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ABSTRACT

A qualitative method for assessing the cognitive and linguistic development of bilingual children is presented, and its underlying model is discussed. The model views language learning as a concept formation process in three domains: cognitive; cultural; and linguistic. This method has been found useful in accurately differentiating genuine handicapping conditions, disabilities, giftedness, and normal second language learning. Two major methodological needs in assessment and identification of language-minority, low-income, gifted children are discussed: (1) development of psycholinguistic models including culture, cognition, and language; and (2) control of external factors influencing language and cognitive development. Application of this qualitative assessment method is illustrated in a case study that included a home language survey, parent and teacher ratings of the child's language proficiencies and talents in school and home environments, and standardized language and nonverbal intelligence tests. Dilemmas evaluators face in assessing bilingual children are discussed in light of myths and misconceptions. (Author/MSE)

A Qualitative Assessment Method for Accurately Diagnosing Bilingual Gifted Children

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A QUALITATIVE ASSESSMENT METHOD FOR ACCURATELY DIAGNOSING BILINGUAL GIFTED CHILDREN

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Abstract

A qualitative assessment method for cognitive-language development in bilingual children and its underlying model are discussed. This model views language learning as a concept formation process in three domains: cognitive, cultural, and linguistic. This qualitative assessment method has proven to be useful for making accurate differential diagnosis between genuine handicapping conditions, disabilities, giftedness, or normal second language learning. Two major methodological problems in the assessment and identification of language-minority, low-income, gifted children are discussed in relation to two needs (a) to develop psycholinguistic models including cognition, culture and language; and (b) to control external factors influencing language -cognitive development. The application of the qualitative assessment method is illustrated by a case study portraying the richness of bilingualism that includes a home language survey, parents' and teachers' ratings of the child's language proficiencies and talents in the school and home environments, and results of language and non-verbal intelligence standardized tests. Finally, a discussion of the current dilemmas that evaluators face when assessing bilingual children is provided in light of myths and misconceptions.

Introduction

Presently, there are two major methodological problems in the assessment of bilingual children that result in two needs: (a) to construct robust psycholinguistic models that consider cognitive, cultural, and linguistic variables; and (b) to control external factors influencing language-cognitive development when assessing and differentially diagnosing between normal second language learning, handicapping conditions, disabilities, or giftedness. A number of researchers have responded to the need for psycholinguistic models studying how bilingual children develop cognitively and linguistically in a bicultural environment. Only some relevant studies focusing on the positive effects of bilingualism on cognitive development, resulting in a multidimensional definition of metalinguistic awareness, will be reviewed in this paper.

For Cummins (1978) metalinguistic awareness was related to bilingual children's understanding of the arbitrary nature of word-referent relationships and to the use of sophisticated reasoning strategies. For Díaz (1985) metalinguistic awareness was the product of the effect of bilingualism on cognition, and was defined as the ability to analyze and objectify language. Bialystock (1986) considered that metalinguistic awareness: (a) was a composite of two skills, analysis of linguistic knowledge and control of attention for linguistic processing; and (b) was influenced by early word concept

development, level of bilingualism and biliteracy. Hakuta (1987) suggested that metalinguistic awareness was related to the bilingual child's first language proficiency. Finally, Snow (1992) considered that early bilingualism can influence positively metalinguistic awareness.

These two methodological problems are related, as external factors affecting the validity of assessment methods for diagnosing cognitive-language development in bilinguals, and correspond to cultural, linguistic, and cognitive domains that interact in psycholinguistic models. Qualitative assessment methods derived from psycholinguistic models show construct validity which is of central importance for accurately diagnosing language-cognitive development in bilingual children. Presently, validity is presumed to pertain to the ethical, moral, educational, and social long lasting and powerful consequences of using assessment instruments that are meaningful for diagnosing, labeling, and placing children in regular, bilingual, or special classes (AERA, APA & NCME, 1985; Messick, 1989).

These two interrelated methodological problems in the assessment of bilingual children are even more acute when the objective is to accurately identify gifted, language-minority, low-income children. Often the result of assessment is the under representation of these students in gifted educational programs across the nation. The first methodological problem of developing psycholinguistic models is related to the need for a definition of giftedness that encompasses linguistic and cultural diversity among low-income children. According to Renzulli (1978) definitions of giftedness can be considered conservative or liberal, in relation to the degree of restrictiveness used in determining who is eligible for special services. The definition ranges from straight IQ, failing to consider motivational factors and cultural and linguistic expressions of aptitudes, to multiple criteria. This difference in criteria results in misinterpretations and misuse, and allows practitioners to discriminate against individuals who have the greatest potential for high levels of accomplishment. He considered gifted children the ones who showed a composite set of traits: above-average abilities to generate diverse and creative solutions to problems, task commitment, and potential for any valuable area of human performance.

Moreover, Frasier, (1987) has highlighted that giftedness occurs regardless of the child's cultural and linguistic background, socioeconomic class, and parents' educational and social background or values. As a result, if gifted children come from diverse cultural and linguistic backgrounds, then our identification procedures should also reflect this diversity. In addition, Frasier (1991) has pointed out the importance of recognizing that culturally and linguistically diverse children have received a diverse or different stimulation from their sociocultural environment, but they do not lack stimulation or are deprived. This distinction is related to the expression of mainstream cultural attitudes in the connotations of labels used with minority children (i.e., recently we have changed the label culturally deprived for culturally and linguistically different or diverse).

In addition, Renzulli (1991) pointed out the need for research studies that examine the expression of giftedness in culturally and linguistically diverse, low-income children as only few studies have being conducted until the present. For instance, Márquez (1992) found problematic definitions of giftedness which include criteria cutoff scores in standardized tests that discriminate against limited English proficient children who are not acculturated. As a solution,

Márquez (1992) developed a profile of gifted Hispanic children that include the cultural perception of the community in the identification process. Gifted Hispanic children were described by their parents as curious, motivated, creative, observant, inquisitive, able to find multiple uses for objects and to solve problems, and interested in trying new things and in reading. Scott, Perou, Urbano, Hogan, and Gold (1992) conducted a survey of parents of Black, Hispanic, and White children that found some similar attributes of giftedness which have also been identified for mainstream children (e.g., talked early, likes reading, learns quickly, has good memory, and is above peers). In addition, some differences emerged as Hispanic gifted children were described by their parents as communicative/expressive, loving books, being observant, and excelling in academic skills.

The issue of similar characteristics in gifted children across cultural, ethnic, linguistic, gender, and socioeconomic groups has also being pointed out by Frasier (1991). She suggested that all gifted children showed the same attributes such as intrinsic motivation, very high levels of cognitive and verbal communication skills, and academic performance. Then, some characteristics of gifted majority children reported by several researchers (e.g., Cecil, Gray, Thornburgh, & Ispa, 1985; Kogan, 1983; Lieberman, 1977; Meador, 1992; Torrance, 1968) can also be applied to minority children, such as transformation of objects, dramatizations, fanciful explanations, fantastic stories, translation of experiences into action, imaginative or symbolic play, physical-social-cognitive spontaneity, manifest joy, sense of humor, and a playful attitude, among others. A second traditional problem has been the control of external factors influencing the valid and reliable assessment and identification of gifted, language-minority, low-income children. For instance, Merino and Spencer (1983) found that most commonly used oral language proficiency tests (e.g., The Language Proficiency Scales -LAS, De Avila & Duncan, 1986) were not comparably equivalent across psychometric properties (i.e., validity, reliability, and the norming process) and areas examined (i.e., language area: syntax, phonology, or semantics; domain: home, school, or neighborhood; developmental comparability of items; and language variety or dialect measured). Frasier (1991), has pointed out that the problem of identifying gifted minority children has generated some solutions (e.g., teachers' nominations, adaptation and translation of standardized tests, quota system models, identification and instructional models), but none have actually solve our present need. As a result, Frasier (1987) and Renzulli (1991) have called for the use of multiple quantitative and qualitative assessment methods in order to broaden the criteria traditionally used for identifying gifted minority children.

In addition, Renzulli (1991) has pointed out the critical need to conduct hypotheses testing research supported by strong data basis grounded in empirically validated theories or models with the objective of developing identification procedures. Thus, the two methodological problems for the identification of gifted minority children are interrelated, because the construction of psycholinguistic models will result in appropriate definitions of giftedness for minority children, and in the development of accurate assessment methods.

Moreover, a number of authors (e.g., Bermúdez & Rakow, 1990; Frasier, 1987; González, 1990, 1991; Loyola, McBride, & Loyola, 1991; Oller, 1991; Santos de Barona & Barona, 1991; Snow, 1992) have highlighted several needs

at present given the state-of-the-art of standardized instruments that lack validity and reliability when used with language-minority students. Some of these needs are: (a) to assess language proficiency in both languages in language-minority children, as they might have different proficiency levels in different areas (e.g., functional versus academic language; or oral language proficiency versus reading and writing; or phonology, grammar, and vocabulary development versus verbal and non-verbal conceptual development); (b) to incorporate cultural features in their verbal and non-verbal cognitive development (e.g., code-switching, code-mixing, vernacular dialects, cultural gestures); (c) to rely more on non-verbal rather than on verbal measures of intelligence; (d) to assess potential for learning the second language and develop cognitively rather than assessing for acquired knowledge; (e) to include individuals from the linguistic and cultural community of the child as informants (e.g., parents, relatives, peers) in order to understand their cultural values, beliefs, and attitudes, their affective relationships, discipline and control strategies, and language use at home; and (f) to stimulate advocacy roles and awareness in school personnel for representing the best educational interests of language-minority children when participating in assessment, diagnosis, and placement committees.

In general, as Frasier (1991) has pointed out we need to avoid stereotypical descriptions of minority children as portrayed by standardized tests that compare minority with dominant children. Several authors (e.g., Damico & Hamayan, 1992; Frasier, 1987; González, 1993; Kitano, 1991) have highlighted the need to change present attitudinal biases, philosophical, theoretical, and political beliefs in school personnel that may result in the misconception that giftedness cannot be found in low-income minority students.

In this paper, we propose a new solution that encompasses most of the needs highlighted at present for developing valid and reliable instruments for accurately identifying gifted language-minority children. This solution involves a qualitative assessment method that includes verbal and non-verbal problem-solving tasks administered in first and second language. This qualitative assessment method is based on a psycholinguistic model constructed by González (1991) for explaining the interface between cognitive-language development in bilingual children, such as verbal and non-verbal concept formation measured through classification tasks. Thus, this paper has a double objective: (a) to describe how to implement the qualitative assessment method; and (b) to illustrate its use in a real-life context with the purpose of accurately identifying gifted bilingual Hispanic kindergartners in a metropolitan school district in the Southwest region of the United States. In this paper a case study shows contradictory information resulting from using qualitative and standardized assessment methods, and illustrates the successful application of this qualitative method as it assesses bilingual gifted minority children's genuine cognitive and language potentials.

Model

González (1991) proposed a new model to explain the influence of cognitive, cultural, and linguistic factors on semantic category formation. This model states that concepts are represented in three ways: (a) non-verbally as abstract categories (i.e., basic semantic categories -daily life labels for objects, and non-

basic semantic categories -labels for categories and subcategories of objects), (b) symbolically by meanings of sociocultural conventions (i.e., animate object referents as animals, and inanimate object referents as food -natural and arbitrary linguistic gender respectively), and (c) linguistically by structures and markers (i.e., familiar and unfamiliar words, and similar and different linguistic structures between first and second language).

According to this model, the cognitive process of mapping verbal onto non-verbal meanings involves categorization and transformation of concepts that can be universal or culturally and linguistically bound. Then, one way of showing the interaction between cognitive, cultural, and linguistic factors is by assessing children's verbal and non-verbal classifications of objects representing non-verbal concepts, symbolic sociocultural meanings, and linguistic gender markers. Gender was selected as the first linguistic structure to study because of major differences between English and Spanish in the three ways of representing concepts (non-verbal, symbolic, and verbal) for animate and inanimate objects. González (1991) found that bilingual children constructed (a) one universal representational system common to Spanish and English for knowledge of non-verbal, symbolic, and verbal conceptual categories; and (b) a second representational system for symbolic and verbal conceptual categories unique to a specific language and culture. González (1991) concluded that conceptual development in bilingual children is represented through abstract (non-verbal) and semantic (verbal) categories. In summary, this new model that integrates cognitive, cultural, and linguistic variables has direct practical implications, as the tasks created for developing the model have been used as an alternative qualitative assessment method for identifying gifted bilingual children.

González (1991) established five verbal (labeling, defining, and verbal justification for sorting) and non-verbal (sorting and category clue) classification tasks. Children were given manipulative objects representing animate (animals) and inanimate (food) items, corresponding to 14 experimental stimuli groupings reflecting cognitive, cultural, and linguistic variables. Two parallel sets of stimuli, both representing animals and food, were designed to avoid transference of learning when administering the tasks in both Spanish and English. These five tasks tested two theoretical approaches, the traditional Piagetian theory (e.g., Piaget, 1965, 1967; Sinclair-de-Zwart, 1969) and the constraint approach (e.g., Markman & Hutchinson, 1984; Waxman, 1990). These two theoretical approaches were included because previous research studies from the Piagetian theory and constraint approach have yielded different results in the level of semantic categories formed by children. Furthermore, both verbal and non-verbal tasks were used to compare how linguistic and cultural factors influence semantic category formation in bilingual children. A brief description of the five verbal and non-verbal tasks is included below. In addition, some genuine examples of responses and its categorization and scoring are portrayed in the case study.

Labeling is operationalized as a verbal production task that measures language development at two levels: (a) the object level, reflecting word knowledge; and (b) the gender level, indicating knowledge of the linguistic structures and markers for gender assignment. Defining is operationalized as a verbal production and comprehension task that measures verbal conceptual development as it gives information of the child' s ability to produce and understand basic and non-basic semantic categories. The sorting and verbal justification for sorting

tasks measure non-verbal and verbal concept formation at the production level based on the interface between linguistic gender assignments, sociocultural symbolic meanings, and abstract semantic categories. Category clue is a non-verbal comprehension level task that measures the child's ability to understand metalinguistic hints given by linguistic gender assignment; and to construct links between metalinguistic clues, symbolic meanings, and semantic categories.

Application of the Model for Identifying Gifted Bilingual Hispanic Kindergartens

Applied problem. Under the request of a large school district in the Southwest region with a large percentage of Hispanic children (more than 40% of the school population), this qualitative assessment method was adopted as an alternative individualized procedure for selecting and placing bilingual Hispanic students in gifted classrooms. These bilingual Spanish/English children attending regular kindergarten classes were referred for further individualized testing based on (a) a qualitative group screening procedure using observations of spatial, linguistic, and mathematical/logical abilities developed by Maker (1991); (b) a home language survey developed by González (1991) for measuring language use as reported by parents (c) teachers' and parents' ratings of students' creative behaviors, gathered using a locally-designed open-ended survey; and (d) students' samples of classwork selected by classroom teachers. Referred children were tested individually using a qualitative assessment method (González, 1991), and a standardized test for non-verbal intelligence (Raven Coloured Progressive Matrices, 1976). Results of this prereferral information and individual testing were examined by an interdisciplinary placement committee formed by teachers, administrators, parents, school psychologists, graduate students, and university faculty. For the purpose of illustrating the implementation of the qualitative assessment method, one case study portraying the richness of bilingualism has been selected.

Case Study

Background information. A bilingual English/Spanish Hispanic child attending a kindergarten regular classroom was referred to be assessed individually. David (the child's real name has been changed in order to protect his identity) was 5 years and 10 months old by the time of assessment. Parents reported that they were born in Arizona, and that the child was a third generation Mexican-American. David was the youngest of 5 siblings. He had triplet brothers of 14 years of age, and a sister of 11 years of age. David's first language was determined to be English, and his second language Spanish; as indicated by his scores on the LAS, and as reported by his parents on a home language survey and by his classroom teacher in a language rating scale. Self-reports of both parents indicated that they were fully proficient in both Spanish and English. Parents' ratings of David's language proficiency indicated an "above average" level for English, and "not quite adequate in comparison with peers" for Spanish. Parents reported that they used Spanish and English at home but that their children preferred to use English. They reported that their older children spoke Spanish fluently, and that even though David understood Spanish, he could only speak a little Spanish with his grandparents.

Parents' qualitative description of David's talents and abilities. David's parents reported that David had older friends because of his brothers and sister, and that he made new friends easily as everybody seemed to like him. He liked to ask questions, and make people laugh with his anecdotes. When playing with other children, David liked to be in charge and to organize games; when by himself, David liked to draw and do homework. David was described as friendly, observant, curious, talkative, energetic, independent, outgoing, cooperative, imaginative, and creative.

Teacher' s qualitative description of David's talents and abilities. David's classroom teacher was a monolingual English speaker of Anglo ethnicity. David was described as a highly-verbal child who asked many questions and told many anecdotes related to academic activities. His greatest abilities were reported to be in math as he performed at higher levels than his peers in logical operations (i.e., seriation, conservation of number, and classification). David's teacher also reported that he liked to draw, especially in his journal in which he worked intently taking a lot of time to make complete illustrations. David was described as enthusiastic regarding all aspects of school as an actively involved child who persevered in academic activities, and a risk-taker who used trial and error. He was admired by his peers because he was competitive in a positive way, and he liked to cooperate with others while taking the leadership role. In summary, David was describe as active, creative, observant, and curious.

Qualitative assessment method: English administration. Two examiners worked jointly in administering the qualitative assessment method (González, 1991) with the objective of assuring reliability in the diagnostic conclusions. Both examiners were bilingual graduate school psychology students, one was bilingual English/Spanish, and the other one was bilingual Greek/English. The child was examined during the first trimester of the school year. Examiners reported that David was very cooperative, enthusiastic, and friendly; and that he had good command of the English language as he elaborated on all his answers by making connections of the objects and tasks to his personal experiences (e.g., he told a detailed story about the rescue of a person bitten by an alligator that he had watched on television).

For the production level of the defining task in relation to animal stimuli, David performed at a concrete level as he compared animals that belonged to the same kind and mentioned the similarities. For the item "tiger", the child responded: "Black and orange, looks like a lion, because a lion has....(points to marks). If you color out the black lines, it would be a lion". For this task in relation to food stimuli, David performed at a perceptual level because he described the objects in terms of their shape, form, and color. For the item "tomato", the child responded: "They are red and green, with things on top. It's juicy, with little lines like a pumpkin but has to be orange". For the verbal justification for sorting task, David performed at a concrete level when he formed two parallel lines of animals that corresponded in kind, size, and gender. For this latter task, for the item "alligator" when David was asked why he had grouped the animals in that way, he responded: "The mom alligator is fat, the daddy isn't", and then he compared the two animals to see which was bigger (in reality both alligators were exactly the same). In summary, David was diagnosed as performing at the functional and concrete levels for production and comprehension tasks when

forming verbal and non-verbal concepts. David performed above age-appropriate level as he made many creative comparisons in relation to the objects' shape, color, and size using his own experiences.

Qualitative assessment method: Spanish administration. Other two examiners, both graduate school psychology students, did the Spanish administration. One of the examiners was bilingual English/Spanish, and the other was an English native speaker with some knowledge of Spanish as a foreign language. Two weeks following the English administration, David was examined in Spanish using a parallel set of stimuli for preventing direct transference of learning. David understood the Spanish instructions, but responded almost always in English, using only a few Spanish words (i.e., code mixing).

Examiners reported that David showed motivation and non-verbal creativity. He was always helpful in arranging the materials and putting them away. David was very easy to engage, very polite, and friendly. He asked a number of questions about the procedure and about the examiners themselves. Upon seeing the stimuli for the task, he informed the examiners of the tasks he had done in the English administration and verbally cited most of items he had used the last time. This seems to indicate that he had strong visual and verbal memory abilities. In addition, David showed a high verbal ability, as he was aware of verbal subcategories (e.g., that Dalmatians are a kind of dogs), and also of different classifications of animal families (e.g., he noted that "A gorilla resembled a monkey"). Moreover, David also seemed to rely heavily on non-verbal communication. For instance, when questions were asked about different objects, in addition to providing a verbal description he frequently acted out what the animals do (e.g., how some animals would fight with and prey on others as shown in the movies). David persistently used onomatopoeic sounds and nonverbal actions for conveying meaning. His responses centered around "the fat" theme for both animals and food.

In the definition task David described with detail the objects, and even went beyond by describing the imaginative representations that he was visualizing in his mind. David's performance for the defining task administered with animal stimuli was at the concrete level due to the presence of categories and subcategories. For instance, he responded: "A dog. This is a Dalmatian. I have one, but he doesn't have dots on his face. He's all black on his face. They' re fat in the middle, have long legs, a little tongue, and big ears. "*Se parece* (Spanish for "it is like") a cat.....fat". For this task using food stimuli David responded at a metalinguistic level, as he compared objects in shape and form and also used language humorously. For instance, for the item "steak", he said: "You cook it in the fire. It's like a cat' s face. Big ears, and the eyes are here, the nose is here, the whiskers are here. It' s like a carpet, one of those things you clean your feet on when you go into the house. It' s like a tortilla because it' s flat. The dog can' t eat the bone because the bone will start moving. It' s black and white and red all over". Then, the toy steak represented as cooked, became in his imagination a raw steak, which in color and shape resembled in David' s words "A penguin with sunburn". David was also performing at the metalinguistic level in the verbal justification for sorting task for food stimuli in Spanish, as he could recognized and explain verbally and non-verbally the difference in meaning very quickly and correctly if the linguistic gender was changed. For instance, when David was asked if the gender of "la pizza" could be changed, he responded:

"No, because *el piso* is the floor". In the category clue task David developed his own system for arranging and transforming the objects. For instance, he used the triangular shape foods (e.g., pizza, pie) to make a sandwich with the largest pieces of food as the outer pieces of bread.

Thus, David was diagnosed as performing at concrete and metalinguistic levels for the production and comprehension tasks when forming verbal and non-verbal concepts in English and Spanish. It was recommended that David should be placed in a bilingual gifted educational program, as he had shown an ability to form verbal concepts, a command of the English language above age-appropriate levels, and a good understanding of the Spanish language. David could further develop his strengths and use his great amount of creativity, imagination, verbal and social skills, and intrinsic motivation in a bilingual gifted educational program.

Results of standardized tests. On the Raven's Coloured Progressive Matrices, the child scored at the 79 Percentile, 7 Stanine. The district required as the standard criteria for placement in the gifted education program to score in the 97 Percentile or above. On the LAS, the child was classified as a non-Spanish speaker, and as a fluent English speaker. However, the qualitative assessment method and the information given by David's parents and classroom teacher was used as primary criteria by the interdisciplinary committee for placing David in a gifted first grade classroom the following school year.

Discussion

The case study presented was selected to disprove some common myths leading to misconceptions that still influence the assessment process of bilingual children across the nation. Firstly, when we find a child who is English dominant, and who also scores high on standardized language assessment scales in English, we assume that the child is fluent in English and that we can accurately diagnose the English dominant minority child using standardized tests in other developmental areas (e.g., verbal and non-verbal intelligence). This is a misconception for several reasons, for instance: (a) standardized language scales mostly reflect functional but not academic language proficiency, (b) a bilingual child may know more than he may be able to produce verbally in his dominant language, and (c) being "proficient" in English according to scores on standardized language scales does not mean that the child has the same educational experiences and prior cultural knowledge in comparison to a mainstream child (see González, 1993).

Another popular myth and resulting misconception among evaluators is that language proficiency levels reflect intelligence development in bilingual children. This popular myth is far from the genuine cognitive abilities of language-minority children as has been demonstrated by González (1991). She found that non-verbal cognitive development of kindergarten and first grade bilingual Spanish/English children was above-normal developmental levels, and that verbal cognitive development was at age-appropriate developmental levels (Piaget, 1965, 1967) when assessed with qualitative methods. In contrast, language and intelligence standardized tests, even non-verbal intelligence tests (i.e., the Test of Non-Verbal Intelligence -TONI-, Brown, Sherbenou, & Dollard, 1982) underestimated the genuine verbal and non-verbal potentials of bilingual children.

These contradictory results will often lead to different classifications of bilingual children's cognitive-linguistic development when differentially diagnosing between genuine handicapping conditions, disabilities, giftedness, or the normal process of learning English as a second language. Due to the possible resulting contradictory diagnostic conclusions, it is important to include multiple sources of information such as to evaluate the child in both languages and to use different monolingual/monocultural and bilingual/bicultural informants (i.e., teachers and parents, peers, more than one specialized evaluator -educational diagnostician, school psychologists, speech pathologists, nurse, doctor, social worker). The importance of evaluating the bilingual child in both languages is illustrated by the selected case study, as David performed at-age appropriate levels when assessed in English, and at above-normal levels when assessed in Spanish. This difference in performance when assessing cognitive development using two languages, is not only related to the child's language proficiency levels in both languages. But, it is also related to the cultural and linguistic variables influencing differently the expression of cognitive development in both languages in a bilingual child. In relation to the importance of using different informants, González (1991) found that when using a rating scale teachers evaluated only 3.3.% of the children as Limited English Proficient (LEP), and 33.3% of the children as Limited Spanish Speakers (LSS). In contrast, parents rated 10.3% of the same children as LEP, and 30% of the same children as LSS. Moreover, 43.3% of the children were diagnosed as LEP when assessed by the IDEA Oral Language Proficiency test (Ballard, Tighe, & Dalton, 1979).

That is, as illustrated by the selected case, the presence of two different informants (i.e., the classroom teacher and the parents) offers the possibility of broadening and enriching our perspective of a bilingual child. In this case, the classroom teacher was a monolingual English speaker from a mainstream cultural background. This classroom teacher could describe, interpret, and evaluate David's cognitive-linguistic performance from the child's English language and mainstream culture personality dimension. In contrast, David's bilingual parents could describe, interpret, and evaluate the child's cognitive-linguistic performance from the child's bilingual-bicultural personality dimension. In fact, David's parents could open a whole new window or dimension in the evaluation process that his classroom teacher could not offer. This is an illustration of a traditional assessment principle, stating that no evaluation should be interpreted by itself, but in a meaningful context of a battery of measurements portraying the individual's performance in different contexts. In the case of a bilingual child, different contexts of assessment are related to informants from different cultural and linguistic backgrounds. It is also important to remember that the performance of a bilingual child in a monolingual and a bilingual context can show similarities and also a number of differences as shown in the selected case study. That is, the interface between first and second language and cognitive development can offer a new and different developmental dimension in comparison to just observing how the child functions cognitively in one language independently from the other.

As a result, due to the presence of contradictory information when conducting an assessment and diagnostic process with bilingual children, evaluators face theoretical, practical, and legal problems when they evaluate and participate in diagnostic and placement committees. Thus, it is important to raise the aware-

ness level of evaluators of the need to become committed advocates in order to reduce the number of misdiagnoses and misplacements of bilingual children (Damico & Hamayan, 1992). Evaluators can become advocates only if they reflect on their own attitudes toward culturally and linguistically diverse students with the help of nurturing and supporting professional groups (see González, 1993). Presently, it is important to nurture evaluators of bilingual students because we are facing a paradigm shift between standardized instruments derived from the medical model to qualitative methods of assessment derived from developmental, multicultural, and bilingual approaches. Thus, presently given the state-of-the-art of the assessment models and instruments that are being used with bilingual students, evaluators can come to opposite conclusions depending on what theories and philosophies they follow, and what attitudes and beliefs they have.

The former methodological and psychometric problems of current standardized tests when used with bilingual children are just some examples of the many myths, misconceptions, and attitudes that need to be changed by evaluators of bilingual children. Moreover, this attitudinal change is difficult to achieve because these myths result in the creation of internal barriers that prevent individuals to be aware of their personal responsibility when they realize that their personality is their major tool for assessment. Our personality as a tool for assessment includes, just to name a few areas, our own: (a) ethnic-cultural-linguistic identity, (b) personal and professional commitments to specifics schools of thought that defend different assessment models and instruments, (c) beliefs and theories about how bilingual children learn and develop, and (d) personal backgrounds and experiences with language-minority students. This attitudinal change in evaluators of bilingual children will only happen with the necessary professional support for becoming committed advocates for bilingual children (see González, 1993).

In summary, the differential diagnosis between genuine handicapping conditions, disabilities, giftedness, or the normal process of learning English as a second language is a very complex problem that given our current theories and assessment instruments is far from being an "objective process". We need to become aware of the subjectivity involved in diagnosing and placing bilingual children. The current problem of the over representation of bilingual students in special education and their under representation in gifted education is just a reflection of the subjectivity involved in the diagnostic process. Thus, presently alternative qualitative assessment methods that can accurately diagnose bilingual children, like the one illustrated in this paper, are a major applied need.

Conclusions

Even though some bilingual children have a functional command of the English language, assessing them through a qualitative method encompassing cultural and linguistic factors gives them the opportunity to show their genuine cognitive abilities and potentials. Due to lack of control for external factors (e.g., cultural and linguistic differences, socioeconomic level) when developing assessment instruments for cognitive and language development, bilingual children do not qualify for gifted educational programs when assessed using standardized tests. There are still several myths and misconception · been held by profession-

als responsible for the assessment of bilingual children in the process of learning English as a second language. These myths are related to the attitudes, values, and ethnic identities of evaluators, because our personalities are the most important assessment tools through which we observe a bilingual child and make diagnostic conclusions. One of these myths illustrated by the case study is that English dominant children who score high in language proficiency standardized tests can be accurately assessed following mainstream procedures. The case study presented demonstrates that standardized tests do not reflect the English dominant bilingual child's genuine cognitive abilities and potentials. In contrast, when the child is assessed and diagnosed using a model and qualitative assessment method that reflects the child's culture and second language, new cognitive and metalinguistic developmental characteristics can be revealed. Concerning the differential diagnosis of bilingual children, the proposed qualitative assessment method has important theoretical and practical implications: (a) it can be adapted for different languages and cultures; and (b) it can address the important educational issue of the under representation of language-minority, low-income children in gifted educational programs.

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