

## Human behavior research, learning assessment and cultural/cognitive differences: the problem about being fair with subjects' performance

Héctor Blas Lahitte\*, María de los Angeles Bacigalupe

*Departamento de Etnografía, Museo de La Plata (Facultad de Ciencias Naturales y Museo, Universidad Nacional de La Plata), Paseo del Bosque s/n (B1900FWA), La Plata, Provincia de Buenos Aires, Argentina. Fax No.54-221-4257527; Tel No. 54-221-4257744; E-mail: lahitte@fcnym.unlp.edu.ar*

Received (in Kingston, CANADA) 22th March 2010, Accepted 20th May 2010

### Abstract

This work faces the well-known problem about how to do research and assess human cognition without masking their performance with our cultural and educational prejudices. We review some positions about the comprehension of human behavior in its context and their consequences on our concept of subject-to-be-researched or assessed. Relationships between observer and observed is unavoidable one-way when we take a traditional position in which we assume the authority to put subject's words in our mouth and we see him from our point of view. However we have some strategies that help us to be fair with the subject's performance. One of these strategies is based on dynamic assessment, which is a research tool to explore people's potential learning and their capability to improve their performance..

### Introduction

Social and Human Sciences like Anthropology, Psychology, Sociology and others have the responsibility to answer questions about human behavior and its implications for social organization and cultural developments. Other human disciplines, like Education and Law, not only produce knowledge about human behavior but also use the conclusions from other sciences to develop prescriptive statements about social organization and delivery of cultural contents.

To accomplish such responsibilities needs a deep reflection about how we produce knowledge about human behavior from researching and assessing, what kind of concepts we develop to understand others' actions and finally how we are trained to intervene in a social, cultural or educational context and with what purpose we do it.

In this work we discuss the well-known problem about how to do research and assess human cognition without masking their performance with our cultural and educational prejudices. Given that our research results can help normative disciplines to make statements about social organization and education, which eventually has consequences on humans' quality of live, we need to deeply analyze our position in front of our research subjects.

### Theoretical positions about relationships between subject and environment

The first question is about how we perceive subjects in their living context. Some theoretical perspectives can be delineated to explain these relationships (Fullat, 1983; Piaget, 1978).

Initially we can point one position which sees behavior in an environmental dependence, that is, environment is a causal factor of behavior.

Secondly there is another position in which human behavior is a by product of its genotype or human ratio, that is, this position supports a rationalist or biologicalist point of view in which environment is only a scenery where humans develop as a result of their inner conditions.

Between these two extremities there is an intermediate point of view (Piaget, 1978) which suggests that behavior is what the organisms develop to exploit their environment in a continuous spiral of assimilation, accommodation and equilibration. There is a permanent interchange between subjects and their environment in which both of them are modified as a product of their relationship. There is a mutual dependence between them and that is what gives place to human adaptation. These three positions have implications for our problem about what we do when researching on human behavior.

### The researcher and the subject-to-be-researched or assessed

Taken the three positions briefly described above we can see correlations of them on how we relate to our study subjects: we can see subjects as objects of description from our point of view, we can think that subjects speak for themselves and that we don't alter anything when we research and finally we can accept that there are a relationship between researcher and researched/assessed or between observer and observed which is part of our results and which we have to give count of in our research.

Observer's view modifies the observed and vice versa. What we write about other culture is not what the culture is in itself but what we interpret so there is an unavoidable subjectivity in our pretension of objectivism (Lahitte, 1989, 2005).

How to deal with this situation? The only way is to revise our prejudices one and again when we research and make this exercise of control every time we draw conclusions about others' behavior (Lahitte, 2005).

This point is more than relevant when our study serve as knowledge to take decisions about humans' lives, which can deeply alter their quality of life.

### Prescriptive disciplines and human behavior study: the dynamic assessment perspective

Relationships between observer and observed is unavoidable one-way when we take a traditional position in which we assume the authority to put subject's words in our mouth and we see him from our point of view. However we have some strategies that help us to be fair with the subject's performance. One of these strategies is based on dynamic assessment.

The perspective of dynamic assessment is based on Lev Vygotsky's (1896-1934) concept of zone of proximal development:

"Distinguishing what a child has already attained (his actual developmental level) and his potential abilities (the zone of proximal development) proved spectacularly productive in understanding the mutual ties between learning and development. (...) Vygotsky expressed one of his central ideas: The source of development in mental processes is always social" (Bein, 1993: 305-6)

Vygotskian social interactionism supports the importance of social and cultural environment on human development and considers learning as a result of interactions between people. Mental functions are developed in interaction with

others and cultural tools and agents are instruments which mediate people learning and development (Vygotsky, 1995 a, b).

It is especially interesting to our purpose here Vygotsky's point of view about handicapped and mental retarded people:

"A defect creates a deviation from the stable biological human type and provokes the separation of individual functions, deficiencies or damage to the organs. (...) Atypical development (conditioned by a defect) cannot be spontaneously and directly conditioned by culture, as in the case of normal child." (Vygotsky, 1993: 42)

According to Vygotsky, cultural influence on a handicapped people is different from how it is on normal children. However, this only means that education has to develop special tools to exert mediation on child development:

"There are. first. common goals, which confront both normal and special schools, and, second, the special features and uniqueness of means used in special schools. But apart from both of these, there exists the creative character of the entire school, which makes it a school of social compensation, of socialization, and not «a school for the weakminded,» and which forces it not to conform to a defect, but to conquer it. That creative character emerges as the necessary feature in issues of practical defectology." (Vygotsky, 1993: 50)

Following these ideas, dynamic assessment, an alternative to traditional testing, represents a methodological perspective to mediate human learning based on the concept that difficulties in educating some people creates a challenge to be conquered by educators. This is especially useful when facing with education of people from cultural minorities (Tzuriel, 1999) as well as handicapped and aging people. Reuven Feuerstein (1921-) has been one of his promoters with his theory of the Structural Cognitive Modifiability and his Learning Potential Assessment Device with the purpose to discover and act for the examinee's tendency to cognitive change (Noguez Casados, 2002; Kozulin, 2001; CDE, 2002).

"The term DA [dynamic assessment] refers to an assessment of thinking, perception, learning, and problem solving by an active teaching process aimed at modifying cognitive functioning." (Tzuriel, 1999:360)

Research-oriented dynamic assessment typically involves some procedures in which the examiner guides subject's learning, and the time and level of instructional advices serve as an index of subject's learning potential (Caffrey, 2008). It can be developed in (1) a single session (Caffrey, 2008) or in (2) a variable number of sessions between pretest and posttest (Haywood, 2003; Bacigalupe, 2008)

depending on the research objectives: to explore subject's learning potential (as in the first case) or to probe hypothesis about subject's capacity to learn new abilities or improve his performance (as in the second case).

Mainly, what dynamic assessment teaches us as researchers is that it is possible for us to be fair with our research subjects when exploring their abilities, providing we accept that people have different ways to express themselves which depend on their culture, idiosyncrasy, personality and health condition.

Haywood & Miller (2003) statements are illustrative:

"In dynamic assessment, one attempts to unmask abilities that are assumed to be present but somehow not available for new learning and problem solving, to make available the most useful cognitive and metacognitive strategies, and then to assess the effects of such intervention on subsequent performance. (...) Given that every person typically functions at far less than 100% of his/her cognitive capacity, it is essential that assessment of abilities be based on a model that emphasizes potential rather than present performance. Static models of assessment assume that what one does is what one is capable of doing, that "does" equals "can." Far more pernicious is the corollary assumption that "does not" equals "cannot." (Haywood, 2003: 139)

## Conclusion

Concluding, we would like to recommend to revise our epistemological assumptions when doing cross-cultural research or assessing people with special cognitive abilities because our results not only must be as exact as possible but also our conclusions can be used by prescriptive disciplines to take decisions that can deeply affect people's lives.

## Acknowledgement

Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET), Argentina.

## Notes and references

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May 20, 2010

MANUSCRIPT No.: **SS003221**

To:

**Héctor Blas Lahitte**

*Departamento de Etnografía*

*Museo de La Plata*

*Facultad de Ciencias Naturales y Museo*

*Universidad Nacional de La Plata*

*Paseo del Bosque s/n (B1900FWA)*

*La Plata, Provincia de Buenos Aires*

*Argentina*



IANSS Editorial Office

IANSS

PO 35030 @ STN Kingston Center

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TEL: 1-613-877-4256

Dear Dr. Lahitte,

I am pleased to notify you that your paper, **“Human behavior research, learning assessment and cultural/cognitive differences: the problem about being fair with subjects’ performance”** authored by **Héctor Blas Lahitte and Maria de los Angeles Bacigalupe**, has been officially accepted for publication at IANSS. Congratulations!

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