



Psychological Theories For Environmental Issues

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Edited by
**Mirilia Bonnes,
Terence Lee and
Marino Bonaiuto**

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MIRILIA BONNES, TERENCE LEE AND MARINO BONAIUTO

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*This book is dedicated to the memory of the late Dr. Mimma Peron,
University of Padua.*

Distinguished environmental psychologist

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1 Theory and Practice in Environmental Psychology – An Introduction

MIRILIA BONNES, TERENCE LEE AND MARINO BONAIUTO

Psychological Research, Theory and Applied Psychology

“There is nothing so practical as a good theory” declared K. Lewin in the 1940’s (1951, p.169) referring to the research being carried out by his group at the University of Iowa. At that time, they were addressing issues of considerable social relevance. The best known and most enduring was the distinction between autocratic and democratic leadership styles, evoked by Lewin’s experiences in Nazi Germany, from which he had fled in the thirties. Another related topic was the development of group involvement in decision making which was found to be so effective in changing in eating habits (the consumption of offal meats) at a time when food was scarce due to the war. Working on these types of issues and oriented by his conviction that they could be enlightened by theory and tested by experiment, Lewin was able to build the foundations of a new psychology, or as he more specifically proposed, “psychological ecology” (Lewin, 1951).

With regard to this type of psychology, or these “ecological ways” of approaching psychology, he saw his task as that of guiding the practice and the relationship between “theoretical social psychology” and “applied social psychology” (Lewin, 1951, pp. 168-169). More specifically, this concerned the relationship between research primarily guided by intentions of “internal relevance”, that is, aimed at increasing knowledge in the field of psychology and by research defined as “applied”, since it is primarily the interest of areas outside psychology, that is, with aims of “external relevance”. Applied psychology in general focuses on problems of clear social relevance. These are identified and defined outside the field of psychology itself and they are in general intended to more or less directly understand and influence the processes of social organization, management and policy.

It is surprising that the words Lewin adopted in those years to outline

and discuss this relationship are still true today for scientific psychology in general – or experimental psychology, as Lewin called it – especially in these countries where this relationship has always been considered highly suspect (like Italy, or also UK until, say the seventies: see Canter and Lee, 1974).

It should be noted that Lewin referred simultaneously to experimental psychology and scientific psychology, identifying with these same terms all psychological research involved in acquiring psychologically relevant knowledge through the use of scientific methods. He considered the various empirical-experimental methods in this way, whether the more explorative-observational and thus descriptive type (ideographic) or the more specifically experimental type, that is, hypothetical-explicative and thus predictive (nomothetic).

“The scientist cannot be blind to the fact that the more important the group problems which he intends to study, the more likely it is that he will face not merely technical social problems. His objective is fact finding in regard to what is and what would be if certain measures were adopted.

“In other words the experimenter as such is not the policy determiner of the organization. However, he can investigate what ought to be done if certain social objectives are to be reached.

“In a particular way then are the methodological problems in this field of experimental social psychology interlocked with so called ‘applied’ problems” (Lewin, 1951, p.168).

In this regard, Lewin underlined the relationship he defined as “peculiar ambivalence”, which according to him always existed between scientific psychology on one side – with both a theoretical and experimental orientation – and on the other side what he called “life” or “natural groups” problems, or as often defined today “real-world problems” (Proshansky, 1976; Altman, 1988; Bonnes and Bonaiuto, 2001). In any case, this ambivalence characterises the relationships psychology in general has with applied psychology which, by definition, is established and developed around this type of problem. The consequence of this “peculiar ambivalence” is the often divergent developmental path he saw and described as characterising these two psychologies over time.

“In its first steps as an experimental science, psychology was dominated by the desire of exactness and a feeling of insecurity. Experimentation was devoted mainly to problems of sensory perception and memory, partly because they could be investigated through setups where the experimental control and precision could be secured with the accepted tools of the physical laboratory. As the experimental procedure expanded to other sections of psychology and as psychological problems were accepted by the fellow

scientist as proper objects for experimentation, the period of 'brass instrument psychology' slowly faded. Gradually experimental psychology became more psychological and came closer to life problems..." (p.169).

However, he pointed out with preoccupation the divarication often produced between these two types of psychology.

"The term 'applied psychology' became – correctly or incorrectly – identified with a procedure that was scientifically blind even if it happened to be of practical value. As the result, 'scientific' psychology that was interested in theory tried increasingly to stay away from a too close relation to life."

In fact he stressed that :

"It would be the most unfortunate if the trend towards theoretical psychology were weakened by the necessity of dealing with natural groups when studying certain problems of social psychology."

At the same time he seemed very aware about the difficulties, but also about the opportunities, of this closer collaboration between theoretical and applied social psychology, when he noted:

"One should not be blind, however, to the fact that this developments offers great opportunities as well as threats to theoretical psychology."

He then continued :

"The greatest handicap of applied psychology has been the fact that, without proper theoretical help, it had to follow the costly, inefficient, and limited method of trial and error. Many psychologists working today in an applied field are keenly aware of the need for close cooperation between theoretical and applied psychology. This can be accomplished in psychology, as it has been accomplished in physics, if the theorist does not look toward applied problems with highbrow aversion or with a fear of social problems, and if the applied psychology realizes that there is nothing so practical as a good theory."

He then concluded by emphasizing the potential strength of psychological research focussed on socially relevant or 'applied' problems, because of its possible theoretical implications, beside its practical and political ones:

"In (this) field ... more than in any other psychological field, are theory and practice linked methodologically in a way which, if properly handled, could provide answers to theoretical problems and at the same time strengthen the

rational approach to our practical social problems which is one of the basic requirements for their solution" (Lewin, 1951, p. 169).

In this perspective, the proposal Lewin subsequently formulated around what he defined as psychological ecology figures as a "theoretical bridge proposal". Based on his field theory, it outlined the general theoretical frame of reference that social psychological research should conform to. This required proceeding according the founding postulate of field theory, i.e., human behaviour (B) is a function of personal (P) and environmental (E) factors, according to the well known equation $B = f(PE)$.

Further, it should maintain a dialogue with various scientific, technical and political domains, outside the field of psychology, with the aim of optimising the social processes of organisation, management and decision making.

Anyway we can remind that Lewin was not the first to formulate problems in terms of "social psychology": McDougall had published his 'Introduction to Social Psychology' in 1908. Nor was he the first to design and carry out experiments on social psychological processes. This is generally attributed, in retrospect, to Triplett (1897). He had noticed that the competitors in cycle races could proceed 20% faster if 'paced' by a tandem bicycle which could proceed consistently ahead of them. However, in more traditional psychological mode, Triplett explored the effect, not with cyclists in races, but with schoolchildren who were required to wind fishing reels!

Lewin's psychology, as well as developing a new field of 'group processes', saw no conflict between the use of theory and the study of a problem directly, without dubious simulation or excessive generalisation. His approach was 'ecologically correct'. But environmental psychologists owe him a greater debt than most. This is because "ecological" implied not only 'true to life' – but also 'conducted in space'. He played a major role in the cognitive revolution that sought to challenge the hegemony of behaviourism. In his vectorial diagrams of the 'life space', he made the first tentative attempts to show that space is also subjective, that it results from 'life circumstances' and most important, that it plays a considerable part in shaping decisions and behaviour. Past reinforcement is not a sufficient explanation: people form intentions and plans that take account of their life space and aim to change it. Even more important perhaps, Lewin went a step further to conceptualise 'psychological space' to equate the subjective representation of physical distance with the subjective representation of social distance. The work of Barker, one of his students, retains the label 'ecological psychology' and is a major thread in the tapestry of environmental psychology.

Environmental Psychology between “Molecular” and “Ecological Molar” Approach

It has been shown elsewhere (see Bonnes and Secchiaroli, 1995) that Lewin’s psychological ecology proposal can in many ways be considered to lie at the root of the developments in environmental psychology that subsequently occurred.

In fact, at the end of the 1940s one of Lewin’s students, Roger Barker, founded the school of “ecological psychology” at the University of Kansas (Barker, 1968, 1987). This is generally recognised as one of the most important and systematic pioneering contribution of the scientific psychology tradition to today’s environmental psychology (Barker, 1987; Bonnes and Secchiaroli, 1995; Bechtel, 1997).

In the 1950s and 1960s, ‘architectural psychology’ emerged first and then flowed into the broader area of environmental psychology first in Europe and then in the United States (see Bonnes and Secchiaroli, 1995). This area was defined more precisely in the United States at the beginning of the 1970s (Proshanky, Ittelson and Rivling, 1970; Craik, 1970, 1973; Wohlwill, 1970). It should be noted that due to the influence of the architectural and engineering fields, much of European environmental psychology initially developed as “architectural” and “engineering” psychology with specific interest in the problems of the “built environment” (see Bonnes and Secchiaroli, 1995).

Initially, its viewpoint was very close to the ergonomic area of so-called “human factors” (see Canter and Stringer, 1975) originally connoted by an explicit environmental and architectural determinism (see Kuller, 1987; Canter and Donald, 1987). However, it was soon re-oriented by the same European environmental psychologists in a decisively more ecological or inter-actionist direction, as shown in the first half of the 1970s by T. Lee and D. Canter (Canter and Lee, 1974; Lee, 1976; Canter, 2000).

The first definitions aimed at identifying this emerging field of psychology pointed out the specific and, at the same time, “new” interest of psychology (see Bonnes and Secchiaroli, 1995; Bonnes and Bonaiuto, 2001). This interest focussed on the relationship between human behaviour and experience with the related physical environment, or “physical surrounding”, or even better the “physical setting” of the environment. In fact, “Man and his physical setting” is the programmatic title the historic group, formed by H. Proshansky, W. Ittelson and A. Rivlin at the City University of New York, chose, at the end of the 1960s, for the first volume published specifically to introduce this new disciplinary area of psychology.

Also, several years later, in outlining one of the first systematic introductions to the field (“Introduction to environmental psychology”), the same group proposed the following definition:

“Environmental psychology is an attempt to establish an empirical and theoretical relationship between behaviour and experience of the person and his built environment” (Ittelson, Proshansky, Rivlin and Winkel, 1974, p. 303).

Again, the first most important volumes published in Europe in the field by T. Lee and D. Canter were primarily focused on the *built* environment especially in an architectural sense: Psychology and the built environment (Canter and Lee, 1974), Psychology for architects (Canter, 1972), Psychology and environment (Lee, 1976).

From the beginning, it was emphasised that the physical environment must not be considered in “molecular” terms, according to the classical tradition of the psychology of perception and of related experimental laboratory studies, but in the “molar”, or ecological, perspective typical of the Lewinian social psychology and psychological ecology. That meant considering both the behaviour and the physical environment according to units primarily significant at the subjective-personal level (see Bonnes and Secchiarioli, 1995, pp. 68-72).

As Craik (1970, p. 15) specified, this involved considering the physical environment as “the physical setting of molar behaviour”. Proshansky also observed:

“For the environmental psychologist the physical environment of interest goes well beyond the stimuli and pattern of stimuli of interest to experimental and human-factor psychologists. Indeed he rejected these conceptions of the physical environment on the grounds that they represent analytical abstractions of the environment rather than a realistic description of it, as it related to the actual behaviour and experience of the individual” (Proshansky and O’Hanlon, 1977, p. 103).

As Russell and Ward (1982, p. 652) also specified, the intention of environmental psychology became that of

“...extending the boundaries of psychology beyond the study of an immediate stimulus to include a study of behaviour as organised over a larger span of time and in relation to the large-scale environment.”

In fact, they observed that

“A molar perspective on the organisation of behaviour thus refers an understanding of behaviour at the subjective meaningful level -- the level at which people plan their day, go to work, and return home -- a level of both practical and theoretical importance” (1982, p. 652).

Stokols also declared this at the end of the 1970s in his systematic review article appearing in the *Annual Review of Psychology*:

“In contrast with most sub-areas of psychology, environmental psychology brings an ecological perspective to the study of environment and behaviour. Accordingly, the environment is constructed in multidimensional, molar terms and the focus of analysis is generally on the interrelations among people and their sociophysical milieu, rather than on the linkages between discrete stimuli and behavioural responses. It should be noted, though, that much of the research in this field has attempted to isolate physical dimensions (e.g., noise, temperature, space) of the broader milieu in order to assess their specific affects on behaviour” (1978, p. 254).

In order to underline the necessity of this “molar” or “ecological” perspective, Stokols’ definition of “socio-physical environment” was increasingly accepted from the end of the 1970s: environmental psychology, he writes, is the study “of the interface between human behaviour and sociophysical environment” (1978, p. 253). In fact, this definition was re-proposed and assumed, in an even broader perspective, based on what was defined as the “transactional-contextual” theoretical perspective (see later), in the first *Handbook of Environmental Psychology*, published by Stokols and Altman (1987).

In the introduction to this volume environmental psychology is defined as “the study of human behaviour and well-being in relation to the sociophysical environment” (Stokols and Altman, 1987, p. 1).

The emergence of environmental psychology and its development over the years was continuously accompanied by a specific need to recognise the growing social importance of environmental issues as well as the inevitable psychological implications of the so called “human dimension” associated with them (e.g. Stern, Young and Druckman, 1992). This emphasised the potentially great social relevance, or external relevance, of psychological research specifically devoted to considering environmental issues as well as its specific contribution in approaching problems of environmental planning and management.

In every introductory volume of environmental psychology, space is given to emphasising the importance and often dramatic nature of the environmental problems human society has had to face in the last decade and will have to face in the future (see Bechtel, 1997). In the introductory

pages of the first environmental psychology Handbook (Stokols and Altman, 1987), the authors repeatedly cite the growing social importance of various environmental issues for the general public as the major impetus for the birth and development of environmental psychology.

“Concerns about environmental degradation and urban violence, shortage of natural resources and the impact of environmental pollution on health increased sharply during this period (p. xi)...”

“... At the societal level, increased awareness of community problems such as overcrowding, the shrinking of natural resources and the deterioration of environmental quality prompted widespread concern about the constraints of the ecological environment” (p. 1).

However the theoretical and methodological difficulties in adequately facing these problems were often pointed out by those working within the scientific tradition of psychology. There was scepticism, in particular, about the adoption of the molar approach (in place of ‘basic scientific variables’) that environmental psychology judged from the beginning to be essential.

In fact, in the Handbook introduction (p. 1), the authors (Stokols and Altman, 1987) observed:

“Traditional psychological theories had neglected the molar physical environment while focusing more narrowly on the links between micro-level stimuli and intrapersonal processes such as perception, cognition, learning and development. Theoretical and methodological guidelines for charting the ecological context of behaviour remained to be resolved.”

Expansion and Diffusion of the Identity of Environmental Psychology

There was always and still there is a basic theoretical tension in environmental psychology. On the one hand it is trying to respond in a satisfying way to external pressures to address environmental problems and, on the other, trying to respect the theoretical and methodological traditions of the discipline. This seems also to have pushed the field towards developments that today Stokols (1995) does not hesitate to describe as “paradoxical”. These developments seemed to be devoted to the expansion of environmental psychology’s field of influence beyond its disciplinary borders and at the same time creating a progressive “diffusion of identity” of the discipline as a whole.

During the last 20 years, there has been a progressive penetration of the molar and ecological-contextual principles of environmental

psychology within the various fields of psychology, with a consequent attenuation of its uniqueness. As noted by Stokols (1995):

“(the) ... conceptual and methodological principles (of environmental psychology) are so fundamental to all areas of psychology and so overlapping with the concerns of cognitive, developmental, social, personality, health and community psychologists, that the initial strong identity of environmental psychology during the 1970s has been largely absorbed over the past 10-15 years by these other research domains ... it seems reasonable to anticipate that virtually all areas of psychology will become increasingly ‘environmental’ in future years” (p. 823).

He concedes agreement with W. Ittelson’s (1995) recent analysis of this issue, who noted that “... the broad overarching theory of environment and behaviour which had been hoped for during the 1970s has not been achieved” and he concludes that “... the identity of environmental psychology as a distinct field of inquiry has become more diffused over the past several years.” (p. 822).

As a consequence, Stokols asks:

“How can the paradox of environmental psychology’s rapid growth and institutionalization, accompanied by an apparent diffusion of identity, be explained?” (p. 822).

Of the main answers he proposes, he gives first place to what he defines as the “multidisciplinary complexity” of the field, observing that “any effort to trace the intellectual contours of environmental psychology as a coherent field is immediately confronted by its multidisciplinary complexity” (p. 822).

In second place, he cites the great development of the field at the international level in various countries, resulting in an ever greater variety of “political, cultural and geographical interests”, characteristic of the different countries. This undoubtedly has contributed to a further broadening of the diversity of approaches of environmental psychology and further increased its complexity.

The desire of the field has been to grow in the direction of external rather than internal relevance; and this has led to the inevitable confluence, almost to the coincidence, of environmental psychology with that broader interdisciplinary and multidisciplinary field defined as *environment-behaviour studies*.

In fact, at the end of the 1970s Stokols specified that:

“... environmental psychology can perhaps be best represented as part of an emerging interdisciplinary field of environment and behaviour, or ‘human-environment relations’. This field encompasses several diverse perspectives of environment and behaviour such as human ecology, environmental and urban sociology, architecture, planning, natural resources management and behavioural geography. While closely related to these areas environmental psychology diverges from them by placing relatively greater emphasis on basic psychological processes (e.g., cognitive, developmental, personality, learning) and on individual and group (versus societal) levels of analysis” (1978, p. 255).

It should be noted that Stokols here underlines the difference (or what he describes as “divergence”), between, on the one hand, environment-behaviour studies as interdisciplinary and multidisciplinary, encompassing various disciplinary fields besides psychology, and on the other hand, environmental psychology, as having its disciplinary identity in the psychological specificity of the processes investigated. These include cognitive, perceptual, representational, affective, identity, decision-making processes, and so on.

However, twenty years later, Stokols expresses a different opinion. The “divergence” has apparently disappeared when he affirms, in the same article (1955):

“Although environmental psychology can be viewed as a branch of psychological research ..., it is more accurately characterised as part of a multidisciplinary field of environment and behaviour that integrates the conceptual and methodological perspectives of architecture, urban planning, psychology, anthropology, sociology, geography and other disciplines” (p. 822).

On the basis of this, he asserts: “Environmental psychology as it now exists (is) a disparate set of research areas and perspectives, spanning multiple disciplines, that are linked by a common focus on people’s relationship with their sociophysical surrounding.” He arrives at the inevitable conclusion that: “This multidisciplinary quality (of environmental psychology) ... has resulted in a more diffused and less easily circumscribed identity for the field as a whole” (ibid.).

As further proof of this apparently unrestrainable diffusion of the identity of environmental psychology, Stokols, in the same article, chooses to use the terms environmental psychology and environment-behaviour studies synonymously. He states explicitly: “the terms *environmental psychology* and *environment-behaviour studies* are used synonymously in this article in recognition of the multidisciplinary orientation of the field today” (ibid.).

On the one hand, it is difficult to contradict D. Stokols regarding the enormous attention environmental problems have stimulated over the past 15-20 years in the various social and human sciences (anthropology, sociology, pedagogy, geography, economy, law, etc.), with the consequent expansion of the interdisciplinary and multidisciplinary field of the so-called *environment-behaviour studies*. On the other hand, special attention must be paid to the ways the same environmental psychology seems to be advancing both towards the expansion of its influence, but at the same time towards the diffusion of its identity.

One direction of this paradoxical orientation can be seen in the persistent tendency to unite environmental psychology with the broader sector of environment-behaviour studies, often underlining the substantial coincidence of these two fields of study. Even the titles of many important publications in recent years show preference for this name of *environment-behaviour studies* in place of "environmental psychology" (e.g. Bechtel 1997; Wapner, Demick, Yamamoto and Minami, 2000).

The opposite direction insists on the importance and necessary theoretical "pervasiveness" of the ecological and molar paradigm of the "transactional-contextual" perspective, typical of the original environmental psychology. The desirability of this is often affirmed by various authors, not only for the benefit of environmental psychology, but for all psychology (e.g. Altman, 1988; Wapner, 1995).

The aim of these authors is to extend the field of influence of environmental psychology, through an "expansion" of its theoretical paradigm. This would render, on the one hand, the whole sector of the environment-behaviour studies "more psychological". On the other hand, it would make the entire field of psychology "more environmental" or more "ecological" (Lewin, 1951; Barker, 1968; Bronfenbrenner, 1979; Altman, 1973), "molar" (Craik, 1970; Stokols, 1978), "contextual" (Wapner, 1987; Little, 1987; Stokols, 1987) or "transactional" (Ittelson, 1973; Altman and Rogoff, 1987; Altman, 1988).

Thus, this inclination is aimed at an ambitious "expansion" of the disciplinary identity of environmental psychology within the broader sector of environment-behaviour studies and of psychology, although it can have a side - effect such as the general diffusion of identity highlighted by Stokols.

At the same time this desired expansion of environmental psychology is in general understood to move towards the other adjacent disciplinary fields. On the one hand, in the direction of those environmental social sciences which often in the past directly stimulated the origin and development of environmental psychology. For example: environmental

anthropology, human geography, environmental sociology, architecture, human ecology and social ecology.

On the other side, in the direction of those sectors of psychology close to environmental psychology by virtue of the similarity of the psychological problems treated. Several specific sectors can be identified. They are in general of similarly recent formation - such as community psychology (Holahan and Wandersmann, 1987), health psychology (Evans and Cohen, 1987; Stokols, 1992), organisational psychology (i.e. Van Vugt, Snyder, Tyler and Biel, 2000). Some sectors are even yet emerging, such as cultural psychology (Segall, Dasen, Berry and Poortinga, 1990), tourism psychology (Fridgen, 1984; Pearce, Moscardo and Ross, 1991), investigative psychology (Canter, 1995), diplomatic psychology (Vlek, 2000; Garling, Kristensen, Backenroth-Olssako, Ekehammar and Wessells, 2000); economic and political psychology (see Bonnes and Bonaiuto, 2001).

In other cases also, the most varied and well-established sectors of psychology, such as developmental psychology, personality psychology, cognitive psychology, are indicated as further fields of expansion for environmental psychology (see Wapner, 1995; Stokols, 1995).

Environmental Psychology as an Integrating Force of Psychology

Over the years, especially after environmental psychology was definitively consolidated as a sub-disciplinary field of psychology (Stokols and Altman, 1987), many attempts were made to show its positive potential with respect to other close sectors of psychology. In particular, its possibilities were often underlined on the basis of the “molarity” of its Lewinian “ecological” paradigm, able to present it as a new integrating disciplinary field among various other fields of psychology often considered too separate (Altman, 1987, 1988; Wapner, 1995).

It is interesting to note that, immediately after completing the publication of the first monumental Handbook of Environmental Psychology, Altman (1987, 1988), repeatedly underlined the potential of this discipline showing its possibilities within psychology as a great “centripetal force” or “integrator”, capable of contrasting the excessive “fragmentation” and “centrifugal” tendencies of research and advanced training in psychology. Even more particularly, he identified this strong integrating capacity of environmental psychology in the continuously emerging and crucial distinction between basic psychology and applied psychology, which he articulated very clearly on the pages of *Social Behaviour*, by beginning an interesting debate on it (Altman, 1988;

Gergen, 1988). Altman expresses decisive opposition to this distinction and, in contrast, he proposes distinguishing psychological research on the basis of the unit of analysis considered. Thus, he distinguishes three main approaches: psychological “processes-oriented research”, as being most typical of basic research, psychological “outcome-oriented research”, more typical of applied research and the most typical approach of environmental psychology, that is, “transactional-contextual units”. This, he believes, represents the favoured modality, making it possible to overcome the various shortcomings and peculiarities of the preceding two approaches (Altman, 1988).

Wapner (1987, 1995; Wapner, Demick, Yamamoto and Minami, 2000) has repeatedly expressed a similar view, pointing to the signs of “fragmentation and disunity” often noted in psychology (see Staats 1991; Bower, 1993). He also has added recent affirmation of environmental psychology as an opposing force for “mitigating this situation” (1995, p.10).

After noting that “a unification has occurred (in psychology) by virtue of the relatively recent emergence of environmental psychology” (p. 10), Wapner analyses the modalities through which environmental psychology can operate in this way. He underlines, in particular, the unifying potential of the specific “contextual-transactional” paradigm of environmental psychology.

“The basic assumptions ... implicitly or explicitly involved in various approaches to environmental psychology [have] relevance to a number of other sub-fields of psychology” (p. 10).

He sees environmental psychology as an integrating field, uniting the different “sub-fields” of psychology and connecting scientific-academic psychology with psychology of a more professional orientation.

According to him, the two main goals of environmental psychology are the following:

“(a) to integrate the diverse sub-fields of psychology and (b) to bridge the gap between the professional’s and the scientist’s interests in psychology as a whole” (p. 27).

In particular, he specifies these various sub-fields of psychology, as the developmental, personality, social, clinical, health, ageing, cognitive, cross-cultural, psychopathology, neuropathology and educational psychology.

The theoretical support underlying this proposal of general expansion of environmental psychology in various directions is unanimously

identified in the theoretical perspective, or “world view”, as Altman called it (Altman and Rogoff, 1987) – of the transactional-contextual approach, basically characterised by the same ecological and molar intentions of the Lewinian perspective on the person-environment relationship (see Bonnes and Secchiaroli, 1995).

This transactional-contextual perspective, held to be at the base of environmental psychology, has been continuously reaffirmed in environmental psychology from its origins up to the present. At the beginning of the 1970s, it was strongly advocated by the pioneering group of City University of New York, that included Ittelson, Proshansky and other colleagues (Ittelson, Proshansky, Rivlin and Winkel, 1974). It was named “transactional theory”; not by chance, W. Ittelson came from the well known “Princeton group”, the first school of transactional psychology (Kilpatrick, 1961).

This theoretical perspective can also be considered as a more holistic and molar development of the initial interactionist perspective proposed by the early English architectural and environmental psychology, regarding the person and the physical environment – engineering and architectonic – relationship (Lee, 1968; Canter, 1970; Canter and Lee, 1974; Lee, 1976).

As already pointed out elsewhere (Bonnes and Secchiaroli, 1995, pp. 149-161) the transactional perspective introduces a systemic approach to the consideration of the person, the environment and their reciprocal relationship.

The main features of this theoretical perspective have been described, since the '70s, by Ittelson, Proshansky, Rivlin and Winkel (1974), by pointing out a series of implicit assumptions relating to “person-environment transactions” (see Bonnes and Secchiaroli, 1995, pp. 157-161). The main assumptions indicated for the person side of the transaction can be synthesised as follows:

1. The person is to be considered as a dynamically organized system, primarily based on the ‘goal-directed’ nature of human behaviour, which is motivated, intentional, meaningful. It is oriented to integrating the ‘doing’ with the ‘thinking’. This ‘goal-directed’ behaviour is a result of continuous confrontation/exchange, between internal ‘needs’ and environmental opportunities and objects. It is thus also affected hugely by the social context;
2. A central role is assigned to both, (i) the cognitive processes and (ii) the affective and emotional processes. These are conceived as having a selective role in relation to perceived reality and are engaged in a ‘continuous transactional process’, between the characteristics of the person and those of the environmental

events/objects. The dominant aim of this process is to 'construe' a person's relationship with the environment;

3. Change more than stability characterises the person in his/her transactions with the environment.

The main assumptions referring to the environment can be synthesised as follow:

1. The environment is conceived as a spatial and time-related, dynamically organised, system, or 'setting', that includes physical, social and socio-cultural, or symbolic, aspects;
2. It is perceived as unique by each perceiving person, but it is typically 'neutral': awareness if its characteristics occurring only when change, or novelty, is introduced.
3. It is conceived as an open system, more in terms of process than of characteristics; however it presents physical features which can be primarily conceived as 'resistant', 'supportive' or 'facilitative' with regard to participants' behaviours.

This theoretical perspective, originally defined as "transactional-contextual", was further systematised and broadened by various authors in the publication of the *Handbook of Environmental Psychology* (Stokols and Altman, 1987), primarily by the work of Altman (Altman and Rogoff, 1987), Stokols (1978, 1987) and Wapner (1987). The same theoretical perspective has evolved in subsequent years up until today in the major publications of the field (see Saegert and Winkel, 1990; Wapner and Demick, Yamamoto and Takahashi, 1997; Werner and Altman, 2000; Evan and Saegert, 2000; Wapner, Demick, Yamamoto and Minami, 2000). The main features of this theoretical perspective have also been recently synthesised by Wapner and Demick (2000), as follows:

1. The "person-in-environment system" is the unit to be analysed,
2. Various "levels of analysis and organisation" can be distinguished for both the person and the environment:
3. The following three main levels are distinguished for the person:
a) the physical/biological level (physical status), b) the psychological/intrapersonal (e.g. cognitive, affective, evaluative processes), and c) the socio-cultural (e.g. roles, norms, etc.). The three following main levels are distinguished for the environment: a) the physical, b) the living organism and c) the socio-cultural.

4. A “constructivism /multiple intentionality” perspective is assumed for human behaviour and experience: i.e., “human beings are assumed to be spontaneously active, striving agents with capacity to construct, construe, and experience their environment in various ways as well as to act on that experience”; this experience is “spatio-temporal in nature”
5. “Structural analysis” – dealing with the organisation or part-whole relations- as well as “dynamic analysis” – dealing with the long-term and short term goals or ends – are previewed in the person-in-environment system;
6. The research methodology used assumes that both the “natural science“ and the “human science” perspectives are appropriate, depending on the nature of the problem (pp. 8-10).

The transactional-contextual theoretical perspective is constantly reaffirmed when the authors’ interest is to propose the above-mentioned expansion of environmental psychology, not only in the direction of environment behaviour studies, but also of the various other fields of psychology. In particular, the generality and vastness of this theoretical perspective is emphasised. Thus it is often seen as the “grand theory”, or unifying theoretical perspective for person-environment relationships, but also for environment - behaviour studies and indeed for studying all psychological processes, and hence all psychology. The theory is simultaneously integrative and centripetal.

However, it should be noted that this ubiquitous nature of the ‘grand theory’ carries the risk for environmental psychology of the diffusion of identity, referred to earlier (Stokols, 1995).

By focussing only on this direction for the development of environmental psychology, there is a danger that this alluring expansion risks not only diffusion of identity, but also a serious “de-individuation” of the discipline. This seems particularly true if development is left exclusively to the theoretical framework of the transactional-contextual approach, and is not sufficiently accompanied by constant attention to the more specific theoretical underpinnings of the psychological tradition.

On the contrary it seems desirable to deepen reflection on the intra-disciplinary theoretical and methodological strands that environmental psychology can and must measure itself against in order to move ahead.

The “identity expansion” of environmental psychology, promoted by various authors in the past two decades, can advance by trying not only to maintain, but to deepen the dialogue between the (i) external relevance of the environmental problems it considers and (ii) the internal relevance of related psychological theory and research.

The first emphasises the molarity and contextuality necessary for environmental psychology which is centred more on “psychological results” than on “psychological processes” (Altman, 1988). The second emphasises the theoretical and methodological specificity of the constructs used and of the related interpretative lines or theories implicitly proposed. Such a duality can only nourish both approaches.

It seems particularly important for environmental psychology to proceed in this way, considering its critical position as a “border discipline” or interface between other psychological disciplines on the one hand and the various other environmental sciences and techniques on the other. But this choice of direction is made even more necessary for the development of environmental psychology in view of its further expansion inside other sub-fields of psychology. In fact its identity and existence seem to be largely based on its capacity to proceed in this direction, trying to accumulate useful knowledge first on an intra-disciplinary and then on an extra-disciplinary base.

In fact, we believe that environmental psychology must first refine its disciplinary identity internally, in order to better develop externally. But this must be a step-wise progression.

Thus, the need to ensure theoretical and methodological continuity in the development of environmental psychology becomes clear, primarily regarding its internal theoretical corpus, trying not to slacken but to reinforce its theoretical and methodological bases in intra-disciplinary terms.

This involves ensuring the maintenance and reinforcement of its disciplinary identity above all in the intra-disciplinary direction, confirming its position as part of the other psychological sciences. These can be identified through the specificity of the unit of analysis considered and are represented primarily by psychological processes and by the related constructs and theories used to investigate them.

Only then can the next step be taken: i.e. to consider environmental psychology belonging, in parallel, to the broader field of environmental – behaviour sciences with the pluri-disciplinary and inter-disciplinary structures, as required by the complexity of environmental issues treated. In this way, environmental psychology is ensured of the capacity to contribute significantly to the broader field of environment – behaviour studies.

We believe that only by clearly following both these paths will environmental psychology be able to fulfil the particular centripetal and integrating potentialities with regard to other areas of psychology, indicated by Altman and Wapner. This appears to be the only route to

ensure its expansion and also to assimilate the inevitable progressive specialisation and differentiation occurring within it.

In this way, the expansion of the field could be accompanied by a further differentiation (e.g. Bonnes and Bonaiuto, 2001; Bechtel and Churchmann, 2001) that is not a disciplinary “fragmentation” but rather a productive articulation with reference to unifying theoretical lines and therefore a propelling force both inside and outside the discipline (see Bower, 1993).

Various authors – some of them already cited – have recently moved in this direction. In particular, they have proposed and stimulated the theoretical-methodological deepening of environmental psychological research (Moore and Marans, 1997; Altman, 1997; Wapner, Demick, Yamamoto and Minami, 2000).

A significant example of this is the volume recently published by Wapner, Demick, Yamamoto and Minami (2000). It proposes first the broader environment-behaviour studies as a field of reference. However, it also takes up several of Altman’s (1997) recent specific solicitudes and presents the reflections of 25 co-authors, all of whom are environmental psychologists specifically committed to clarifying and deepening the theoretical bases of their respective lines of environmental-psychological research.

The title of the volume clearly expresses its intention: “Theoretical perspectives in environment-behaviour research. Underlining assumptions, research problems and methodologies” (2000).

The intention of the present volume moves in a similar direction, sharing the aim of clarifying the psychological theoretical roots of environmental psychology.

From Psychological Processes and Theories to Environmental Psychological Processes.

This volume was conceived with the aim of contrasting the “peculiar ambivalence” which Lewin spoke of, between psychology with a theoretical orientation and applied psychology. This aim has twin requirements. On the one hand, we wish to defend the kind of psychology that is concerned with the intra-disciplinary relevance of its own studies and, as Altman describes it, more interested in the study of “psychological processes” than in results. On the other hand, we wish to defend the problem-oriented applied psychology, more focused on “psychological outcomes” than on underlying processes, ensuring not only the extra-

disciplinary, external relevance of these outcomes, but also their internal relevance.

The specific intention of this volume is to demonstrate the possibility and usefulness of being able to join these two sides, that is, the relationship between the “intra-disciplinary” or “internal relevance” and the “external relevance” of environmental psychology and thus between *processes* and *contents* of the same psychological processes considered.

The starting point of the need to join these two aspects is still the Lewinian assumption that there is nothing more useful, from the point of view of research practice, than a good theory, that is, the theoretically based and conscious use of related constructs and methods. This modality of proceeding is closely linked to the Lewinian aim of realising a “socially useful and theoretically significant” psychology, which he consistently indicated as being the top priority.

Within this framework, the present volume should be seen as an environmental psychology text. It is a typical contribution for a domain of psychology in general identified as “applied”, one that is primarily “problem-oriented”. Therefore, it is oriented toward environmental issues, as having sure and specific “social relevance”, a relevance outside the more typically intra-disciplinary interests of psychology.

However, in refuting the opposition between applied research and basic research, this volume aspires first to consider these issues not as “problems” but as the “content” of several specific psychological processes and related underlying psychological theories. These are typically at the centre of the intra-disciplinary interests of psychology: e.g. schema and cognitive processes, perceptual processes, attachment processes, attitudinal processes, identity processes, communication processes. In particular, the peculiarity of them becoming *environmental psychological processes* is examined and discussed by the authors in each of the various following chapters.

These same processes were already identified by environmental psychology as particularly relevant for investigating and understanding the person-environment relationship (see Bonaiuto and Bonnes, 2000; Bonnes and Bonaiuto, 2001). The study of how these psychological processes are involved in the transactions between people and environments is thus the main focus of interest. The aim is to develop a “psychology of interface” between environmental psychological processes and problems of the socio-physical environment. The authors try to develop this interface by continuing along the lines indicated by Lewin with his “psychological ecology”.

Thus in each chapter attention is first given to some of the major theories that psychology has developed for studying and understanding the