

## Alternative Conceptions of Intellectual Functioning<sup>1</sup>

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*Abstract.* Research which discusses group differences in intellectual functioning utilizes a very limited definition of intelligence. Intelligence is not assessed within cultural context, and little regard is paid to intellectual activities which do not involve the manipulation of abstract concepts. This orientation de-emphasizes the potential development of other human capacities which might be even more helpful in adapting to or advancing our civilization by emphasizing child-rearing patterns aimed primarily at the development of abstract thought.

*Key Words*  
Cross-cultural  
Intellectual functioning  
Cultural relativism  
Abstract thinking  
Nonintellectual capacities  
Child rearing

Most researchers who discuss group differences in intellectual functioning have adopted a definition of intelligence which is considerably more limited than the typical dictionary definition in which intelligence is described as the 'capacity for understanding and for other forms of adaptive behavior' [American College Dictionary, 1959]. Researchers have defined a set of arbitrary tasks - most of which involve the manipulation of abstract concepts - and have assessed the abilities of people from widely different experiential backgrounds to complete these tasks. This approach to developmental psychology is consistent with the 'capitalistic' orientation of Anglo-American countries, in which all individuals are evaluated against single standards, and are seen as being in competition against each other [Riegel, 1972]. This orientation limits our understanding of intellectual development in several ways.

<sup>1</sup> We would like to thank the Department of Psychology of the State University of New York at Buffalo, especially Dr. MURRAY LEVINE, for providing the opportunity for us to meet and collaborate on the present paper.

First, little attention has been paid to the relation between the 'experimental tasks' and the skills needed for 'adaptive behavior' in one's own culture or reference group. COLE *et al.* [1971], for example, found that American adults performed more poorly than nonliterate Kpelle (Liberian) farmers on a task involving the sorting of leaves into categories based on whether the leaves were from vines or trees. This says nothing about Americans' 'capacity for understanding and for other forms of adaptive behavior'. Similarly, FJELLMAN [1971] compared schooled and unschooled Akamba (Kenyan) adolescents and found that when classifying geometric shapes the schooled subjects used more abstract, and the unschooled more concrete, principles of classification. This, of course, supports previous research [BRUNER *et al.*, 1966] demonstrating that schooling is related to the development of abstract thinking skills. However, FJELLMAN [1971] also had subjects classify animals – a task which is more closely tied to 'adaptive behavior' in Akamba life. On this task, she found that the unschooled children used more abstract (e.g. domestic vs. wild) and the schooled more concrete (e.g. color) classifying principles. Thus their respective positions in the developmental sequence are reversed depending not even on the nature of the task but merely on the objects to be operated upon. The failure of many researchers to examine the 'cultural relevance' of their experimental tasks has led to questionable statements of fundamental differences in thinking among different populations. This argument is pursued in more detail below.

A second, more basic, question is whether the Western world's emphasis on the mastery of abstract conceptual skills has blinded us to the potential development of other capacities which might be even more helpful in 'adapting' or in 'advancing' our civilization. Maybe, in fact, the groups that are deficient on various arbitrary 'intellectual' tasks devised by psychologists, are in fact deficient only in relation to these tasks, or to certain classes of objects, or to objects in general, or to the printed word. These same groups may prove to be superior in handling conceptual problems of a psychological, social or even sociological nature, and this ability may prove to be more crucial by far for continued human adaptation and survival.

In the section below, we present some alternative perspectives on Western man's (or more precisely, the Western psychologist's) definition of intelligence. In the following section we will describe instances in which researchers in the United States have failed to recognize possible alternative explanations for the results they have reported, and thus contributed to the development of biases which continue to have an impact on psychology.

### *Varieties of Intelligence*

#### *Inductive Processes of Conceptualization*

Substantial evidence has recently emerged which demonstrates the existence of sophisticated knowledge in several fields of science among primitive cultures. The time-honored notion that 'primitive man' lives in a state of total ignorance completely hedged by superstition, is simply no longer tenable. LEVI-STRAUSS [1966] has summarized the evidence for an encyclopedic knowledge about plants in many 'primitive' societies. Interestingly, he points out that this knowledge had to be discovered by botanists. The anthropologists and missionaries who had reported on nonliterate botanical science simply did not know enough botany to assess what their subjects knew. Similarly, in a recent study among the Kalahari Desert Bushmen [BLURTON JONES and KONNER, 1972], several ideas about nonliterate science were formulated. In terms of industrial technology and other Western concepts of progress, the Kalahari Bushmen are the most 'backward' to be found anywhere in the world today. Yet the range and exactness of their knowledge of animal behavior, including some of the most recent findings of scientists in Africa, is substantial. What struck the investigators most emphatically was the *method* of obtaining and assessing this knowledge. This method was unmistakeably similar to what we know as science.

A series of seminars was conducted to gather information about the thinking of the Bushmen regarding animal behavior. They were attended by BLURTON JONES (an ethologist), KONNER (an anthropologist), and from four to seven Bushmen experienced and knowledgeable in hunting. As scientific discussions the seminars were among the most stimulating the Western observers had ever attended. Questions were raised and tentative answers (*hypotheses*) were advanced. Hypotheses were always labeled as to the degree of certainty with which the speaker adhered to them, which was related to the type of data on which the hypothesis was based. For example, the Bushmen differentiated among the following types of evidence: (1) I saw it with my eyes; (2) I didn't see it with my eyes but I saw the tracks. Here is how I inferred it from the tracks; (3) I didn't see it with my own eyes or see the tracks but I heard it from many people who saw it (or a few people who saw it, or one person who saw it); (4) It's not certain because I didn't see it with my eyes, or talk directly with people who saw it. The men frequently challenged each other's views, and discussions proceeded to more or less certain conclusions. To summarize: the natural world was observed;

hypotheses about its details and relations among them were advanced, these were allocated to different levels of certainty depending on how they were induced; the induction procedure was specified; competing hypotheses were advanced and belief allocated between them in accord with the same rules; some conclusion was reached, even if just an agreement that the problem had yet to be solved; such conclusions were remembered and communicated to others. In other words, the resulting body of knowledge was detailed, wide-ranging, and accurate.

In retrospect, it is not so surprising. Human survival has depended upon this kind of knowledge for five million years. One would expect people to have arrived at a good method of getting it, and scientific induction and hypothesis-testing is, of course, a good method. What is surprising is that some observers believe such faculties of mental process to be the domain of industrial man alone. Do they imagine that a few centuries of physics and chemistry have abruptly transformed the human brain so as to make it capable of science? All that we know about evolution makes this notion unacceptable. Indeed there would have had to be some characteristic of man's environment of evolutionary adaptedness, the hunting and gathering way of life, which would cause a brain with these inductive and analytic capacities to evolve. The above-described acquisition of knowledge about animals, which is not restricted to the Bushmen (LAUGHLIN [1968] describes similarly sophisticated knowledge among the Eskimo) certainly contributed to this selection pressure. But one can see that the need to improve the process of hunting itself was also important. The process of tracking, specifically, involves patterns of inference, hypothesis-testing and discovery that tax the best inferential and analytic capacities of the human mind. Determining, from tracks, the movements of animals, their timing, whether they are wounded and if so how, and predicting how far they will go and in which direction and how fast, all involve repeated activation of hypotheses, trying them out against new data, integrating them with previously known facts about animal movements, rejecting the ones that do not stand up, and finally getting a reasonable fit, which adds up to meat in the pot.

Man is the only hunting mammal with a poorly developed sense of smell. He could only have come to hunting through intellectual evolution. If this argument is valid, the notion that different human groups could have different inductive capacities would be inherently illogical, since all groups have shared the same five million years of hunting, and whatever has happened since plays a relatively insignificant role in terms of time – and time is what is needed for brain evolution to take place.

### *Noninduction Processes of Conceptualization*

There are also several categories of noninductive thinking which have been institutionalized in nonliterate, or at least non-Western, cultures just as inductive inference and syllogistic deduction have in Western science. Although these types of thinking are often ignored by psychologists, or thought of as 'primitive' mental processes, it can be argued that they also represent advanced forms of mental functioning.

*Animistic thought.* MARGARET MEAD [1932], in a classic paper describing what was surely one of the first Piaget-based cross-cultural studies, discusses an experiment conducted among the Manus people of the Admiralty Islands. The experiment was designed to test the notion of PIAGET, LEVY-BRUHL, WERNER, and others that 'primitive' systems of thought, in this case *animism*, were similar to the thought of children, and that animism is a primary stage in the development of reality-based thinking. MEAD [1932] found that animistic thought occupied a large part in the mental life of Manus adults. This included a belief in ghosts ('ghosts occupy fully a third of adult thought and conversation'), a belief in supernatural animals which cause illness, and the imputing of intent to inanimate objects. MEAD [1932] also observed and tested 41 children in various standard situations, collected 32,000 drawings, and administered an inkblot interpretation test. The children ranged in age from 3 to prepubertal.

The results were consistent in demonstrating that the animistic ideas which figure so prominently in the thought of Manus adults play no part whatsoever in the thought of Manus children. Children virtually never produced the animistic explanations of natural phenomena codified by the culture. In fact they often ridiculed them. The experiment demonstrates that animistic thinking is not the only type of thinking which primitive people are capable of; in fact these thought patterns must be acquired in the course of growing up. More generally, adult nonliterate animism cannot be considered a holdover from childhood thought patterns, but on the contrary must be considered and investigated as an independent system of advanced abstract thought. The elaborate nature of adult Manus animistic thought is itself worthy of study [MEAD, 1932].

*Kinship systems.* For some decades the main subject matter of social anthropology has been kinship, or nonliterate systems of classifying people in accordance with established rules of blood and marriage relation [LEVI-STRAUSS, 1969]. Functions of kinship systems include smoothly distributing women over a field of potential husbands, governance of corporate land tenure, economic distribution through systematized gift-giving, inheritance of wealth, status and responsibility, and allocation of children to caretakers.

Kinship considerations occupy a much more prominent place in the thought of 'primitive' people than in our own, because for us these functions are discharged by a decision-making hierarchy. Kinship systems are variable in the exact nature of their specifications and also in the degree of their complexity. The most complex, such as the multi-section marriage-class systems of Australia, have long caused ethnographers to throw up their hands in despair after many efforts at understanding [ELKIN, 1964]. Even relatively simple ones, like that of the Zhun/twa Bushmen, may provide evidence of complex thought processes.

Studies based on cognitive tests [BUTLER *et al.*, 1966] have called into question the ability of nonliterate peoples to reclassify a set of objects in more than one way, an ability effecting one of the higher stages of PIAGET's concrete operations. Other studies have argued that this finding is partially explained by the unfamiliarity of the material to be classified [COLE *et al.*, 1971]. One need not even administer tests, however; the very basis of the Bushmen and other kinship systems lies precisely in its classification of the same human 'objects' in two separate ways according to very distinct principles. The first is an ordinary reckoning of kinship through blood and marriage, with a classification of individuals according to degrees of these relations. The second is a fictive system based on the *name* relation. This gives a person a special relationship to a child who takes his name. This child then addresses his namesake's relatives as if they were related to him in the same way they are to his namesake. Since his namesake is usually related to him in the first place, this results in his addressing and conceptualizing each of the people in his social world as having two relations to him. Thus, his great-aunt may be his mother, with both relations having significance.

It would be of obvious interest to examine the acquisition of this dual classification system in the growing child, but this is only one of many studies which might be done concerning the cognitive structure of kinship systems and how they are developed and learned.

*Totemism and myth.* Subsequent to his studies of kinship, LEVI-STRAUSS [1963, 1966] turned his attention to other aspects of primitive thought, specifically to totemism and myth. In the course of this work he has developed a number of theories about how 'primitive' thought functions, and made an effort to show that much of Western thought works, or could work, the same way. He presented a new solution to the anthropological problem of totemism by suggesting that totems themselves do not directly represent the human groups using their names, but instead, the *relationship* among these groups is symbolized by the relationship among the totems. This type of system utilized the thought process, familiar from intelligence test problems, 'A is to B as C is to...?'. Later LEVI-STRAUSS [1966] extended this principle to many other aspects of 'primitive' thought, especially in the area of myth. He appears to have unearthed a great complexity of thought processes somewhat foreign to our own, and begun the task of describing them.

It would seem appropriate for cognitive and developmental psychologists to turn part of their attention to his work, to try to understand 'savage' thought in psychological terms, and to begin the serious study of how such thought develops in the child. Such research would replace the glib psychological presumption that 'savage' thought is at a lower stage of development with a real understanding of how these complex mental systems grow out of their own lower stages, perhaps in a kind of sequence very different from our own.

*Zen.* Some non-Western systems of thought involve methods for de-activating 'normal' thought processes. One of these is Zen [WATTS, 1957]. In this view, the goal of understanding is achieved through a kind of perception which is held to be incompatible with hypothetico-deductive thinking. It is a perception achieved through *not* thinking. The latter is not a simple task related to laziness but is on the contrary the result of a complex mental discipline. Like the most advanced forms of deductive and inductive thought, it requires extreme concentration and the shutdown of most normal mental process (which is largely associative) to avoid distraction. Thought processes are relaxed to produce

heightened perception (and the knowledge that results from heightened perception). MACCOBY and MODIANO [1966] noted that people socialized into the modern industrialized world often lose the ability to experience. 'They are', the authors suggested, 'like people who see a painting immediately in terms of its style, period, and influences but with no sense of its uniqueness'. In view of these other routes to knowledge, the imbalance in our educational system in favor of scientific and other analytic thought processes may be questioned.

*The feeling side of man.* A specialized use of associative thinking which is important to certain processes in art but which also has many applications outside art is thinking about feelings. Progress in the understanding of feelings is impeded by efforts to think about them strictly 'scientifically', that is, using modes of thought designed to function best in the absence of feelings.

In the recent resurgence of American black culture, with its attendant anti-white feeling, the point has been repeatedly stressed that some blacks find whites to be inferior in their ability to think about and acquire knowledge about feelings and, in a related way, about people. This point is summarized in the concepts of 'soul' and 'hip' [CLEAVER, 1968; MAILER, 1959]. JAMES BALDWIN wrote in *The fire next time* [quoted by CLEAVER, 1968]: 'White people cannot, in the generality, be taken as models of how to live. Rather, the white man is himself in sore need of new standards, which will release him from his confusion and place him once again in fruitful communion with the depths of his own being' (p. 65).

What is needed is to get knowledge about one's self, about one's deepest feelings, about how to live. The black psychiatrist FRANZ FANON [1968] has written: 'All European thought has unfolded in places which were increasingly more deserted and more encircled by precipices; and thus it was that the custom grew up in those places of very seldom meeting man. A permanent dialogue with oneself and an increasingly obscene narcissism never ceased to prepare the way for a half delirious state, where intellectual work became suffering and the reality was not at all that of a living man, working and creating himself, but rather words, different combinations of words, and the tensions springing from the meanings contained in words' (p. 313). This view, again, finds Western thought wanting in its ability to deal with human beings and human problems: 'The custom grew up in those places of very seldom meeting man.'

Third World spokesmen in general view Western thought as appallingly excellent when applied to problems of strictly 'intellectual' concern, but totally and absurdly helpless when applied to human concerns or feelings. One example is an interesting experiment recently reported by MADSEN [1971], who found a higher level of cooperation among Mexican than among Anglo-American children. MADSEN [1971] also reported an increase in maladaptive competition with age among the Anglo-American. Other researchers [MACCOBY and MODIANO, 1966] have noted that our socialization patterns may be producing children who exchange 'a spontaneous, less alienated relationship to the world for a more sophisticated outlook which concentrates on using, exchanging, or cataloguing... (They have warned that) what industrialized man gains in an increased ability to formulate, to reason, and to code the ever more numerous bits of complex information he acquires, he may lose in decreased sensitivity to people and events' (p. 269).

A final piece of testimony comes from KENNETH KAUNDA [1966], the President of Zambia. He has remarked that the thing that most surprised and shocked him on his

first visit to Europe was the existence of old age homes. He wrote that when the first old age home appears in Zambia, Zambians will know that their goal – achieving progress while retaining their humanity – has failed. We rarely think about old age homes, while an African leader finds them evidence of the most basic human and *intellectual* failure. We do not think about them, probably because they are too hard to think about, because we have not been trained to focus the resources of our intellects on problems which call into play so many deep feelings. It is in such matters that Western thought has a great deal to learn from studying non-Western thought systems, which have long specialized in thinking about human beings and in thinking about feelings. Such study has barely begun.

### *Effects of Ethnocentrism on Research<sup>2</sup>*

Psychology's reliance on the norms of the white middle-class as standards against which to measure other groups has produced a biased picture of the strengths and weaknesses of various subgroups in the United States. This philosophy also impeded the advancement of developmental psychology by encouraging studies which simply compare different groups on various dependent variables with meager, if any, attempts to understand the *processes* by which these skills develop.

### *Need for Cultural Relativism*

One issue of current interest to psychologists is whether black ghetto residents are less able to communicate verbally, or are simply less proficient in 'Standard English'. Some studies have shown that lower-class subjects are verbally deficient, and the deficits are 'not entirely attributable to implicit "middle-class" orientations' [KRAUSS and ROTTER, 1968]. Other experts argue that Black English is a fully-formed linguistic system in its own right, with its own grammatical rules and unique history [BARATZ and SHUY, 1969; DILLARD, 1972; LABOV, 1967; STEWART, 1967, 1969a]. These critics state that black language is 'different from standard American English, but no less complex, communicative, rich, or sophisticated' [SROUFE, 1970]; and argue that research reporting language 'deficits' among black children reflects only the middle-class orientation of the research instruments and procedures. Supporting this argument, BIRREN and HESS [1968] concluded that, studies of peer groups in spontaneous interaction in Northern ghetto areas show that there is a rich verbal culture in constant use.

<sup>2</sup> This discussion is taken largely from S.R. TULKIN, *An analysis of the concept of cultural deprivation*. *Develop. Psychol.* 6: 326-339 (1972).

Negro children in the vernacular culture cannot be considered "verbally deprived" if one observes them in a favorable environment – on the contrary, their daily life is a pattern of continual verbal stimulation, contest, and imitation' (p. 137).

Similarly, CHANDLER and ERICKSON [1968] observed *naturally occurring* group interaction and reported data which argues against the findings of BERNSTEIN [1960, 1961] and others that middle-class children more commonly use 'elaborated' linguistic codes while lower classes typically speak with 'restricted' codes. CHANDLER and ERICKSON [1968] found that the use of 'restricted' or 'elaborated' linguistic codes was not as closely related to the social class of speakers as had been suggested by other researchers. 'Both inner city and suburban groups... were found to shift back and forth between use of relatively "restricted" linguistic codes and relatively "elaborated" codes. These shifts were closely related to apparent changes in the degree of shared context between group members... Examples of extremely abstract and sophisticated inquiry among inner city Negro young people were found in which a highly "restricted" linguistic code was employed. The use of "concrete" terms by Negro young people does not appear to necessarily limit inquiry, since the concrete terms are often employed in describing examples of actual behavior which are selected to illustrate an unstated "abstract" proposition' (p. 2).

If Black English and Standard English are simply different languages, one cannot be seen as more deficient than the other [SROUFE, 1970]. Most schools, however, demand that students use Standard English, and frequently black children who have been classified by their schools as 'slow learners' are able to read passages of Black English with amazing speed and accuracy [STEWART, 1969b]. Similarly, FOSTER [1969] found that the introduction of nonstandard English dialect increased the ability of 10th grade disadvantaged students 'to comprehend, to recall, and to be fluent and flexible in providing titles for verbal materials'. Black students also scored higher than white students on FOSTER's [1970] Jive Analogy Test<sup>3</sup>. WILLIAMS and RIVERS [1972] have also reported that black children who were administered a 'dialect-fair version' of Basic Concepts scored significantly higher than a control group of children who were administered the standard version.

This argument does not imply that the teaching of Standard English is an infringement of the rights of minority cultures. It is necessary that students learn Standard English, but there is a difference between emphasizing

<sup>3</sup> H.L. FOSTER, personal communication to S.R. TULKIN (1971).

the development of positive skills which may facilitate a successful adaptation to a particular majority culture, versus devaluing a group of people who may not emphasize the development of these particular skills. As BARATZ and BARATZ [1970] suggested, research should be undertaken to discover the different but not pathological forms of minority group behavior. 'Then and only then can programs be created that utilize the child's differences as a means of helping him acculturate to the mainstream while maintaining his individual identity and cultural heritage' (p. 47).

*Parent-Child Interaction.* Another example of the lack of cultural relativity is found in studies of parent-child interaction. The guiding philosophy of many researchers seems to be that (a) optimal development consists of the skills possessed by middle-class children in the United States; and therefore, (b) all mothers should interact with their infants in the style of US middle-class mothers. Both of these assumptions are questionable.

It is interesting that social scientists are reasonably tolerant of child-rearing practices observed in other cultures which would be devalued if reported in a minority group in the United States. REBELSKY and ABELS [1969], for example, observed American and Dutch mothers with their 0-3-month-old infants. They found that a Dutch baby typically slept in a low closed bed with a canopy overhead. Dutch mothers kept the infant's room cool 'for health reasons' - necessitating infants being 'tightly covered under blankets, often tucked into the crib with strings from their sheets'. Further, the authors reported comparisons showing that 'American mothers looked at, held, fed, talked to, smiled at, patted, and showed more affection to their babies more often than did Dutch mothers'. These findings, however, were not used to condemn Dutch mothers. The authors related the differences in parental behavior to cultural variations in the parents' conceptions of infancy. For example, they noted that: 'Even if a (Dutch) parent sees a child awake and waiting to play or look around, he is not likely to respond to this wish or to the behavior which implies that wish because of fear of "spoiling" the baby (stated by 9 of the 11 mothers in Holland), an expression of the belief that a baby in this age range should sleep as much as possible' (p. 139, p. 146-147).

REBELSKY and ABELS also revealed that Dutch infants had fewer toys with which to play. By 18 months of age, almost half of the Dutch babies still had no toys within sight or to reach. The authors explained that Dutch mothers were concerned that 'toys might keep the babies awake, or overstimulate them'. There were also cultural differences in the mothers' reactions to their infants crying. 'Crying meant a call for help to US mothers; they often reported lactating when they heard the cry. In Holland, crying was considered a part of a baby's behavior, good for the lungs and not always something to stop. In addition, though a mother might hear the cry in Holland and interpret it as a hunger cry, she still would not respond if it was not time for the scheduled feeding' (1969, pp. 7-8).

REBELSKY and ABELS [1969] did not suggest that Dutch mothers were rejecting or depriving their infants. They did not argue that intervention was necessary to change the patterns of mother-infant interaction. They concluded, instead, that both US and Dutch cultures 'may be training very different kinds of people, yet with each culture wanting the ones they produce'. Such data reported for a group of lower-income American

mothers might be followed by a call for a massive intervention program, or possibly the removal of the infants from their homes.

A similar cultural comparison was reported by CAUDILL and WEINSTEIN [1966, 1969] who investigated maternal behavior in Japan and the United States. The authors reported that American mothers talked more to their infants, while Japanese mothers more frequently lulled and rocked their infants. These differences were seen as reflecting different styles of mothering. 'The style of the American mother seems to be in the direction of stimulating her baby to respond... whereas the style of the Japanese mother seems to be more in the direction of soothing and quieting her baby' (1966, p. 18).

In both cultures, the 'style' of mothering was influenced by the prevailing conception of infancy. CAUDILL and WEINSTEIN [1969] reported that in Japan 'the infant is seen more as a separate biological organism who from the beginning, in order to develop, needs to be drawn into increasingly interdependent relations with others. In America, the infant is seen more as a dependent biological organism who, in order to develop, needs to be made increasingly independent of others' (p. 15).

American mothers, following their conception of infancy, pushed their infants to respond and to be active; Japanese mothers, also following their conception of infancy, attempted to foster reduced independent activity and greater reliance on others. As a part of this pattern, the Japanese tended to place less emphasis on clear verbal communication. CAUDILL and WEINSTEIN [1969] reasoned that 'such communication implies self-assertion and the separate identity and independence of the person' which would be contrary to the personality which Japanese mothers were attempting to build into their children. Thus, in Japan, as in Holland, mothers related to their infants in a manner consistent with their beliefs and values.

CAUDILL and WEINSTEIN [1969] also reported data showing that according to American 'standards', the Japanese infants might be considered 'deficient'. They engaged in less positive vocalization and spent less time with toys and other objects: 'The Japanese infant', they said, 'seems passive - he spends much more time simply lying awake in his crib or on a *zabuton* (a flat cushion) on the floor.' The authors further reported that a study by ARAI *et al.* [1958] found that - compared to American norms - Japanese infants showed a steady decline on tests of language and motor development from 4 to 36 months of age. CAUDILL and WEINSTEIN [1969], however, remained relativistic. They commented that although ARAI *et al.* [1958] seemed somewhat distressed that the 'Japanese mothers were so bound up in the lives of their infants that they interfered with the development of their infants in ways which made it difficult to meet the American norms', they did not share the Japanese authors' concern: 'We do not believe that the differences we find are necessarily indications of a better or a worse approach to human life, but rather that such differences are a part of an individual's adjustment to his culture.' Again, it is doubtful if the same conclusion would have been reached were the data collected from a minority subculture in the United States.

Another report of mother-infant interaction [KONNER, in press] notes that children of the Kalahari Bushmen receive much more physical contact from their mothers than do American infants. Compared to the Bushmen, the American infants could be considered to be 'deprived' of physical stimulation. KONNER notes, however, that the infants' experiences in each culture are related to the nature of the culture: The Bushmen infant is growing up in a world where survival arises from mutual economic dependence, whereas the world of the American infants favors competition and independent mobility.



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*Jewish subcultures.* A final example of the need for cultural relativism involves a study of Ashkenazic and Sephardic Jews in Brooklyn [GROSS, 1967]. Both groups were solidly middle class, and lived only two blocks apart. Both had been long-established in this country and spoke English in their homes. On entering school, however, the Sephardic children averaged 17 points lower on a standard IQ test, a 'deficit' similar to that often reported for black Americans.

The author pointed out that it is generally assumed that inferior performance in school necessarily reflects deprivation and lack of opportunity. He argued, on the contrary, that each culture has its own ideas of what is important – some emphasize one skill, some another. Despite their children's lower IQ scores the Sephardic mothers were not deprived, however one defines the term: In many cases they had maids, and country homes. The Sephardic mothers were all native born, high school graduates, and none worked. The children were raised with privilege, money and comfort, but their level of academic readiness was similar to that of their underprivileged Israeli counterparts.

GROSS [1967] explained that the difference was related to cultural tradition: The two communities represented different routes into the middle class – the Ashkenazim through success in school and the Sephardim through success in the marketplace. The author concluded that educational unpreparedness could be found among the 'financially well-to-do' as well as among the lower classes, and suggested that this finding should be a caution signal to social engineers'. GROSS [1967] questioned those who advocate changing lower-class Negro life to conform to the life styles and values of middle-class whites, and suggested that there was an element of 'white colonialism' in the attempt to 'reshape the economically underprivileged in the image of the education-minded intellectually oriented academicians'.

GROSS' [1967] final point merits expansion, because intervention is a big business in the United States today. The federal government is spending large amounts of money on intervention programs, and some social scientists fear that the interventionists will totally disregard subcultural systems in their attempts to 'save' the 'deprived' children. 'When we force people of another culture to make an adjustment to ours, by that much we are destroying the integrity of their personalities. When too many adjustments of this sort are required too fast, the personality disintegrates and the result is an alienated, dissociated individual who cannot feel really at home in either culture' [LEHMER, 1969, p. 4].

### *Politics and Cultural Differences*

Finally, social scientists need to consider the way in which the majority culture, by its tolerance for social, political, and economic inequality, actually contributes to the development, in some subgroups, of the very characteristics which it considers 'deprived' [RYAN, 1971]. Responsibility, then, lies not with the subpopulations – for being 'deprived' – but rather with the 'total environmental structure that disenfranchises, alienates (and) dis-affects' [HILLSON, 1970]. FANTINI [1969] echoed this argument when he suggested that the 'problem' of disadvantaged school children may not be rooted in the learner's 'environmental and cultural deficiencies' but rather with the system – 'the school and its educational process'. He suggested the

need for reorientation 'from our present "student-fault" to a stronger "system-fault" position'.

One of the most obvious 'system-faults' – and one that is quite relevant to intellectual development – is inadequate medical care for the poor. Social scientists investigating 'cultural deprivation' have paid insufficient attention to the ways in which poor *physical health*, both of mothers during pregnancy and of infants early in life, can influence the child's developmental progress. The incidences of inadequate prenatal nutrition, premature births, and complications of delivery which can lead to brain injuries, are all greater among lower-income and nonwhite groups [ABRAMOWICZ and KASS, 1966; KNOBLOCK and PASAMANICK, 1962]. The effects of these medical differences are not unknown. KAGAN [1965] noted that one of the possible consequences of minimal brain damage during the perinatal and early postnatal periods is 'increased restlessness and distractibility, and inability to inhibit inappropriate responses during the preschool and early school years'. BROCKMAN and RICCIUTI [1971] also documented the effects of malnutrition on developing cognitive skills. We do not know the extent to which developmental 'deficits' of lower-income and minority group children can be traced to these differences in their *medical histories*. This is a clear-cut case where responsibility for deprivation falls mainly on the *majority* culture.

*Delay of gratification and future orientation.* Society as a whole is responsible for other behavior patterns observed in 'deprived' groups. LIEBOW [1967] argued that many of the behavior patterns he observed among lower-class blacks were 'a direct response to the conditions of lower class Negro life...'. His most cogent example involved the 'delay of gratification' variable. The frequent finding that lower-class (usually black) children prefer a smaller reward given immediately rather than a larger reward given later is often cited as a serious handicap to their schoolwork. It is often hypothesized that the child-rearing practices employed by lower-class parents lead children to prefer immediate gratification; and attempts are being made to change these practices and to teach the children to defer gratification. LIEBOW's analysis astutely demonstrates that, although socialization patterns may encourage behaviors which are seen as reflecting a preference for immediate gratification, the socialization patterns do not represent the primary determinant of this pattern. LIEBOW [1967] argued that the so-called preference for immediate gratification derives from the conditions of life encountered in this population. The *realities of life* represent the causal agent; the child-rearing patterns are only intermediary variables. The importance of LIEBOW's argument merits thorough examination. 'What appears as a "present time" orientation to the outside observer is, to the man experiencing it, as much a future orientation as that of his middle class counterpart. The difference between the two men lies not so much in their different orientations to time as in their different orientations to future time or more specifically, to their different futures. ...As for the future, the young streetcorner man has a fairly good picture of it... It is a future in which every-

thing is uncertain except the ultimate destruction of his hopes and the eventual realization of his fears. The most he can reasonably look forward to is that these things do not come too soon. Thus when Richard squanders a week's pay in 2 days it is not because, like an animal or a child, he is "present-time oriented", unaware of or unconcerned with his future. He does so precisely because he is aware of the future and the hopelessness of it all. ... Thus, apparent present-time concerns with consumption and indulgences – material and emotional – reflect a future time orientation. "I want mine right now" is ultimately a cry of despair, a direct response to the future as he sees it" (1967, pp. 64–68).

*The importance of conditions of life.* To encourage greater delay of gratification, interventionists should focus on the conditions causing the 'hopelessness' and 'despair' in lower-income populations, rather than emphasizing the necessity of changing child-rearing patterns or simply saying that 'these people' have less intellectual potential because they cannot delay gratification. Other researchers have also noted that 'conditions of life' represented major causal factors contributing to parental practices and child development. MINTURN and LAMBERT [1964] interviewed mothers in six cultural settings (New England, Mexico, Philippines, Okinawa, India, and Kenya) and found that situational constraints in the mothers' immediate life space were primary determinants of their responses. HESS and SHIPMAN [1966] analyzed situational constraints among lower-income Americans and noted that 'a family in an urban ghetto has few choices to make with respect to such basic things as residence, occupation, and condition of housing, and on the minor points of choice that come with adequate discretionary income. A family with few opportunities to make choices among events that affect it is not likely to encourage the children to think of life as consisting of a wide range of behavioral options among which they must learn to discriminate' (p. 4).

The same authors [SHIPMAN and HESS, 1966] spoke specifically about language development: 'The lower-class mother's narrow range of alternatives is being conveyed to the child through language styles which convey her attitude of few options and little individual power, and this is now being reflected in the child's cognitive development' (p. 17).

GOLDMAN [1969] reported specific data. He found that within the 'poverty group' the amount of verbal interaction directed toward an infant was related to the 'mother's view of her control of her destiny'. The extent to which an individual feels he has some control

\* LIEBOW [1967] also pointed out that there is no intrinsic connection between 'present time' orientation and lower-class persons: 'Whenever people of whatever class have been uncertain, skeptical or downright pessimistic about the future, "I want mine right now" has been one of the characteristic responses... In wartime, especially, all classes tend to slough off conventional restraints on sexual and other behavior (i.e. become less able or less willing to defer gratification). And when inflation threatens, darkening the future, persons who formerly husbanded their resources with commendable restraint almost stampede one another rushing to spend their money... (Thus present-time orientation appears to be a situation-specific phenomenon rather than a part of the standard psychic equipment of cognitive lower-class man (1967, pp. 68–69).'

over his destiny is also related to a whole myriad of variables associated with educational achievement. COLEMAN *et al.* [1966] found that, among minority group students, this factor was the best predictor of academic success. Other research has demonstrated 'strong support for the hypotheses that the individual who has a strong belief that he can control his own destiny is likely to (a) be more alert to those aspects of the environment which provide useful information for his future behaviors; (b) take steps to improve his environmental position; (c) place greater value on skill or achievement reinforcements and be generally more concerned with his ability, particularly his failures; and (d) be resistive to subtle attempts to influence him' [ROTTER, 1966, p. 25]. There is little doubt that the realistic perception of the poor that they have little control over their lives leads not only to the 'hopelessness' and 'despair' observed by LIEBOW [1967], but also to less concern with education, and reduced academic success.

Interventionists must concern themselves with these social, economic and political realities of lower-class life and see the relations between these realities and indexes of parental behavior and intellectual development. Several interventionists have moved in this direction. SCHAEFER [1969] reported that 'current stresses and the absence of social support influence maternal hostility, abuse and neglect of the child'. He suggested that intervention programs hoping to change a mother's behavior toward her child needed to 'alleviate the stress and increase the support of mothers at the time the initial mother-child relationship is developed'.

Similarly, KAGAN [1969] spoke of the 'need for ecological change' to improve the conditions of life among lower-class populations. He emphasized that the interventionists needed to be sensitive to the 'communities belief as to what arrangements will help them', and that the changes should be directed toward facilitating the development of a 'sense of control over the future'.

Other researchers have come to the same conclusion. PAVENSTEDT [1967] reported that every member of her staff concurred 'in the conviction that far-reaching social and economic change must take place in order to fundamentally alter the lives of the families' they observed. STROPOLSKY and LIESSER [1968] suggested that intervention programs 'would probably be a lot more successful if we were to modify the conditions which probably lead to many of these (neglectful parental) behaviors; namely, lack of money and of access to jobs'. LIEBOW [1967] presented the most convincing argument: '...We do not have to see the problem in terms of breaking into a puncture proof circle, of trying to change values, of disrupting the lines of communication between parent and child so that parents cannot make children in their own image, thereby transmitting their culture inexorably, ad infinitum. No doubt, each generation does provide role models for each succeeding one. Of much greater importance for the possibilities of change, however, is the fact that many similarities between the lower-class Negro father and son (or mother and daughter) do not result from "cultural transmission" but from the fact that the son goes out and independently experiences the same failures, in the same areas, and for much the same reasons as his father. What appears as a dynamic, self-sustaining cultural process is, in part at least, a relatively simple piece of social machinery which turns out, in rather mechanical fashion, independently produced look-alikes. The problem is how to change the conditions which, by guaranteeing failure, cause the son to be made in the image of the father' (1967, p. 223).

Before we conclude that intervention programs will not work [JENSEN, 1969] we might want to consider some of these suggestions.



*Roadblocks to change.* Intervention programs which attempt to change the 'conditions of life', however, may encounter political opposition, simply because to change the conditions of life necessitates a wider distribution of power and wealth. While it is beyond the scope of the present discussion to closely examine the politics of poverty, it is necessary to understand why poverty may be difficult to eliminate.

Not all poor peoples share the characteristics which LEWIS [1965] calls the 'culture of poverty' or which researchers have labeled 'deprived'. LEWIS [1965] reported that these characteristics are found only among the poor people who occupy a 'marginal position in a class-stratified, highly individuated, capitalistic society' in which there is a 'lack of effective participation and integration of the poor in the major institutions of the larger society'. He reported, for example, that 'many of the primitive or preliterate peoples studied by anthropologists suffer from dire poverty which is the result of poor technology and/or poor natural resources, or of both, but they do not have the traits of the subculture of poverty. Indeed, they do not constitute a subculture because their societies are not highly stratified. In spite of their poverty they have a relatively integrated, satisfying and self-sufficient culture' (1965, p. XI.VIII).

Where a 'culture of poverty' exists, however, the poor are less than poor: They are poor while others are rich, and they do not have the power to demand their 'fair share'. Thus, LEWIS [1965] aptly characterized the fight for equality in this country as a 'political power struggle' and pointed out that, rather than allowing poor people to effectively participate in society, many of those currently holding power 'emphasize the need for guidance and control to remain in the hands of the middle class...'. The culture of poverty will not be obliterated, however, until power is shared. The elimination of physical poverty *per se* may not be enough to eliminate the culture of poverty; more basic political changes may be necessary. Some might even argue that a political revolution is the only means of redistributing power and wealth, thus eliminating the culture of poverty. LEWIS [1965] noted that 'by creating basic structural changes in society, by redistributing wealth, by organizing the poor and giving them a sense of belonging, of power and of leadership, the revolutions frequently succeed in abolishing some of the basic characteristics of the culture of poverty even when they do not succeed in abolishing poverty itself' (1965, p. LIII). To illustrate, LEWIS [1965] went on to report: 'On the basis of my limited experience in one socialist country - Cuba - and on the basis of my reading, I am inclined to believe that the culture of poverty does not exist in the socialist countries. After the Castro Revolution I found much less of the despair, apathy and hopelessness which are so diagnostic of urban slums in the culture of poverty. The people had a new sense of power and importance. They were armed and were given a doctrine which glorified the lower class as the hope of humanity' (1965, p. XLIX).

The purpose of this discussion is not necessarily to encourage political revolution, but rather to point out the complexities of attempting to understand the behavior of people who differ from us - culturally, financially, or any way. It is easier to think of these other people as 'groups', and more difficult to think of them as individuals who differ a great deal among themselves - just as members of our own group do. It is easier to think of them as wanting to be like us and needing us to help them; it is more difficult to reject the philosophy of the 'White Man's Burden' and allow people the freedom to retain life styles which differ from the ones we know. It is easy to blame people for what we have defined as their 'deficits', but more difficult to consider how we as a society might have contributed to the problems we have defined as 'theirs'.

### Conclusion

We have attempted to point out how our assessments of intellectual development and of subcultural differences have been quite limited. Anthropologists have repeatedly warned that it is inappropriate to examine another culture through one's own experiential framework [CONKLIN, 1962; FRAKE, 1962], but psychologists have largely ignored these warnings. We would like to argue - not for a muzzling of scientific inquiry - but for an expansion of the perspectives from which scientific evidence is gathered. Western psychology has much to learn from studying nonliterate thinking and non-Western systems such as Zen. We must not continue to support the notion that the skills of white middle-class Americans are the only desirable skills or the best skills, or that white middle-class American child-rearing practices represent the model toward which all parents should strive.

Finally, we want to emphasize that we are not suggesting that there is no such thing as a deficit, or that all interventions in the developmental process are ill-conceived. But, we have indicated that deprivation is largely in the eyes of the beholder, which suggests that interventions should proceed on the basis of a much wider knowledge of consequences of different sets of experiences than we now have. Given this limited scope of our present areas of inquiry, and given that we may be about to enter a period of crisis for our species [TOFFLER, 1970], we - as a scientific community - should be wary of any programs which might tend to narrow the field of human variability available to us.

### References

- ABRAMOWICZ, M. and KASS, E.H.: Pathogenesis and prognosis of prematurity. *New Engl. J. Med.* 275: 878 (1966).
- American College Dictionary (Random House, New York 1959).
- ARAI, S.; ISHIKAWA, J. et TOSHIMA, K.: Developpement psychomoteur des enfants Japonais. *Rev. Neuropsychiat. infant.* 6: 262-269 (1958); cited by CAUDILL and WEINSTEIN (1969).
- BARATZ, J.C. and SHUV, R.W. (eds.): Teaching black children to read (Center for Applied Linguistics, Washington 1969).
- BARATZ, S.S. and BARATZ, J.C.: Early childhood intervention. The social science base of institutional racism. *Harv. educ. Rev.* 40: 29-50 (1970).
- BERNSTEIN, B.: Language and social class. *Brit. J. Sociology* 11: 271-276 (1960).
- BERNSTEIN, B.: Social class and linguistic development. A theory of social learning; in HALSEY, FLOUND and ANDERSON *Education, economy and society*, pp. 288-314 (Free Press, Glencoe 1961).

- BIRREN, J.E. and HESS, R.: Influences of biological, psychological, and social deprivations on learning and performance; in *Perspectives on human deprivation*. Department of Health, Education and Welfare, Washington, pp. 105-217 (1968).
- BLURTON JONES, N.G. and KONNER, M.J.: Knowledge of animal behavior among the Kalahari Desert Bushmen. Department of Psychology and Social Relations, Harvard University (unpubl. manuscript, 1972).
- BROCKMAN, L.M. and RICCIUTI, H.N.: Severe protein-calorie malnutrition and cognitive development in infancy and early childhood. *Develop. Psychol.* 4: 312-319 (1971).
- BRUNER, J.; OLVER, R., and GREENFIELD, P.: *Studies in cognitive growth* (Wiley, New York 1966).
- CAUDILL, W. and WEINSTEIN, H.: Maternal care and infant behavior in Japanese and American urban middle class families. National Institute of Mental Health, Bethesda (unpubl. manuscript, 1966).
- CAUDILL, W. and WEINSTEIN, H.: Maternal care and infant behavior in Japan and America. *Psychiatry* 32: 12-43 (1969).
- CHANDLER, B.J. and FRICKSON, F.D.: Sounds of society. A demonstration program in group inquiry. Department of Health, Education; and Welfare; Office of Education, Bureau of Research, Washington (1968).
- CLEAVER, E.: *Soul on ice* (McGraw-Hill, New York 1968).
- COLE, M.; GAY, J.; GLICK, J.A., and SHARP, D.W.: The cultural context of learning and thinking (Basic Books, New York 1971).
- COLEMAN, J.S.; CAMPBELL, I.Q.; HOBSON, C.J.; MCPARTLAND, J.; MOOD, A.M.; WEINFELD, F.D., and YORK, R.L.: Equality of educational opportunity (United States Office of Education, Washington 1966).
- CONKLIN, H.C.: The ethnographic study of cognitive systems; in *Anthropology and human behavior* (Anthropological Society of Washington, Washington 1962).
- DILLARD, J.L.: *Black English* (Random House, New York 1972).
- ELKIN, A.P.: *The Australian aborigines* (Angus & Robertson, Sydney 1964).
- FANON, F.: *The wretched of the earth* (Grove Press, New York 1968).
- FANTINI, M.D.: Beyond cultural deprivation and compensatory education. *Psychiat. Soc. Sci. Rev.* 3: 6-13 (1969).
- FEILMAN, J.S.: The myth of primitive mentality. A study of semantic acquisition and modes of categorization in Akamba children of south central Kenya; dissertation Stanford (1971).
- FOSTER, H.L.: Dialect-lexicon and listening comprehension; dissertation New York (1969).
- FOSTER, H.L.: Foster's Jive Lexicon Analogies Test. Series II. Office of Teacher Education, State University of New York at Buffalo (unpubl. report, 1970).
- FRAKE, C.O.: The ethnographic study of cognitive systems; in *Anthropology and human behavior* (Anthropological Society of Washington, Washington 1962).
- GORDON, I.J.: Early child stimulation through parent education. Department of Health, Education and Welfare; Children's Bureau, Social and Rehabilitation Service, Washington (1969).
- GROSS, M.: Learning readiness in two Jewish groups (Center for Urban Education, New York 1967).
- HESS, R.D. and SHIPMAN, V.C.: Maternal attitude toward the school and the role of pupil. Some social class comparisons. *Proc. Conf. on Curriculum and Teaching in Depressed Urban Areas*, New York 1966.

- HILLSON, M.: The disadvantaged child. *Community ment. Hlth J.* 6: 81-83 (1970).
- JENSEN, A.R.: How much can we boost IQ and scholastic achievement. *Harv. educ. Rev.* 39: 1-123 (1969).
- KAGAN, J.: Information processing in the child; in MUSSEN, CONGER and KAGAN Readings in child development and personality, pp. 313-323 (Harper & Row, New York 1965).
- KAGAN, J.: Social class and academic progress. An analysis and suggested solution strategies. *Proc. Meet. amer. Ass. Advancement of Science*, Boston 1969.
- KAUNDA, K.: *A humanist in Zambia* (Abingdon Press, New York 1966).
- KNOBLOCK, H. and PASAMANICK, B.: Mental subnormality. *New Engl. J. Med.* 266: 1092-1097 (1962).
- KONNER, M.J.: Aspects of the developmental ethology of a foraging people; in BLURTON JONES *Ethological studies of child behaviour* (Cambridge Univ. Press, New York 1971).
- KONNER, M.J.: Maternal care, infant behavior, and development among the Zhun/twa Bushmen; in LEE *Studies of Zhun/twa hunter-gatherers* (in press).
- KRAUSS, R.M. and ROTTER, G.S.: Communication abilities of children as a function of status and age. *Merrill-Palmer Quart.* 14: 161-174 (1968).
- LABOV, W.: Some sources of reading problems for Negro speakers of non-standard English; in FRAZIER *New directions in elementary English* (National Council of Teachers of English, Champaign 1967).
- LAUGHLIN, W.S.: Hunting. An integrating biobehavior system and its evolutionary importance; in LEE and DE VORE *Man the hunter*, pp. 304-320 (Aldine, Chicago 1968).
- LEHMER, M.: Navajos want their own schools. *San Francisco Examiner and Chronicle*, December 14, 4 (1969).
- LEVI-STRAUSS, C.: *Totemism* (Beacon Press, Boston 1963).
- LEVI-STRAUSS, C.: *The savage mind* (Univ. of Chicago Press, Chicago 1966).
- LEVI-STRAUSS, C.: *The elementary structures of kinship* (Beacon Press, Boston 1969).
- LEWIS, O.: *LaVida. A Puerto Rican family in the culture of poverty* (Random House, New York 1965).
- LIEBOW, E.: *Tally's corner. A study of Negro streetcorner men* (Little Brown, Boston 1967).
- MACCOBY, M. and MODIANO, N.: On culture and equivalence I; in BRUNER, OLVER and GREENFIELD *Studies in cognitive growth*, pp. 257-269 (Wiley, New York 1966).
- MADSEN, M.C.: Developmental and cross-cultural differences in the cooperative and competitive behavior of young children. *J. Cross-Cultural Psychol.* 2: 365-371 (1971).
- MAILER, N.: *Advertisements for myself* (Putnam, New York 1959).
- MEAD, M.: An investigation of the thought of primitive children, with special reference to animism. *J. roy. anthrop. Inst.* 62: 173-190 (1932); reprinted in HUNT (ed.) *Personalities and cultures* (Natural History Press, New York 1967).
- MINTURN, L. and LAMBERT, W.W.: *Mothers of six cultures* (Wiley, New York 1964).
- PAVENSTEDT, E. (ed.): *The drifters* (Little Brown, Boston 1967).
- REBELSKY, F. and ABELIS, G.: *Infancy in Holland and in the United States*. *Proc. Soc. for Research in Child Development*, Santa Monica 1969.
- RIEGLER, K.F.: Influence of economic and political ideologies on the development of developmental psychology. *Psychol. Bull.* 78: 129-141 (1972).
- ROTTER, J.B.: Generalized expectancies for internal versus external control of reinforcement. *Psychol. Monogr.* 80: 1-28 (1966).

- RYAN, W.: Blaming the victim (Pantheon, New York 1971).
- SCHAEFER, E.S.: Need for early and continuing education. Proc. Meet. amer. Ass. Advancement of Science, Boston 1969.
- SHIPMAN, V.C. and HESS, R.D.: Early experiences in the socialization of cognitive modes in children. A study of urban Negro families. Proc. Meet. Conf. Family and Society, Merrill-Palmer Institute, Detroit 1966.
- SROUFE, L.A.: A methodological and philosophical critique of intervention-oriented research. *Develop. Psychol.* 2: 140-145 (1970).
- STEWART, W.A.: Sociolinguistic factors in the history of American Negro dialects. *The Florida FL Reporter*, vol. 5 11 (1967).
- STEWART, W.A.: Linguistic and conceptual deprivation – fact or fancy? Proc. Meet. Soc. Res. Child Development, Santa Monica 1969a.
- STEWART, W.A.: On the use of Negro dialect in the teaching of reading; in BARATZ and SHUY Teaching black children to read, pp. 156-219 (Center for Applied Linguistics, Washington 1969b).
- STODOLSKY, S. and LESSER, G.: Learning patterns in the disadvantaged; in CHES and THOMAS Annual progress in child psychiatry and child development, pp. 224-272 (Brunner/Mazel, New York 1968).
- TOFFLER, A.: Future shock (Random House, New York 1970).
- WATTS, A.: The way of Zen (Random House, New York 1957).
- WILLIAMS, R.L. and RIVERS, L.W.: The use of standard versus non-standard English in the administration of group tests to black children. Department of Black studies, Washington University, St. Louis (unpubl. manuscript, 1972).