Abstract

Within the last two decades over 200,000 children from overseas orphanages have been adopted in the USA. Research findings and clinical experiences about language, cognitive, and academic issues of internationally adopted post-institutionalized children in the cultural context of North America are discussed. Theoretical conceptualizations of Vygotsky and Feuerstein serve as the major paradigm in psycho-educational and remedial components of the cultural issues of international adoptees. Native language attrition and dynamics of English language acquisition are considered in the context of transculturality. The specificity of cumulative cognitive deficit (CCD) in international adoptees is linked to prolonged institutionalization, lack of cultural mediation in early childhood, and profound native language loss. The issue of remediation is examined with an emphasis on cognitive education in the context of acculturation.

Key words: international adoption, culture and transculturality, cumulative cognitive deficit, language attrition.

At the beginning of the 1990s an unprecedented large number of U.S. citizens began to adopt children from orphanages abroad. According to the U.S. Citizenship and Immigration Services website (USCIS, 2004), from 1990 to 2003 entry visas were issued to over 200,000 orphans born overseas.
Figure 1. Rate of international adoption in the United States: 1989-2003

The vast majority of children being adopted into the USA come from Eastern Europe and China, with smaller numbers of children coming from South East Asia, India, and South America.

Figure 2. Countries of origin of internationally adopted children in the US from 1990 to 2003.


The availability of children for adoption from former Soviet Bloc countries in the early 1990s brought significant changes and diversity to the characteristics of the children entering the USA and the types of non-family care that these children had experienced. Prior to this period, the majority of internationally adopted children arrived from government-subsidized foster homes where they resided until the time of their adoption, typically prior to one year of age. In contrast, the recent increased waves of adoption from Russia and Eastern Europe brought children who had spent part or all of their lives in orphanages and were typically older at the time of adoption. Thus, each year within the last 10 years from 11 to 13 percent of international adoptees were between 5 and 9 years old. Moreover, the tendency to adopt the so-called “older adoptees” – children of school age – will continue to grow due to legal limitations related to the international adoption of infants and toddlers by parents beyond a certain age (Selman, 2000; JCICS, 2004). It is estimated that currently over 60% of all international adoptees came from state-run orphanages or hospitals (Selman 2000; NAIC, 2004). These institutions vary in quality, but nearly one-half of all post-orphanage children were documented on arrival to the USA as having infectious diseases, growth failure, and developmental delays (Johnson, 1997; Miller, 2004). The most frequently cited reasons for children to be placed in Russian and Eastern European orphanages are either abandonment (most often by a single mother unable to provide for a child) or placement in state custody due to abuse, neglect, and severe deprivation of basic needs by abusive parents (Zouev, 1999; Zaretsky, Dybrovsky, Oslon, & Kholmogorova, 2002). Most internationally adopted children have suffered varying degrees of deprivation and neglect, often have had inadequate diets, and have received substandard health care (Ames, 1997; Gummar, Bruce, & Grotevant, 2000; Judge, 2003). On average, each year female adoptees comprise about 64% and males 36% of all internationally adopted children (US Census Bureau Press Release, USCIS, 2004).

Currently, the majority of children internationally adopted since the 1990s are in preschool programs, elementary, or middle/high schools. This creates a challenge for both the adoptive parents and the school system. Never before in the history of North America have so many foreign-born orphans been exposed to formal schooling while adjusting to new families, adapting to a new social/cultural environment, and learning a new language. At present we have only fragmentary knowledge about international adoptees as a group. Moreover, thinking of them as a homogeneous group is inappropriate in view of significant ethnic, social, and cultural differences among their native countries; nevertheless, internationally adopted children have a specific set of characteristics that distinguishes them from domestically adopted children, from the offspring of recently immigrated families, from the bilingual population, or from children at large in need of special education or educational supportive services (Gindis, 1998).

The purpose of this article is to share available research findings and clinical experiences about language, cognitive, and academic issues on internationally adopted post-institutionalized children in the specific cultural context of North America (USA and Canada). For the sake of simplicity I refer to school age internationally adopted post-
institutionalized children as “international adoptees” or internationally adopted (IA) children, with the understanding that these children:

- were born outside North America to different racial groups and in various social/cultural environments,
- subsequently resided in non-family settings such as orphanages,
- have been adopted by United States and Canadian citizens and brought to these countries to live with their new families,
- were pre-school and school age (5 years and older) at the time of adoption.

**The cultural aspect of international adoption**

The cultural aspect of international adoption is a complex, inadequately researched, and emotionally charged matter. There are some general components of this issue common among immigrants, refugees, and minority groups and there are some facets of this issue that are specific to international adoptees only. While the word “culture” and its offshoots have mostly positive connotations (with few exceptions such as “prison culture” or “gang culture”), in the context of international adoption there are clearly identifiable positive and negative components in this complex notion. Thus, for foreign-born adoptees of school age, the notion of their cultural background is strongly linked to their experiences of past abuse, deprivation, and neglect. It is a controversial component of their struggle for identity in their new motherland. It is a part of their thoughts about the adoption itself and their relation to their biological family and their loyalty to new parents and siblings.

Cultural identification means different things at different ages of adoption. The complexity of this issue is reflected in the notions of “multiculturality”, “interculturality”, and “transculturality” elaborated by Robbins, Chatterjee, & Canda, (1998) in relation to their multidimensional transactional model of bicultural identity. The cultural aspect of international adoption is mostly concentrated around the issue of personal identity (Friedlander, 1999) while other issues are rarely considered. In this article I concentrate on the psycho-educational and remedial components of the cultural aspect of international adoptions. From this perspective the most productive theoretical conceptualization of post-institutionalized internationally adopted children’s cognitive and social/adaptive functioning can be found in works of L. Vygotsky and R. Feuerstein.

Vygotsky has made the distinction between two axes of development: natural and social/cultural. Along the natural axes, cognitive and social/adaptive functions vary on a continuum from delayed to advanced functions. At the same time, the cultural axis also has a range of progression from primitive to highly developed functions. It was Vygotsky’s idea that delays, distortions, and abnormalities in human development may have natural and cultural causes or a combination of both. Thus, children with normal or even highly developed natural abilities, such as spontaneous attention, simple memorization, practical problem solving, phonetic hearing, or imitative behavior, may nevertheless remain deprived of the important symbolic tools offered by their culture as a result of educational neglect and cultural deprivation. These children, according to Vygotsky, display a syndrome of cultural “primitivity” (this was a term Vygotsky used in his time – BG). Vygotsky (1993) wrote that it is important to distinguish the true sources of the impairment, because the external representation of the impaired performance might

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be quite similar in cases of severe cultural “primitivity” and of organic-based deficiency (Vygotsky used the unfortunate term “defect” for the latter – BG). As an example Vygotsky discussed the case of a bilingual nine-year old Tartar girl (a nationality within the Russian Federation - BG) who was considered mentally retarded until it was discovered that the girl had never experienced a normal process of language development in either of her two languages, Tartar or Russian. She acquired these languages as the means of immediate communication, but no one had mediated to her the meaning of language as a tool of reasoning. Being asked: “How do a tree and a log differ?” the child answered: “I have not seen a tree, I swear I haven’t seen one.” When shown a linden tree that stood under the window, she answered: “This is a linden” (Vygotsky, 1993, p.46). Vygotsky commented that from the point of view of primitive logic the child was right; no one has ever seen “a tree,” all we have seen are lindens, chestnuts, ash, and so on. “A tree” is a product of cultural development, when a word becomes not only a substitute for concrete objects, but a source of generalizations.

A culturally “primitive” child may not be intact in relation to the natural development of his/her psychological functions. Cultural “primitivity” may be combined with organic “defects” such as mental retardation or sensory impairments. For example, if no special effort is made and remedial education is not offered, deaf children will display many signs of culturally primitive behavior. It is important, however, to remember that underdevelopment of natural functions may be compensated for by acquisition of cultural tools, while even superior development of natural functions cannot guarantee the establishment of higher mental functions that employ cultural tools - mediators (Kozulin, 2003). Thus, mentally retarded individuals with good phonetic hearing and superior imitation abilities may easily acquire basic elements of a foreign language in its communicative function, skillfully using entire blocks of learned speech in familiar contexts. The problem is revealed when comprehension of the verbal meanings and reflection upon them go beyond immediate situation-embedded communication. Here these individuals reveal their impairment, because they cannot operate with language as an organized system of meanings (Kozulin, 2003).

Unfortunately, after Vygotsky the cultural aspect of impaired performance has been neglected: cross-cultural studies have been focused on normative behavior and cognition while the performance of children with special needs has been interpreted on an individual level without the involvement of cultural categories (Gindis, 1999-B). It was Feuerstein who placed the concept of cultural difference and cultural deprivation at the very center of his theory of retarded performance. Feuerstein (1990) tried to differentiate between two categories of immigrant children arriving in Israel in the 1950s and 1960s who demonstrated poor results on standard psychometric tests. According to Feuerstein, the first group’s problem stemmed from their differences from Western culture, including the culture of psychological testing. These children, however, had good general learning skills mediated to them in their original culture and thus had positive prospects for overcoming their initial difficulties and succeeding in adapting to the formal educational system of the new culture. Feuerstein attributed the high learning potential of this culturally different group to the sufficient experience of mediated learning received by these children in their original community. Feuerstein defined the second group as culturally deprived. The cognitive and educational problems of these children originated
not so much in their cultural distance from the formal educational culture as in their low learning potential. Feuerstein suggested that the absence of adequate mediated learning experience in their original culture resulted in the lowered learning potential of this group: the challenge of adaptation to a new culture clearly revealed the low learning potential of this group (Feuerstein & Gross, 1997).

Although there is a parallel between Vygotsky’s notion of cultural primitivity and Feuerstein’s notion of cultural deprivation, Vygotsky placed particular emphasis on the child’s appropriation of symbolic tools as a criterion of cultural development, whereas Feuerstein focused predominantly on the quality of mediation provided to a child (Gindis, 1999b). Kozulin (1998) suggested that these two aspects, psychological tools and mediated learning, could be integrated into one matrix.

**Matrix of interactions between symbolic tools and mediated learning experience, suggested by Kozulin (1998)**

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<td>C. Higher level symbolic tools available but fail to be internalized as psychological tools. Mediated learning is adequate in activities that do not require higher level symbolic tools.</td>
<td>D. Mediated learning insufficient. Higher level symbolic tools unavailable.</td>
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Currently accumulated research data suggest that although international adoptees can be found in all four categories, the majority of internationally adopted post-institutionalized children belong in cells C and D of Kozulin’s table. A relatively small number of international adoptees representing field A produces highly celebrated success stories that are to be researched further (Gummar, Bruce, & Grotevant, 2000; Judge, 2003). Field D encompasses what is known as “institutional privation,” resulting in significant educational, cognitive, and social/adaptive problems of international adoptees (Kaler & Freeman, 1994; Ames, 1997; Fisher, Ames, Chisholm, & Savoie, 1997; Rutter, 1998, 1999; Connor, Rutter, Beckett, Keaveney, & Kreppner, 2000; MacLean, 2003). Field B is not characteristic for most IA children: mediated learning is the most sparse commodity in institutions (Dubrovina, 1991, Gindis, 2001; Zaretzky, et al. 2002). Field C corresponds to the situation most typical for institutionalized children, particularly from Eastern Europe: the required symbolic tools were present in the child’s original culture but failed to be internalized as inner psychological tools (Gindis, 1998, 2000). In this case the main problem is how to turn the symbolic tools already familiar to a child into inner psychological tools. Culturally deprived children failed to receive appropriate mediation of their native culture and as a result had to rely almost exclusively on their natural cognitive functions and spontaneous learning skills. The specificity of the mediation experience (or rather the lack thereof) in children reared in orphanages is to be further
investigated, but its insufficient and distorted nature very likely constitutes the core of cognitive and socially deficient functioning in many post-institutionalized children (Kaler & Freeman, 1994; Groze & Ileana, 1996; Fisher, Ames, Chisholm & Savoie, 1997; Connor & Rutter, 1999; MacLean, 2003).

Internationally adopted post-institutionalized children with intact psycho-neurological functioning could be either culturally different (as are many children from recent immigrant families) or culturally deprived. The question is how to distinguish the culturally different children from the culturally deprived when the standard test performance of both groups is equally low. Feuerstein (1990) proposed the degree of a child’s cognitive modifiability as a differentiating parameter. Children who demonstrated greater responsiveness to short-term learning of the cognitive principles embedded in the test material (administered in a “dynamic assessment” format – BG) were presumed to do this on the basis of previous mediated learning experience acquired in their native culture. These children therefore should be classified as culturally different and may rather quickly become integrated into a new school culture. Those children who demonstrate poor responsiveness to short-term learning, and thus lower cognitive modifiability, are most probably suffering from cultural deprivation. Referring to the matrix presented above, Kozulin (2000) argued that children’s modifiability also depends on the type of psychological tools available to them. Here the issue of appropriate school placement and long-term remediation is crucial. It is very likely that these children will experience significant difficulties in acquiring the specific knowledge essential in their new cultural context. In this aspect, they are students with special needs, even though their nervous systems may be intact (Gindis, 2003).

The unity of psychological tools and the mediating of learning experience plays an exceptionally important role in remedial education. "Symbolic tools have a rich educational potential, but they remain ineffective if there is no human mediator to facilitate their appropriation by the learner. By the same token, human mediation that does not involve sophisticated symbolic tools would not help the learner to master more complex forms of reasoning and problem solving" (Kozulin, 2003, p.35). The theoretical integration of the Vygotskian concept of psychological tools with Feuerstein’s notion of mediated learning experience served as a basis for the intervention programs for internationally adopted post-institutionalized children discussed in succeeding paragraphs.

The language issue in international adoptees

With all the ethnic, cultural, and individual differences among school-age international adoptees, there is one factor that is common to all of them, without exception: English is a second language for them. The bilingual issues, loss of first language, communicative versus cognitive language dilemma in learning English, cognitive and academic issues related to rapidly losing one language and slowly acquiring another, behavior/emotional problems related to a situation of “language lost – language found” - all these issues are typical for the “older” (5 ages and up) group of IA children (Gindis 1998, , 2001, 2003).
From the social/cultural and educational perspectives, IA children belong to a large, mixed, and constantly growing group of the population called "English language learners" or "Limited English proficiency" students, or "English as second language" students, or just "Bilingual students." This category of students consists mostly of children who were born outside of the US and arrived in the country with their families or were born to a language minority group here in the US and until school did not have much exposure to the English language. Most important, these children continue to use their first language in their families and, often, in their neighborhood. Most of them are bilingual children, because the common understanding of bilingualism includes functional use of more than one language within a developmentally appropriate and socially expected range of language skills (Baker, 2001). Internationally adopted children, though a part of this diverse group, differ from the rest of the English learners in many respects.

First, international adoptees are not bilingual: they are monolingual upon arrival (they know only one language, for example, Rumanian), and after several months they are monolingual again, only this time in English (Clauss & Baxter, 1997; Pearson, 1998; Gindis, ; Dalen, 2001; Glennen, 2002). There are a few exceptions with older adoptees who may be literate in their native language, particularly in sibling groups, but even with them native language attrition is only a matter of time. The fact is that most IA children, within the first year in the US and Canada, use only the English language and cannot be regarded as bilingual. Nevertheless, there is a tendency, particularly in school settings, to consider internationally adopted children as bilingual and to apply to them the insights, knowledge, and practices that have been accumulated regarding language acquisition in bilingual persons (Schaerlaekens, 1998; Gindis, 1998, ; Meese, 2002).

Second, international adoptees learn English in a different way than "typical" ESL (English as Second Language) students. A second language is usually acquired based on one of two models: "additive" or "subtractive" (Figueroa & Valdes, 1994; Baker, 2001; see also Poissant, this issue). When the second language is added to a child's skills with no substantial detraction from the native language, it is called the additive model of second language learning. When and if, in the process of second language acquisition, the first language diminishes in use and is replaced by the second language, we have the subtractive model of second language learning. An additive model is typical for so-called "elective bilinguals" while the subtractive mode is typical for so-called "circumstantial bilinguals" (Figueroa & Valdes, 1994). The circumstantial model of second language learning is typical for individuals who, because of their circumstances, must learn another language in a context in which their own first languages have little or no practical application. That is why their way of learning English is referred to as "subtractive bilingualism": it inevitably leads to slow development, regression, and, finally, loss of the first language (Fillmore, 1991; Cummins, 1991). Internationally adopted children are the extreme cases of circumstantial bilingualism: they have no choice but to learn the language. They do not learn English as a foreign language: they live within this language. School teachers for them are only one source of learning English, while their adoptive families, peers, media, and the culture at large are the most influential and effective sources of language. Internationally adopted children appropriate their new language with
an urge and motivation that cannot be compared to “elective” bilinguals. For them the situation of language acquisition is more akin to the natural ways in which first languages are developed: they acquire their new language in the process of authentic activity and as a byproduct of meaningful communication (Vygotsky, 1987; Locke, 1993).

One of the most stunning discoveries that has been made with internationally adopted children is the swiftness with which they lose their mother tongue. Thus, it is not atypical for a 6-year-old internationally adopted child to lose most of his/her expressive native language within the first 3 months in the country. For the purpose of simple communication receptive language skills may last longer, but within 6 months to a year all functional use of the native language will disappear in an exclusive English-language environment. For a 9-year-old child with age-appropriate literacy skills in his/her native language the process of losing language may take longer, but still within a year the functionality of the language will be dramatically diminished (Pearson, 1998; Gindis, ; Dalen, 2001; Meese, 2002; Glennen, 2002). No wonder. International adoptees live in monolingual (English only) families, not immigrant bilingual families. This means that a child needs functional English for survival and does not need his/her native language for any practical purposes. The family is the primary source of patterns of proper English, while the same family cannot be a sustained source of the native language. Due to this situation, which is very different from that of families where a language other than English is the primary mode of communication, the native language quickly loses its functional meaning or personal sense for an adopted child. For the first several months the issue of communication is one of the most pressing in adoptive families. The motivation to acquire language is much more intense in IA children than in bilingual children from immigrant families.

Language loss (or language attrition as it is called among linguists) is not a new or unusual experience: it is often observed in immigrants of all ages (Schiff, 1992; Hinton, 1999; Roseberry-McKibbin, 2002; Schmid, 2002). The speed and profound nature of language attrition in international adoptees is truly remarkable. There is a quick and total abandonment of the language that has not been described in the scientific literature. There are several factors that facilitate native language loss in internationally adopted children in comparison to their peers from immigrant families. These are:

- Low level of first language skills;
- No motivation to retain first language because there is no opportunity to practice;
- No support of the first language in their family or community at large.

There is one more specific factor not usually found in immigrant children but rather common in school-age adopted children: their negative attitude and adverse emotional reaction to their mother tongue (Versluis-den Bieman & Verhulst, 1995; Gindis, 1998, 2000).

There are multiple and diverse consequences of the rapid language loss in IA children. The word "loss" usually has a negative connotation in our mind; the loss of language in particular. However, this is not always the case with internationally adopted children. Experts in the treatment of disorders stemming from traumatic experiences have long
since identified language (even the mere sound of language) as a powerful trigger of Post Traumatic Stress Disorder (Schmid, 2002). This should not be a surprise, because language is the single most powerful representation of a person's individual life history: it is the compelling link between the present and the past, and it is the most prominent "marker" of belonging to a certain ethnic and cultural group. Older adoptees in particular have experienced traumatic pasts. They came from abusive families and have often experienced horrible neglect and deprivation. An orphanage, as an institution, is not a place normally associated with a happy childhood; therefore, for some older adoptees language is a constant reminder of their suffering—an experience most of them are trying to overcome. They want to blend as soon as possible with their peers, to look the same, to act the same, and to speak the same language. The easiest way to cut ties with the past and to identify with the present is to destroy the most obvious link with the past, namely language. For many older adoptees, forgetting the language seems to have a positive therapeutic value, while externally imposed demands to keep the language may traumatize them (Gindis, 2000, 2003).

On the other hand, there are negative consequences of the rapid loss of the first language. The tempo of losing the first language and that of acquiring the English language do not coincide: losing a language occurs much faster than mastering a new one. In the school context in particular, rapid attrition of the first language before the English language develops presents a significant educational challenge for school age internationally adopted children: they have to learn a new language concurrently with academic content (Meese, 2002). The overall toll paid for the abrupt loss of the first language depends on the children's age and a host of individual differences. For some international adoptees this factor may intensify cognitive weaknesses and even consolidate them into what is called cumulative cognitive deficit (CCD), discussed in succeeding sections. Language is a powerful tool of regulation of behavior (including self-regulation). If this tool is taken away from a person, inappropriate, immature, or clearly maladaptive behavior can be observed (Fisher, Ames, Chisholm, & Savoie, 1997; Howe, 1997; Rutter, 1998, 1999). In some children this "linguistic gap" may lead to a period of "communication regression" (e.g.: pointing, gesturing) and "functional mutism" (not using any language for some time), as reported by many parents and professionals (Clauss, & Baxter, 1997; Glennen, 2002; Wilson, 2003).

The patterns and dynamics of English language acquisition by internationally adopted children

Language is a psychological function that mediates practically all other psychological competencies, such as perception, memory, emotions, cognition, goal-oriented behavior, and motivation. From an educational perspective, there are three major domains of direct language application: communication, regulation of behavior, and cognitive operation (thinking) (Vygotsky, 1987). The last two domains are often referred to as communicative (or social) language and cognitive (or academic) language (Vygotsky, 1987; Cummins, 1996; Baker, 2001).
Communicative language refers to the language skills needed for social interaction in everyday communication within a practical and familiar context. It includes basic skills in pronunciation, vocabulary, and grammar. Communicative fluency is highly contextual and is supported by extra-linguistic means such as gestures, facial expressions, intonation, body postures, etc. Cognitive language refers to language as a tool of reasoning, a means of literacy, and a medium for academic learning. The mastery of cognitive language requires specific conceptual and semantic knowledge of the language itself. This language function emerges and becomes distinctive with formal schooling and developing literacy skills. (Cummins, 1991, 1996; Figueroa & Valdes, 1994; Baker, 2001).

The pattern of English language learning in international adoptees is the same as in other English language learners. They learn the communicative aspect of the language first and the cognitive/academic aspect second; however, the time frame and overall dynamic of English language learning is quite different. While according to some researchers (Collier, 1995; Cummins, 1991, 1996) it takes a school-age immigrant child about 2 years to reach native speaker proficiency in communicative English, this is not the case with international adoptees. According to parents' surveys (Clauss & Baxter, 1997; Schaeferlakens, 1988; Judge, 1999 & 2004), research data on this subject (Gummar, Bruce, & Grotevant, 2000; Dalen, 2001; Glennen, 2002), and published clinical experience (Gindis, , 2000), fully functional communicative fluency is usually achieved by international adoptees of school age within the first 6 to 12 months of their life in their new country. Depending on age and individual differences, there are, of course, significant variations, but the overall trend is that communicative fluency comes into existence faster in a situation of total language assimilation. It is a strong urge with survival overtones that determines the speed of English language learning for international adoptees. This is not the case with the children from immigrant families, who may not hear or use their second language beyond the school day.

According to contemporary research, it takes a school-age immigrant child from 5 to 7 years to develop cognitive English language comparable to the level of a native speaker of the same age (Collier, 1995; Cummins, 1991 & 1996; Thomas & Collier, 2001). The time frame of 5 to 7 years attributed to bilingual children for acquiring academic English may or may not be applicable to internationally adopted children. Currently no reliable data exist. A recent study by Thomas & Collier (2001) analyzed the data for over 700,000 students across the United States over the period of 1996-2001, although internationally adopted children were not included in the pool of those examined. The authors concluded that it takes typical immigrants with 2-5 years of on-grade-level home country schooling in L1 [first/home language] from 5 to 7 years to reach the 50th NCE (Normal Curve Equivalent - what the average student would achieve at that grade level) in English, when schooled all in English. The authors indicated that there is a category of “disadvantaged young immigrant” the majority of whom do not ever make it to the 50th NCE if they have some or all of the following characteristics:

- Interrupted education with less than two years of schooling in the home country;
• A history of trauma (war, severe neglect of basic physical needs, deprivation, torture, assault, persecution);
• Parent illiteracy and lack of support for standard English literacy in the home

As one can see, the first and second characteristics apply also in some way or degree to many of the older IA children. On the other hand, they have on their side powerful facilitators in their parents: native English speakers, well educated and highly motivated to educate their children. The fact is that a deficiency in cognitive language leads to learning difficulties that may persist, failing to match the comprehensive and relentless efforts of both adoptive parents and educational professionals. More studies are needed to find out the typical "learning curve" and typical “stumbling blocks” in cognitive language mastery by international adoptees. This is the base for constructing effective remedial strategies to reverse the detrimental trend in academic performance related to the cognitive language deficiency in so many internationally adopted children.

Cognitive language incompetence has a strong cultural overtone particularly in relation to the age of adoption. Cognitive language competence requires literally years of practicing this language in a certain cultural context, resulting in what is called in cultural psychology "shared meaning" (Vygotsky, 1987). Such images as Donald Duck or Dennis the Menace, or a tune from the movie Cinderella, are intimate parts of native-speakers' language competency. The lack of these subtle overtones, the lack of commonly shared knowledge of tales, rhythms, songs, stories, cartoons, etc. may impede the language competence of those born and raised outside of the American mainstream. Language mediates social interaction, and those who are less able to understand the subtle meaning conveyed by language or use the pragmatics of language (due to a different cultural/linguistic background or just a neurological-based disorder, e.g. Asperger's) may be less ready for the school experience. Language competency includes the use of the symbols (symbolic representation of objects and processes) that underline literacy, and a child's capacity as symbol user and maker is the best indicator of his/her ability to master reading, writing, and scientific reasoning. Whereas a native speaker has several years of language development before his/her academic language begins to emerge, a school age international adoptee must learn both aspects of the English language almost simultaneously. This learning takes place against the background of a rapid attrition of the first language that prevents a transfer of some linguistic skills from one language to the other. In relation to international adoptees, it should be clearly understood that it usually takes years to reach a cognitive language proficiency comparable to native speakers.

**Cognitive and academic issues**

Poor academic performance is one of the major concerns expressed by adoptive parents of school age international adoptees (Groze & Ileana, 1996; Versluis-den Bieman & Verhulst, 1995; Ames, 1997; Clauss & Baxter, 1997; Judge, 1999, 2003; Meese, 2002). After an initial phase of seemingly rapid new language acquisition and adjustment to their new homes and schools, many IA children have significant difficulty in their academic work, which, in turn, often leads to behavioral and emotional problems. Their
learning difficulties may persist and worsen long past the time when their academic difficulties could be attributed to language and adjustment issues. According to research completed within the last decade, over one-half of all international adoptees in the USA and Canada need either special education placement or academic supportive services within at least the first 2 to 4 years in school (Groze, & Ileana, 1996; Clauss & Baxter, 1997; Fisher, Ames, Chisholm, & Savoie, 1997; Gindis, 1998; Meese, 2002; Judge, 2003). Moreover, as international adoptees progress through the developmental stages and school grades, some of them seem to fall farther and farther behind age norms in their performance on academic tasks and intelligence tests. In too many cases the overall pace of academic progress of international adoptees fails to match the educational opportunities and help provided by their adoptive parents and professionals in different fields.

According to Western European reports, many of them longitudinal studies, (Andersen, 1992; Connor & Rutter, 1999; Dalen, 2001):

- International adoptees have significant academic problems and have higher need for remedial education than do their native-born peers.
- IA children are perceived by teachers as having attention deficit and hyperactivity disorder more often than are their classmates.
- The majority of international adoptees, by the end of formal schooling, reach the average educational level represented by the native-born comparison group and a higher level than the immigrant group of the same age.
- Age at adoption is a significant predictor of level of educational attainment. For those who had arrived in their first years of life the difference in the length of education was less than for those arriving later.

One of the best-known research projects was completed by Dalen (2001). She and her associates studied the school situations of 193 children adopted from abroad, 44% from Korea and 56% from Colombia, and as many Norwegian-born children from the same compulsory school classes, by means of questionnaires to their class teachers (77 of the teachers asked took part in the study). They studied different aspects of “school competence” defined as knowledge, language (communicative language and cognitive language), social ability (cooperation, self-assertion, self-control) and adjustment to school (following school rules, behavioral problems in school). They found that:

- As regards general knowledge and mathematics, the adoptees scored lower than the Norwegian controls.
- This also applied to cognitive language, but not to everyday language.
- Adoptees also scored lower on social ability and its sub-variables, cooperation and self-control.
- There were no differences in following school rules, but the adoptees had more behavior problems, especially hyperactivity (25% as against 11% in the control group).
- The adoptees received more help with homework and greater parental support and special tuition than the control group.
They were more often identified as having been bullied, but were considered by the teachers to have enjoyed school just as much. Nor did they differ from the control group as regards school motivation or work input. The range within the variables was greater for the adoptive group than for the control group. Lower school achievement in the adopted group was explained mostly by limited school (i.e., cognitive) language competence, and hyperactivity.

Current research on the same topic in the United States and Canada is not as comprehensive, but some preliminary results can be formulated. Thus, it was found that although some IA children may be truly learning disabled, some may experience what is called "cumulative cognitive deficit" (CCD), a term coined by psychologist Martin Deutsch in the 1960s (Jachuck & Mohanty, 1974; Cox, 1983). Cumulative cognitive deficit refers to a downward trend in the measured intelligence and/or scholastic achievement of culturally/socially disadvantaged children relative to age-appropriate societal norms and expectations. "The theory behind cumulative deficit is that children who are deprived of enriching cognitive experiences during their early years are less able to profit from environmental situations because of a mismatch between their cognitive schemata and the requirements of the new (or advanced) learning situation" (Satler, 1992, pp. 575-576). According to current research, there are several major constructs of CCD:

- Lack of age-appropriate cognitive skills that results in progressive cognitive/behavioral incompetence. (Haywood, 1987; Sattler, 1992; Das, Naglieri, & Kirby, 1994; Connor & Rutter, 1999).
- Insufficient task-intrinsic motivation in cognitive activities, which may exacerbate attention and memory problems (Haywood, 1987; Gindis, 2001).
- Chronic mismatch between an individual's learning ability and the learning setting, teaching style, or level of instruction (Haywood, 1987; Gindis, 2001).

Cumulative cognitive deficit may cause (or be associated with) certain emotional/behavioral problems. Cognitive difficulty and constant failure "...feeds upon itself in a negative spiraling fashion" (Haywood, 1987, p. 198), which results in low self-esteem, lack of interest in and constant frustration associated with cognitive efforts. Inadequate intrinsic motivation in cognitive activities grows with age and becomes one of the major characteristics of cumulative cognitive deficit (Gindis, 2001). The phenomenon of CCD is attributed to cultural/educational deprivation experienced in the early formative years and is traditionally associated with children from low socio-economic status families (Cox, 1983; Parker, Greer, & Zuckerman, 1988; Duyme, 1988; Duyme, Dumaret, & Tomkiewicz, 1999). The nature, causes, and dynamic of cumulative cognitive deficit in international adoptees, however, may be different in certain aspects from what we know about cumulative cognitive deficit in the population at large, and this uniqueness must be recognized and addressed in our remedial efforts.

Traditionally, in education and in cognitive psychology, the causes of cumulative cognitive deficit have been attributed mostly (if not exclusively) to a "culture of poverty,"
that is, to ongoing cultural/educational deprivation resulting from poverty (Mackner, Starr, & Black, 1997; Duyme, Dumaret, & Tomkiewicz, 1999). In contrast to this “single cause approach,” the determinants of cumulative cognitive deficit in international adoptees may be associated with a combination of medical (e.g. failure to thrive syndrome), socio-economic (neglect, abuse, poor nutrition), and cultural and educational deprivation in early childhood. Consequently, the remedial efforts should be multifaceted.

The subtractive nature of new language acquisition in international adoptees definitely contributes to cumulative cognitive deficit (Gindis, 1999, 2001) and may constitute the “core” factor in cumulative cognitive deficit in post-institutionalized children. The vast majority of international adoptees have deficiencies and delays in their native languages due to the lack or inadequacy of specific social/cultural mediation usually provided by adults during the normal language acquisition period (Dubrovina, 1991; Locke, 1993). This makes it more difficult for them to learn their new language. (Glennen, 2002). It has been suggested that cumulative cognitive deficit in IA children is reinforced during the time when the first language is lost for all practical purposes and second language is barely functional communicatively and not in existence cognitively (Gindis, 1999a; 2001). The overall length of this period depends on the children’s age and many individual differences, but practically all international adoptees adopted after three years of age appear to experience this period, and for some of them it is the time when their cognitive weaknesses are consolidated into cumulative cognitive deficit.

In internationally adopted “older” (school-age) children, there are cultural differences that could contribute to social, cognitive, or adaptive behavior difficulties during the initial adjustment period. Thus, cultural differences may influence the value placed on cognitive activity, the level of intrinsic motivation in cognitive operations, learning behavior in general, and attitudes towards teaching authority (Gindis, 2001). We have to understand that cumulative cognitive deficit in international adoptees is diagnosed against American middle class norms and expectations. The relationship between the cultural differences (in both international adoptees and their adoptive families) and cumulative cognitive deficit should be further explored and explained.

In general, the emotional/behavioral aspect of cumulative cognitive deficit has not been studied and discussed in related literature, with the notable exception of Haywood’s (1987) article. There is, however, a strong correlation between cumulative cognitive deficit and different forms of emotional and conduct disorders in international adoptees. It is difficult to differentiate at times the primary (is it mostly cognitive?) and secondary (is it mostly emotional?) disabilities in an internationally adopted child referred for “academic” problems. Further research is needed to sort out the relationship between the cognitive and emotional factors in international adoptees’ school functioning. It appears likely that emotional/behavioral and cognitive/language difficulties, tightly intertwined, constitute a very important characteristic of cumulative cognitive deficit in post-institutionalized children.
Most internationally adopted children now live in middle-class families with well-educated parents. Probably for the first time in the history of cumulative cognitive deficit (CCD) families themselves do not constitute ongoing contributing factors to CDD; on the contrary, they may be considered powerful remedial factors. Due to the adoptive parents' sensitivity to and awareness of possible learning problems in international adoptees and because of higher parental expectations in this respect, symptoms of cumulative cognitive deficit are reported earlier and are subjected to professional attention. In most international adoptees, the cumulative cognitive deficit phenomenon creates a situation of “too slow progress” in regard to the intensity of remedial efforts. It may appear as if many IA children are “racing against time,” unable to catch up with age-level academic standards. Because of the discrepancy between steadily rising academic requirements and relatively slow cognitive and language growth in international adoptees, the overall trend seems to be a “downward” one. The question of great practical significance for many adoptive families as well as school professionals is to what extent cumulative cognitive deficit can be remedied and what are the most promising treatments to overcome such a deficit.

With international adoptees, remedial efforts should be as diversified as the causes of their cumulative cognitive deficit. Thus, from a pediatric perspective, rehabilitation strategies for cognitive problems are concentrated on medical intervention, proper nutrition, and vitamin supplements (Miller, 2004). Nutritional intervention is a necessary but not sufficient mode of treating cognitive and academic difficulties in general and cumulative cognitive deficit in particular. Current scientific data demonstrate that adequate medical and nutritional intervention alone produces no changes in intellectual development and may not restore developmental functions to the right track of timely development (Mackner, et al., 1997; MacLean, 2003). The overall body of research data indicates that the cognitive difficulties due to early malnutrition and environmental deprivation are treatable only through interventions that include nutritional, medical, and developmental/educational components.

Although currently our experience with international adoptees having cumulative cognitive deficit is limited, there are some research data, as well as practical "know-how," that relates to cumulative cognitive deficit in the population at large. One of the remarkable findings is that "traditional" remediation (that is, more intense work individually or in a small group using basically the same teaching methodology as in the classroom) is not effective or at times may be counterproductive in attempts to overcome cumulative cognitive deficit (Das & Conway, 1992). Cumulative cognitive deficit has the complex nature of an interweaving of internal (language, cognition, motivation) and external variables, including teaching methods, learning environment, and peer interaction. This complexity makes the phenomenon a challenge for educators. To complicate the picture further, due to the “summative” nature of cumulative cognitive deficit it may not be found in the early stages of a child's educational experience. It takes time for cognitive deficits to become "cumulative;" therefore, when cumulative cognitive deficit is properly diagnosed, it may not be responsive to even heroic efforts from parents and school alike if they use traditional remediation methods.
One of the possible explanations of the reduced effectiveness of the mainstreamed remedial methodology may be that the cognitive deficiencies in international adoptees are deeply rooted in early childhood experience. All cognitive abilities are developmentally hierarchical, that is, the appearance of more complex cognitive structures rests upon the prior appearance of simpler cognitive components (Piaget, 1971; Vygotsky, 1987). Traditional remediation “assumes” the presence of the appropriate base in cognition upon which one tries to build the compensatory structures. The lack of the proper cognitive foundation constitutes a major source of difficulty in reversing the negative trend in cumulative cognitive deficit. Effective and appropriate teaching methods are critical elements in remediation of children with CCD.

Both research and practice point to "cognitive education" as one of the effective methods of remediation of cumulative cognitive deficit in international adoptees. There are many "cognitive education" approaches created for different age groups. A review of these methods in social/cultural context can be found in Gindis (1999b, 2003). Among the most well known are Instrumental Enrichment (Feuerstein & Gross, 1997), Bright Start (Haywood, et al., 1992), PASS Remedial Program (Das, Carlson, Davidson, Longe, 1997), and Cognitive Instruction System (Kirby & Williams, 1991). All these (and other) different systems of cognitive remediation are based on the assumption that cognitive processes are acquired mental operations that can be mastered through appropriate learning. In this respect "cognitive" is different from "intellectual" (the former is said to be learned while the latter is seen as “native ability that is largely genetically determined” (Haywood, 1987, p. 193). The efficiency of learning cognitive skills depends, of course, on "inborn" intellectual capacity; however, the learning environment has at least comparable significance and tremendous remedial potential. "Cognitive education" methodology assumes that whereas children with cumulative cognitive deficit have difficulty in generating cognitive strategies spontaneously, they can be taught how to create cognitive algorithms and to apply them to cognitive tasks. Through carefully crafted methods, they may be taught to inhibit impulsive responses, to analyze problems using certain "algorithms," and to experiment mentally with alternative possible solutions to problems. In other words, they must be specifically taught "how to learn" (this is the core of cognitive education) and how to apply their learned cognitive skills ("generalization" of cognitive processes). In order to compensate for the detrimental effect of cumulative cognitive deficit in international adoptees, cognitive intervention must be age-appropriate, well-planned, and persistent. It should be applied through four closely connected directions, suggested by Haywood (1987): (a) enriching cognitive language, (b) teaching specific cognitive processes (thus increasing cognitive competence), (c) facilitating task-intrinsic motivation, and (d) providing appropriate (optimal) learning settings.

**Conclusion**

International adoption as a significant social/cultural phenomenon of American life accelerated in the last two decades of the 20th century. It is on the rise, and in the foreseeable future its importance will be experienced by families and institutions alike across several nations. The number of foreign children adopted by U.S. parents has
increased sharply since the early 1990s, and this factor contributes to the United States’ racial and ethnic diversity and links to foreign countries.

The issue of institutional effects on children has tremendous practical significance. Unfortunately, there is no hope that in the future all children will be raised in their own families; therefore, institutional care is not a choice but a necessity. It is commonly understood now that children who have spent any appreciable time in institutional care are at risk for cognitive deficiencies, developmental delays, and psychological problems. Although we may not know which specific factor or factors of institutionalized life is/are the most damaging to the cognitive abilities of children of a certain age, the increasing body of research and clinical experience points to cultural deprivation (in the most common form of extreme educational neglect) as one of the leading detrimental conditions. We are only at the beginning of understanding this phenomenon: parents and educators alike are facing a new frontier, navigating uncharted waters. The fact that the majority of international adoptees are able to benefit from their new environment, to recover from the detriments of their past, and to flourish in their new homes suggests the presence of some protective factors that facilitate their resilience. A study of resilience in IA children may help us to understand why the same protective factors fail with so many other internationally adopted orphans. Culturally sensitive, age-specific, and persistent cognitive intervention should be applied to reverse the detrimental trends in intellectual and academic performance of international adoptees. Cognitive education, particularly in the field of remediation and special education, is currently one of the most promising approaches. In order to make this approach more effective, the specificity of international adoptees should be taken into consideration and existing methods should be appropriately modified and adjusted to meet the challenges presented by this group of students in our schools. As observed by Haywood (1987, p. 194): "Enhanced learning of cognitive processes (including operations and strategies) may lead to improved effectiveness in the learning of other contents and of social behavior." Thorough research is needed to guide our practical work with this "at-risk" group of students.

References


Résumé

Des Enjeux Cognitifs, Langagiers, et Éducatifs chez les Enfants Adoptés dans des Orphelinats à l’Étranger

Au delà de deux cent mille enfants provenant des orphelinats à l’étranger ont été adoptés aux États-Unis au cours des deux dernières décennies. Des résultats de recherche et des expériences cliniques par rapport au langage, à la cognition et aux enjeux scolaires des enfants adoptés post-institutionnalisés dans le contexte culturel nord-américain sont discutés. Des conceptualisations théoriques de Vygotsky et de Feuerstein ont servi de paradigme principal pour des composantes psycho-éducatives et de rémédiation se rattachant aux enjeux culturels chez ceux et celles qui sont adoptés sur le plan international. L’assimilation linguistique et la dynamique de l’acquisition de l’anglais sont considérées en terme de transculturalité. La spécificité de l’accumulation d’un déficit cognitif (ADC) chez ceux qui sont adoptés au niveau international est en lien avec une institutionnalisation prolongée, un manque de médiation culturelle à la petite enfance et une perte profonde de la langue première. L’enjeu de la rémédiation est examiné en mettant l’accent sur une formation cognitive dans un contexte d’acculturation.

Resumen

Desarrollo Cognitivo, Lingüístico, y Educativo de Niños Adoptados Procedentes de Orfanatos de Ultramar

A lo largo de las dos últimas décadas alrededor de doscientos mil niños procedentes de orfanatos de ultramar han sido adoptados en los Estados Unidos. En el artículo se discuten los hallazgos de la investigación y de experiencias clínicas acerca del desarrollo lingüístico, cognitivo y académico de niños postinstitucionalizados internacionalmente en el contexto cultural norteamericano. Las concepciones teóricas de Vygotsky y de Feuerstein se utilizaron como el principal paradigma psicoeducativo para interpretar los componentes de intervención de las culturas internacionales adoptadas. La pérdida progresiva de la lengua nativa y las dinámicas
seguidas en el proceso de adquisición de la lengua inglesa son consideradas en el contexto de la transculturalidad. La investigación demuestra que la especificidad del déficit cognitivo acumulativo (CCD) que se observa en las adopciones internacionales está relacionada con la institucionalización prolongada, con la falta de mediación cultural en la temprana infancia y con una pérdida profunda de la lengua nativa. Los resultados del programa reeducativo son examinados haciendo énfasis en la educación cognitiva en el contexto de la aculturización.

Zusammenfassung

*Kognitive, sprachliche und auf die Erziehung bezogene Belange von Adoptivkindern aus überseeischen Waisenhäusern*


Die Spezifität eines kumulativen kognitiven Defizits (CCD) bei international adoptierten Kindern wird mit verlängerter Institutionalisierung, einem Mangel an kultureller Mediation in der frühen Kindheit und einem tiefgehenden Verlust der Ursprungssprache in Zusammenhang gebracht. Der Aspekt der Remediation wird unter Betonung kognitiver Edukation im Kontext von Akkulturation betrachtet.

Abstract Italiano

*Problematiche Cognitive, Linguistiche ed Educative in Bambini Adottati da Orfanotrofi Stranieri*

Negli ultimi vent’anni sono stati adottati negli Stati Uniti oltre 200.000 bambini provenienti da orfanotrofi stranieri. Si presentano i dati di ricerca e le esperienze cliniche in merito alle problematiche cognitive, linguistiche ed educative di bambini post-istituzionalizzati provenienti da adozioni internazionali nel contesto culturale nordamericano. Tali tematiche vengono discusse utilizzando come paradigma di riferimento in ambito psico-pedagogico ed educativo il
contributo teorico di Vygotsky e di Feuerstein. L’erosione della lingua madre e le dinamiche dell’acquisizione della lingua inglese sono state considerate nel contesto della transculturalità. La specificità del deficit cognitivo cumulativo (cumulative cognitive deficit, CCD) nei bambini provenienti da adozioni internazionali è legato alla prolungata istituzionalizzazione, alla mancanza di mediazione culturale nella prima infanzia, e alla grave perdita della lingua madre. Il tema dell’intervento educativo viene affrontato con particolare attenzione all’educazione cognitiva nel contesto dei processi di acculturazione.