PATTERNS OF ENVIRONMENTAL PREFERENCE

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That people differ in their preference for different environmental settings hardly requires substantiation. How one can determine such differences, however, is quite a separate problem. One approach is provided by the well-honed procedures of personality testing. To the extent that feelings about the environment have different characteristics from feelings about oneself, application of these procedures to environmental psychology may possibly require modifications. For example, the problem of disguising the intent of the measure may not be as salient in the environmental domain, permitting a more direct and unambiguous approach. Certainly, people's reticence to

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AUTHOR'S NOTE: *The data reported here were obtained with the great assistance and cooperation of Robert Hanson, Paula Leinbach, and John Russell. Their efforts are greatly appreciated. From its conception and throughout its evolution, Stephen Kaplan has been coauthor of the Environmental Preference Questionnaire. The work reported here was supported, in part, by the North Central Forest Experiment Station, USDA Forest Service, St. Paul, Minnesota.*

ENVIRONMENT AND BEHAVIOR, Vol. 9 No. 2, June 1977

reveal certain aspects of themselves does not necessarily carry over to what they like and dislike about their world. On the contrary, people indicate that they actually like to express their environmental preference.

The Environmental Preference Questionnaire (EPQ) has been devised to explore individual differences in environmental preference. Since its beginning in 1970, and through its various, still continuing, phases of development, the intent has been to develop an instrument that is open and direct. An approach was sought that would avoid eliciting the discomfort and hostility generated by lengthy tests where similar items are repeated in only slightly revised form. Related to this was the desire for an instrument that would be quick and easy to complete. By avoiding lengthy items and using a list of situations under a single stem (e.g., how much do you like each of these), the test frees the participant from the necessity of constantly interpreting new sentences and frequently shifting sets.

The purpose of this paper is to explore the usefulness of the EPQ. The context for the study is a project on the role of challenge and skills in the self-percepts and interests of teenagers. Previously, Kaplan (1974a) described a small-scale study that evaluated the psychological benefits derived by participants of a survival-oriented summer program. The study reported here is part of a larger-scale sequel (Kaplan, 1975b). The data examined here, however, entail only the pretest measures, prior to any summer activities, and do not include parts of the questionnaire dealing with areas of skill and leisure activities.

Two classes of measures are examined in the present study to evaluate the EPQ. One set consists of the reasons underlying choice of favorite activities (e.g., physical workout, source of peace and quiet). The choice of an activity and the opportunities provided by many leisure activities are likely to be related to the environmental settings in which these take place. If environmental preference is to be linked meaningfully to behavior, then it should be related to why people like to do certain things.

The second set of measures falls in the domain of self-esteem. Settings undoubtedly vary in the challenges presented and the skills required. Assuming that challenges and skills are central to self-esteem, then the type of setting a person prefers also constitutes the setting for achieving self-esteem. Thus, the esteem domain seemed possibly pertinent as a correlate, albeit indirect, of environmental preference.

It should be emphasized here that the use of the expression "self-esteem" in no way implies that this construct is necessarily singular or unitary. Indeed, just as Guilford (1959) has contributed importantly to our understanding of intelligence by demonstrating its diversity, the finding of multiple components of esteem could have a comparably beneficial effect.

ENVIRONMENTAL PREFERENCE QUESTIONNAIRE

The Environmental Preference Questionnaire previously has been shown to relate in some interesting ways to gardening benefits (Kaplan, 1973). The EPQ is still in the early stages of development, and it has not undergone extensive evaluation. It has enjoyed several revisions which have served to shorten it and to sift out ambiguous items. In its present form it is scored for seven scales that were used in this study. These were developed on the basis of responses made by several hundred people who were generally older (mostly twenties to sixties) than the sample discussed here. Before identifying these scales and briefly describing them, it may be helpful to mention the procedure by which the scales were formed.

The intent was to identify sources of satisfaction and patterns of preference pertaining to environmental settings. The focus was not so much on past experiences as on current outlook. Since much of our work concerned itself with the role of natural environments in man's well-being, the EPQ was originally heavily endowed with items pertaining to a wide range of natural settings. In fact, the earliest form led to a variety of nature-related dimensions which were characterized

as "nature poster," "cigarette advertisement," and "intimate experience with nature." In later versions many of the nature items were deleted because they made the instrument too specialized. At the same time, the EPQ was intended to portray some common environmental settings other than nature—urban and suburban settings, in particular. The majority of the items dealing with satisfactions and the inspiration for this set of items came from Williams (1960), who used a total of 20 items to show how strikingly different individuals are even when given what might be considered universally desirable items.

The procedures used to identify dimensions included both a nonmetric factor analysis (Guttman-Lingoes Smallest Space Analysis III; see Lingoes, 1972) and the ICLUST Hierarchical Cluster Analysis program developed by Kulik et al. (1970). The rationale for using these methods and their advantages are discussed in Kaplan (1972, 1975a). The reliance on more than one method is intended to serve as a continuous reminder that any solution is dependent on its algorithm and, consequently, represents but one of many statistical optimizations possible for a given data set. Coming to terms with divergent results using different algorithms assures that the computer does not replace intuition. On the other hand, such an unorthodox procedure also necessitates guidelines for how one settles on dimensions. Kaplan (1974b) addresses these issues specifically, listing three criteria that have been followed in a great variety of research entailing dimensional analyses. Briefly, the criteria specify (1) that any particular item should be included in no more than one dimension, (2) that each dimension should "hang together" statistically (Cronbach's coefficient alpha, see Nunnally, 1967; Scott, 1968 provides such an index of "internal consistency"), and (3) that the dimensions be meaningful to the investigator.

THE EPQ FORMAT

The EPQ was intended to tap a somewhat different domain than does McKechnie's Environmental Response Inventory (ERI; McKechnie, 1974). As will be seen in the discussion of

the EPQ scales, the two instruments may provide complementary assessments of environmental dispositions. However, the two instruments differ in format as well as in content. (These differences are somewhat less pronounced now that the ERI is considerably shorter than it was in its earlier format—see McKechnie, 1970—and the binary true-false format has been replaced by a five-point agree-disagree scale.) Our concern was to have an instrument that would take very little time and effort to complete. As the EPQ was intended to be used as an auxiliary measure to help understand results in various contexts and using a wide range of populations, it was important that the instrument be generally acceptable.

The EPQ consists of six questions or areas of concern. Each of these is followed by a list of examples, and the respondent is asked to indicate where he falls on a six-point scale for each of these items. There are 60 such items in all (two pages), and—because of the common stem for groups of items—the amount of time spent reading and interpreting the questions is minimized. The entire EPQ is presented in Table 1. (The order of the six questions as presented here is different from the order used in the study, and as such represents a more recent step in the evolution of the instrument.)

THE EPQ SCALES

The seven EPQ scales range between four and 12 items. Based on data for 100 adults of various ages and backgrounds, the alpha coefficients of internal consistency for the scales ranged between .63 and .83, with five of the scales falling in the .70s.

The scale with the most items (and the highest alpha coefficient) is the Nature scale. It deals with the preference for woodland areas, wilderness, campfires, lakes, and waterfalls. People with a high score on this scale would enjoy strolling through the woods, beachcombing, and collecting acorns. These would thus be people who derive a great deal of satisfaction from the enjoyment of nature and seek natural settings whenever possible, including when harried or under pressure.

TABLE 1
The EPQ Items

1. Please indicate your preference for each of the following moods or settings

   a totally woodland area

   the deserted street of a large city at night

   a front lawn in a suburban area

   a farmland region

   an industrial area

   a city park

   a modern housing development

   a quiet residential street

   a clearing or opening in the woods

   a walk through a woodsy area or along a deserted beach

   the bustle and excitement of a large city

2. Thing I like

setting sun	windy days
beachcombing	collecting acorns or pine cones
campfire	fire in the fireplace
wilderness	bright sunny days
rainy days	lakes, rivers
caves	snow
open spaces	waterfalls

3. If you were guaranteed a comfortable income regardless, how much would you like to spend most of your life in each of these?

   city

   suburbs

   small town or village

   rural countryside or backwoods area

TABLE 1 (Continued)

4. Please indicate how much satisfaction you get from each of the following

babies, enjoyment of
bargaining, buying and selling
cities
conversation, all kinds
food
gardening, farming
medical care (caring for those who are ill)
nature, enjoyment of
odors, perfumes, etc.
ownership of property
parties
people
physical exercise
religion
routine activities
self-adornment
sports-watching

5. How important do you consider each of the following major issues?

population
law and order
environmental decline
inflation
generation gap

6. When you have been harried or under pressure, to what degree would each of the following help make you feel better?

going to the movies
going for a walk in the city, or in a residential neighborhood
going for a walk on the beach, in the woods, or in some other natural setting
being with friends
eating
sleeping
going for a ride in the country
going for a ride in an urban or industrial area
watching TV

NOTE: All items are rated on a six-point scale.

A second scale also reflects some preference for natural settings, but the group of items suggests an idealized fleeing from the urban/suburban scene. People with a high score on this dimension indicate a preference for the backwoods, for caves, and windy days, and a distaste for the city park, the front lawn of a suburban street, and quiet residential places. We have named this scale Romantic Escape.

The Modern Development scale reflects a preference for modern housing developments and industrial areas, and the feeling that population and environmental decline are relatively unimportant issues.

A group of eight items deals with preference for the Suburbs. People scoring high on this scale consider law and order and inflation to be important issues and gain satisfaction from ownership of property, routine activities, and sports-watching.

The scale we have called Social includes items relating to the enjoyment of conversation, of parties, and of being with people.

When envisioning themselves as harassed and pressured, some people feel that relief would come from sleeping, going to the movies, or eating. These people indicate also that eating is a source of satisfaction under nonpressured conditions, and they enjoy odors, perfumes, and the like. These items are included in the Passive Reaction to Stress scale.

Four items form the City scale. These include a preference for the bustle and excitement of a large city and a preference for a walk in the city when harried. With respect to the teenage sample discussed here, this scale did not relate to any of the other variables and will therefore receive no further mention.

THE SAMPLE

The 267 participants ranged in age between 14 and 18, with the vast majority between 15 and 16 years of age. Most of them were either sophomores or juniors in high school. Because of the requirements of the larger study, the sample was comprised

of two major groups. One of these consisted of 157 residents (61 girls and 96 boys) of Michigan's Upper Peninsula, a region of vast spaces, relatively low population density, and severe, long winters. This group represented five schools drawing students from 14 communities. The participants volunteered their time, in early June, at their respective high schools.

The remaining 110 participants (65 girls and 45 boys) included 30 from a local high school who also completed the material while at school in early June. The others were participants in various summer programs and responded to the questionnaire in mid-June, soon after arriving at the location of the program. These programs, described in Kaplan (1975b), represented a range of summer camps and outdoor-oriented activities. About 40% of these people resided outside of Michigan, including about ten other states and a few foreign countries.

None of the participants were in any way obligated to complete the questionnaire. They were told that it was part of a project conducted at the University of Michigan "to better understand what people your age find important and how they feel about different things." The cover page of the questionnaire further indicated that their answers would be kept in confidence and that the material would take about 45 minutes to answer. (In fact, it took most of them considerably less time.) When completing the initial material the students had no knowledge that it was part of a longitudinal study.

REASONS FOR ACTIVITIES

The questionnaire completed by each participant included, in addition to the EPQ, a list of 39 brief descriptions of the kinds of reasons people might give for their activities.[1] The students were asked to indicate, on a six-point scale, how important each of these was with respect to their favorite activities.

Using the two analytic procedures described earlier, these items yielded eight scales. The alpha coefficients for these range

between .67 and .86, except for one scale (Process) with an alpha of .55. With the exceptions noted, the scales consisted of four or five items each.

Four of these scales deal with achievement, with motivations to perform, to excel, and to figure things out. The Self-Directed Accomplishment scale consists of items such as "always learning new things" and "to see if I can improve on my previous performance." The Leadership Accomplishment scale also reflects the "testing oneself" theme, but in the context of situations where one can have a "chance to be in charge." The Process scale focuses on the enjoyment of the "process of doing it," the opportunity to "figure things out." The items on the Workout scale suggest an appreciation of the physical aspects of the activities: "like the exercise in it," "like to keep fit." As can be seen in Table 2, these four scales are interrelated to some degree (using a criterion of $r \geqslant .35$). In addition, the Risk scale correlates with several of these dimensions of achievement, particularly Workout. It consists of only two items: "like the excitement in the risks" and "because of the danger in it."

The Process scale also correlates with the three remaining scales. The Affiliation scale includes six items reflecting appreciation of other people either in the context of "being helpful" or enjoying their company. The Naturalist scale, consisting of three items, involves "liking doing things outdoors," or "close to nature." Peace and Quiet reflects the desire to be alone, away from "other pressures."

VIEWS OF SELF

The questionnaire also included several approaches to the self-esteem domain. Each participant completed a ten-item Rosenberg Scale of Self-Esteem (Rosenberg, 1965), which was originally developed for use with high school students and has been widely used. This scale taps self-acceptance issues (e.g., "I certainly feel useless at times," "I wish I could have more respect for myself," and "On the whole, I am satisfied with

myself") and requires an indication of degree of agreement on a four-point scale (1 = strongly agree, 4 = strongly disagree).[2] For the present sample, the Rosenberg scale yielded an alpha coefficient of .80; the mean rating of 2.1 indicates a moderate degree of self-esteem.

In addition, the participants were asked to respond to 20 other self-description statements, also phrased in the first-person, but dealing with somewhat less global aspects of self-esteem. Each of these required an indication, on a six-point scale, of the degree to which the item reflects the way the student views himself.

Once again, the two analytic procedures referred to earlier were used to define dimensions. In this case, the two procedures led to somewhat different results. The ICLUST grouped together six items which have in common that they are phrased negatively. Three of these refer to avoiding challenges (e.g., "I don't much like jobs where you have to learn a lot of new things"), and three items refer to a social context (e.g., "I find it hard to open up to people"). These six items were designated the Negative View scale (alpha coefficient .45).[3]

The ICLUST procedure also grouped as one cluster 13 items which are positively phrased (alpha coefficient .76) and were named Positive View. Using the nonmetric factor analytic procedure, 11 of the items in Positive View and two others comprised four separate dimensions. Since one of the major interests of this study was a closer examination of the domain of self-esteem, these four dimensions were used as well as the more general Positive View which shared items with each of them.

Of these four, the scale that correlated most highly with Positive View consisted of four items concerning a realistic orientation with respect to jobs that need to get done (e.g., "I am sensible about how long things take to get done"). This scale was named Realistic Task Orientation (alpha coefficient .74).

The three-item Challenge scale (alpha coefficient .56) included both personal challenge (doing something because it's supposed to be hard) and more interpersonal challenge (get people to do what I want).

The Interpersonal scale (alpha coefficient .39) consisted of a pair of items pertaining to getting along easily with others and enjoying working where other people are.

The fourth scale consisted of three items: "I am the sort of person people turn to when they need someone to talk to," "I find it lots easier to get a job done by myself than to do it with others," and "Peace of mind is really important to me." (Only the first of these three items is included in Positive View.) This scale was called Self-Reliance (alpha coefficient .46). Apparently, the resourcefulness implied by this scale may be related to others' seeking such a person when needing help.

In addition to the Rosenberg scale, the self-esteem domain thus included six other scales: Negative View, Positive View, and the four separate dimensions sharing items with the latter—Realistic Task Orientation, Challenge, Interpersonal, and Self-Reliance. Except for the high correlations between these four and Positive View, none of the other intercorrelations among any of these scales reached the criterion of 12% shared variance (see Table 2). The Rosenberg scale correlated .20 with Negative View and −.22 with Positive View. (It should be remembered that it is phrased as a low-esteem scale, since 4 = disagree.) It is clear that some of these scales (entailing relatively low alpha coefficients and very few items) must be considered as tentative and still in the process of development. Nonetheless, their independence of each other suggests that they tap separate and meaningful aspects of self-esteem. It was hoped that these diverse facets would provide a better understanding than a single global view.

RESULTS: EPQ, SELF-ESTEEM, AND REASONS FOR ACTIVITIES

The seven Environmental Preference Questionnaire scales were derived from the responses made by adult samples residing by and large in urban-suburban settings. Here the scales have been used with a teenage sample coming from far more diverse

environments. Table 2 shows the correlations among the scales for the present sample. Clearly, for this sample too, these scales measure distinctly separate dimensions of environmental preference. However, there are three correlations greater than .35 that should be noted. The Social scale and the Passive Reaction to Stress scale both relate to preference for the company of others, though under different circumstances. The Romantic Escape scale shows a positive relationship to the Nature scale and a negative relationship to Modern Development. These relationships had not been found for previous samples. The possibility that this pattern reflects a developmental change in viewing different kinds of settings would be worth further study.

The present section focuses on the relationship of each of these EPQ scales with the various self-esteem and "reasons for activities" scales. To facilitate this discussion, each of the EPQ scales will be described separately in terms of the likely characteristics of the high or low scorer. The discussion is based on the data presented in Table 2. Because of the large sample size, very small correlations are statistically significant. For purposes of the present discussion, correlations $\geqslant .20$ (significant at $p < .001$) are included.

EPQ Nature: The person who seeks natural settings whenever possible, including when under stress, favors activities which permit expression of these preferences. Thus, he likes to be outdoors and he chooses activities where he can find out about things in nature. At the same time, he seeks out peace and tranquility and selects activities that provide the opportunity for being alone and away from other pressures. The person scoring high on this scale also enjoys activities that are engrossing and require figuring things out (i.e., Process scale). These are people who are sought by others in need of help, and whose high positive view of themselves seems to derive from an inner resourcefulness. This pattern of results suggests a person at peace with himself, who cherishes the natural setting, and who is likely to be highly involved in an activity, especially if it combines contact with nature and solitude.

TABLE 2
Correlation Matrix: EPQ, Self-Esteem, and Reasons for Activities Scales (N = 267)

		EPQ Scales							Self-Esteem Scales							Reasons for Activities Scales								
		Nature	Romantic Escape	Modern Development	Suburbs	Social	Passive Reaction to Stress	City	Rosenberg Self-Esteem	Negative View	Positive View	Realistic Task Orientation	Challenge	Self-Reliance	Interpersonal	Peace and Quiet	Naturalist	Affiliation	Risk	Workout	Leadership Accomplishment	Self-Directed Accomplishment	Process	
EPQ:	Nature																							
	Romantic Escape	.41																						
	Modern Development	-.27	-.40																					
	Suburbs	.03	-.29	.16																				
	Social	.13	-.17	.06	.31																			
	Passive Reaction to Stress	.08	-.18	.12	.32	.38																		
	City	-.11	-.29	.24	.17	.29	.32																	
Self-Esteem:	Rosenberg Scale	.00	-.10	.15	-.12	-.11	.00	.08																
	Negative View	-.06	-.11	.08	.14	-.07	-.09	.09	.20															
	Positive View	.30	.04	-.04	.26	.26	.18	.04	-.22	.04														
	Realistic Task Orientation	.18	.06	-.03	.24	.00	.07	-.12	-.20	.06	.78													
	Challenge	.10	-.09	.02	.28	.15	.19	.11	-.23	.17	.63	.34												
	Self-Reliance	.33	.16	-.13	.00	.16	.04	.10	.05	.26	.52	.30	.21											
	Interpersonal	.18	-.01	-.04	.05	.38	.08	.09	-.03	-.20	.51	.15	.11	.10										

TABLE 2 (Continued)

		EPQ Scales							Self-Esteem Scales							Reasons for Activities Scales							
		Nature	Romantic Escape	Modern Development	Suburbs	Social	Passive Reaction to Stress	City	Rosenberg Self-Esteem	Negative View	Positive View	Realistic Task Orientation	Challenge	Self-Reliance	Interpersonal	Peace and Quiet	Naturalist	Affiliation	Risk	Workout	Leadership Accomplishment	Self-Directed Accomplishment	Process
Reasons:	Peace and Quiet	.34	.15	-.18	.07	.02	.00	-.01	.10	.20	.18	.14	.06	.34	-.01								
	Naturalist	.53	.20	-.21	.09	.10	.01	-.09	-.07	-.12	.28	.18	.13	.20	.18	.39							
	Affiliation	.19	-.24	.01	.28	.34	.21	.12	.03	.08	.31	.22	.07	.13	.32	.26	.33						
	Risk	.05	-.02	.04	.32	.15	.13	.05	-.14	.03	.22	.18	.35	.02	-.01	.15	.17	.16					
	Workout	.15	-.15	-.01	.46	.16	.20	.11	-.17	.05	.37	.30	.41	.05	.11	.19	.30	.28	.45				
	Leadership Accomplishment	-.06	-.09	.07	.36	.14	.23	.14	-.14	.17	.33	.22	.38	.08	.09	.10	.11	.28	.37	.46			
	Self-Directed Accomplishment	.05	-.09	.00	.36	.11	.17	.06	-.10	.04	.40	.38	.31	.06	.14	.23	.32	.33	.36	.60	.51		
	Process	.29	.05	-.15	.22	.24	.15	.07	-.08	.02	.33	.24	.19	.20	.16	.39	.35	.37	.31	.39	.36	.45	

EPQ Modern Development. To be a low scorer on this scale, a person would have to consider population issues and environmental decline to be important issues. He would not be one to appreciate growth and development. Such a person, like the one scoring high on the Nature scale (although the two scales are not correlated), values peace and quiet. The self-esteem dimensions were unrelated to this scale.

EPQ Romantic Escape. More than anything else, the person scoring high on this scale would be characterized as nonaffiliative. He neither opts for situations that bring him in contact with others nor does he much seek activities where others need count on him. The escape, the fleeing to the back-woods, involves a romanticized notion of nature (caves, windy days). At the same time, it reflects a distaste for suburban amenities. The relationship to the scale dealing with Naturalist reasons for activities is not as strong as the disavowal of socially dominated activities. But the Naturalist scale taps a rather firsthand closeness to the outdoors rather than the idealized contact implied by Romantic Escape.

EPQ Social. Of course a person who enjoys people, conversation, and settings where these are likely to occur is one who is likely to choose activities that are strong with respect to their interpersonal component. He likes to be helpful, likes to show others that he cares, likes to be in a group. His area of greatest self-confidence is also in the social realm. He gets along easily with others and is comfortable in their presence. High scorers on the Social scale also indicated that they select activities that provide opportunities for Process. It may well be that these items were considered in a social context. In other words, these people opt for social activities where they can enjoy the planning involved and where they get "completely wrapped up" in the social aspects of the activity.

EPQ Passive Reaction to Stress. As its name implies, this dimension reflects a preference for relatively inactive, unde-

manding pursuits when feeling stressed and pressured. People scoring high on this dimension are those who indicate a preference for activities where they can be in charge and in leadership roles; they seem to seek opportunities for competition. In other words, they indicate that being challenged, keeping fit, and testing themselves are important ingredients in their selection of favorite activities. But when all the achieving leads to a harried feeling, eating and sleeping and being with friends seems to provide comfort and solace. It is interesting that the relationships here are not with all four achievement-related Reasons scales, but seem to focus on those which have a stronger interpersonal component. It is not surprising then, that the EPQ Passive Reaction to Stress scale, like the EPQ Social scale, relates to the Affiliation dimension among the reasons for activities.

EPQ Suburbs. In the present sample, the high scorers on the Suburbs scale of the EPQ are people who seek activities that they perceive as requiring accomplishment—both Self-Directed and Leadership. They also indicate a preference for activities that provide opportunities for a "good workout" and those which they perceive as having a risk or danger component, as well as those that are intrinsically engrossing. When sizing up the demands of a job, these people see themselves as capable and ready for a challenge. Their self-confidence is reflected in their relationships with others ("gets people organized") and in their feeling that they have a pretty good idea of their strengths. At the same time, their preference for activities with an affiliative component suggests the oft-described social aspects of the suburbs. Perhaps these people's preferred contacts are not over the back fence at this point, but they give the impression of friendly neighbors who will gladly take it upon themselves to organize the community for the right neighborhood cause.

DISCUSSION

The patterns of relationships between the various EPQ scales and the domains relating to self-esteem and reasons for favorite activities point to some important themes. The Nature and the Suburbs scales, which are orthogonal ($r = .03$), complement each other in their patterns. Those who seek nature seek peace and quite as well. Tranquility is a neutral quantity for the person preferring suburban settings. The one who likes to beachcomb and walk along in the woods or by the river also likes to explore, to find out. The one who would sooner spend his life in the suburbs, given the choice, seems to like to achieve, to accomplish, to compete, to lead. Their areas of self-esteem are also different. The person with an appreciation for the suburbs finds himself realistic in outlook and confident that he can handle a challenge. The one whose satisfaction stems from contact with nature derives self-confidence from his capacity to do things on his own. (Both score high in terms of the general Positive View scale.) While these may sound like opposite ends of a continuum, it is important to remember that nothing in these results precludes a given person from preferring both nature and the suburbs—or neither, for that matter.

The role of other people in one's life is another theme that runs through these profiles. The EPQ Social scale relates to a need for others and an appreciation of a group. It is a relatively uncomplex desire to affiliate with friends and peers. The Romantic Escape scale shows the opposite tendency: a group of people finding displeasure in the presence of others. Those scoring high on the Suburbs scale show still another pattern. They indicate enjoyment of activities that involve friends and people on the one hand, but also seek activities where the interpersonal contact puts them in a leadership position and in a more competitive stance. And for the EPQ Passive Reaction to Stress scale, high scorers would like to be with their friends, especially under harried circumstances, while at other times they seem to opt for the more competitive, task-related interpersonal context.

These themes are clearly important components in relating environmental preferences and personal attributes. Different sources of self-confidence and esteem, as well as expressions of motivations for selecting leisure activities, seem to be meaningfully related to preferences for environmental settings. (Note that it is the preference, not where the individual has lived, that is predictive here.) These findings indicate that the EPQ is tapping concerns that have some validity and generality. They also speak to a larger issue that has received considerable attention in recent years. The impact of situation on behavior has been studied and discussed extensively in ecological psychology (Barker and Gump, 1964), and more recently in the context of personality theory (Mischel, 1973). Moos (1973) has called attention to this cross-area convergence. The argument that individuals behave differently in different situations and that even personality "traits" may be situation-specific undoubtedly has some merit. But the factor of environmental preference may have obscured some underlying consistency. If individuals behave in certain characteristic ways in their preferred environments, and if there is in fact considerable variation in environmental preference, then it would be impossible to identify such regularity without taking preference into account. Environmental preference may thus be both an enduring property of an individual and a clue to identifying classes of settings in which consistencies of behavior can be observed.

The attempt to partition environmental preference into a manageable number of reasonable dimensions has been encouraging. The results thus far obtained with the EPQ offer hope for incorporating individual differences into man-environment considerations without fear of being overwhelmed by idiosyncrasy. A paper by Bufford (1973) provides a striking illustration of the practical impact that can result from this frequently expressed concern that "if everyone is different, then preference is a matter of taste and irrelevant to policy." The instrument has also shown itself to meet the criteria of being open, direct, and unprovoking. In a great variety of

contexts, with people of widely different ages and socio-economic characteristics, the EPQ has been an easy instrument to include as an additional measure. It has predicted patterns of satisfactions among different gardening groups. It has shown developmental trends across the undergraduate careers of university women. It has differentiated among the backyard preferences of members of a community living at different points along the course of a county drain. Clearly, its possibilities are as diverse as the ways in which humans influence and are influenced by the physical environment which surrounds them.

NOTES

1. Driver, a former colleague and coprincipal investigator of one of the projects supporting this research, has long been interested in the motivations for different recreation activities. He has approached the task with respect to specific outdoor activities and with a much longer list of reasons tapping a larger set of motivations than those under study here. Our list of reasons for activities included some of his items. For a review of the literature on motivational considerations in recreation behavior and results of research using Driver's instrument, see Knopf (1972).

2. It is perhaps worth noting that several participants made negative marginal comments with respect to the Rosenberg scale. This was particularly striking in view of the fact that the measure was developed for high school age people and that these participants were in general extremely cooperative. This is a matter of concern not only because the data of a hostile participant are less likely to be trustworthy, but also because the experience of participating in research should not and need not be a distasteful one. Concern for such issues has, fortunately, increased substantially in recent years.

3. The fact that the ICLUST led to a separation of negatively and positively stated items may raise questions of social desirability and response bias. There are several reasons to doubt such interpretations. Out of the entire sample, only three respondents gave invariant responses to these items—two checking only high numbers, and one checking only low numbers. Furthermore, as will be seen, the pattern of results makes sense. From a social desirability point of view it would be difficult to predict such outcomes. A more likely interpretation of such a separation might lie in the nonparallel meaning of an item stated in positive and in negative terms. As Hunt (1974: 234) says, "People have trouble grasping what it means when things are not." Or, perhaps, they can grasp what it means and it assumes a different nuance in the negative form. The independence of positive and negative contributions in an individual's sense of well-being has also been emphasized by Bradburn (1969).

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