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Ecological Engagement

Urie Bronfenbrenner's Method to Study Human Development

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To Urie Bronfenbrenner, with whom we had the chance to share and discuss the seeds of ecological engagement as a method of studying human development. We continue to do our part, as we promised you!
Gratitude!

Foreword to the International Edition by Richard M. Lerner

Ecological Engagement is an invaluable scholarly example of the continuing societal importance and scientific utility of the scholarly contributions of Urie Bronfenbrenner. Although I never earned a degree under the tutelage of Urie Bronfenbrenner, I, most members of my generation of developmental scientists, and certainly the contributors to *Ecological Engagement* are Urie's students. His vision for using developmental science to describe, explain, and optimize the lives of diverse people, as they lived and developed within the actual ecology of human development, has become the fundamental frame for theory and research in the study of the human life span.

Urie's bioecological model was neither the first nor the only dynamic, relational developmental systems-based conception of human development. Nevertheless, it has—for now almost a half century—stood as the best known and most widely used example of how coactions between an individual and the complex, nested, and integrated systems within his or her ecological setting create the basic process of development across life. This dynamic, relational process involves the specific individual and the specific features of his or her context in mutually influential coactions across time (the chronosystem) and place (the micro-, meso-, exo-, and macro-system). The process-person-context-time (PPCT) conception is, of course, the core of the bioecological model, but it is also a fundamental part of all dynamic, relational models of human development. The fact that, at this writing, these models are at the cutting-edge of developmental science is due in no small part to the power and persuasiveness of Urie's scholarship.

The methodology of ecological engagement, which is explained and richly empirically illustrated in this book, is a singularly significant extension of the bioecological model. Indeed, in my view, it is a brilliant empirical instantiation of the PPCT component of the model. In the conduct of good science, method derives from theory; that is, the methodological tools selected for use by a researcher should derive from the specific, theory-predicated questions being addressed. The bioecological model generates questions about the *specifics* of the mutually influential individual-context relation, represented in many expressions of this conception as

individual ⇔ context relations. These individual ⇔ context relations are the process in the PPCT framework.

Of course, the bioecological model goes well beyond a statement that the individual and the context are fused in a dynamic relation across life. It was Urie's insight that the actual (ecologically valid) instantiation of this process required a thorough understanding of a person's *specific* attributes of individuality (the second "P" in the PPCT conception) in concert with the *specific* attributes of his or her context (the "C" in the PPCT conception), as this coaction changes across the levels of the chronosystem (the "T" in the PPCT conception). Therefore, to describe, explain, and optimize the trajectories of development for any individual—and in particular, the diverse and often underserved and marginalized children whose ecologies are marked by adversity and ongoing challenges to not only their health and well-being but, as well, to their very existence—methods must be used to understand their individual, contextual, and developmental specificity.

The singular and historically important contribution of ecological engagement methodology is that it provides a clear and compellingly rationalized set of procedures that, together, assure that questions derived from the use of the PPCT conception can be addressed systematically and comprehensively with the scientific rigor that Urie insisted must be used to persuade scientific colleagues and policy-makers and practitioners that the information derived from research was valid internally and externally in regard to the ecology of the individuals participating in the research. The methodology triangulates observations across multiple dimensions: for example, quantitative *and* qualitative, explanatory research *and* intervention research, predesigned *and* formatively researcher ⇔ participant designed procedures, and—perhaps most superordinate—researcher-generated definitions of the research process *and* participant and community-/institutional-generated definitions of the research process.

As documented across the chapters of this book, the methods of ecological engagement are complex and time-consuming, given that genuine and continued embeddedness of the research team within the ecology of participants must be undertaken to create the trust and the ecological knowledge that provide the foundation for the collaborative research ⇔ practitioner procedures that are emblematic of the method. Yet, without embracing complexity and having the commitment to the time needed to create valid engagement, meaningful data cannot be derived from this methodology. However, as documented through each chapter of this unique and, frankly, inspiring book, the readers will realize the remarkable contributions to enhancing the lives of individuals and contexts that can be made by informed and systematic use of this methodology.

Indeed, the chapters of *Ecological Engagement* constitute the ongoing building blocks for the growth of a living monument to the highest aspirations of the career contributions of Urie Bronfenbrenner. During the last decade of Urie's life, I had the privilege of serving as the editor of three of his last major works: his 1998 chapter and 2006 chapter (a chapter completed posthumously with the help of Pam and Urie's wife, Liese) with Pamela Morris in the fifth and sixth editions, respectively, of the *Handbook of Child Psychology* and Urie's final book, published just before

his passing in 2005, *Making Human Beings Human: Bioecological Perspectives on Human Development*. In my conclusion to the foreword I wrote for this book, I said that:

> Urie Bronfenbrenner has, across more than six decades of singularly prolific and significant scholarship, given the world a gift of hope and power. We may remain hopeful that we can, through our own energies and active contributions to our world, optimize our lives and the lives of others with whom we share the fragile ecology supporting our existence. If we pursue the path of science and program and policy applications to which Bronfenbrenner's vision has directed us, we can as well sustain a humane and health-promoting ecology for future generations. Such a contribution may be Urie Bronfenbrenner's greatest legacy. It may be the frame with which human decency and social justice may prosper. (p. xxiv)

Ecological engagement methodology is the scientific means through which Urie's legacy can be furthered. If the steps in this methodology becomes increasingly embraced within developmental science, and if it is increasingly used to understand and enhance the individual ⇔ context relations of children and adolescents whose opportunities for thriving, life successes, and even life itself are challenged because of their specific ecological circumstances, social justice will be significantly furthered. The contributors to this book have illuminated the path developmental science can take to make such a contribution to the youth of the world. They have shown why the star that is Urie Bronfenbrenner continues to light our path forward.

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Foreword to the International Edition by Stephen F. Hamilton and Mary Agnes Hamilton

This book is a fitting tribute to Urie Bronfenbrenner and an indication of his enduring legacy. Having known him as a colleague and friend, we are certain that he would have appreciated the authors' close attention to his theory, their commitment to testing it empirically, and their willingness to do so in complicated real-world contexts. They are continuing to modify his ideas, as he did himself. Their method of ecological engagement is a means of investigating processes and contexts, a challenge he did not address explicitly, though his 1970 book, *Two Worlds of Childhood: U.S. and U.S.S.R.*, contains examples of formal and informal observations of child rearing in the Soviet Union.

Urie was motivated to conduct rigorous research and theorizing by concern for fostering human development for every person everywhere but especially for marginalized children, youth, and families. He readily shared his findings and his ideas with policy-makers and practitioners, not just other scholars. He demonstrated his respect for them and their work by explaining his ideas to them in their complexity rather than simplifying them. The method of Ecological Engagement explicated in this book employs the tools of science to delve deeply into people's daily lives, yielding the kind of understanding that can ground action to make those lives better.

It is also fitting that the chapter authors live and work outside the United States. As an immigrant who grew up speaking two languages and acquired at least two more later in life, Urie was a world citizen who was knowledgeable about and connected with people around the globe. His theory embraces influences on and processes of human development that are universal but also those that are specific to particular countries and cultures.

Finally, it is appropriate that the foreword was written by a former student. He was a legendary teacher who indelibly affected generations of undergraduate and graduate students.

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Foreword to the Brazilian Edition

It was a real pleasure to be invited to write the foreword for this book. In some ways, this invitation captures well two distinct, but connected, parts of my life. I went to the United States, in 1981, in order to do my PhD with Urie Bronfenbrenner and started publishing on his theory there in the mid-1990s (Tudge, Gray, & Hogan, 1997) and in Brazil soon thereafter (Tudge, 2008; Tudge et al., 1999, 2000). My writing on Bronfenbrenner's theory occurred at about the same time that I met Silvia Koller, in 1995, when I was first invited to talk at the PPG Psychology at the Federal University of Rio Grande do Sul (UFRGS) and have given many presentations on Bronfenbrenner's theory, as well as teaching a semester-long class on his theory, over the following years. This invitation thus nicely connects these two parts of my life.

Although Bronfenbrenner's theory, in one or other of its stages of development, has been very widely cited by scholars, surprisingly, little has been written about the theory, its development, or the methods that should be used to test the theory (Rosa & Tudge, 2013; Tudge, 2013). So it was with great satisfaction that I read the various chapters in this book. The first two chapters are reprints of papers that were originally published in 2003 and 2008, both in *Psicologia: Reflexão e Crítica*. The first, by Cecconello and Koller, does an excellent job of describing Bronfenbrenner's bioecological theory, and the second, by Eschiletti-Prati and her colleagues, aims to show how the theory can be applied in research practice. The remaining chapters of the book are mostly devoted to studies that used the method (ecological engagement) that Dr. Koller, her colleagues, and students devised in order to put Bronfenbrenner's theory into practice. These studies were conducted in various parts of Brazil, from its southernmost city (Rio Grande) to an Amazonian river community close to Belém, and in Angola.

As Eschiletti-Prati and her colleagues point out, Bronfenbrenner's theory went through many changes from the 1970s, when he first started developing it, until his death in 2005. In fact, three distinct periods can be identified (Rosa & Tudge, 2013), and scholars wishing to use the theory should either rely on the "mature" version of the theory or be explicit about the fact that they are drawing on concepts from one or other of the two earlier stages in the theory's development. Failure to do that is

likely to lead to theoretical incoherence if not a total misuse of the theory (Tudge, Mokrova, Hatfield, & Karnik, 2009; Tudge et al., 2016). It is thus very helpful that Cecconello and Koller devote so much time to describing the mature, bioecological theory, with its focus on the process-person-context-time (PPCT) model. They draw extensively on Bronfenbrenner's writings from the 1990s, which is important, given that Bronfenbrenner first described his theory (which he sometimes termed a "model") as "bioecological" in 1993 and discussed the PPCT model from 1994 onwards. It is very helpful to the readers that they draw so extensively on these original sources; it is always dangerous for researchers to rely on "authorities" (myself included) for their understanding of a theory rather than use the theorist's own words.

Although at first glance this model seems very complex, it is, in fact, rather straightforward. Proximal processes (the "engines of development") are the naturally occurring everyday activities in which developing individuals are involved. These, as Eschiletti-Prati et al. make clear, need to be the focus of attention for researchers trying to apply bioecological theory. Proximal processes vary depending on the characteristics of the individuals involved (the "person" of the PPCT model) and by the context and need to be studied over time. As Cecconello and Koller point out, Bronfenbrenner described three types of person characteristics and four "systems" of context. Bronfenbrenner made clear, however, primarily in the course of discussing others' research, that one can test the PPCT model by examining the ways in which proximal processes are influenced by variations in a single person characteristic and by examining one contextual variation. In many of his later publications (e.g., Bronfenbrenner 1999; Bronfenbrenner & Ceci, 1994; Bronfenbrenner & Morris, 1998, 2006) describing the bioecological theory and the PPCT model, he used Drillien's (1964) study to illustrate the ways in which differences in the child's birth weight (the person characteristic of interest) and differences in the family's social class (the context characteristic of interest) jointly influenced mother-child proximal processes, leading to different outcomes for the children 2 years later. In other words, despite the apparent complexity of the theory, it does not require researchers to do the impossible in applying the theory (see Tudge et al., 2009).

Most of the authors in this book use Bronfenbrenner's theory as their starting point, but they focus primarily on the method that is at the heart of this volume—ecological insertion. This method involves conducting a study in context, with the team of researchers "inserted" into the environment over a period long enough to understand the problems and issues of the individuals being studied. The most important aspect of the method is the fact that the researchers are explicitly viewed as part of the system, a system including all of the people involved (researchers, community members, and the participants of primary interest), and the context itself. As authors of two of the chapters point out, this method has a lot of similarity with ethnographic approaches involving participant observation (Bucher-Maluschke) and systems theory (Pontes et al.). Eschiletti-Prati and her colleagues, however, argue that the main difference between this ecological insertion and ethnographic approaches is the explicit attention given to proximal processes, the

person, the context, and time. In other words, they make a connection between the method of ecological insertion and Bronfenbrenner's bioecological theory.

The most creative part of this connection is treating interactions among the research team and the other individuals in the context as the proximal processes of interest. Eschiletti-Prati and her colleagues draw on Bronfenbrenner's writing about ecological validity from the 1970s as the supporting concept and argue, rightly I think, that although Bronfenbrenner never returned to the concept in his later writings, it is well worthy of greater consideration. The concept refers to the fact that there needs to be congruence between what participants in a study experience in their context (whether home or laboratory context) and what the researchers *assume* the participants are experiencing. How better to ensure that congruence than by members of the research team spending a great deal of time in the context, interviewing community members as well as the individuals who are the focus of the study, writing field notes about their perceptions, sharing those perceptions with others in the team, and so on? The goal, clearly, of the method is to understand the context and the individuals within it as thoroughly as possible. Some type of invisible "fly on the wall" approach is obviously not what is required, and the method is explicit that the research team is influencing and being influenced by the community and its inhabitants.

The chapters in the second section of the book do an excellent job of describing the method of ecological insertion that Koller and her collaborators developed and showing how they applied that method in their research. They all note, for example, that the method is time-intensive. For example, Morais and her colleagues describe the way in which the research team spent 7 months, averaging two visits each week, with at-risk children and adolescents and workers at two different institutions helping at-risk youth in Porto Alegre. Rosa and her colleagues describe the way in which the ecological insertion of her research group took place, also over 7 months, involving 30 visits to a children's shelter in Espírito Santo. Siqueira and Dell'Aglio describe the 9 months in which their research team spent with five adolescents following their reunion with their families after a period in an institution for troubled adolescents.

Both Silva and colleagues and Mendes describe the work that their group of researchers spent in a river community of the island of Marajó, near Belém. Their work appears the most traditionally ethnographic (given that ethnography is the method primarily associated with cultural anthropology). Silva and her colleagues went to the island every 2 months, spending 10 days each time in the community. Mendes spent 3 years meeting with and observing children from the same community and their teachers. As with the best ethnographic studies, ecological insertion requires this type of time investment, as the researchers aim to understand the community, the individuals of interest, and establish connections between themselves and the families, children, adolescents, and youth workers.

The difficulty is not simply with the investment of time, necessary though it is. In all of the studies reported on in this book, the researchers are reaching out to children and adolescents who are vulnerable to many risks, including often living on the streets, physical and sexual abuse, drugs and prostitution, and a lack of so many

resources. Trying to build trust is not at all easy and, as Vega and Paludo discovered, may not be possible. Their research team spent 5 months getting to know the community and talking with youth workers at shelters in an attempt to understand and help adolescents being sexually exploited in Rio Grande. The team only managed five interviews with adolescents, and at times, team members felt themselves to be in serious danger. A different difficulty was noted by Sacco and Koller, describing the first author's attempt to do focal group interviews with six children in Angola. As the children's lessons took place outside, gathering a small group under a tree quickly led to the group being surrounded by other children.

As a way of showing that the method of ecological insertion can be employed in a variety of different ways, Souza and her colleagues describe using the method to create a program in human rights education with adolescents. They argue that proximal processes between the research group and 72 adolescents in Porto Alegre, with whom they met twice monthly for 5 months, created a new microsystem. Another interesting use of the method is described by Krum and Bandeira. The researcher first built contacts with a well-respected leader of the military police in a small city about 300 km north of Porto Alegre that had recently experienced a tornado. These initial contacts facilitated two sessions of focal group and individual interviews with ten of the affected inhabitants.

One important part of the method which certainly deserves attention is the careful way in which field notes are meticulously written by all members of the research team, and discussed among members of the group, as a way to help the team members understand the local context better, raise questions about issues that need to be discussed more, reveal biases that have to be confronted, and so on. The field notes should include impressions of the context, doubts, and questions about the initial encounters with community members, informal observations, feelings about the ways in which the interviews or meetings went, and much more. Aquino-Morais and her colleagues do a particularly nice job of showing would-be researchers why these field notes are so important and how to use them appropriately. However, the authors of many of the other chapters also explain well the use of field notes with the method of ecological insertion.

In summary, then, the authors of this book do an exceptional job discussing the roots of the method of ecological engagement, showing how it can be used in research, and pointing out many of the problems that are bound to be encountered when trying to understand and to help children, adolescents, and their families living in situations of vulnerability and risk. The book deserves to be read widely.

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Part I
Ecological Engagement

Chapter 1
Ecological Engagement: Promotion of Knowledge Production

Júlia Sursis Nobre Ferro Bucher-Maluschke

Psychology research seeks understanding of human phenomena on the intrapersonal and subjective plane as well as the interpersonal or interactional. Realizing this this goal has become the primary challenge for researchers.

How does one capture a part of reality that escapes one's immediate perception?

In ancient Greece, pre-Socratic philosophers were well aware of the complexity of apprehending reality. Some of their observations that have survived until the present attest to their ability to discern the difficulties inherent in the search for knowledge.

While Heraclitus emphasized the shifting character of reality: "You cannot step into the same river twice, for other waters are continually flowing on" (D12) p. 25; Parmenides distinguishes the path of truth from the path of opinion. The fundamental distinction between the two paths is that, for him, on the path of truth, a man allows himself to be guided by reason only, while on the other, the sense information does not lead to the discovery of the truth *(aletheia)* and to certainty, dwelling instead in the unstable realm of opinions (p. 21), indicating that our senses induce illusions and that words are what determine reality but alert us nonetheless to the fact of their deceitfulness.

With Socrates comes a change of focus from the search for knowledge search to mankind, emphasizing to his disciples the necessity of knowing oneself.

Although ancient, these observations persist today and continue to challenge researchers.

In our capacity as researchers, we pose two questions as a starting point:

– How do we capture the truth or possible systems of truth?
– How was the system we described generated?

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It is in this vein that we will address ecological engagement as a possible path to knowledge production that is as close as possible to reality.

Let's look at some of the assumptions of ecological engagement.

The efforts of social scientists, psychologists, and anthropologists to achieve the best possible understanding of the social, psychosocial, subjective, and intersubjective or relational dimensions inherent to the human being's life experience are enormous. One of the challenges pertains to the vocabulary used in scientific investigation. For example, methodology and method are often confused, according to the descriptions of those doing the research.

Potter (1996) differentiate methodology and method, defining them:

> "…methodologies are perspectives on research; they set out a vision for what research is and how it should be conducted. They are the connection between axioms and methods; methods are tools – techniques of date gathering, techniques of analysis, and technics of writing. Because it is a tool, a particular method can often be used by many different methodologies (both qualitative and quantitative). Therefore, methodologies are at a more abstract (or general) level than are methods. Methodology is like a strategy – or plan – for achieving some goal; methods are the tactics that can be used to service the goals of the methodology. In essence, methodologies provide the blueprints that prescribe how the tools should be used. Those prescriptions can be traced to the axioms- beliefs about how research should be conducted." (p. 50).

This distinction is important as it clarifies two aspects in constant interaction which are not, however, synonymous.

For years, in the human sciences, quantitative research has been developed under the parameters of the natural sciences. Only quite recently has so-called qualitative research enjoyed greater acceptance in academia.

It is important to remember that qualitative investigations start with the development of case studies. Atkinson (1998) presents a life or oral story as "…a narrative form that becomes a qualitative research method when it seeks to capture, to obtain information about the subjective essence of a person's entire life." (p. 3).

Case studies are done in clinical psychology (Bucher-Maluschke, 2010), but it was Freud who initiated this method of investigation, thereby contributing to the development of psychoanalytic theory. Among the various case studies he performed, the studies "Leonardo da Vinci and a Memory of his Childhood," published in 1910, as well as "Psycho-Analytic Notes on an Autobiographical Account of a Case of Paranoia" from 1911 are noteworthy. His studies were important milestones for the development of psychoanalysis.

Since then, other case studies have been done using individual narratives as much as primary documents. Allport (1942) elaborated tests about the development of individuals based on this investigation method. Erikson analyzed Luther's (1958) and Gandhi's (1969) lives. In 1975, Helm Stierlim published a study about Adolf Hitler from his family's perspective.

These are just a few examples of studies using people's life histories, which deal with development concepts that are important for the development of other research, as, for example, occurs with the concepts of individual and family lifecycles as well as the creation of other investigation techniques, such as the family genogram.

As a form of scientific investigation, there was a systematization of case studies and identification of some sources for data and information gathering. Yin (2005) presents six sources of evidence in case studies: documents, archive registries, interviews, direct observation, participative observation, and physical artifacts.

Physical artifacts may consist of movies, photos, and videotapes as well as projective techniques, psychological tests, proxemic information (proxemics is the study of cultural, behavioral, and sociological aspects of the physical space between individuals), kinesiology or the study of nonverbal bodily movements in communication, street and community ethnography, and life stories.

To Yin, a case study "… is an empirical investigation into a contemporary phenomenon within a real-life context, particularly when the boundaries between the phenomenon and context are not clearly defined" (p. 111). He draws a distinction between this and case studies of laboratory experiments in which the context is "controlled" by the facility's own environment and only a few variables are selected for the experiment.

Quantitative and qualitative research have their own characteristics regarding data collection and analysis. In the search for information, Denzin and Lincoln (2006, p. 23) make a distinction between the two systems (quantitative and qualitative). "Quantitative studies emphasize the act of measuring and analyzing causal relations between variables and not processes," while qualitative studies emphasize "the processes and meanings that are not examined or measured experimentally in terms of quantity, volume, intensity, or frequency."

This distinction of objectives and procedures raises new questions: how does a process come to be and how do we approach it? The other question is, what are meanings and how do we reach them and understand them?

These are two of the great challenges of qualitative research.

As for understanding "what a process is," Strauss and Corbin (2008) address process using music as a metaphor:

> "We know that music, be it jazz, pop, or classical, is composed of a series of notes, some faster, some slower, some louder, others softer, sometimes played in one tone, sometimes in another, with a constant come and go across the keys. Even the pauses have a purpose and are part of the sound. It is the playing of those notes, with all its variations and coordinated sequences, that gives music its sense of movement, rhythm, fluidity, and continuity" (p. 162).

The authors conclude that a process is like music in the sense that it represents rhythm, mutating and repetitive forms, pauses, interruptions, and varied movements that form the sequences of action and interaction (p. 162). In this link between music and process, capturing the constituent elements of a process to understand it and explain it demands intense study, as we will see below.

With regard to the meanings or senses, by being polysemic, they invite a certain confusion and, therefore, we must have clarity as to their use by researchers. Bunge (2002) defines meaning as object signified and adds that it signifies something to someone in the measure that it designates and denotes something. He says further that "two symbols are equally meaningful if and only if they designate or denote the same object, as is the case of "3" and "three" (p. 352).

Qualitative investigation in psychology continues to grow. It is intensive and the analysis of its results is an interpretation of the significance of human language and action. The researcher has the arduous task of decoding a language, a culture, to recode in another which will be used for the theoretical explanation, which could eventually be defined as making interpretations that might be cultural, psychoanalytical, systemic, psychodynamic, bioecological, or anything else consistent with the researcher's theoretical parameters.

Becker (2007, p. 86) highlights two questions that can be asked in the interviews "how?" and "why?" and that they will inform the type of information the researcher will obtain. According to Becker, the question "why?" provokes a defensive response in the sense that it demands an explanation, while the question "how?" provokes a descriptive response. For example, "how did things happen?" instead of "why did things happen?" The first question gives people more freedom to respond, is less restrictive for telling a story.

Postmodern ethnology makes a significant contribution through field studies carried out over decades.

Initially, observers were kept in a position and status exterior to the studied object. Thus, such objects (whether groups or societies) were seen through western eyes, which evaluated them through the lens of western values and beliefs. Later, participant observation arose as a method of ethnologic study, having been introduced by Malinowski in the early twentieth century, after having immersed himself for several years in Malian societies. Another article, from the University of Chicago, backs the term "participant observation." We are faced with two unitary ideas—**observation** and **participation**.

It should be noted that **observation** constitutes one of the most important aspects of investigation procedures, nevertheless, it can be done in several ways. The subject-researcher can observe based on his beliefs, unable to see the object of his study in himself. This observation should be seen as a true tool of discovery, a method that, conducted in the proper manner, allows access to certain psychosocial dimensions or the ecological context of the investigated object.

Then, the word **participant** joined with observation and we stress that participation is one of the most difficult concepts to circumscribe in an operational manner. First, it is a word used in many areas today. One participates in everything and the etymological sense gets lost.

In that sense, participant observation creates a lot of ambiguity, and as such it demands investigation. One can say that participation in the context of research must be **interactive participation**. It is, therefore, a personal experience of psychosocial and cultural otherness.

The danger of participant observation, if not sufficiently understood by the researcher, is that of the Hawthorne effect, that is: the observer's presence modifies the situation being observed.

Another important contribution to qualitative studies came to us from the Chicago school, in the 1920s and 1930s, where the idea of human ecology was conceived. It addressed describing man within his context. The city assumes the role of research laboratory and human behavior is then analyzed in relation to the industrial,

geographical, and urban environments. The communities are studied through processes identified for vegetable and animal ecology. We find ourselves facing the need for the ecological engagement of the researcher.

Whyte (1981), in 1937, entered the neighborhoods and developed a degree of participation in the research–researched relationship, the systematization of observation, and the first treatment of the collected material.

The Chicago school experiments propelled qualitative research to new heights—outside of laboratories or predefined samples, showing the way to a postmodern ethnology.

This development of concepts and the way the researcher sees the world is molding itself for a better understanding of what ecological engagement is. The first principle to consider in ecological engagement is **interactive observation**.

To illustrate it, we offer the example of the research performed in Brazil with families from northeastern region of the country. It sought to study the dynamics of small farming families in the northeastern countryside. The first interviews carried out in the families' homes, after an introduction with the help from local native leaders, resulted in similar data with assertions that they had no belongings, animals like cattle or chickens, all of which the interviewer could see in front of her during the interview. Either those things were borrowed, or they had already been sold. In other cases, families refused to talk to the interviewers for irrational reasons. The families' behavior, the preoccupation with giving the impression that they had nothing or could not receive anyone in their homes, after the interview had been announced by the local leaders, demanded an explanation. The interpretation of this was given to us as follows. Some time ago the IBGE (Instituto Brasileiro de Geografia e Estatística, Brazilian Institute for Geography and Statistics) census interviewers had been there, and information spread in the community and surrounding areas that these people had been sent by President Lula to verify their possessions and cut "Bolsa-Família" (Brazil's income assistance program). With this new information came the realization that while the researcher is observing, the object of observation—in this case, the family and/or the head of the family—is observing as well. The researcher arrives there steeped in the elements he brings with himself, looking for knowledge about something he wants to learn; one who is investigated within one's context is in turn curious about new arrival as well—What does he want? What does he intend? How does he see me and to what use will he put what he learns about this place?

We believe that it was from this perspective that CONEP (Conselho Nacional de Pesquisa do Ministério da Saúde, the Ministry of Health's National Council of Research) developed the protocol of terms of consent.

To develop a high-quality ecological engagement, a consistent preparation comprising several stages is necessary.

The preparation that preceded the trip to the northeast was defined initially as learning how to observe. We all think we are observers, some more, others less, but how does one characterize, test this skill, how does one train it? The first exercise we do is observation. On a table we placed several rocks of different sizes, colors, types, textures, and forms. We then asked the students to observe what was on the

table and describe, in writing, what they saw, being at liberty to verify in the best possible way and elaborate a report about what had been observed. The behaviors related to observation are the most variable—some get up, look, hold, sniff, lick, and then describe in detail. Others write poetry, develop metaphors, interpret; some do not move from their places and fantasize; others get close, use the five senses and describe and relate afterwards. After reading descriptions of their observations, we began to reflect on the experience of the act of observing—what—how and why. This is what we called the first stage of learning for ecological engagement as a research procedure.

In that situation, the concept of "the field" is learned—what becomes "the field" of investigation—in the case of the exercise with the rocks, the field is space—the table upon which the rocks had been placed—but the field can be anywhere where the subjects, or our objects of study, are.

How is one ecologically inserted into this field? Then we began a reflection on the second presupposition of engagement, that being enunciation, because the connection with words is fundamental. The narrative—the discourse, the role of words—is of crucial importance. Psychoanalysis has already posited the importance of words in the healing of the subjects that submit to it.

In qualitative research, understanding and being understood presupposes a dialogically guided relationship in a communication process defined by the pragmatics of communication developed by Watzlawick of the Mental Research Institute of Palo Alto.

We have, in effect, an example of nonengagement from this perspective. When we began a progress evaluation of a study on violence in poor communities in the suburbs of Fortaleza, Brazil, the interviewers initially returned with information that there was no violence in those families. This result was astonishment in all who were accustomed to seeing children bruised or absent from school, or even hearing reports from the children themselves of mistreatment in the family.

After a big discussion about what had happened, we saw that the topic of violence required another approach and so the interviewers made a change. Instead of discussing violence, interviewers started by asking about exchanges of affection, fondness in the family, step by step getting around to the questions about violence and from there identifying what violence meant to them. For them, violence had been defined as a "corrective," "teaching someone a lesson," but that was not considered violence as they did not go to a hospital and not ended another's life.

We were facing a phenomenon called banalization of violence—"a little slap does not hurt," as the popular song says.

This interactive observation that includes word and the meaning attributed to it by the observer as well as the observed is only one means of engagement into the ecological context of the studied group, to the extent that the researcher begins his work of translating the meanings inherent in the words said, or in the silence (the words unsaid) or the "mis-said," those between the lines and the gestures that accompany them, a translation that allows the development of strategies of those who welcome or who refuse the researcher. In this manner, they are defining themselves in relation to the researcher.

This, as well as the rural northeast examples, contribute to the learning of enunciation which we call conceptual engagement—a fundamental stage for the observation to be interactive, that is, the researcher observes what the study's subject or group is observing about the research and researcher. This allows the elucidation of not only complex and symbolic systems, but also of the nearly imperceptible elements of observation of beliefs that accompany gestures, the most commonplace and barely visible. This means methodically exploring, in all directions, the elements that compose the studied scene.

Rites, narratives, beliefs, myths, object classification, be they natural and social, all testify equally, but differently, to the exercise of thought, of reflection. The act of interpreting cannot focus merely on the first datum or on an isolated case, but it must support other data uncovered with the comparison itself producing the space and the time necessary for the manifestation of meaning.

The heuristic demand presupposed in ecological engagement, that is, the attempt to discover other things in a field of uncertainty, tries to identify and redefine the normative ideas the researcher had before and promotes appreciation of the facts in other ways.

The elaboration of explanatory models demands that the senses, significances, or meanings of the context, or of what is inherent to the subject or group under study, be obtained.

Today we see in dissertations and even theses, the use of the notion of a *corpus*, which originates from linguistics and quantitative history, however, ecological engagement is not reducible to obtaining a closed set of facts to describe and reduce to a general model of functioning.

The ecological engagement approach supposes a progressive or processual elaboration, whose factual, historical, geographical, and cultural contours, in the perspective of the bioecological model of Bronfenbrenner, are situated in the interior of the macro- and exosystem. Thus, we confront a deep and intense dynamism that is translated through the provocative complexity of constant reflection-action-reflection-action-… This we call the movement of knowledge before, no longer the universe, but the "pluriverse" in which the human being lives.

The field of study then becomes the moment in which, with the perception of the unnoticed, there is a work of discovery in the face of blinding evidence. Then some hypotheses are extracted which a reasonable exploration will put to the test, verifying, refining, and extending.

The researcher is an actor in a psychosocial game: since the moment of his arrival he is involved, independently whether he wishes to be or not, in a network of alliances and oppositions; he is put in a position that will shift across the procedures of field investigation; but, on other hand, he experiences something all his own. In this sense, the researcher in an ecological engagement is produced like an actor through the intense processes that he defined as objects of analysis. In the test originated by Gadamer (1989), in no way can the situation be considered external, since the observer is necessarily one of the actors. He adds that when the author as well as the reader are historically situated, they can share the meaning, opening the possibility of constant reinterpretation and reevaluation, to the extent that different meanings

are projected into the work in question. We are thus looking at a "fusion of horizons"—the metaphor used by him. The distance that structures the researcher's activities and which describes production through the "founding" operation, that is, ecological engagement, must be considered as internal to a communication whose subjects are the actors and of which the researcher is a part and it does not lend itself to a simple translation based on an exterior position. The interpretation demands permanent self-reflection and inter-reflection with the supervisors.

Ecological engagement as methodology was inaugurated in psychology starting with studies developed at CEP-Rua, a research group connected to the Universidade Federal do Rio Grande do Sul (UFRGS, Federal University of Rio Grande do Sul). We highlight some research in which ecological engagement has been described in detail in a natural environment, specifically in the streets with youth in "street situations" (Paludo & Koller, 2004). Another illuminating study of ecological engagement was carried out with at-risk families in a natural environment which focused on resilience and vulnerability in families living in adverse conditions (Cecconello, 2003; Cecconello & Koller, 2004).

Leaving CEP-Rua and entering "CEP-Rio," where another natural environment study was carried out in a riverside community in the state of Amazonia by the research group attached to the Laboratório de Estudos do Desenvolvimento do Programa de Pós-graduação da Universidade Federal do Pará (Graduate Program Laboratory for Developmental Studies of the Federal University of Pará). Several aspects of riverside life were investigated, such as family structure and dynamics, school, and social environment. From the ecological engagement perspective, the study highlighted the role of the informant and the use of photography as crucial strategies for the development of the proximal processes, fundamental for the research's success (Mendes et al., 2008).

In 2003, Cecconello and Koller, in their study of families in situations of risk, presented ecological engagement into the community as a methodology and a guarantee for "ecological validity," as developed by Bronfenbrenner (1996).

A more recent study presents and deepens ecological engagements as a methodological proposal (Prati, Couto, Moura, Poletto, & Koller, 2008).

The ethics of the researcher is a part of ecological engagement as well. Cecconello and Koller (2004, p. 288) properly observe that

> "… [the] methodology of ecological engagement must be used with ethical responsibility by investigators, as, in the process of carrying out research, they become part of the daily life of the people involved. The line between ecological engagement and harmful belonging can be fine indeed if the research team lacks clarity as to its role in the process underway."

To end this essay, we bring two images identified by Vicenzo Di Nicola (1998, p. 112). The first one is of the Tower of Babel, a structure built to reach the heavens, and for which the Lord, to punish presumption of men, confused the language of the builders, preventing their communication. The second image is the Rosetta Stone, an ancient Egyptian rock discovered in the city of Rosetta in 1799, containing an inscription in two languages and three writing systems: Egyptian hieroglyphs above, Demotic characters in the middle, and Greek below. It was through the study of this

rock that J. F. Champollion uncovered the means to translate hieroglyphs, thereby opening the doors to the knowledge of an entire civilization. Di Nicola concludes: while the Tower of Babel is symbol of human misunderstanding, particularly between cultures, having become the image of the problem, the Rosetta Stone came to be a symbol of translation and of access to other cultures, becoming the image of the solution.

As qualitative researchers, we expect that learning ecological engagement will greatly benefit the resolution of methodological programs.

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