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JAMES, KEITH ARNOLD

SOCIAL SET AND HOUSE EVALUATIONS

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SOCIAL SET AND HOUSE EVALUATIONS

by

Keith Arnold James

A Thesis Submitted to the Faculty of the
DEPARTMENT OF PSYCHOLOGY
In Partial Fulfillment of the Requirements
For the Degree of
MASTER OF ARTS
In the Graduate College
THE UNIVERSITY OF ARIZONA

1983
STATEMENT BY AUTHOR

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SIGNED: Keith A. James

APPROVAL BY THESIS DIRECTOR

This thesis has been approved on the date shown below:

W. H. ITTELSON
Professor of Psychology

July 23, 1953
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ABSTRACT

It was proposed that psychophysical ratings of house floorplans might yield valuable information about housing preferences. Further, it was hypothesized that differences in the chronic and acute social contexts within which subjects were operating would produce significant differences in their ratings. Twenty-eight married and 43 single subjects participated. Married subjects rated some plans with their spouses, and some with their spouses absent. A comparison of the married and single groups indicated a significant difference in their ratings of the plans—a chronic context effect. A comparison of the spouse-present and the spouse-absent conditions for married subjects also yielded a significant difference—an acute social context effect. Regression equations were also produced using the features depicted in the plans as predictors, and the mean rating of each subject group as the dependent variable. These regression equations yielded very high multiple-r-squared values, indicating the potential utility of this technique. Interpretations are presented and implications discussed.
INTRODUCTION

"(The) inherent multiplicity of the environment precludes any hope of arriving at some ultimate or ontologically most real environment. Instead, the environment has to be seen as capable of being continuously and differentially constituted depending on such factors as the conceptual orientation of a particular discipline, the explanatory objectives of a particular researcher, or the guiding purposes of a particular actor" (emphasis mine).

This quote from Jessor (1981, p. 299) nicely sums up the general orientation which guided the study of a particular type of environment which this report is about. The environment-type studied was the single family house. The general orientation is a complex one, in which the physical environment is seen as a part of the context of human experience, which can be separated out for purposes of analysis, but which is, nevertheless, inextricably tied up with the other components of that context, including culture, personal characteristics and history, and the particular social groups of which an individual is a part.

This orientation has many roots in the field of psychology: in Lewin (1951), Sherif (1935), Sherif and Hovland (1961), Heider (1958) and the transactionalists (see Tibbets and Esser, 1973, for a summary and review of the transactional position). More recently, situational psychology (Furnham and Argyle, 1981; Magnussen, 1978, 1981) has coalesced from a group of researchers interested in
investigating the implications of the notion of experience and behavior being a function of an interplay of a person and a complex context, while Gibson (1979) has emphasized the importance of such a contextual approach in the study of perception. Neither is this approach new to environment psychology (see, for example, Altman, 1976; Altman and Gauvain, 1981; Ittelson, 1973), although it rarely seems to have been used in quantitative environmental studies.

Houses have been written about extensively by architects (Brown et al., 1976; Lawrence, 1979, 1981; Lym, 1980), sociologists (Gasparini, 1973; Goffman, 1959; Smith, 1971), home economists (Smith et al., 1969), anthropologists (Bourdieu, 1973; Cunningham, 1965; Nydegger and Nydegger, 1966; Rapoport, 1969), geographers (Agnew, 1983; Porteous, 1976; Pratt, 1983; Relph, 1976), planners (Greenbie, 1981; Rainwater, 1966) and psychologists (Altman and Gauvain, 1981; Gauvain, Altman, and Fahim, 1983; Becker, 1977; Cooper, 1974; Hayward, 1975; Marc, 1977; Sadalla, Burroughs, and Quaid, 1981). The list given is by no means exhaustive, yet of these 25 articles, only five produced new quantitative evidence on their topic. Clearly, additional data are needed relevant to the functions and effects of houses, and how people perceive and react to them.

One important theme which runs through the literature on houses deals with the various psychological, functional, cultural, social and symbolic needs met by particular types of divisions of the interior space of houses. Goffman (1959), for instance, discusses the public and private aspects of house interiors, while Lawrence's (1979, 1981) two studies provide some data on this public/private duality, as well
as on other aspects of space use and demarcation—"appropriation of space," to use Lawrence's own words. Further investigation into preferences in the arrangement and use of interior space was one of the major goals of this study.

However, a study of houses seemed also to be an appropriate vehicle through which to attempt to elicit some additional evidence bearing on the validity and operation—if valid—of the kind of contextual approach mentioned previously. Physically, socially and emotionally, shelter is the most important physical environment in most people's lives, and a house is the aspired to ideal in shelter (Dovey, 1978; Porteous, 1976). More importantly, houses are inextricably bound up with the family as a social unit. Thus, the feeling of house, the meaning of house, the functions of house should be tightly coupled to the feeling, meaning and function of the family unit. To quote Humphrey (1980, p. 59):

For man and other animals which live in complex social groups reality is in large measure a "social reality." No other class of environmental objects approaches in biological significance those living bodies which constitute for a social animal its companions, playmates, rivals, teachers, foes. It depends on the bodies of other conspecific animals not merely for its immediate sustenance in infancy and its sexual fulfillment as an adult, but in one way or another for the success (or failure) of almost every enterprise it undertakes.

Pratt (1983), in the study referred to previously, made an effort to begin to examine houses in relation to social reality by looking at relationships between reference groups—the group of acquaintances from whom an individual acquires most social information and to whom an individual looks for standards of social conduct—and the
interior decoration of homes. Here, I will focus on a less broad, but more potent social group: the nuclear family.

Physically, psychologically, culturally and emotionally, few social groups, if any, are as important as the family unit. Houses are largely occupied by family groups. Therefore, for most people, given that the notion presented above is correct, the reality of houses should be in part, the reality of the family.

We can expect, based upon the work of the anthropologists, sociologists and psychologists cited here, as well as by others not cited here, that a part of each individual's actions toward and responses to houses will be determined by cultural factors, while a part of it will be purely idiosyncratic. However, if the "contextual" approach is correct, yet another part should come from the "social reality" of the socially and emotionally powerful family unit, from what I will refer to from here on as the chronic social context.

In this study, I attempted to determine some factors of importance to people in the interior division of house space, by applying to houses a rating technique--developed out of psycho-physics and signal detection--which one of my mentors has applied with some success to forest environments (Daniel and Booster, 1976; Daniel and Vining, in press).

In addition, in keeping with the concepts discussed, it was hypothesized that the ratings would change in relation to changes in the chronic and acute social contexts in which they were made.
METHOD

Stimulus Materials

Twenty-two blueprints of actual homes in the Tucson, Arizona area were obtained. Eleven of these (referred to hereafter as the custom plans) were selected by the author from the files of the Pima County, Arizona Building Codes Office, with the intention of garnering plans with as wide a range of characteristics as possible. Permission to use these plans was obtained from the home-owner or the builder. The remaining 11 plans (referred to hereafter as the standard plans) were the standard plans of a large regional home building company.

This latter set of plans contained less variation in the characteristics of the houses depicted, and were generally smaller, less complex in lay-out, and contained fewer rooms and other structural features than did the former set. For instance, none of the standard plans contained a bar, a gym or any interior planters, while some of the custom plans did have these features. Some additional important differences between the two sets of plans will be discussed later.

All 22 floor plans were then redrawn with black ink on white paper and a slide made of each. These slides were the actual stimuli which each subject viewed. The slides were randomly assigned to positions in the slide tray. Figure 1 is a representative example of the custom set. Figure 2 is a representative example of the standard plans.
Figure 1. Representative example of the custom set
Figure 2. Representative example of the standard plans
The features contained within each floor plan, such as the types and locations of all rooms, were numerically coded and entered into the computer for use in later analysis. A complete list of the features thus coded is contained in Appendix A.

Subjects

Fourteen married couples were solicited by circulating announcements of the study in undergraduate psychology courses—including night courses. One spouse in each couple was a student who received extra-credit points in his or her class for participating. Four of these were from evening classes.

In addition, 43 single subjects were recruited for purposes of comparisons with the married subjects to be discussed later in the paper, by the same method.

The single subjects differed significantly from their married counterparts on several demographic characteristics. For instance, they had a mean age of 19.6 as compared with one of 28.5 for the latter group, while their average income was $2,145 to the married subjects' average of $8,807.

Single subjects took part in group sessions—groups ranged in size from 7 to 16—in the psychology building during the day. With the exception of session size and the manipulation of acute social context, which only occurred for married subjects, the single subjects were run through the experiment in the same fashion as I will now describe for the married group.
Procedure

Each married couple took part in a separate session. Nine sessions took place in the same psychology department experimentation room as did the single-subjects sessions. The remaining five took place in the relevant couple's home.

Couples were seated side by side, but with a space of at least one seat between them. Each spouse was given a response sheet and asked to fill out a number of demographic items at the top of the form. When this task had been completed, a set of standardized instructions was read. Subjects were told that they would be viewing a number of floor-plans of existing homes in the area, and that they should use a zero to ten scale to rate each based upon how much they would like a house which they were going to build for themselves to be like the one depicted in a particular plan. Subjects were instructed to make their judgements based upon their ideal of a house, and it was stressed that each spouse should make individual ratings without communication from or to the other. An example slide (not one of those to be rated) was then projected and used to explain the architectural representations used in the plan--such as those for stairs and fireplaces--to the subjects.

The couples were told that they could take as much time as they liked to examine each plan. They were reminded of the scale and criteria to be used and the session began.

Each subject rated all 22 plans, but at this point, the 14 couples were divided into two procedural groups. Seven pairs of spouses
first viewed and rated half of the plans in each other's presence (together condition), and then rated the second half with their spouses out of the room (separate condition). The other seven pairs did their separate ratings first and then their ratings while in each other's presence later. The spouse who would be asked to leave the room first for the separate rating phase had been previously determined by random selection.

Whichever type of (acute) social context occurred last, all subjects were again reminded of the scale and rating criteria before beginning the second half of the ratings.

All subjects appeared to comply totally with the injunction not to comment on the plans nor to attempt to view their spouses' ratings.
RESULTS

A two by two repeated measures analysis of variance (BMDP2V) was performed on the data from married subjects, with sex and social context—whether the ratings were done in the spouse's presence (together condition) or not (separate condition)—as the independent variables, and the plan ratings as the dependent variable. Because the manipulation of social context was a weak one, and because the N was low, a significance level of .1 was selected. Cell means are presented in Table 1.

Table 1. Cell means and standard deviations for sex by social context ANOVA

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Separate</td>
<td>Together</td>
</tr>
<tr>
<td>Mean</td>
<td>5.282</td>
<td>5.181</td>
</tr>
<tr>
<td>Standard</td>
<td>2.505</td>
<td>2.369</td>
</tr>
<tr>
<td>Deviation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of this analysis indicated a significant main effect of social context, $F(1,612)=2.85$, but no significant effect of sex, $F(1,612)=.19$, and no significant interaction effect, $F(1,612)=1.41$. 

11
Interrater (IER) and intrarater (IAR) reliabilities (Tinsley and Weiss, 1975) were calculated from the ANOVA output. The interrater reliability was .649, while the intrarater reliability was .062.

A correlation of each married subject's separate condition rating with the same subject's together condition rating was then performed, yielding a significant, but relatively low correlation of .465.

Additional correlations were done on the separate condition ratings of the husband and wife in each couple and the together condition ratings of the spouses. Again, these correlations were significant but relatively low, at .490 and .257, respectively.

Next, a one factor repeated measures ANOVA (BMDP2V) was performed to test for a marital status effect between the married subjects and the single subjects. The mean rating for single subjects was 5.47, with a standard deviation of 2.31, while the mean rating for married subjects was 5.11, with a standard deviation of 2.61. A .05 level of significance was used for this and all subsequent tests. The effect of marital status was significant, F(1)=8.05. Interrater reliabilities (IER) and intrarater reliabilities (IAR) were again calculated, yielding an IER of .865, and an IAR of .090.

Then, separate two-way ANOVA's (BMDP8V) -- one for the married subjects only and the other only for the single subjects -- were performed to test for the effects of plan-type -- custom or standard -- and plan-22 levels, one for each individual plan.
Means and standard deviations for plan type for the two subject groups are shown in Table 2. Means and standard deviations for the individual plans are shown in Table 3.

Table 2. Means and standard deviations for plan type and married and single subjects

<table>
<thead>
<tr>
<th></th>
<th>Married</th>
<th>Standard</th>
<th>Single</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Custom</td>
<td>Standard</td>
<td>Custom</td>
<td>Standard</td>
</tr>
<tr>
<td>Mean</td>
<td>5.66</td>
<td>4.58</td>
<td>6.45</td>
<td>4.49</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>-.540</td>
<td>-.540</td>
<td>-.980</td>
<td>-.980</td>
</tr>
</tbody>
</table>

The results indicated significant main effects for both variables for both subject groups. The analysis of the single subjects' data yielded a plan-type F-value (1 degree of freedom) of 188.82, with an IER of .995, and an IAR of .814, and a plan F-value (21 degrees of freedom) of 17.74, with an IER of .944 and an IAR of .280. The corresponding F-values for married subjects were 16.35 and 4.59, respectively, with a plan-type IER of .782 and an IAR of .114.

Finally, separate step-wise multiple regressions were run for the custom and for the standard plan-types, and separately for the

1. A factor analysis was attempted, but could not be completed for several reasons: too many variables for the available computer core space, too many variables with perfect correlations and, when some variables were eliminated in an effort to get around these problems, too many negative eigenvalues to allow for the computation of factor weights.
Table 3. Mean ratings and standard deviations of individual plans for single and married groups

<table>
<thead>
<tr>
<th>Plan</th>
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<td>Mean</td>
<td>S.D.</td>
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<td></td>
<td></td>
<td></td>
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<td>7.07</td>
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<td>6</td>
<td>6.21</td>
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<td>4.86</td>
<td>-1.59</td>
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<tr>
<td>7</td>
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<td>0.644</td>
<td>6.76</td>
<td>0.307</td>
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<td>8</td>
<td>6.82</td>
<td>1.165</td>
<td>7.38</td>
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<td>9</td>
<td>6.42</td>
<td>0.765</td>
<td>7.13</td>
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<td>11</td>
<td>6.49</td>
<td>0.836</td>
<td>6.99</td>
<td>0.540</td>
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<td>Standard</td>
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<td>12</td>
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<td>-1.31</td>
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<td>0.423</td>
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<td>4.02</td>
<td>-0.556</td>
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<td>4.34</td>
<td>-0.234</td>
<td>4.54</td>
<td>0.053</td>
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<tr>
<td>22</td>
<td>4.27</td>
<td>-0.299</td>
<td>3.17</td>
<td>-1.323</td>
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</tbody>
</table>
married and the single subjects within each plan type. The factors
coded from the plans, listed in Appendix A, were regressed on the mean
plan rating of each subject group. In the standard plans, the location
of the master bedroom and the living room with respect to the front-to-
back dimension, and the locations of the study and porch—in those few
plans which had those features—with respect to the left-to-right dimen-
sion, were fixed, at least in terms of the type of coding scheme em-
ployed for such variables in this study. Therefore, these factors were
not available in the regression equations for standard plans.

The maximum step was set at 5, with an F-to-enter of 1.0, and
the tolerance level was set at .3, in an effort to control for some of
the intercorrelations of the variables. Table 4 lists the variables
which entered the two custom-plan equations, along with the beta-weights,
F's and r-square change values associated with each. The corresponding
values for the standard-plan equations are listed in Table 5.

The multiple r squared for custom plans and single subjects was
.937, while the corresponding value for married subjects was .85. The
multiple r squared for standard plans and single subjects was .728,
while the value for the same set of plans for married subjects was .903.
Table 4. Regression variables and values for custom plans

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta-weight</th>
<th>F to Enter</th>
<th>R-square Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single subjects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X Master bedroom location</td>
<td>-3.668</td>
<td>8.302</td>
<td>.479</td>
</tr>
<tr>
<td>Living room proportion</td>
<td>6.452</td>
<td>5.08</td>
<td>.160</td>
</tr>
<tr>
<td># Master bedroom windows</td>
<td>1.316</td>
<td>2.94</td>
<td>.139</td>
</tr>
<tr>
<td># Exterior walls</td>
<td>0.0823</td>
<td>5.22</td>
<td>.102</td>
</tr>
<tr>
<td># planters</td>
<td>0.3810</td>
<td>4.66</td>
<td>.057</td>
</tr>
<tr>
<td>Constant = 4.042</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married subjects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X Master bedroom location*</td>
<td>-3.270</td>
<td>10.44</td>
<td>.537</td>
</tr>
<tr>
<td># Master bedroom windows*</td>
<td>.7610</td>
<td>9.03</td>
<td>.245</td>
</tr>
<tr>
<td>Master bedroom proportion*</td>
<td>4.6292</td>
<td>3.338</td>
<td>.071</td>
</tr>
<tr>
<td>Constant = 6.192</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Only three variables had large enough F-values to enter the equation.
Table 5. Regression variables and values for standard plans

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta-weight</th>
<th>F to Enter</th>
<th>R-square Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Single subjects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total area of house</td>
<td>.8445</td>
<td>2.925</td>
<td>.211</td>
</tr>
<tr>
<td># of kitchen windows</td>
<td>-1.359</td>
<td>2.947</td>
<td>.161</td>
</tr>
<tr>
<td>YMBLC</td>
<td>-.9694</td>
<td>1.265</td>
<td>.123</td>
</tr>
<tr>
<td>Balcony (presence or absence)</td>
<td>1.526</td>
<td>1.289</td>
<td>.122</td>
</tr>
<tr>
<td>Master bedroom proportion</td>
<td>44.175</td>
<td>1.212</td>
<td>.111</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Married subjects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y kitchen location</td>
<td>-1.0872</td>
<td>6.341</td>
<td>.413</td>
</tr>
<tr>
<td>Total area of house</td>
<td>.4319</td>
<td>6.077</td>
<td>.168</td>
</tr>
<tr>
<td># of kitchen windows</td>
<td>-1.725</td>
<td>3.259</td>
<td>.156</td>
</tr>
<tr>
<td>Master bedroom proportion</td>
<td>41.5694</td>
<td>1.587</td>
<td>.097</td>
</tr>
<tr>
<td># Family room windows</td>
<td>.7479</td>
<td>3.562</td>
<td>.069</td>
</tr>
</tbody>
</table>

Multiple $R^2 = .728$

Multiple $R^2 = .903$
DISCUSSION

The evidence generated by this study seems to indicate that small scale social units within a culture can affect people's perceptions of stimuli which are relevant to the functioning of that unit.

However, other possible explanations do exist. One simple one is that the subjects were responding to the demand characteristics of the study. However, I had no particular hypothesis about the direction in which the separate and together ratings would differ; I merely thought that they would differ in some way. Thus, subjects could not have gotten cues from me about how to change their responses in order to meet the demand characteristics of the study, and I would expect any uncued changes which were not due to a real effect to be random enough to cancel each other out when the data were aggregated.

Another possibility exists: that the differences in ratings observed here did not reflect an actual difference in the subjects' perceptions and evaluations of the plans in the together and separate conditions, but that it instead represented explicit conformity to a group norm. This might also be of interest, but from my point of view, would not be nearly as much so.

It is fortunate, therefore, that this explanation does not seem tenable. In both conformity and social information processes (Tajfel, 1968), information must pass from person to person about what is
expected in, "normal" to, or reasonable for the situation. In this study, such information exchange does not seem to have taken place. Spouses were seated apart and the lighting kept low during the "together" rating session in an effort to eliminate the possibility of partner's examining each other's ratings. Further, I observed subjects carefully, looking for any such information exchanges, and saw none. The subjects did not look at each other's response sheets, did not discuss their rating and, as far as could be determined, did not use facial expressions or other nonverbal signals to communicate reactions to a particular plan.

Thus, I would argue that the observed differences in ratings were not due to explicit conformity or to ratings modifications due to acute information derived during the "together" session, but were instead due to more chronic differences in methods of examining and evaluating the house plans when alone and when part of the long established and functional social group used in this study.

The key word here is functional. For, as I have already stated, I believe that it is either mainly or only when the objects and stimuli encountered have relevance for the activities of a particular social group that the nature of that group will influence the perceptions of its members.

The questions becomes, then, how and why a process takes place. My answer to the why was given in the introduction: people are the source of most of the things which people need or want, and are also the source of most of the dangers which people encounter. Given that
a large part of human successes in competing and thriving in the world have been due to cooperative action and the exchange and passing (over generations) of knowledge through social and cultural processes, this has probably been true for much of our species history. Therefore, it becomes vital for people to be "tuned into" other people. This "tuning-in" would involve being aware of what others in the group were doing, of course. But it would also involve being aware of what others are experiencing. Only then would a broad and deep range of cooperative action be possible.

This, I believe, is one of the most important goals of socialization and education: not only to teach the many general and specific skills and values needed to function in society, but at a more fundamental level, to train people to experience things in the same fashion so that communication, cooperation and understanding will be possible.

I have, to this point, been describing something which occurs more on a cultural level, rather than on the small group level which this experiment deals with. But, I feel that the same type of process occurs in any group of which an individual is a part. What do we mean when we say that two or more people are "getting to know each other," except that each is slowly learning about the other(s). They are learning personal history, learning modes of behavior, learning personalities, learning how each experiences the world. Of course, there must be some common ground in all of these things to begin with, or the learning will probably not take place.

Regardless of the initial degree of commonality, however, if the people continue the contact, if they form a social group, the commonality
will increase. Each member's personal history will be changed by the contact and they will now have their shared experiences in common. Most psychologists would agree, I think, that each individual's personality, or general mode of behavior, or whatever we might want to call it, would also be somewhat altered by the establishment of a new series of interactions. I would argue that each individual's mode of experiencing the world would also be altered. The more enduring the group, and the more important it is to the individual, the greater all of these changes should be. Again, few groups, if any, are as important for most people as the family unit, of which the wife/husband union is the core.

The change in perceptions which I have been trying to argue for would be a change toward convergence. As more experiences become common, as more goals become common, as more cooperative actions are undertaken, a commonality of how the world is perceived—or, at least, the part of the world relevant to the activities of the group—becomes more vital.

The process I am proposing has many similarities to the notion of cognitive sets. In fact, we might call it an operation of social sets. Cognitive sets (Anderson, 1980) seem to involve the focusing in of the mind onto a particular set of solutions, or a particular group of objects or a particular set of potential behaviors which have gained power in a situation, to the exclusion of other sets or groups.

A social set would involve a more general "focusing" of the individual's perceptions and reactions with regard to certain functions and values relevant to an important social group. The more important the group, the broader and stronger this focusing is likely to be.
A variety of studies in social psychology have shown that it is possible to affect an individual's self-perceptions by altering the person's self-focus (for a review and discussion, see Carver and Scheier, 1981). I would propose that it is also possible to affect an individual's more general perceptions by altering his or her social focus.

In keeping with this interpretation, the presence of one's spouse, in this particular study, could be conceived of as having made the social set of the marriage more salient to the subjects than when the partner was not present.

Of course, I do not claim that the findings reported here are a conclusive or even a particularly powerful proof of the validity of this construct. However, I do believe that, taken together with some of the studies I have discussed and some other work bearing on roles and their functionings which I have not discussed (see, for instance, Langer, Blank, and Chanowitz, 1978), that it does indicate the possibility that a phenomenon exists for which this is a tenable explanation.

The correlations of each individual's ratings while rating separately with his or her ratings while rating in the presence of his or her spouse were performed in order to demonstrate that the effect observed was not a mere shift of scale but, instead, a true difference in the type of ratings given. The relatively weak correlation obtained lends support to this interpretation.

The correlations of the separate and together ratings of the spouses within each marriage were done for a similar purpose: that is,
in an effort to show they were not simply shifting their ratings equally and uniformly when separated, but were moving apart. However, the correlations obtained did not provide support for this notion, in that the correlation was higher between the separate ratings than between the together ratings. A reasonable interpretation which is in keeping with the general discussion of social context presented above does suggest itself, however. That interpretation is that perhaps in the together condition, with the marriage unit made salient, the subjects were partially functioning in keeping with the culturally defined roles of husband and wife. Thus, another source of difference in method of examining and evaluating the houses would have been added to the differences in individual preference which alone was operating in the separate condition.

The comparison of the ratings of the married and single subjects was intended to show that the married subjects would tend to rate the plans differently than their single counterparts. Most people probably would have expected that to be the case, so the significant effect observed is hardly earth-shaking. However, it is necessary in order to help to point out once again that if one is interested in how some particular group of people use or evaluate or react to some environment, one should use that group, or if that is unfeasible, as closely related a group as possible, and not the most easily available subjects.

The regression equations presented are also clearly only a beginning. Because the number of house plans used in this preliminary study was limited, and with the inability to complete a factor analysis
which I have mentioned, the equations presented are obviously over-
determined, with a variable-to-cases ratio of about 1 to 2, instead of
the standard 1 to 10 or more. Also, the lack of a factor analysis
means that—even given the manipulation of the tolerance level—the
intercorrelations between the predictor variables confuses the inter-
pretation of the regression outcome.

Nevertheless, I believe that these regressions have pointed up
the potential utility of this approach. The variables which entered
the equations, especially those relating to room placement, seem to fit
with some of the literature on houses (see, especially, Lawrence, 1979
for the importance of room placements in existing houses).

The importance of the location of the master bedroom to both
subject groups in the custom plans (you will recall that there was no
variation—at least none which the coding scheme was sensitive enough
to measure—in the position of the master bedroom with regards to the
front-to-back variable in the standard plan set) is intuitively appeal-
ing and also in keeping with the notion of the importance of the private
areas and aspects of houses, which is proposed in several of the arti-
cles and books cited. In fact, the reader has no doubt noted with
interest that only variables associated with the master bedroom entered
the equation for married subjects and custom plans.

Moreover, the high multiple r-squares and high interrater
reliabilities derived indicate that valuable information about people's
preferences and wants in housing may be obtainable through application
of this technique.
Both the social context effect and the prediction of preferences require additional, more thorough, research. I have already undertaken the planning of studies which will include larger numbers of the appropriate subjects, more plans, and modifications in design intended to help to clarify these matters.

However, I hope that this paper will also help to stimulate research and thought by others which will help to advance our knowledge of the dynamics of these aspects of human experience. That may be the most which any psychologist can aspire to.
APPENDIX A

FEATURES CONTAINED WITHIN FLOOR PLANS

1. A dummy coded variable for each of these rooms and features:
   - Bar
   - Balcony
   - Dining Room
   - Family Room
   - Foyer
   - Gym
   - Laundry
   - Living Room
   - Master Bath (in some plans, the master bedroom did not have its own attached bathroom)
   - Window in the Laundry

2. A continuous variable for the total number of each of the following in each plan:
   - Bathrooms
   - Bedrooms
   - Sliding Glass Doors
   - Number of Closets in the Master Bedroom (either 1 or 2)
   - Windows in Master Bedroom
   - Windows in the Kitchen
   - Windows in the Family Room
   - Windows in the Living Room
   - Total number of other windows not in one of the above categories
   - Total number of rooms
   - Number of doors
   - Number of interior walls
   - Number of exterior walls (used as measures of the complexity of the plan)

3. A dummy coded variable for the location of various rooms within the house. The location variables which begin with X are for front to back locations within the house, with 1 indicating that a room is more than 50% forward of the mid-line, and zero that it is more than 50% behind the midline. Location variables beginning
with Y indicate the left to right position of a room (or other feature). One here indicated a left of center position, while a zero indicated a right of center position. Finally, variables in this category which begin Z indicate the floor that a feature was on. A one here indicated the second floor, while a zero indicated the first. Here are the location variables used:

Y Door one
X Door two
Y Door two
X Master bedroom
Y Master bedroom
Z Master bedroom
X Living room
Y Living room
X Family room
Y Family room
X Dining room
Y Dining room

4. The final group of variables dealt with the allocation of area within the plan. Each of these was a proportion, developed by dividing the area of a room by the total area of the house. These variables from this category were used:

Master bedroom proportion
Kitchen proportion
Dining room proportion
Family room proportion
Study proportion (one plan had two studies, the area of the two was summed and divided by total area)
Foyer proportion
Storage proportion (sum of all storage divided by total area)
Closet proportion (sum of all closets divided by total area)
Garage proportion
Total area (of the entire house, including such things as hallways)
REFERENCES


Lawrence, R. The Organization of Domestic Space. *Ekistics*, 275, 1979, pp. 135-139.


