LOCAL PERCEPTIONS OF CHILD'S HEALTH, GROWTH AND DEVELOPMENT AMONG BOLIVIAN MOTHERS

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Introduction

The results presented in this paper proceed from an interdisciplinary research project that aims at developing and applying a global and comprehensive approach to the health of under fives in Bolivia and Peru. This is an INCO-DC research project financed by the European Community and entitled Health sector reform: towards a more global approach of child health [n° IC18-CT97-0249 (DG12-WRCA)]. In this project, the socio-anthropological, public health and nutrition components are complementary. However, only the results of the socio-anthropological research carried out in Bolivia are presented here *(1-4)* for other results of the socio-anthropological research conducted in this project; *(5)* regarding the multidisciplinary approach of the project). The results from Peru are presented in another paper of this same volume *(6)*.

The aim of this socio-anthropological research was to understand the reference frameworks and practices of mothers in relation to child health, growth and development. This latter theme has been largely covered in psychological, psychoanalytical and psychopathological studies, but has seldomly been investigated in a socio-anthropological perspective *(7-11)*. Our main hypothesis is that an in-depth understanding of the mothers' perceptions and practices should lead to an improvement of the interventions targeted at the child within health care structures and populations (on similar perspectives *(12)*).

Our main research questions were the following: What does growth and development of children mean for mothers? What are their explanatory models for "normal" growth and development? What are the criteria they use to follow-up growth and development of their children?

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After clarifying the local conceptions of "healthy" and "unhealthy" children, we will show how the body -and its transformations- is a marker of the general health condition of the child. We will then focus on the perceived milestones for growth and development, insisting particularly on walking acquisition and the passage to adult food. Finally, we will conclude on the contribution of the socio-anthropological approach for reaching a comprehensive understanding of local perceptions on child's health, growth and development.

Places of investigation and methodology

In Bolivia, the research was conducted in the urban periphery of Cochabamba (Chavez Rancho), the country's third-biggest town, and in the amazonian and rural region of Chaparé. Both regions are inhabited by a majority of Quechua-Aymara Indians. Both groups represent round 40% of the Bolivian population *(13)*.

In the socio-anthropological research, we used three investigation tools: semi-structured interviews, in-depth interviews and focus groups (see Table 1). The fieldwork had a total duration of seven months *(14,15)* regarding the justification and utilisation of these different investigation tools in the context of the project).

Results: Perceptions of health, growth and development

"Healthy" children vs. "unhealthy" children

In both contexts, Quechua-Aymara mothers use the notions of "growth" or "development", or "health". But these have very different meanings depending on the topics with which they are associated (environment, food, disease, gender, age).

Simultaneously, mothers use broad notions such as "healthy child" (niño sano) or "unhealthy child" (niño no sano) that allow to indicate more precisely the perceived contents of the notions of health, growth and development. These include physical and behaviour characteristics that the mothers spontaneously mention.

Changes in the general behaviour of the child (sleeping troubles, screams, excessive crying) are serious signs of "disease". The fact that a child does not eat normally is also an important manifestation of a "disease". If the child vomits it is a sign of severity, mostly because its physical appearance is altered (thinness, loose stomach skin). In these cases, mothers say that their child is "sick" (enfermo), without necessarily mentioning the disease in question:

Table 1: Semi-structured interviews, in-depth interviews and focus groups held with mothers of under-five children in Chaparé and Chavez Rancho

Semi-structured interviews		
Number	Places	Dates
117	Chaparé	Sept. 1998 to Feb. 1999
112	Chavez rancho	Sept. 1998 to Feb. 1999
Total 229		

In-depth interviews		
Number	Places	Dates
19	Chaparé	March 2000
9	Chavez rancho	March 2000
Total 28		

Focus Groups		
Number	Places	Dates
4	Chaparé	Sept. 1998 / May 2000
4	Chavez rancho	Dec. 1998 / May 2000
Total 8		

When he is sick, he does not want to play, he only wants to eat sweet things; and this means that he is not well (Chaparé).

By contrast, whatever its age, characteristics of a "healthy child" are that he is not sick, eats well, "moves", plays and sleeps well. As a mother says:

When he is very chubby and he is happy, when he runs in all directions and is always joyful, and when he also does not complain much, that is because he is healthy (Chavez Rancho).

The body as a marker of the child's general condition

The answers mothers give to the question: "How does a child that grows and develops well look like?" show that they regularly observe the body of their child. They spontaneously qualify him as "beautiful" (bonito or lindo), "good" (bueno), "fat" (gordo), "well-formed" (bien hecho), "joyful" (alegre) and of course as "healthy" (sano).

Data on the image that mothers themselves call a "beautiful well-formed body" (un buen cuerpo bien hecho) highlight a large homogeneity in the perceptions *(16-20)* on the anthropology of the

body). Summing them up, we can say that a “beautiful well-formed body” must be harmonious, tending to some corpulence that is well distributed all over the body. The child that develops normally does not have to be tall, but rather well proportioned. Contrarily to what is commonly said by mothers in Europe, and according to what D. Bonnet reports in another paper *(21)*, its age is rarely connected with its weight and height (for complementary observations in other contexts *(22,9)*.

As long as a child is neither too fat nor too thin, its growth and development are thought as harmonious.

In the perceptions of the “well-formed beautiful body”, the reference to the weight appears frequently but is rarely translated into kilos. Mothers “feel” or “see” when their child does not have a normal aspect. To them, the absence of disease combined with the harmonious distribution of weight all over the body is what certifies normal development. On the contrary, rare are the allusions to the children’s height, and even rarer to low height in relation to age.

Body transformation factors

Illness episodes

Among the specific diseases affecting the transformation of the child’s body, diarrhoea is frequently mentioned. Also, many mothers link the loss of appetite to malnutrition and anaemia, hesitating however on whether it is a cause or a consequence of loss of appetite. Bad growth is associated with loss or stagnation of the child’s weight, sometimes with a problem of height. Whatever the causes, fever is not only perceived as a real disease, but also as a disease provoking thinness.

Generally, mothers use biomedical notions (anaemia, malnutrition), giving them sometimes a very specific, and other times a very broad meaning, using them a little like categories in which one can put anything.

Children are not well when they have a severe disease, that is to say anaemia, or else diarrhoea, because they cannot eat; when they eat no food, they cannot develop (Chavez Rancho); [Children] eat neither food and they get it [anaemia] (Chaparé).

Food practices

For the mothers, poor nutrition -regarding quality as well as quantity- also has immediate consequences on a child’s health, and consequently on the transformation of its body.

To the question of whether there is a relation between a child’s nutrition and its growth, most of mothers assert that a good

diet implies good health and normal development. By contrast, a child receiving little good food shows physical signs that associate excessive thinness with weakness. The unhealthy child would be kind of "de-structured" in his feeding behaviour. This de-structuration may lead to what mothers call "malnutrition".

Other factors of body transformation

To the question of whether the psychological state of the child has an influence on its development, answers remain extremely vague. A mother explains that psychological aspects, since they are not visible, do not "say" much, as opposed to body signs, especially the fact of growing.

Main perceived stages of child's growth and development

When asked what are the decisive stages of child growth and development, few mothers mention motricity, increased attention, secondary movements or language acquisition. Contrary to this, most mothers clearly identified walking acquisition and consuming adult food as fundamental milestones in the development stages.

Walking acquisition

In the local perceptions, walking acquisition (between eight months and one year) is not preceded by the phase of crawling. Mothers particularly apprehend this very phase when the child is at risk to get infections or to hurt himself. To avoid these risks, it seems that women absolutely want to speed up the walking process by introducing very firm incentives.

He did not walk upon all fours; none [of my girls] has ever walked upon all fours; they went from the sitting position to the standing position to walk; they never crawled; my oldest girl had her walker and she used to walk only with it; the other one was sitting on her chair, but I never put her on the floor (Chaparé).

In practice, women carry the children on their back, wrapped in local woven cloth. When it is no longer possible, they leave them in baby-walkers so that they can stand up and be at their reach.

Transition to adult food

Transition to adult food is also perceived as a major milestone of child development.

According to observations, dietary supplements or adult foods are introduced from the age of 3 months or even sooner. Mothers also prepare the dishes cooked for the adults in a suitable way for the children, but they seldom cook specific dishes for them.

(…) some children, already when they are two-month-old, when they see what we are eating [we give them soup] (Chaparé).
Well, [my child eats] only what we eat: rice, noodles, noodle soup with egg, that's it (Chaparé).

Data shows that definitive weaning occurs between the ninth and the twentieth month and in a rather abrupt way. The appearance of the teeth is sometimes decisive for definitive weaning. But mostly, following the advice from their own mothers or mothers-in-law, mothers apply salted substances on their nipples to speed up the weaning. Some women leave their child over night at their mother's place so that the end of the phase be well marked *(23-27)* on similar practices in Africa).

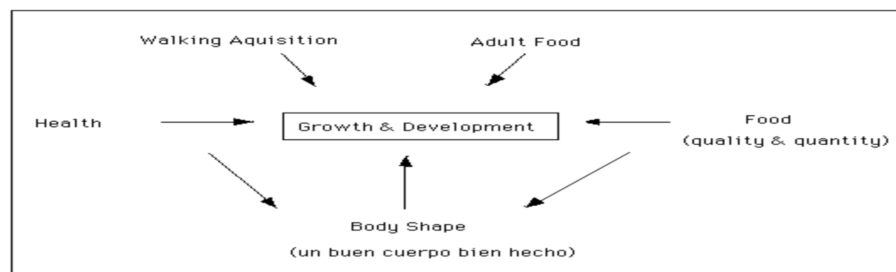
These weaning practices could be connected to the very firm incentives concerning the walking acquisition. The apparent aim seems to render the child autonomous regarding food, in other words to socialize him as early as possible.

The mothers' reference framework

Based on all these elements, we can assert that walking acquisition and passage to adult food are fundamental milestones of child growth and development. The passage of these two milestones -without negative consequences on the "beautiful well-formed body"- is decisive for the mothers to say that their child's growth and development is "good" or "bad".

Figure 1 summarizes the perceived causal linkages between the topics predominating the local perceptions and aims to replace growth and development milestones in a more global comprehensive framework.

Figure 1: The mothers' reference framework on child's growth and development



These perceptions and links form the mothers' reference framework are expressed in the "beautiful well-formed body". They give sense to the child's health, growth and development, as well as to the food and health-care practices associated with it.

Judging by our results, Quechua and Aymara mothers clearly have a different perception of children's well being than the biomedical model underlying monitoring activities in health centres. To them, measuring height and weighing are not prioritized expectations and do not correspond to their demand. There is a deep inadequacy between their vision and the technical viewpoint of the health professionals, as it has also been said in P. Lefèvre's paper *(28)*.

As a general rule, the biomedical vision of occidental inspiration tends to fraction reality and health interventions targeted towards the child (psychomotor development, nutrition, health prevention, curative care, and so on). On the contrary, the data presented here emphasize the necessity to adopt a global and comprehensive approach towards child health that takes into account local reference frameworks. Since a global approach on

child health integrates biomedical objectives and lay reference frameworks, it must allow narrowing the gap between logic of action and thinking that are very different from each other.

The necessity to adopt a global approach on child's health explains why we prefer not to refer to some kind of "nutritional" or "medical" anthropology. For us, socio-anthropology does not consist of a specialized branch of nutritional or medical sciences which purpose would only be to assist these disciplines in resolving technical problems. The contributions of socio-anthropology go much further.

As a matter of fact, this contribution appears to be particularly well adapted to highlight the rationality, the syncretic and complex character of local perceptions and practices (examples of such integrated vision *(29-36)*. At a more general level, if it is applied within a participatory action-research framework, the socio-anthropological approach can provide new coherency where some actors do not see any and concretely contribute to the improvement of child's health *(37,38)* on participatory action-research).

References

1. Suremain (de) CE, Lefèvre P (Ed.). Rapport du volet socio-anthropologique (Bolivie). *La Paz: Institut de Recherche pour le Développement (IRD)*, 1999.
2. Lefèvre P, Hoerée T. Étude de la perception du Carnet de Santé Infantile et de son utilisation chez la mère de l'enfant de moins de cinq ans en Bolivie à travers la technique des groupes de dicussion focalisée. *Antwerp: Institute of Tropical Medecine (IMT)*, 2000.
3. Suremain (de) CE. Croissance, développement, santé et relations à l'alimentation. Étude des perceptions de la mère de l'enfant de moins de cinq ans en Bolivie à travers la technique des entretiens semi-directifs (Chaparé et Chavez Rancho). 2 volumes. *La Paz: Institut de Recherche pour le Développement (IRD)*, 2000.
4. Suremain (de) CE, Lefèvre P, Pecho I. Les relations du genre soumises à l'épreuve de la maladie de l'enfant. Exemples boliviens et péruviens. *Recherches Féministes*. 2000;**13**(1):27-46.
5. Rubín de Celis E, Lefèvre P, Suremain (de) CE, Kolsteren P. Transdisciplinarity in practice. Lessons from an international action-research and development project. In : "Proceedings of the International Transdisciplinarity 2000 Conference" (Transdisciplinarity: Joint Problem-Solving among Science, Technology and Society), Workbook II (Mutual Learning Sessions). *Zurich: Swiss Federal Institute of Technology*, 2000;124-128.
6. Rubín de Celis E. Meanning of growth and development for caretakers and health service providers in Peru (present volume).
7. Dettwyler KA. Growth status of children in rural Mali: implications for nutrition education programmes. *Am J of Hum Biol*. 1991;**3**(5):447-462.
8. Dettwyler KA. Throwing a curve at growth charts. Conference papers "Breastfeeding: the natural advantage. Nursing mother's association of Australia". *Sydney*, 1997:56-61.
9. Pelto GH, Pelto PJ. Small but healthy? An anthropological perspective. *Human Organization*. 1989;**48**:11-15.

10. Valsiner J (Ed.). Child development in cultural context. *Toronto: Lewiston, N.Y.*, 1989.
11. Pfeiffer J, Gloyd S, Li LR. Intrahousehold resource allocation and child growth in Mozambique: an ethnographic case-control study. *Soc Sci Med.* 2001;**53**(1):83-98.
12. Hahn RA. Anthropology and the enhancement of public health practice. In: Hahn RA (Ed.): "Anthropology in public health. Bridging differences in culture and society". *Oxford: Oxford University Press*, 1999:3-24.
13. Tamisier JC (Ed.). Dictionnaire des peuples. Sociétés d'Afrique, d'Amérique, d'Asie et d'Océanie. *Paris: Larousse*, 1998.
14. Lefèvre P, Suremain (de) CE, Rubín de Celis E. Investigación socio-antropológica clásica, focus groups y modelo causal. Experiencias y reflexiones sobre algunas combinaciones metodológicas innovadoras desarrolladas en Bolivia y Perú. *Revista Electrónica de Epistemología de Ciencias Sociales.* 2000;**9** (http://rehue.csociales.uchile.cl/publicaciones/moebio/index.html).
15. Lefèvre P, Suremain (de) CE, Rubín de Celis E, Sejas E. Combining techniques: The use of the causal model as a support for focus group discussions in a socioanthropological research on the differing perceptions of caretakers and healthprofessionals on child's health. In: "Proceedings of the Fifth International Conference on Social Science Methodology (CD-ROM)". *Cologne (Allemagne)*, 2000.
16. Staffieri J. A study of social stereotype of body image in children. *J Pers Soc Psychol.* 1967;**7**(1):101-104.
17. Blacking J (Ed.). The anthropology of the body. *London: Academic Press*, 1977.
18. Lock M. Cultivating the body: anthropology and epistemologies of bodily practice and knowledge. *Annu Rev Anthropol.* 1993; **22**:133-155.
19. Jamard JL, Terray E, Xanthakou M (Ed.). En substances: textes pour Françoise Héritier. *Paris: Fayard*, 2000.
20. Le Breton D. Anthropologie du corps et modernité. *Paris: Presses Universitaires de France*, 2001.
21. Bonnet D. Malnutrition: A subject-matter for anthropology (present volume).
22. Garine (de) I. Massa et Moussey: la question de l'embonpoint. *Autrement.* 1987; **91**:104-115.
23. Bond J (Ed.). Infant and child feeding. *New York: Academic Press*, 1981.
24. Dupuis A. De la conception au sevrage chez les Nzebi du Gabon. *Journal des Africanistes.* 1981;**51**(1-2):126.
25. Hull V, Simpson M (Ed.). Breastfeeding, child health, and child spacing: cross cultural perspectives. *London: Croom Helm*, 1985.
26. Dettwyler KA, Fishman C. Infant feeding practice and growth. *Annu Rev Anthropol.* 1992; **21**:171-204.
27. Suremain (de) CE. Dynamiques de l'alimentation et socialisation du jeune enfant à Brazzaville (Congo). *Autrepart.* 2000;**15**:73-91.
28. Lefèvre P. Appropiation of the growth chart by mothers of under-fives in Bolivia (present volume).
29. Fitzgerald TK (Ed.) Nutrition and anthropology in action. *Assen / Amsterdam: Van Gorcum*, 1976.
30. Loudon JB. Social Anthropology and Medecine. *London-New York-San Fransisco: Academic Press*, 1976.
31. Jerome N. Medical anthropology and nutrition. *Med Anthropol.* 1979;**3**(3):339-352.
32. Mitchell W. Changing others: The anthropological study of therapeutic systems. *Med Anthropol Newsl.* 1977;**8**(3):15-20.
33. Comaroff J. Medecine and culture: Some anthropological perspectives. Soc Sci Med. 1978;**12**:247-254.
34. Foster GM. Applied anthropology and international health, retrospect and prospect. *Hum Organ.* 1982;**41**:189-197.

35. Dozon J-P. Le dilemne connaissance / action : le développement comme champ politique. *Bull APAD*. 1991;**1**:14-17.
36. Pelto GH. Continuities and challenges in applied nutritional anthropology. *Nutritional Anthropol*. 2001;**22**(2):16-22.
37. Fals-Borda O, Rahman MA (Ed.). Action and knowledge: breaking the monopoly with participatory action research. *New York: Immediate Technology/Apex*, 1991.
38. Cornwall A. What is participatory research?. Soc Sci Med. 1995;**41**(12):1667-1676.