are also more comfortable expressing emotions in Spanish. Guttfreund, D. (1990, October). Guttfreund produced a second study in 1991 to examine in greater detail the effect of language used on emotional affects reported.

In Guttfreund, D. (1991, March), four response groups were analyzed native: Spanish speakers responding in Spanish; native Spanish speakers responding in English; native English speakers responding in English; and native English Speakers responding in Spanish. The study found that when measured using the STAI or DACL depression or anxiety mean scores were higher when the measurements were conducted in Spanish. There was a significant difference in
between the English and Spanish response scores regardless of the native language of the subjects. The difference between the Spanish and English scores on DACL was higher for those whose mother tongue was Spanish. If Bond and Lai (1986) are correct in their findings, this may be due to the second language learning occurring in a more neutral environment.

The Big Five and Convergent Validity

In their work on the Big Five, Benet-Martínez, V., & John, O. (1998, September) examined the Spanish version of the BFI as compared to results from the English version in students from Spain and the United States. When developing their Spanish version of the BFI attempts were made to address translation and generalization issues. Testing of psychometric equivalence across instruments, languages and samples were conducted. There studies were conducted using both the Spanish and English versions of the BFI.

In their first study which consisted of monolingual college students in Spain and the United States, the sample groups consisted of 711 students at the University of California at Berkeley, and 894 students of the Universitat Autonoma de Barcelona. The American students completed the English BFI. The English BFI uses short phrases and a 1 to 5 rating scale. The Spanish students completed a Spanish Translation of the BFI, along with a series of personality inventories. The Spanish students used a Castillian Spanish translation developed using back-translation techniques. The study found that the rank order of the attributes was consistent across the samples, but three of the five factors showed variation across the samples. Extroversion, Conscientiousness, and Neuroticism. The higher Spanish scores on Extroversion may be related to expression of simpatico, the lower scores on Conscientiousness related to a more flexible view of time, with no easily discerned cause for the difference in Neuroticism. Benet-Martínez, V., & John, O. (1998, September).
The second study used bilingual college students to test the cross language validity of the Spanish BFI and its convergence with a shorter version of Costra and McCrae's Spanish NEO PI-R. 170 Hispanic individuals from the San Francisco Bay area participated in the study. Participants completed two translation test, the original English version of the BFI, the Spanish BFI, and the English and Spanish (Costra and McCrae) versions of the 60 question shorter NEO-FFI. Results of the cross-language and validity tests indicated that the Spanish BFI was structurally similar comparing favorably with the shorter NEO-FFI, and demonstrated strong evidence of both discriminant and convergent validity across instruments, with a noted instrument specific trait variance in Extroversion and Openness. Benet-Martínez, V., & John, O. (1998, September).

The third study tested for reproducibility of the second study in Hispanic persons who were not college students. 139 adults participated with an average age of 32 with a wide range of counties of origin (all Latin American) either as direct immigrants of the children of immigrants. They were recruited from a working class neighborhood in San Francisco. The reliability of the Spanish BFI was shown to be acceptable. Taken together, the results of study two and three show that language had no consistent effects on bilingual individual's Big Five scores, while there were differences in the scores of the monolingual cross cultural scores. Benet-Martínez, V., & John, O. (1998, September).

Convergent Validity of the Spanish and English forms of the Strong-Campbell Interest Inventory was studied by Fouad, N., Cudeck, R., & Hansen, J. (1984, July). The paper reviewed impact of language in convergent validity of cross language interest inventories focusing on bilingual Hispanic students in high school. A study population of 94 students from three western states and the SCII and SCII-S tests, was used as the research basis for the paper.
Fouad & Cudeck used several statistical methods to analyze the data. Naturally the study reported the findings using mean, standard deviation, and correlation. The results were also analyzed using factor analysis, confirmatory factor analysis, and constrained factor analysis. Different models were investigated as well, including common factor analysis with from one to five factors, with unique variances constrained to zero in those models where these would otherwise have gone negative. In the five factor model, four variances had to be so constrained. A model designed for congeneric tests was also used, as well as model for multitrait-multimethod data, as suggested by Jorenkog (1971). Thorough analysis demonstrated that the two forms exhibited correlations sufficient to support the position that they were valid for trait analysis. According to Fouad, N., Cudeck, R., & Hansen, J. (1984, July), counselors should feel comfortable enough with the results obtained from both the Spanish or English versions of the instrument to administer the test in the language in which the student is most comfortable. In reviewing the data obtained to verify the congruence and validity of the test, Fouad, N., Cudeck, R., & Hansen, J. (1984, July). also noted that the view of the work environment held by Hispanic and Anglo children is similar, and that use of the SCII as tool for exploration and to widen the occupational possibilities of minority students, should be encouraged.

Means of Accessing and Variations in Testing

In Velasquez, R., Chavira, D., Karle, H., Callahan, W., Garcia, J., & Castellanos, J. (2000, February). Assessing bilingual and monolingual Latino students with translations of the MMPI-2: Initial data. Cultural Diversity and Ethnic Minority Psychology, 6(1), 65-72. two studies were examined. One compared results from administering the MMPI-2 in English with a Spanish language version. The other compared the results of two different Spanish language versions.

In the first study 57 adults who were undergraduates at a major university in southern California participated. The study group was filtered such that those who had “cannot say” raw
score > 29 on either test were eliminated. The Spanish language version utilized was the “official” version produced by Garcia-Peltoniemi and Azan Chaviano in 1993 available through National Computer Systems. The study was limited to the first 370 items due to time considerations. Six weeks elapsed between test and restest.

The second study involved 27 adult undergraduates for the same California university. In addition to the filter mentioned for study one, a second filter, such that only those with a Variable Response Inconsistency Scale (VRIN) < 74 were actually considered as part of the second study. The complete instrument was administered, with four weeks between the taking the two versions.

In both studies, the scores of male and female participants were compiled together. This was done to increase the size of the sample dataset. It does not appear that gender influences test-retest reliability. The test-retest scenario was counter balanced (such that part of each group received test “A” first, while the remainder received test “B” first).

According to Velasquez, et al (2000, February), the mean reliability coefficient was moderately high, and no statistically significant differences were shown on any single scale in the first study, involving the 'official' versions of the MMPI-2. This indicates that the Version Hispana can be used with confidence. These findings are consistent with those produced with other language translations in other parts of the world, increasing confidence in the structure and content of the instrument itself.

The second study, comparing two Spanish language versions of the test also indicated no difference in scale score, it did produce a lower mean correlation coefficient. Velasquez, et al (2000, February), suggest that this indicates that the use of idioms, connotations of certain words, and sentence structure variations across the various language and dialect translations may have a noticeable impact on instrument results. The difference in the words chosen for excitement (excitacion in Hispana while el alboroto is used in the Mexican version) were highlighted as a
particularly relevant example of connotative differences in certain words used in the Hispana and the Mexican version.

Bergan, J., & Parra, E. (1979, December). studied the effect of the language of administration and IQ tests and IQ performance and the predictive value of those tests on learning and achievement for young bilinguals. The paper also examined the effectiveness of IQ as a predictor of learning success under different instructional methods. The study participants were 96 children (51 females and 45 males) between four years and five years, eleven months in age. 72 of the children were Mexican American, the remainder Anglo American. There were substantial deferences in the cross-language abilities among the bilinguals. For example some replied in Spanish even when the questions were asked in English, while others responded in the language used to ask the question.

Three performance sub-tests and four verbal ones from the Wechaler Preschool and Primary Scale of Intelligence (WPPSI) where used, administered and scored according to the manual. A second test of letter identification was also employed. Identification of the letters p, b, d, and q was measured separately was well. Translation of the tests and instructions from English to Spanish was verified by back-translation, which were then analyzed using Phi Coefficients.

The Anglo students were given the tests in English, the Mexican American students were divided unto three class for testing. The first set received the tests in English, the second in Spanish, and the third in both English and Spanish. In the last scenario the question was asked first in English then in Spanish before the student responded. There was no class in which the questions were asked in Spanish and then in English.

To model instructional methodologies, three instructional scenarios were tested. In the first, the instructor simply provided the correct answer, and asked the student to repeat it. In the second, the instructor provided the rules for determining the correct answer. In the final
instructional scenario, the instructor provided both the correct answer, and the rule used to
determine the correct answer. A control group with no instruction (the student was simply asked
to provide the correct answer) was also created.

Each of the four student classes were equally divided, and members selected at random for
each of the instructional methods. The Anglo students received the instruction in English only,
the Mexican American students received the instruction in English and Spanish. Again no control
for language primacy was attempted.

Anglo children scored higher on the IQ test when it was given in English. Spanish, or
both, but the difference in scores was lowest when the test was given in both Spanish and English,
in the latter case the differences were not significant. Mexican American children tested in
English only also scored significantly lower than Mexican American children tested in both
Spanish and English. The results appear to indicate that variation in the language of test
administration does significantly influence IQ test performance. However the hypothesis that
instructional methodology would impact letter learning success and IQ scores was not supported.
Bergan, J., & Parra, E. (1979, December). suggest that the bilingual children tested in both
Spanish and English may have had higher scores because it allowed them to access separate stores
of knowledge in each language before answering. In other words what the child knows in English
may not be the same as what the child know in Spanish. IQ test results had negative correlation
with letter learning ability as demonstrated during the educational methodologies test portion of
the study. This negative correlation suggests that the IQ test measured knowledge that had already
been acquired rather the ability to acquire new knowledge, at least in these very early learners.

Language, Emotions, Expression, and Personality
As we have seen, the essential building blocks of spoken language, phonological awareness appears to be a universal human ability consistent across languages Branum-Martin et al (2006). All cultures have language, and the ability to learn spoken language appears to be a universal human skill unrelated to the language used. Language and Culture are however distinct, with multiple cultures sharing the same language. An example of this is noted among Castillian and Latin American Spanish users by Benet-Martinez, V., & John, O. (1998, September),

It is likewise apparent from review of the literature that expressiveness particularly of emotions is not consistent across languages. This difference exists in expressions of emotion by the same person, and is influenced by the time frame in which the language is learned. Guttfreund, D. (1991, March). Personality is shaped to a degree by what expressions are socially successful, leading to more emotionally expressive personalities in some language groups and cultures than in others. The degree to which expression relates to the depth of felt emotion has not been thoroughly reviewed, but the findings do indicate that therapeutic sessions for bilingual Spanish-English speakers may achieve a more accurate understanding of the emotional state of the subject if conducted in Spanish.

Views of the work environment and interest traits are similar for English and Spanish speakers in the educational setting across both language and cultural backgrounds in the United States as shown by Fouad, N., Cudeck, R., & Hansen, J. (1984, July). Interests and expectations may remain consistent even when achievement does not. Culture influences personality (in fact personalities always exist within a cultural framework) by reinforcing successful and socially acceptable behaviors. The degree to which successful personality traits in a Spanish dominant culture differ from those of an English dominant culture have not been explored in the context of bilinguals who function in both cultures.
Student IQ test results indicate that utilization of both languages improves the scores of young bilingual Mexican Americans Bergan, J., & Parra, E. (1979, December). Integration of both languages into the development of personality (especially in terms of Emotional Display) has not been fully explored. Interpersonal relationships across languages in young bilingual students who are entering the formal education system however has not been examined in detail.

The warning not to overly trust the validity of cross language instruments raised by Sanchez (1934) remains as salient today as it ever has been. More effort has been harnessed to reduce language artifacts in measurement instruments. Differences in dialect and idiomatic expressions, however, may remain problematic for the foreseeable future. Means of isolating language artifacts, true representation of underlying individual differences, and cultural or code-switching behavior remain areas where more work is to be done.

Examination of the interaction of the level of emotive expressiveness (especially in Spanish) and the underlying personality traits related to emotive behavior is another area where more research could be productive.
References


