

## **Environmental Psychology in Latin America: 1996-2006 <sup>1</sup>**

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### **Abstract**

It is very likely that nowadays Latin America is one of the regions of the world exhibiting the faster growth in the emergence of environmental psychology (EP) groups, publications and training opportunities. Although we can not be sure that this growth is necessarily transformed into development, this situation offers an excellent opportunity for promoting a scientific, quality, and problem-oriented EP serving both the interest of Latin Americans and those of other regions of the world. Such development should be based upon a rigorous analysis of conditions promoting the emergence and maintenance of EP in this region historically aware of the need of cultural sustainability and more and more faced with the challenge of ecological sustainability. This paper is aimed at sketching an initial analysis of such conditions, describing the status of this academic and professional area in the region, analyzing possible factors inciting the growth of EP in Latin America, and visualizing likely scenarios for its development.

**Key-words:** Environmental Psychology, Latin America, Sustainability, Research.

## **La Psicología Ambiental en América Latina: 1996-2006**

### **Resumen**

Es muy probable que, hoy en día, América Latina sea una de las regiones del mundo con el mayor crecimiento en grupos de investigación en psicología ambiental (PA), publicaciones y oportunidades de entrenamiento en el área. Aunque no podemos estar seguros de que este crecimiento se transforme necesariamente en desarrollo, dicha situación brinda una oportunidad para la promoción de una PA científica, de calidad y orientada hacia la resolución de problemas, la cual sirva a los intereses de los latinoamericanos y de otras regiones del mundo. Este desarrollo debiera basarse en un riguroso análisis de las

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condiciones que promueven la emergencia y el mantenimiento de la PA en esta región históricamente conciente de la necesidad de sostenibilidad cultural y cada vez más enfrentada al reto de la sostenibilidad ecológica. El presente artículo se plantea un análisis preliminar de dichas condiciones, describiendo el status de esta área académica y profesional en la región, analizando posibles factores que pueden incitar el crecimiento de la PA en América Latina y visualizando probables escenarios para su desarrollo.

**Palabras clave:** Psicología Ambiental, América Latina, Sostenibilidad, Investigación.

## Introduction

Environmental Psychology experiences a notorious growth throughout the world, which foreseeably will continue, in view of the severe problems created by the human-caused environmental degradation. This discipline has significantly grown in Latin America in the last decade, which does not necessarily imply that a qualitative development has been reached in both the research and the professional-practice fields. By analyzing the conditions in which EP emerged and continues to prosper in Latin America we expect that likely scenarios for its development could be visualized.

Latin America is considerably rich in bio and socio-diversity. A 68 per cent of the world's tropical rain forests is contained in its neotropical ecological zone and a 40 per cent of the plant and animal species of the planet, and the highest floristic diversity in the world are also contained there (UNEP, 1999). In fact, The Latin America region includes five of the world's ten most biodiverse countries – Brazil, Colombia, Ecuador, Mexico, and Peru – as well as the single most biologically diverse area in the planet – the eastern slope of the Andes. Biodiversity is accompanied by cultural and racial diversity. Practically every human race and a significant amount of cultural groups are present among Latin Americans, contributing to the social composition of these societies. In spite of this cultural diversity, in general, peculiar forms of collectivistic, modernistic, non-dualistic, and holistic views of the world characterize vast sectors of Latin American countries. This apparent divergence from the individualistic, postmodernist, dualistic, and analytic worldview of most European and Anglo American societies (Schmuck & Schultz, 2002) perhaps requires a special approach for studying environment-behavior

interactions in this region of the world (see Bechtel, Corral-Verdugo, & Pinheiro, 1999). Knowledge regarding the determinants of people's environmental conservation of these rich scenarios is vital for the whole world. Environmental Psychology has a major role in gaining such knowledge. Therefore, environmental psychologists in Latin America have a special responsibility in promoting and conducting research in this area.

### **Development of Environmental Psychology in Latin America**

Environmental Psychology exists in Latin American since the 1970s, yet its practitioners were concentrated in a few large cities and countries (especially Mexico, Brazil, and Venezuela), and were scarce in number, resources and degree of influence both at the international and at the national levels. Most of those early environmental psychologists concentrated their effort in the area of environmental design and perception (Sánchez, Wiesenfeld, & Cronick, 1987). Since Latin American countries share a deal of environmental and social problems (poverty, loss of biodiversity, pollution, ecological devastation, low educational levels, etc.), environmental psychologists in the area are understandably biased in terms of the topics they study, as we will further discuss.

Although there is evidence of research efforts since the 1970's, these were scarce and non-salient for the majority of the international (and even local) psychological communities. A series of factors explained the delayed emergence of a productive EP in the region. For example, ten years ago, Corral-Verdugo (1997) mentioned five major factors interfering with the progress of EP in Latin America: 1) an unbalance between discourse and methods in trying to implement psycho-environmental research, 2) scarce systematic research efforts, 3) a lack of training in the use of methodology detected in most research groups, 4) lack of resources, including inadequate infrastructural conditions, lack of appropriate training for research, and a poor intellectual climate in most universities and research centers, and 5) the barrier of language to publish results for a wider (world) audience. In addition, the presence of a limited number of environmental psychology courses and training programs at the Latin American universities did not guarantee the promotion and formation of the necessary human resources within the boundaries of their countries. At the end of the 1990s these limitations seemed to impede the production and diffusion of environmental psychology.

Although most of the above-mentioned obstructing factors still persist in the region, preventing the area from a plenty development, some positive indicators of change appeared during the last part of the 1990s and the beginnings of the 2000s. The number of publications in peer-reviewed journals and books increased; courses and training opportunities both at the graduate and undergraduate levels were implemented; new research groups flourished; and the concentration of these groups in a few cities was not as notorious as before.

### **Research and publications**

One of those indicators: the growth of publications in peer-reviewed journals is evidence of theorization and empirical research efforts. With notable exceptions, the publication of papers in internationally peer-reviewed journals was practically null before 1996. For instance, only one article of Latin American authorship was published in *Environment & Behavior (E & B)* between the foundation of that journal, in 1969, and 1995 (Pacheco & Lucca-Irizarri, 1995).

During the 1996-2006 period, however, the situation dramatically changed and 20 papers were published by 19 Latin American authors solely in *E & B*. Also, three chapters written by Latin American authors were included in the most recent edition of the *Handbook of Environmental Psychology* (Corral-Verdugo, 2002; Stokols & Montero, 2002; Wiesenfeld and Sánchez, 2002), and a significant number of special issues and collective books were edited during this period by Latin American environmental psychologists (Corral-Verdugo, 1997, 2006a; Guevara, Landázuri, & Terán, 1998; Guevara & Mercado, 2002; Günther, Pinheiro, & Guzzo, 2004; Pinheiro, 1997a, 2003b; Tassara, 2001, 2005; Tassara, Rabinovich, & Guedes, 2004; Terán & Landázuri, 2002). Corral-Verdugo (2001) published the book *Comportamiento pro-ambiental* (Proenvironmental Behavior), a state-of-the art text concerning the study of pro-environmental behavior, and Granada (2002) wrote the introductory text *Psicología Ambiental*, in Colombia. Also, environmental psychologists from Latin America were invited to contribute with chapters for international books (Gouveia, 2002; Jiménez-Domínguez, 2002, for instance), and in special issues of renowned journals (for example, Aguilar, 2002; Armijo, Ojeda & Ramirez, 2003; Bernache, 2003; Corral-

Verdugo, 2003; Jiménez-Domínguez & López, 2002; Pol & Castrechini, 2002; Wiesenfeld & Giuliani, 2002).

Such increase in the productivity of Latin American EP follows a general tendency of development of scientific enterprises in the region during the period. According to a report from National Science Foundation based upon Science and Social Science Citation Indexes of the Institute for Scientific Information, the "output of S&E articles by Latin American authors rose almost 200 percent between 1988 and 2001", an increase substantially greater than for authors from other emerging and developing regions of the planet (Hill, 2004).

*Medio Ambiente y Comportamiento Humano* (*International Journal of Environmental Psychology*), the first EP specialized journal in a Spanish-speaking country (Canary Islands, Spain) was founded in 2000, receiving immediate attention from Latin American environmental psychologists, who started submitting their papers to that journal. Other journals also published articles by professionals of the region, as may be seen in Table 1, whose list shows journals in which most of the papers were published in the period. Additionally, important periodicals such as the *Journal of Crosscultural Psychology*, the *European Review of Applied Psychology*, the *Journal of Environmental Systems, Population and Environment*, *Urban Ecosystems*, *Environmental Management*, and *Environment & Urbanization*, among others, published one or two articles each from Latin American authors in the EP area.

**Table 1.** Some peer-reviewed journals that include (at least 3) papers written by Latin American environmental psychologists during 1996-2006

Journal	Country	Entries
Estudos de Psicologia	Brazil	23
Environment & Behavior	U.S.A.	20
Medio Ambiente y Comportamiento Humano	Spain	18
Psicologia: Reflexão e Crítica	Brazil	10
Canadian Journal of Environmental Education	Canada	7
Interamerican Journal of Psychology	Puerto Rico	5
Journal of Environmental Psychology	UK	4
International Journal of Psychology	UK	3
Journal of Environmental Education	U.S.A.	3
Revista Mexicana de Psicología	Mexico	3
Resources, Conservation & Recycling	U.S.A.	3

In order to analyze the Latin American production in EP, a search of papers, books, editions and chapters of books published by renowned editorial houses came out with a number of 142 products in 1996-2006. The criterion used for selecting the sample of references was simple: all of the selected papers should be accessible by any person everywhere either *online* or by directly accessing journals or books in their printed versions. Therefore, this sample did not include peer-reviewed journals that are neither accessible *on-line* nor retrieved by sources such as scientific-publication indexes. Also not included are master theses or doctoral dissertations, and papers from proceedings of environmental psychology conferences. The chapters written by Latin American psychologists in the above-mentioned books (edited in Mexico and Brazil) were not included because they are available neither via web nor in libraries or book stores. Understandably, it is possible that hundreds of environmental psychology products published in Latin American during 1996-2006 were not included in our analysis.

The data from the selected publications reveal that Brazil contributed with 61 products, followed by Mexico (55) and Venezuela (14). Chile (5), Colombia (3), Argentina (2), Peru (2) and Costa Rica (1) also participate. A ten percent (N=15) of these products derived from international cooperation, mainly with North American and European groups. Only in six cases inter-Latin-American cooperation resulted: Mexico-Peru (N=1) and Mexico-Brazil (N=5).

The concentration of countries and cities hosting environmental psychology groups is not as marked as in the previous decades. In Mexico, for instance, these groups are not only present in the Federal District (Mexico City and its metropolitan area) but also in Hermosillo, Saltillo, Monterrey (northern region), Guadalajara and Tlaxcala (central Mexico) as well as in Veracruz (southern region). In Brazil, these groups are found in Brasilia, Florianópolis, Fortaleza, Natal, Porto Alegre, Ribeirão Preto, Rio de Janeiro and São Paulo, among other cities. In Argentina, environmental psychologists are ascribed to universities and research centers in Buenos Aires and Córdoba; in Chile they work in Santiago, and Talca. Venezuela and Peru still concentrate their groups in the capital cities.

Although proportionally small in terms of the magnitude of environmental problems, number of countries and population size of

Latin America, this development means good news and shows that environmental psychology productivity is significantly growing in this the region. Significant efforts for the diffusion of psycho-environmental research and theorization have been displayed in the last 10 years. However, the bad news is that most publications and products do not reach broad (international) audiences, because such research efforts of Latin American environmental psychologists are limited to Spanish and Portuguese readers. It is necessary to increase the number and scope of publications. They have to reach everyone in Latin America in the first place, and then the global community of environmental psychologists. A critical mass of reviewers already exists for guaranteeing the quality of papers and book chapters. In the case of books published by local or national editors, these should have an electronic version, so that they could be retrieved on line.

Other limitations involve the fact that a part of the scientific production is not entirely original: Approaches, models, methods, and themes are imported from USA and Europe, which results in research replications. Although creativity is characteristic of Latin Americans, environmental psychologists still need to incorporate original visions, models and research approaches into their contributions to a universal EP.

#### **“Original” contributions**

Some examples of original contributions in methods, models and measures are those by Weisenfeld (1997; 1998) and Hernández-Ponce & Reimel de Carrasquel (2004) with a community environmental-psychology approach to explaining urban problems in Venezuela; the vision of an holistic eco-antropocentric paradigm for explaining Latin-American (as well as European and Indian) environmental beliefs (Bechtel, Corral-Verdugo, Pinheiro, 1999; Corral-Verdugo, Carrus, Bonnes, Moser, & Sinha, under review); and the approach combining physical measures to assess biodiversity, environmental inequity and injustice in urban zones in Brazil (Pedlowski et al., 2002). Other original perspectives consider the pertinence of assessing collective context and actions in facilitating peoples action's for bettering their environment (Giuliani & Wiesenfeld, 2002; Hernández & Reimel de Carrasquel, 2004; Jiménez-Domínguez & López-Aguilar, 2002); the assessment of affinity towards social and

biological diversity (Corral-Verdugo, 2006b), and the use of *affective maps* techniques for the measurement of environment-behavior interactions (Bomfim & Pol, 2005), among many others.

It is possible that at least some of the “original” approaches studying environment-behavior interactions lead to the constitution of one or more “indigenous environmental psychologies” responding to the cultural particularities of the region. Corral-Verdugo (2005) suggests that particular behavioral and cultural mechanisms could be more effective in promoting sustainability in Latin America than in other parts of the world. He suggests, for example, that community participation (as opposed to individual commitment), and social intelligence (as opposed to technological intelligence) could be better predictors of sustainable practices in this subcontinent than the determinants studied in Europe or North America. Although this “indigenous” approach has been already used in research Latin American projects, its utilization is still incipient. Therefore, the development of research projects using models, variables and procedures representing the idiosyncrasies of Latin American populations would be one of the priorities of EP researchers in the region.

### Topics of interest

From the revision of the retrieved publications, a classification of research topics emerged, which is shown in Table 2. Most preferred topics were *theoretical issues*, with 19 entries (e.g., Günther, 2003; Montero, 1997; Pinheiro, 1997b; Pol & Castrechini, 2002; Wiesenfeld, 2003); *environmental attitudes and beliefs*, with 18 entries (e.g., Bechtel, Corral-Verdugo, Asai & González-Riesle, 2006; Corral-Verdugo & Armendáriz, 2000; Milfont, & Duckitt, 2004; 2006; Páramo & Gómez, 1997; Pato, Ross & Tamayo, 2005); *water conservation behavior*, 12 entries (e.g., Bustos & Andrade, 2004; Corral-Verdugo & Frías, 2006; Martínez-Soto, 2004); and also with 11 entries *general pro-environmental/sustainable behavior* (e.g., Acosta & Montero, 2001; Gouveia, 2002; Schultz, Gouveia, Cameron, Tankha, Schmuck, & Franěk, 2005).

*Solid waste control* (reuse, recycling, responsible consumption) produced 9 entries (e.g., Armijo, Ojeda & Ramírez, 2003; Bernache, Sánchez, Garmendia, Dávila, & Sánchez, 2001), followed by *School/day-care environments*, with 8 entries (e.g., Bernardi & Kowaltowski, 2006;

Elali, 2003) and *environmental education* (e.g., Barraza, 2001; Eichler, del Pino & Fagundes, 2004; Gastreich, 2002). *Environments for children and adolescents* (e.g., Günther, Nepomuceno, Spehar & Günther, 2003) *cognitive maps* (e.g., Bomfim & Pol, 2005; Blades et al., 1998; Pinheiro, 1998) were included in 5 papers. Five topics that produced 4 papers were: *Social identity and sustainability* (e.g., Aguilar, 2002; Jiménez-Domínguez & López-Aguilar, 2002; Wiesenfeld & Giuliani, 2002); *Quality of life and environment* (e.g., Hernández-Ponce & Reimel de Carrasquel, 2004); *urban environment design/management* (e.g., Balbín-Díaz, López & Hordijk, 1996; Gómez de Marín, 2002; Izáosla, Martínez & Marquette, 1998); *methodological issues* (e.g., Corral-Verdugo, Zaragoza & Guillén, 1999); and *antisocial behavior and environment* (e.g., Corral-Verdugo, Frías & González, 2003).

Six research topics produced 3 papers, each: *risk perception* (e.g., Bronfman & Cifuentes, 2003; Coelho, Adair & Mocellin, 2004); *residential environments* (e.g., Carvalho, George & Anthony, 1997; Landázuri & Mercado, 2004); *Virtual environments* (simulators, internet) (e.g., Montero & Stokols, 2003); *Space perception and orientation* (e.g., Mauerberg-deCastro, Paula, Tavares & Moraes, 2004; Ortega-Andeane, Jiménez-Rosas, Mercado-Doménech, Estrada-Rodríguez, 2005); *Community social psychology* (e.g., Tessier, 2003; Wiesenfeld, 1997, 1998) and *interdisciplinary studies* (e.g., Moyano, 2005; Peluso, 2003; Pinheiro, 2002).

*Transit accidents* (e.g., Moyano, 1997) and *post-occupancy evaluation* (e.g., Ornstein, 1997; 1999) resulted with two entries, each. Finally, topics with just one entry were: *work environments* (Bedrikow, Algranti, Buschinelli, & Morrone, L., 1997); *behavioral settings* (Carneiro & Bindé, 1997); *environment & health care* (Pasquali, Hernández & Muñoz, 1997); *environmental inequity* (Pedlowski, Carneiro da Silva, Adell & Heynen, 2002); *global warming and behavior* (Rozas, 2003) and *noise pollution and behavior* (Verzini, Frassoni & Ortiz, 2002) (see Table 2).

Despite the obvious increase in the productivity of EP researchers in Latin America during the period considered, it is also clear that there is great heterogeneity among such productions, a scenario similar to that reported in the analysis of Wiesenfeld (2001) regarding Latin American EP communications in congresses from 1985 to 1999. Such diversity refers to themes investigated but also to strategies and methods

employed, what is probably due to the variety of scientific and academic trajectories of authors.

**Table 2. Topics of psycho-environmental research and theorization in Latin America**

Topics	Entries
Theoretical issues	19
Environmental attitudes and beliefs	18
Water conservation behavior	12
General pro-environmental/sustainable behavior	11
Solid waste control (reuse, recycling)	9
School/day-care environments	8
Environmental education	7
Environments for children/adolescents	5
Cognitive maps	5
Social identity and sustainability	4
Quality of life and environment	4
Urban environment design/management	4
Methodological issues	4
Antisocial behavior and environment	4
Risk perception	3
Residential environments	3
Virtual environments (simulators, internet)	3
Space perception and orientation	3
Community social psychology	3
Interdisciplinary studies	3
Transit accidents	2
Post-occupancy evaluation	2
Work environments	1
Behavioral settings	1
Environment & health care	1
Environmental inequity	1
Global warming and behavior	1
Noise pollution and behavior	1

### **Training opportunities and research groups**

In the decades that followed Second World War, Psychology was more and more faced with demands to attend the debate about environmental issues. Particularly during the 1970s, constituted sectors of Psychology started presenting attempts of "psychological" answers to such demands from society, in general, and academy, in particular. Nowadays, EP presents a "double personality"; it is partially "psychological", partially "environmental" (Pinheiro, 2003a). Discussions of nomenclature illustrate the semantic and epistemological ambiguity that is mainly due to the

"split between sub-discipline (of Psychology) and field of study" (Sommer, 2000, p. 3).

Latin American EP imported its basic structure from USA and Europe, by means of textbooks (translated, or not), research articles, books, doctoral trained researchers and other forms of academic interchanges and influences. At the same time, however, the environmental approach within Psychology had to answer specific requirements resulting from social, cultural and environmental characteristics of the region. That imported format of EP was not always considered adequate, be it by epistemological, theoretical or methodological reasons, or by social and practical inadequacies perceived by those involved in the application of a psychological approach to socio-environmental problems.

As a direct consequence of this scenario, in combination with the lack of resources for educational enterprises in the region, training opportunities in EP in Latin America still fall behind the good productivity reported above. Additionally, institutions of academic psychology in the region seem to be refractory to the idea of incorporating "place" as part of its conceptual domain (Spink, 2000). One can find many instances of EP teaching in several Latin American countries, but typically as isolated disciplines within a Psychology course or department (undergraduate level), or within graduate programs of Psychology or Social Psychology. EP as a discipline in Architecture courses and programs is also common.

Due to the lack of a clear and consistent disciplinary insertion in universities, EP titles and authors are sometimes listed in the bibliography of courses on human or social ecology, community psychology, and others, reproducing and extending the paradox of EP (Stokols, 1995). According to it, EP achievements contribute more to favor the slow adoption of an environmental approach by other areas of psychology, than to the development of EP itself.

Even confronted with such unfavorable situation, research groups have flourished in the region. Their members have been trained outside Latin America (typically the case of their leaders and/or older members) or in graduate programs inside the region (case of newcomers). Such research groups do exist as somewhat informal entities within academia, since the formal programs they are attached to are not labeled as EP, with the exception of the graduate program in EP of UNAM, in Mexico City.

The emergence of new means of communication also made a great difference. Back in the 1980s, the few EP researchers of Latin American countries were eager for networking, but continental distances and lack of resources made such objectives hard to reach. The crescent availability of information and documents interchange by internet initiated in the 1990s introduced a way to circumvent those difficulties. Research groups, provided with access to online databases and such greater contact among themselves and their counterparts in USA and Europe, were capable to move ahead under much better conditions, despite the exclusion of certain centers less favored by the resources of the digital era.

### **Meetings and networks**

Meetings, professional societies and networks were promoters of the development of EP in this past decade. In 1998 the First Latin-American Meeting of Environmental Psychology was held in Mexico City, with its second version developed in 2002. Researchers from Mexico, Brazil, Venezuela, Chile, Colombia, USA, Spain, France, participated. This effort, assumed by psychologists and administrators of the National Autonomous University of Mexico, among other associations, was reinforced by the University of Sao Paulo, Brazil, where the international symposium "The Role of Environmental Psychology in the Study of Environmental Issues" was conducted also in 2002. In this symposium, investigators from USA, Mexico, Brazil, Venezuela, Chile, Spain, Italy, France, Scotland, Germany, Argelia and Canada, participated.

The Latin American Environmental Psychology Network (REPALA, after its Spanish-Portuguese original name) also plays an important role in the diffusion, planning, and joining efforts for EP programs and projects in Latin America. This network hosts a discussion list and a web site ([www.cchla.ufrn.br/repala](http://www.cchla.ufrn.br/repala)). REPALA is an important medium of communication among environmental psychologists in the region.

The Interamerican Society of Psychology (ISP) also contributes to the organization of professionals interested in EP. ISP includes an Environmental Psychology Commission, which promotes publications and scientific meetings. The *Interamerican Congress of Psychology* organized biannually, hosts special meetings on EP, mostly conducted by Latin Americans. Other general conferences attended by these psychologists

are the International Congress of Applied Psychology, the International Congress of Psychology, as well as national (psychology) conferences in Latin America countries. Additionally, they also participate of specific events of the area, such as the (Spanish) Congress of Environmental Psychology, or multidisciplinary events, such as the annual meetings of EDRA (Environmental Design Research Association), and the biannual meetings of IAPS (International Association for People-Environment Studies). Some Latin American researchers became regular participants in symposia held in these events, sometimes invited as keynote speakers.

### **Conclusions**

From mid 1990s to the beginning of the first decade of the XXIst century the “critical” situation described by Corral-Verdugo (1997) has been changing favorably in Latin American environmental psychology and, although most of the deficiencies in resources (both human and material) persist, the region is experiencing a significant growth in the number of students, professionals, scientific events, publications, disciplines offered, and research groups in environmental psychology, with considerable change of themes and strategies. Doctors acting in the area are no longer exclusively trained abroad (mostly USA, England and Spain), but started to build local academic traditions; research groups of the region began to cite each other, as examples of greater integration. The contact of these individuals and programs with counterparts around the world has also increased, quantitatively but also qualitatively. However, a lack of cooperation between most Latin American groups is still notorious.

Interest in studying sustainable behaviour, in addition to their early involvement in environmental design is manifested in current productions. Particular situations such as poverty, social disintegration (crime, antisociality), social and environmental inequities, and residential dissatisfaction, motivate the study of topics such as environmental and community social psychology, social identity and sustainability, quality of life and environment, urban environment design, and environmental determinants of antisocial behavior. Other problems such as environmental degradation, drought, loss of biodiversity, pollution in cities, environmental risks, among many others, motivate the study of environmental beliefs, sustainable behaviour, environmental education, water conservation and waste control practices. Interest in studying

school and day-care environments for children and adolescents is significant, maybe due to the young populations of the countries of the region, coupled with the serious related educational problems.

The production of Latin American environmental psychologists is already notorious, as compared with the one in previous years and decades. It is very likely that Latin America is one of the regions of the world exhibiting the faster growth in the emergence of environmental psychology groups. Although we can not be sure this growth is necessarily transformed in development, this situation offers an excellent opportunity for promoting a scientific, quality, and problem-oriented EP serving both the interest of Latin Americans and those of other regions of the world. Such development should be based upon a rigorous analysis of conditions promoting the emergence and maintenance of EP in this region historically aware of the need of cultural sustainability and more and more faced with the challenge of ecological sustainability.

One (or several) incipient "indigenous" psychology(ies) could be developing in Latin American as a response to the particularities of the region. These psychologies are potential contributors to understanding how the adaptation process of people to the cultural and physical environments works in Latin America. These original approaches would be attending to the holistic, non-dualistic, modern and collectivistic particularities of (at least, some) Latin-American world views and social practices. Although a number of researchers use these alternative approaches, most investigators prefer the Euro-American (analytical, dualistic, post-modern and individualistic) schemas in trying to explain environment-behavior interactions in this part of the world.

The growing interest of young students on EP in Latin America deserves an explanation and requires that educational institutions be prepared to offering quality training. This also requires the development of research and professional opportunities in the people-environment area. Under what conditions do those institutions actually operate? Are they prepared for offering the academic and professional training the specific conditions and the new generation demand, particularly when one considers that change is one of the few certainties (Bechtel, 1996)? Given the heterogeneity of productions and lack of cooperation among groups, should EP researchers keep the "spontaneous" development of the area, that will probably maintain the diversity of themes and of

theoretical/epistemological strategies, or should they establish a planned agenda for teaching, research and application?

Although the field of research in EP is still incipient, its development is significantly better than that of the professional EP activity. The implementation of formative programs for a professionalizing EP, according to the specificities of the region, is necessary and this paper considered the actual and the desirable conditions for achieving such a goal. Setting well trained personnel at significant positions in public institutions and private enterprises of our societies is one of the best strategies for the development of the area (Pol, 1993), also increasing awareness of the general public about psychological actions regarding environmental issues, what, in the end, also means expansion of labor market for EP practitioners.

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