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## ENVIRONMENTAL PSYCHOLOGY

*Environmental psychology* is the study of transactions between individuals and their physical settings. In these transactions individuals change the environment, which in turn changes human behavior and experiences. It has been a recognized academic discipline since the 1960s. The first conferences devoted to what was then called *architectural psychology* were held in 1961 and 1966. The first Ph.D. program in environmental psychology was established in 1968. One marker of environmental psychology's youth is that the first Ph.D. in the field was earned in 1975. In contrast, the first American Ph.D. in psychology was granted in 1861. By the late 1960s the first professional journals devoted to the field had been established; the most prominent of these are the *Journal of Environmental Psychology* and *Environment and Behavior*.

### THE SCOPE OF ENVIRONMENTAL PSYCHOLOGY

Environmental psychology encompasses theory, research, and practice aimed at making buildings more humane and improving people's relationship with their surroundings, natural and built. Society invests enormous efforts in the construction and maintenance of key features of the physical environment such as cities, buildings, parks, and streets. Designing these features to maximize the well-being of both humans and nature is a major objective of environmental psychology.

Environmental psychology usually focuses on the behavior and experience of individuals and small groups, such as office workers, pedestrians, pupils, extraverts, shoppers, neighbors, hikers, dormitory residents, burglars, architects, and commuters. The discipline attends less often to large aggregates of people such as societies or governments or humankind. Most work in the field revolves around two related goals: understanding person-environment transactions and using this knowledge to address real-world issues. Some environmental psycholo-

gists feel more comfortable formulating theoretical principles, whereas others are more interested in practical applications. The situation is similar to that in medicine, where some physicians conduct laboratory research and others go into clinical practice.

### RESEARCH AND PRACTICE

Both research and practice are important. Research sometimes confirms hunches or corrects misconceptions about person-environment transactions. The following are only a few examples of conclusions from research that run counter to conventional beliefs: Crowding is *not* strongly related to the number of other persons in a space; human territoriality is *not* primarily associated with aggression; paper cups are *not* environmentally superior to Styrofoam cups, and full-spectrum lighting is *not* necessarily better for people in that it does not, for example, improve productivity or health. Every person-environment transaction is governed by a multiplicity of influences. No single factor shapes human experience and behavior.

Other environmental psychologists prefer to apply knowledge. Instead of working in an academic setting, where most researchers work, they venture into private practice or work for governments. After appropriate training they operate as consultants or civil servants. The practicing environmental psychologist makes good use of research findings to develop policy proposals or to assist a client to improve, for example, the design of spaces such as offices, residences, streets, or parks. Some are mainly interested in improving the built environment, and others are dedicated to addressing concerns about the sustainability of global ecosystems.

Although environmental psychology investigates the same major processes as mainstream psychology (for example, human development, cognition, learning, social relations, and abnormal behavior), it does so in the everyday physical settings in which these activities typically occur. In the words of one of the field's pioneers, Roger Barker, "The awful truth dawned upon me that, although I was well informed about the behavior of children when confronted with tests and experiments devised by scientific investigators, I knew no more than a lay person about the situations and conditions the towns provided their children and how the children behaved" ("This Week's Citation Classic" 1980, p. 10).

### THEORY

Theory is a diverse and evolving aspect of environmental psychology. Here is a list of seven of the most promising theoretical approaches:

1. The adaptation-level approach begins with the assumption that people become accustomed to a given level of environmental stimulation. The

common occurrence of too much or too little stimulation is the focus of theories of arousal, overload, stress, and restricted environmental input.

2. A second type of theory emphasizes the importance of an individual's real, perceived, or desired control over stimulation and gauging degrees of reactance, learned helplessness, and boundary regulation.
3. Ecological psychology asserts the importance of behavior settings—naturally occurring, small-scale social-physical units consisting of regular patterns of person-environment interaction.
4. The human-interdependence paradigm advances the idea that humans make decisions, consciously or not, to use or overuse natural resources, and that these decisions will have profound effects on the environment and ourselves.
5. Integral approaches such as interactionism, transactionalism, and organismic theory attempt to describe the full, complex interrelationship between persons and settings.
6. Operant approaches downplay abstract principles, instead adopting a direct problem-solving approach that employs behavior-modification techniques.
7. Environment-centered theories such as the spiritual-instrumental model, conservation psychology, and ecopsychology raise the issue of the environment's own welfare and its ability to support human well-being.

## METHODOLOGY

Environmental psychologists assume that person-environment transactions are influenced by many different factors that have led to multiple paradigms for studying them. They use a wide variety of research methods, some standard in social science and others devised especially for environmental psychology. A method devised especially for environmental psychology, for example, is post-occupancy evaluation (POE). POE is an assessment of how a newly designed building or outdoor space is working for those who use it (Zeisel 2006). The strong preference for performing research in the everyday world means that field studies are common. Sometimes laboratories and simulated settings are necessary, but they are used primarily when a field study is not possible. Researchers in environmental psychology often undertake experiments that seek to isolate causes and effects. Field experiments, although rarely feasible, are the best route to external validity, which is the generalizability (or applicability) of the findings from one study to a different place, population, or set of conditions. Field experiments often seem to have greater external validity because they are conducted in the same or similar conditions that exist in the place or setting to which one wishes to apply a study's

findings. Quasi-experimental research designs that use elements of both experiment and field studies are much more common.

Environmental psychology employs three levels of analysis. At the most basic level are studies of fundamental psychological processes like perception, concern, cognition, and personality as they filter and structure our experiences of the physical environment. Next comes the management of social space: interpersonal distancing (or personal space), territoriality, crowding, and privacy. Third, environmental psychologists concentrate on the ways in which physical settings inform of complex modes of everyday behavior such as working, learning, living in a residence and community, and interacting with nature. The most important insights that arise from these kinds of analysis are better designs of the built environment and improvements in the sustainability of the human management of natural resources.

The face of environmental psychology varies with national and regional concerns, but it retains a fundamental commitment to understanding and improving relations between humans and their environments. Environmental psychology is at the forefront of a movement to make psychology more relevant to everyday life, but it is still challenged to find more ways of transforming knowledge into practice, devising methods that are better able to accomplish its goals, reaching a wider consensus about its nature and mission, and developing more comprehensive theories.

**SEE ALSO** *Built Environment; Space/Place; Sustainable Architecture and Engineering; Sustainable Development.*

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