

Malnutrition and poor academic performance: critical contributions

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THE OBJECTIVE of this article is to provide some contributions from psychology to the reflections about malnutrition and poor academic performance, based on the analysis of certain statements dealing with the causes and consequences of malnutrition to child development and to the schooling of lower classes children. First, we will analyze the assumptions that poor academic performance of a great contingent of children enrolled in schools all over Brazil would be explained by current or previous malnutrition, and that school snacks would solve the problem. Next, we will present critical arguments to the commonly used investigation and analysis methodologies. The results of those investigations lead to the questionable conclusion that all the malnourished children suffer from physical and mental deficiencies that would jeopardize their learning. Besides, surveys show that the very actions used to fight the school problems are based on the assumption of cognitive and linguistic deficiency of poor children. Besides, we will point to the need to review those assumptions, so that the programs to fight malnutrition and school failure can be effective. Finally, we will present proposals to review the conceptions and the actions that, instead of solving the school problems, make them even more serious.

It has often been stated that malnutrition – one of Brazil's most serious social problems – is also one of the great responsible for poor academic performance. In the 1990's, certain publications (cf. Ribeiro, 1991, 1993) already pointed out that about 50% of the children enrolled in the first grades of the elementary school failed all over the country.

The origin of those ideas goes back to a tradition of humanities studies of the 1960's, a period when the lower classes began to have greater access to public schools. The studies of that time try to show that the poor academic performance of the lower classes children resulted from deficiencies in their biopsychosocial development.

Known in the educational environments as cultural deprivation or cultural scarcity theories, they search for the reasons of the poor academic performance in the children themselves and in their precarious life and

eating conditions. They state that the lower classes children fail in school because they have cognitive deficit, motor, perceptive and emotional development delay, and language deficiencies. The deficiencies pointed out would be the causes of the poor performance by those children in the school learnings, in the intelligence tests and also of the absence of behaviors expected by the school (discipline, concentration, motivation for learning, etc.).

Both the causes and consequences of malnutrition for the children's development may be analyzed according to two different perspectives. The first one analyses the malnourished child, his or her family structure and his or her life conditions through the application of closed interviews, tests and instruments that are standardized according to an expected development scale in each age group. The most well-known are the anamneses, the psycho-diagnostic tests that evaluate intellectual and emotional development, school learning and linguistic skills. The individuals are analyzed "as they are". Therefore, malnutrition is considered as an individual problem, which can be investigated outside a broader context, that is, isolated from the social, economic and political conditions of its production.

Another way to get to know both the causes and the consequences of malnutrition to a considerable share of the Brazilian poor children is to try to understand them as a result of the conceptions and actions established between the different social groups and the institutions from the social, economic and political relations that structure the Brazilian society. We will adopt the latter perspective in this article.

Brief Brazilian feeding status scenario

According to data from the National Household Sample Survey / PNAD of 2001, 74.6% of the economically active population earns up to three minimum wages; of those, 35.7% earn up to one minimum wage and 24.1% earn less than one minimum wage.

If we compare the purchasing power of a minimum wage (MW) to the basic-needs grocery package, we notice that the wage earners can't afford it with what they earn. Its cost in 1996 ranged close to 100% of the minimum wage. In 2002, the minimum wage corresponded to 77% of the package's price, according to Dieese. According to the data from PNAD of 2001, it can be verified that, in the Northeast, the workers who earn the equivalent of one minimum wage or less represent 41% of the occupied labor force. In other words, almost half of that region's population can't afford a basic-needs grocery package, since the MW is enough to pay only for a part of its foods.

Besides, when they analyze the items of the basic-needs grocery package idealized to serve as a reference to calculate the minimum wage, Moyses & Collares (1997) reveal that its composition is not enough to feed the idealized family (a couple and two children) as a basis for the calculation.

The basic-needs grocery package idealized by the law includes: 6 kg of meat; 4.5 kg of beans; 3 kg of rice; 7.5 l of milk; 1.5 kg of wheat flour; 6 kg of potatoes; 9 kg of tomatoes; 6 kg of bread; 600 g of coffee; 3 kg of sugar; 750 g of oil; 750 g of butter and 7.5 dozens of bananas. Dividing that package by the four people, in relation to the most calorific foods, we have: 50 g of meat per person per day, as well as two glasses of milk and three bananas per person per day (ibidem, p.230).

In short, an insufficient basic-needs grocery package is almost inaccessible to a considerable share of the Brazilian workers. For that reason, the statements that indicate incorrect eating habits, the inexistence of eating patterns, the lack of care by the mother or neglect in the children feeding as the malnutrition causes in Brazil must be reviewed. In other words, malnutrition is caused by a social exclusion scenario that turns the access of a considerable share of the population to adequate feeding inviable.

Another set of explanations that became the object of scientific challenge involves, on the one hand, the confusion between two distinct concepts – hunger and malnutrition are used as synonyms –, and, on the other hand, the statement that malnutrition affects all Brazilian poor people.

Confusion between hunger and malnutrition

The conceptual confusion between malnutrition and hunger is present in the statements by teachers and health practitioners and even in the public policies (cf. Moyses & Collares, 1997). It is stated that every poor child starves and/or is malnourished, when people try to explain his or her learning problems at school. They still believe that school snack will indeed solve the problems.

The confusion is not limited to a conceptual mistake. It also conceals the fact that a reduced number of currently or previously malnourished children patronize school. In the 1980's, studies (Moyes & Lima, 1982) already registered that only between 10% and 15% of the children enrolled in the public schools were currently or previously malnourished. However, those children suffered from moderate or light malnutrition. In other words, they were not among the children so seriously malnourished that this situation would have left irreversible damages in the central nervous system. Those children often die.

Moyes & Collares (1997) explain: hunger is the basic need for food which, when not fulfilled, reduces the availability of any human being for both the daily and the intellectual activities. However, once that need is fulfilled, all its negative effects cease, without any damages. Malnutrition, in turn, occurs when hunger goes on in such intensity and for such a long period of time that they start to interfere in the body's energy supply. To keep its metabolism working, the body adopts several "expenditure contention" measures. In the lighter cases (the so-called level 1 or light malnutrition), it reduces the

growth rate: the body maintains all the metabolism normal at the expense of sacrificing the growth rate (ibidem, p.232)

But the children who suffer from serious malnutrition and, because of it, from neurological impairment are not in school, among other reasons, because the infant mortality rate is very high. Thus, the school snack offered does not reach them. It has also been insufficient to change the nutritional status of any child. In 1986, each child received, in the food supplement program, only 12 kg per year (Moyses & Collares, 1997). We know that the school snack can solve, however, the “daily hunger”, that is, the empty stomach problem, which jeopardizes any human being’s awareness capacity and disposition to learn.

Nevertheless, how pertinent is the statement according to which malnutrition causes disorders in the intellectual development of the children and, as a consequence, turns learning inviable?

Malnutrition and development disorders

Studies (Dobbing, 1972) show that only in the serious malnutrition cases there are changes in the central nervous system (responsible for the intellectual functions of the individuals) that fall upon the brain’s anatomy (reduction of the weight, size, volume, number of cells, amount of myelin, etc.). But those anatomic changes don’t allow for any conclusion about the effects on the functioning of the brain.

It is not known how the nervous synapses produce intelligent actions. There is no consensus about how the environmental stimuli cause functional changes in the brain (if there’s an increase of nervous junctions, if they activate skills that would be activated if there was no opportunity for use). In short, it is not known to what extent the environmental stimuli, the cultural and educational opportunities change the nervous system. However, studies (Stein et al., 1975) show that children who have suffered from serious malnutrition early in their lives and, therefore, had irreversible changes in their nervous system, but weren’t poor, and were tested when they were 18 years old, revealed an intellectual development equivalent to that of the normal adolescents, and presented good academic performance.

Therefore, it is necessary to question the intellectual performance evaluation methods of the currently or previously malnourished children, to avoid the mistaken conclusion, in such countries as Brazil, that the children are deficient.

The evaluation of the individuals’ intellectual capacity

The starting point of the current criticisms is the following question: Is it possible to evaluate someone’s intellectual capacity (Collares & Moyses, 1996; Patto, 2000), or do we measure only the use of those skills, adopting as standard-norm the uses established by the school knowledges? Today we

know that the potential that we believe to be measuring is, indeed, built in a complex interaction process between the individual, since his birth, and the social environment in which he lives (Vygotsky, 1984). In turn, the social environment results from a historical structure that defined the social actions, the human relation manners and the set of knowledges present there, as well as the access and use conditions of those knowledges, unevenly distributed.

Is the performance difference in the intelligence tests, the results of which point to a great contingent of children with bordering or below average IQ, a sign of incapacity of the child or a product of the social inequalities? The inequalities are what hinder the access of the lower classes children to a quality education, to the scientific knowledges, to the ways of thinking produced by the school.

Those attempts to evaluate human intelligence disregard the development conditions of the investigated skills: the school knowledges and the school work to organize the mental schemes to assimilate the contents, verified through the set of questions and problems proposed by the tests. Thus, before the question of one of the most used tests to evaluate the intellectual capacity of the children – Who was Gengis Kan? –, we readily hear the child state that he or she couldn't answer that, since he or she hadn't learned anything about him at school.

The socialization processes that make up the individual and shape the expression forms of the human intelligence and their uses are not universal. There are universal biological characteristics such as the human capacity to speak (Cagliari, 1997), but the expression forms of those linguistic skills are modeled by the linguistic group to which the individual belong, by the nature of the social interactions and by culture. There are language styles, distinct uses of the linguistic codes due to the different contexts and there is a social status attributed to certain language uses, improperly evaluated as a superior skill (Bourdieu, 1983) and often identified as a sign of high IQ. Thus, what is evaluated are the expression forms of the language and of the intelligence, mediated by the cultural values, by the available knowledges and by the senses attributed to them by the culture to which the individual belongs.

Most of the malnourished children are miserable, and have no access to the cultural goods and to the benefits of society. Therefore, it's no longer possible to separate the effects of malnutrition on the children's body from the negative effects produced by the precariousness of life in which they are immersed.

To what extent, however, the material misery condition, the lack of access to the school knowledges and the social inequality jeopardize the cognitive skill of those families and their children, their abilities to speak, think, argue, struggle for their own lives, build an honorable life, educate their children and feed them?

The several material shortages and children malnutrition

The proposition that poverty causes linguistic, cognitive and emotional deficiencies has already been exhaustively discussed, when applied to explain the poor academic performance of the lower classes children (Cunha, 1977; Houston, 1997; Patto, 1990, 1997; Sawaya, 2001, among others). Those authors claim that there's a lack of solid scientific evidences to attribute to the material shortage and to the precarious life conditions of the families and their children from the lower classes a supposed deficit or delay in the cognitive and linguistic development and to relate the latter to the causes of the children's poor academic performance. However, those discussions didn't prevent the study of the intra-school causes in the production of the schooling difficulties of those children, to be neglected for a long time.

A reorientation in the focus of the surveys about the causes of the academic failure of the huge contingent of poor children revealed the countless school mechanisms and processes responsible for learning difficulty (Patto, 1990). The difficulties identified in the pedagogical action no longer allow us to state that the school problems are problems of the poor children and their families, considered in an isolated manner. Among other factors, the assumption that the students don't have certain skills that they often do have, the expectation that the clients don't learn, the bureaucratic obstacles to achieve the works at school – such as the constant displacement of the teachers throughout the school year, the frequent changes in educational programs and projects, the excessive hierarchy of the functions and the authoritarian relations that circulate through all levels of the school structure, besides the low remuneration of the teachers and their professional devaluation – produce a “failurization of the pauperized student”(Patto, 1990).

However, that reality is not well-known (Azanha, 1995), even among health practitioners to whom the children with difficulties at school are directed. Even with a high professional background level, such as in the case found in a large town of the São Paulo state inland, the psychologists interviewed in the survey (Cabral & Sawaya, 2001) ignore the school reality and still attribute the supposed deficiencies of the children to their poor academic performance.

In a study that we carried out, we registered that 63% of the practitioners have specialization and graduate courses in their respective fields: psycho-pedagogy and clinic psychology. Among them, 26% have a masters degree and 5%, a doctorate degree (Cabral & Sawaya, 2001). Asked about the complaints that lead the schools to direct, every year, many children to the psychological attendance services, they invariably allege problems of the child and his or her health conditions, feeding and family structure problems. School is secondary in the evaluation. When they do refer to it, they seldom even mention the intra-school causes that produce the difficulties presented and that have direct repercussion on the behavior of

the children, such as the constant teacher change in a same class during the school year.

The inadequacy of the diagnoses centered in medical issues to explain the learning problems of the great contingent of initial grades students, directed to the health services, and of the adopted measures, has also already been identified (Moyses & Collares, 1997). But the assumption of the existence of neurological diseases still lead to the countless directions of children with poor academic performance to computerized tomography exams (used to identify brain damages or bad functioning) and psychiatric treatments.

We found children enrolled in special classes (destined to people with special needs) to whom microcephaly is attributed without any medical diagnosis proof: the only symptom verified is “being disorderly, not being interested in school”. Many times, we find in the classes children who are indifferent, sleepy, cognitively confused, because they are under the effect of psychiatric drugs without a proved diagnosis.

Also widely questioned by the linguists are the complaints, very frequent both in the health services and in school, according to which poor mothers and children suffer from language impairments, since nobody understands what they say or because they don't follow the indications of the doctors, nutritionists, psychologists and social assistants. Such statements are based on assumptions that are not scientifically supported in linguistic studies (Cagliari, 1997; Houston, 1997). The mistakes identified as a linguistic deficit are nothing but phonetic and syntactic errors, and, therefore, are not linguistic structure failures that could jeopardize the understanding and the logical framework of the statements. Those authors also believe there is no pertinence in the statements according to which a restrictive linguistic performance, in which few words and simple structures are used, is a sign of cognitive impairment. In order to communicate, every speaker uses highly complex and abstract cognitive processes, and the ability to understand the language overcomes the verbal performance (Houston, 1997, p.179).

Nevertheless, what are the arguments that explain the restrictive or mistaken communication – often considered a sign of language impairment – among mothers, health practitioners and teachers? Besides the linguistic aspect, one must observe other factors that are at stake in those contexts, since we know that the verbal emission may be jeopardized in the communicative relations marked by stress, humiliation and failure situations, such as the school meetings and the medical appointments in which, as a rule, the mother takes the blame for the child's malnutrition.

There are humiliating questions that disclose what the mothers want to conceal because they are ashamed of their own condition, also seen as personal guilt. Those are the questions such as: What is there to eat at your house? How many meals do you eat per day? Do the children play? Do they

own toys? The mothers of the malnourished children that we investigated arrive at the interviews (requested by us) excusing themselves, reaffirming discourses that they heard and that blame them, but that also denounce the life condition in which they find themselves – “I think she got malnourished because I couldn’t watch her and she stayed at my neighbor’s house, and with my husband unemployed, I had to go out and work in order not to die of starvation.”

We found nurseries, pre-schools and schools where the mothers have neither names nor identity, they are “mothers” received in the halls, in the courtyard, in the principal’s office, called in to listen to complaints about their children, to listen to death sentences: you didn’t feed your children well, you were careless and, for that reason, today they have a hard time at school, they don’t learn, their development is delayed. Directed to the special class, they constitute a group of discredited children, in whom the school is no longer interested.

Is the supposed low self-esteem of those mothers an intrinsic problem, a personality trait that a therapeutic work could solve? Or is it a result of the relations that the society and the social institutions (school, health, etc.) establish with them on a daily basis? Could the therapeutic work improve the affective and emotional conditions, their relations with the others and their lives, without the improvement of the concrete social relations that produced such situation, in the health services and in the schools? In other words, would it be possible to change the mothers’ situation without changing how they are received in the schools, in parent meetings, with reprimands and accusations?

The factors often considered as causes of the high malnutrition and poverty rates

– for example, few cognitive resources of the mothers, their affective problems and their absence of family structure – are questioned by the very knowledge developed in the direct contact with those families and their children, in the neighborhoods. The extended familiarity with the researcher – who avoid long hours to listen to the stories of the families, their explanations about life, their difficulties and their survival strategies – reveal a distinct universe from what would be characterized by shortage in all senses.

The same children who are identified at school as suffering from development disorders and from the lack of logical thinking can be found working in the fair, selling products in the traffic lights, changing money, making math operations without a calculator (Carragher et al., 1982). They invent stories, make puns, tell jokes, use metaphors and resort to folk or country songs to dissuade the adults from an aggression, to get food, to make a community of listeners laugh, since they must conquer their space and their survival. They only don’t use language that proves slyness and intelligence, but they also use the word as a resource in the quest for their survival in very adverse conditions (Sawaya, 2001).

In the same way, the normative models used to evaluate the families, which designate them as without structure since they don't correspond to the model of the nuclear family, are questionable (Mello, 1992). The model – considered as ideal and source of all the mental health virtues and guarantees – prevents us from seeing that the family rearrangements guarantee subsistence and the affective ties. As a true survival strategy, the reorganization of the family nucleus – by including relatives, pals and other possible relationships –, more than revealing anomy or lack of structure, reveal possibilities in the support, in the preservation of the affective ties, possibilities of changes and mutual help among their members.

Far from stating that misery has no devastating effects on the life of the individuals, we are calling the attention both to the social exclusion mechanisms, and to the strategies used by the poor families in their daily struggle to survive and to have a worthy life. The understanding of the social processes that generate exclusion and of the ways to face adverse life conditions of the lower classes families must be, from that perspective, the starting point for the social actions against poverty and malnutrition.

Some data reveal that, despite the countless problems that population faces, in the last few decades there was a decline in the malnutrition rate in the population under five years old (ENDEF,1 1975; PNSN,2 1989). The explanations that are often attributed, in the health area, to the decline of the malnutrition rate in Brazil are the rural exodus and the greater access to the health services, even though during the same period there was an increase of poverty and of unemployment in Brazil. Thus, the improvement of the malnutrition rates can't be explained by the improvement in the income conditions of that population. Rather, the decline must also be considered according to the countless survival strategies that the low income populations find to avoid hunger and absolute misery, among which some have already been mentioned, such as the family rearrangements.

However, if we can already rely on survey results that reveal the limits of some statements about malnutrition and the poor academic performance, allowing for a broader understanding of the problem, the great challenge is to find strategies that provide a change in the conceptions that still guide educational policies, attendance programs to poor families and instruments used to know them.

It's in this sense that we have tried to move in recent years, be it through the qualification of teachers or through the development of projects in the teaching units themselves.

For an educative project among education and health practitioners, parents and children

Our proposition is a different approach to the school failure problem. The intervention projects to fight it must emphasize not the individuals alone,

but the relations, the practices, the conceptions that develop in the scope of family/neighborhood/health and academic institutions, supported by a critical reading of the society in which they are included (Sawaya, 2001, 2002a).

The families are part of a broader context. They live in a neighborhood and interact with institutions that, in turn, relate to them according to conceptions that guide their actions. The behaviors and the relations that the practitioners verified in the mothers and in the families (“there was no pre-natal care”, “she doesn’t take her medicine”, “she doesn’t follow the diet proposed by the health unit”, “she resorts to midwives”, etc.) may only be understood and changed when the multiple processes that produce the conditions of the families are considered. Because survey data reveal that, many times, the very relations established between public institutions and poor families contribute with the verified ideas and behaviors: lack of hope, low self-esteem, resignation, resulting from the sense of guilt, of the lack of qualification, of the humiliation, of terrifying statements (“your son has development disorders”, “he’s not learning, he has no logical thinking”, etc.).

The mother and the child are characters involved in several circumstances and actions which lead to malnutrition. In general, the role of the practitioner is limited to punctual interventions, centered in the nutritional re-education, in the development of eating and hygiene habits, as if those actions were enough for the social reintegration of the mother and the child. The attempts to develop positive behaviors are often based on the assumption that they don’t exist. The punctual actions eventually don’t foster the questioning of the very quality of the academic and health services offered to the low income population, to the extent that they ignore the multiplicity of social, economic and political factors involved in the production of malnutrition and in the low educational quality.

A first issue that teachers and health practitioners must face is the development of a critical view of the role they play next to the poor populations and to their malnourished children and/or with poor academic performance. We have seen that, even though we can already rely on a body of critical knowledges about the approach and acting forms next to those populations, the ideas that still guide many actions go in the direction of blaming and of taking for granted the ignorance of the mother and the lack of family structure, transforming the assumptions in facts and identifying them as sources of the children’s problems. If, on the one hand, according to our experience, the review of those ideas is considered essential for practical changes to occur, on the other hand, it reveals itself to be ineffective when it is implemented only by means of qualification courses.

One of the work strategies that we have been using to qualify teachers is to foster reflections in the schools and neighborhoods themselves, where the families, the teachers, the students and the technical team are heard. The traditional interview and observation techniques, such as the tests, the

anamneses and the closed interviews, are substituted for orientations brought according to anthropological studies which, in school psychology, has been done based on surveys such as those carried out by Ezpeleta & Rockwell (1989), among others.

The investigation of the poor academic performance causes, as well as of other problems, must be done by plunging into the daily life of the teaching institutions and knowing directly the people involved, in their neighborhoods, in their houses, in their relations with the neighborhood and with the public institutions. By means of the extended familiarity and of the creation of dialogue spaces, we identified the presence of biases against poor families, which become resources used by the teachers and by the school to free themselves from the blame that falls upon themselves. An easy target of an education that doesn't produce results, the teachers appoint the mother, the family that they often don't know and the supposed malnutrition of the children as the causes of the academic problems.

To the discovery that, at school, the act of directing the children to the health services is often motivated by indiscipline complaints, it should be added the verification that, in the health services, the children undergo not only psychological exams, but also medical exams that identify doubtful diseases.

The punctual analyses and the often hurried diagnoses, which result from endless lines in the health services, go back to the school as diagnoses that confirm the previous hypotheses: those are children with problems and impairments, which justifies the act of directing them to reinforcement programs, acceleration classes, special classes, therapeutic attendances, etc.

Countless reports of those stories and of the explanations associated to them reveal a profound lack of knowledge of the real causes of the schooling difficulties of the poor children, such as the constant class and school change and the high teacher mobility throughout the entire school year, among so many other aspects already identified by many studies (Patto, 1990; Machado, 1994; among others).

So, if the investigation of the causes of the school failure made us refer to the conceptions, relations and practices present in the school institutions and in the society, the debate on malnutrition turns necessary for us to study the broader context that produced it. Thus, we found cases in which the malnutrition of the children occurs in a complex context, with such situations as the family's eviction from the slum tenement, flood in the wooden shack, unemployment, the choice between buying a plot and feeding the children and, in addition to that, the extended breastfeeding due to the lack of resources to feed everybody. The eating inconstancy and the irregularity of certain foods, such as meat, might not be a passing episode, but are related to the financial impossibility to buy the foods and prepare them.

For that reason, if the school failure is produced by school processes that create difficulties, malnutrition can also be generated by processes that

produce difficulties. For example, we verified that the explanation for the fact that many pregnant women and adolescents don't do the pre-natal exam can't be generalized in statements about disdain for the medical services, lack of interest, ignorance or undesired pregnancy. The low frequency in the health services can also be associated to the conflicting relations between the health units and the poorest families, to the biases against people who live in slums and suspect groups (drug dealers and consumers) and to the precariousness of the health services (Sawaya, 1992).

In our journeys through the neighborhoods, in the visits we made to the families, in the contact with dwellers associations, with neighborhood leaders – trying not to avoid the occasional meeting with the drug trafficking leader, with the crook's family, etc. –, we found, however, groups of women organized in mothers' clubs, in neighborhood associations, in organizations to fight for land and home, which meet in the parish, in dweller associations, or even in their own homes to discuss their problems and help each other mutually, in an intelligent and creative manner (Sawaya, 1992).

On the other hand, we found teaching institutions isolated by walls and gates, transformed into jails, protecting themselves from the population that patronize them and, often, without noticing that the violence and the social exclusion are caused by the school practices themselves.

Finally, the systematic hearing job next to the several groups involved in the issues of malnutrition, poverty and school failure reveals an unknown and unique universe, in which poverty produces deep signs, but has different shades in the different groups. It is necessary to know that reality to review the practices, relations and conceptions that, many times, jeopardize the propositions to fight poverty, low schooling and malnutrition.

Final thoughts

1. The explanations about how malnutrition and its consequences determine the development and the learning of the children must be reviewed based on the knowledge of the social exclusion processes, operated by the practices and conceptions that guide acting practitioners in the schools and in the health services.

2. The instruments used to get to know the poor population, its cognitive and affective resources must be reviewed, as well as the manners by which the population overcomes hunger and misery and manages to survive must be known.

3. The projects for the qualification of acting teachers and of health practitioners must include the reflection about the intra-institutional mechanisms that produce the difficulties found and generate the social exclusion.

Notes

1. National Family Expense Survey, made by IBGE. Project assisted by FAO (Food and Agriculture Organization of the UN), 1975.
2. National Survey on Health and Nutrition, made by IBGE, together with Inan and Ipea, 1989.

Bibliography

- AZANHA, J. M. P. Comentários sobre a formação de professores em São Paulo. In: *Educação: temas polêmicos*. São Paulo: Martins Fontes, 1995.
- BOURDIEU, P. A economia das trocas lingüísticas. In: Orti z, R. (Org.) *Pierre Bourdieu: Sociologia*. São Paulo: Ática, 1983. (Col. Grandes Cientistas Sociais).
- CAMILO, A.; Teles, V. E.; Frayze, J. A. O psicodiagnóstico: instrumento de revelação? *Anais do I CONPISC – I Congresso de Psicologia*, São Paulo, 1989.
- CABRAL, E.; Sawaya, S. M. Concepções e atuação profissional frente às queixas escolares: Os psicólogos dos serviços públicos de saúde. *Estudos de Psicologia*, Natal, v.6, n.2, p.143-55, 2001.
- CAGLIARI, L. C. O príncipe que virou sapo. In: Patto, M. H. (Org.) *Introdução à psicologia escolar*. 2.ed. São Paulo: Casa do Psicólogo, 1997.
- CARRAHER, T. N.; CARRAHER, D. W.; SHLIEMAN, A. D. Na vida dez, na escola zero: os contextos culturais da aprendizagem da matemática. *Cadernos de Pesquisa*, Fundação Carlos Chagas, São Paulo, v.42, p.79-86, ago. 1982.
- COLARES, C. A. L.; MOYSES, M. A. *Preconceitos no cotidiano escolar, ensino e medicalização*. São Paulo: Cortez, 1996.
- CUNHA, L. A. *Educação e desenvolvimento social no Brasil*. 2.ed. Rio de Janeiro: Francisco Alves, 1977.
- DOBING, J. Nutrition, the nervous system and behavior. *OPAS*, n.251, 1972.
- EZPELETA, J.; Rockwel, E. *Pesquisa participante*. São Paulo: Cortez, 1989.
- HOUSTON, S. Um reexame de algumas afirmações sobre a linguagem da criança de baixo nível socioeconômico. In: PATTO, M. H. (Org.) *Introdução à psicologia escolar*. 2.ed. São Paulo: Casa do Psicólogo, 1997. p.171-91.
- MACHADO, A. M. *Crianças de classe especial*. São Paulo: Casa do Psicólogo, 1994.
- MELO, S. L. Classes populares, família e preconceito. *Psicologia USP*, São Paulo, v.3, n.1/2, p.123-30, 1992.
- MOYSES, M. A.; LIMA, G. Z. Desnutrição e fracasso escolar: uma relação tão simples? *Revista Ande*, São Paulo, v.1, n.5, p.57-61, 1982.
- MOYSES, M. A.; Colares, C. Desnutrição, fracasso escolar e merenda. In: PATTO, M. H. (Org.) *Introdução à psicologia escolar*. 2.ed. São Paulo: Casa do Psicólogo, 1997.
- PATTO, M. H. *A produção do fracasso escolar*. São Paulo: T. A. Queiroz, 1990.
- _____. Da psicologia do desprivilegiado à psicologia do oprimido. In: _____. (Org.) *Introdução à psicologia escolar*. 2.ed. São Paulo: Casa do Psicólogo, 1997.

- _____. *Para uma crítica da razão psicométrica: mutações do cativo*. São Paulo: Edusp, 2000.
- RIBEIRO, J. C. A pedagogia da repetência. *Estudos Avançados*, São Paulo, v.12, n.5, 1991.
- _____. Educação e cidadania. In: Veloso, J. P. R.; Albuquerque, R. C. *Educação e modernidade: as bases do desenvolvimento moderno*. São Paulo: Nobel, 1993.
- SAWAYA, S.M. *Pobreza e linguagem oral: as crianças do Jardim Piratininga*. São Paulo, 1992. Dissertação (Mestrado), Instituto de Psicologia, Universidade de São Paulo.
- SAWAYA, S. M. A infância na pobreza urbana: linguagem oral e a escrita da história pelas crianças. *Psicologia USP*, São Paulo, v.12, n.1, p.153-78, 2001.
- _____. *Abordagem pedagógica*. São Paulo: Salus Paulista, 2002a. (Col. Vencendo a Desnutrição, v.5)
- _____. Novas perspectivas do sucesso e do fracasso escolar. In: Oliveira, M. K.; Souza, D. T. R.; Rego, T. C. (Org.) *Psicologia, educação e as temáticas da vida contemporânea*. São Paulo: Moderna, 2002b. p.197-213.
- STEIN, Z. A. et al. *Famine and human development: The Dutch hunger winter of 1944-45*. New York: Oxford Univ. Press, 1975.
- VYGOTSKY. *A formação social da mente*. São Paulo: Martins Fontes, 1984.

ABSTRACT – This article rises some contributions from psychology to the reflections on malnutrition and low school performance, through an analysis of some statements on the causes and consequences of malnutrition to child development as well as schooling of lower classes children. It analyses the assumptions that low performance at school of a great number of students in Brazil would be explained by the presence of malnutrition, current or previous. It critically discusses the investigative methodologies and analysis which presented questionable conclusions that children who are victims of malnutrition suffer from cognitive and linguistic deficiencies. Finally, it provides survey results, showing the need of reviewing these assumptions, since they continue to guide policies and practices on education and health, rendering impossible the solutions to school problems.

KEYWORDS – Malnutrition and Learning, Lower Classes and Poor Academic Performance.

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