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ABSTRACT

In recent years the college dormitory has become a popular setting for examining chronic effects of crowding and high density in humans. Possible differences between corridor- and suite-type residents were investigated to examine the degree to which corridor- and suite-design dormitories influence assertive behavior of the residents. It was hypothesized that if corridor-type residents exhibited behaviors consistent with a learned helplessness explanation, they would be less likely than suite-type residents to use assertive behaviors. Results indicated that there were no differences across demographic and biographical variables between suite and corridor residents. However, summed scores on the Rathus Assertiveness Schedule revealed that suite residents reported being significantly more assertive across a number of settings than corridor residents. In a second controlled laboratory study, data revealed that subjects who actually engaged in assertive behavior in the laboratory reported being more assertive on the Rathus Assertiveness Schedule than subjects who did not assert themselves in the experimental condition. Corridor residents were less assertive than residents living in suite-type dormitories. (Author)

The Effect of Dormitory Design on Assertive Behavior

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The Effect of Dormitory Design
on Assertive Behavior

In recent years, many psychologists have reiterated the need for studies of chronic overcrowding in humans (D'Atri, 1975; Stokols et. al., 1973; Sundstrom, 1975; MacKintosh et. al., 1975). However, it would appear difficult, if not impossible, to generalize findings reported in a laboratory, where crowding takes place for less than an hour, to real world situations. Simply crowding people in a small laboratory room is not a very effective method for studying effects of chronic crowding. Rather, as Karlin, Epstein, and Aiello (1978) point out, the laboratory studies seem most applicable to crowded transportation settings. For example, crowding in busses, trains, or elevators, where the exposure to high density can be extreme, but only for short periods of time. On the other hand, crowding in residential environments and work settings is usually a long term problem. Thus, researchers have moved out of the laboratory and into controlled field settings.

During the last decade, the college dormitory has become a popular setting for the study of long-term exposures to crowding. Investigators were drawn to the dorms because effects of chronic crowding can be investigated in a somewhat controlled environment and subjects do not have to include institutionalized individuals (such as the case with a prison environment). As Bickman et al. (1973) put it (p. 470), "While the study of dormitories is important in its own right, research conducted with the relatively homogeneous population of college students has an added advantage: Such variables as age, education, quality of housing, overcrowding and in some cases, social class and income are equivalent across the different levels of density."

Comparisons between the two major architectural types of dormitories, the corridor design and the suite-type layout, have yielded interesting results in both the affective and behavioral domains. Valins & Baum (1973) found that the dormitory structure influences subjects' affective responses such as their overall mood. In comparison to suite residents, corridor residents had lower thresholds for the experience of crowding, experienced more stress, felt more crowded, and often met people on their floor they would rather have not seen or talked to. In addition, behavioral responses are affected. Valins & Baum report that residents of the corridor-design dormitories avoided social interaction more so than residents of suite-type dormitories while they waited, along with a confederate, for an experiment to begin. The authors conclude by stating their data suggest that "living in these (corridor-design) dormitories is having a substantial effect on the mood and behavior of the residents" (p. 433).

Baum, Harpin, & Valins (1975) compared residents living in corridor-design dorms vs. those living in suite-type dorms on their ability to reach an agreement in groups amongst themselves. The authors postulated, and found, that the corridor residents were not as likely to reach a high degree of consensus following a group discussion of a task when compared with suite residents.

In another series of experiments comparing corridor and suite residents, Baum & Valins (1977) concluded that a number of factors were contributing to feelings of helplessness in corridor residents. These include having to share common areas (i.e. bathrooms, study rooms, lounges) with large numbers of students; residents' inability to regulate social interaction on their floor; and their failure to be able to withdraw from unwanted interactions.

In one study, Baum & Valins described two possible conditions of an experiment which the subjects would be participating in. Significantly more suite-type residents asked questions about the possible choice of the two vaguely described conditions. Furthermore, questionnaire data reveal that corridor-type residents express significantly greater feelings of helplessness than do suite-type residents. In a second experiment, corridor-type residents competed more and withdrew more than suite-type residents during a modified version of the prisoner's dilemma game (Kurlander, Miller, & Seligman, 1975).

These studies, and an additional one conducted by Reichner in 1979, suggest that across a number of measures, residents of corridor-style dormitories appear to be reacting to frequent uncontrolled and unwanted interaction which eventually lead to feelings of helplessness. It should be remembered that in these studies, each type of dormitory provides students with comparable living space. The architectural design of the dorms differ.

Since Baum & Valins (1977) indicate that corridor residents tend to elicit helplessness types of behavior, we predicted that corridor-type residents would reveal themselves as less assertive than suite-type residents. Furthermore, the frequent uncontrolled and unwanted interactions experienced by corridor residents also lead us to examine students' need for privacy. While the term privacy covers a wide range of situations and meanings, the central theme seems to be the ability to control the degree to which people and institutions encroach upon one's life (Westin, 1967; Proshansky et. al., 1970). The present study looks at these intervening variables while examining possible inveterate personality traits that may stem from the previously reported consequences of living in the college dormitory.

We administered five questionnaires to 78 male dormitory residents at NCSU. Thirty five subjects were from suite-type dorms and 43 were from corridor-type dorms. The students came from six different corridor dorms ($\bar{x}$ size 12' x 17') and four different suite-type dorms ($\bar{x}$ size 12' x 15'). Since no differences were found on any of the dependent measures comparing the six different corridor dormitories against each other (as well as comparing the four suite-type dormitories with each other), data for the corridor residents were combined and were compared to the data from the combined suite residents.

The first questionnaire administered was a background information sheet which dealt with such items as the subjects' state of residency (resident of N.C. or not), size of hometown, number of brothers and sisters, their age, year in school, past living experiences in their home environment (e.g., house vs. apartment, had a private bedroom vs. did not, etc.) and amount of time spent in the dormitory room studying (16 items). Results indicated that suite- and corridor-type residents did not differ on any of the background information items. Thus, they came to NCSU with homogeneous histories.

Subjects then completed the Rathus assertiveness schedule (Rathus, 1973), a 30-item questionnaire for assessing assertive behavior. As can be seen on the handout, the $\bar{x}$ response on the summed total score for suite residents is 11.85 (SD = 19.1) while the $\bar{x}$ for corridor residents is 2.06 (SD = 21.2). This difference is significant at the .04 level as indicated by a t-test ($t_{(76)} = 2.11$, $p < .04$). The individual items on which the two groups differ are listed on the handout. It should be noted that the summed total score correlates very highly with each individual item on the scale. I have these data if anyone is interested.

One other interesting finding emerged. Results of an analysis of variance reveal a significant main effect for subjects' year in school on the summed total Rathus score ($F_{3,76}$= 3.21, $p < .03$). Freshmen ($\bar{x}$ = 17.31) report being significantly more assertive than sophomores ($\bar{x}$ = 4.86), juniors ($\bar{x}$ = 0.69), and seniors ($\bar{x}$ = -2.25). So, it appears simply living in the dormitory for at least one year reduces students' perceptions of their assertiveness.

It should be pointed out that the vast majority of our subjects chose the dormitory they wanted to live in, rather than being randomly assigned to one. The possibility exists that the more assertive students chose the suite-type dormitory over the corridor-type. However, not only were there no differences between suite and corridor residents on the background information sheet, but freshmen living in the suite-type dorms did not differ on their summed Rathus score from freshmen in the corridor-designed dorm. In addition, as Reichner (1979) and Baum & Valins (1977) point out, whether or not residents self select their dormitory is not expected to significantly alter the findings.

Other results indicate that subjects did not differ on two room evaluation scales, although our subjects generally rated their room ambience lower than subjects from Northern populations completing comparable scales. And, surprisingly, our subjects did not differ on the fifth questionnaire, Marshall's (1972) privacy preference scale. Previous investigators have assumed that the ability to regulate interaction is an intervening variable between type of dormitory and observed behavior differences. Our research suggests that either the Marshall scale is not a good measure of this construct or that the original assumption needs to be reexamined.

Since suite residents report being more assertive than corridor residents on the paper and pencil measure, we were interested in whether or not suite residents would actually engage in more assertive behavior than corridor residents under controlled laboratory conditions. A situation had to be developed whereby a socially bold, or assertive behavior would benefit the individual. We decided on a setting that involved having a subject (dormitory resident) perform two puzzles, in the hope of earning some money, in the presence of an obnoxious confederate. By asserting himself and asking the confederate to remain quiet, a subject was better able to concentrate on the puzzles, thereby increasing his chance of winning a few dollars.

Twenty male residents from the corridor and suite dormitories at NCSU participated in the laboratory portion of the study. Eleven of the subjects resided in the suite-type dorm and the remaining nine lived in corridor-type dormitories.

Two subjects (one was an experimental confederate), arrived for an experiment titled, "Problem Solving." After completing the five previously mentioned questionnaires, the experimenter handed both subjects the instructions to the problem solving session. It read, "You will have 20 minutes to solve the following two problems (10 minutes for each problem). When the experimenter tells you to begin, work as quickly and accurately as possible. The first person to correctly solve the first problem will receive $2.00. The first one with the correct solution to problem #2 will receive $2.00." Actually, the problems were designed to be virtually insolvable within the 10 minute period. After handing out the first problem, a mathematical puzzle involving the multiplication of seven different numbers, the experimenter left the room and announced he would return after 10 minutes had elapsed. Upon returning to the room, the experimenter announced that

the time period was up. The confederate then spoke, saying he had arrived at an answer. After carefully reviewing his answer against an answer sheet, the experimenter agreed that this was in fact the correct solution, and the subject (confederate) would be paid $2.00 at the conclusion of the experiment. Problem #2 was then handed out, a virtually insolvable cryptogram, and the experimenter again left the room for 10 minutes. When returning after the 10 minutes were over, the experimenter checked the subjects' and the confederate's answer sheet. Since neither subject had arrived at an answer, the papers were collected.

Throughout the experiment, the confederate behaved in an obnoxious manner by tapping a twenty-five cent piece loudly on the table at a fixed schedule. The confederate tapped the coin twice during each of the five questionnaires. Then, once the experimenter left the room, the confederate tapped the quarter 15 times during problem #1, and 8 times every minute during problem #2. The dependent variable was whether or not the true subject asserted himself and asked the confederate to stop tapping the coin. If the subject did not say anything but simply stared at the confederate, the confederate continued the tapping for the duration of the experiment.

Results indicate that 2 of the 11 suite residents asserted themselves and told the confederate to stop tapping the coin while 2 of the 9 corridor residents elicited the assertive behavior, $\chi^2_{(1)} = .05$, $p <$ n.s. There was virtually no difference between suite and corridor residents in actual assertive behavior.

The probable reason for this finding is the fact that the suite and corridor residents in this small sample of 20 did not differ on their scores on the Pathus assertiveness schedule; they reported being alike along the assertiveness dimension.

One interesting note: when we compared the four subjects who did speak up and assert themselves with the 16 who did not on the Rathus scale, the subjects who did speak report being more assertive than their counterparts on the paper and pencil measure on six of the items (#'s 1, 2, 3, 16, 20, 21). On the summed total score, the four subjects who told the confederate to stop tapping had a $\bar{x} = 14.0$ on the Rathus schedule vs. a $\bar{x}$ of -1.87 for the 16 subjects who did not assert themselves ($t_{(18)} = 1.91$, $p < .07$.

In summary, type of dormitory clearly had an effect on subjects' responses to the Rathus assertiveness schedule. Suite-type residents consistently report that they would behave in assertive, outgoing behaviors in specific situations where such behaviors would be beneficial. Corridor residents, on the other hand, reveal that they are less likely to engage in various assertive-type behaviors across a variety of situations. This difference seems to support Baum & Valins' (1977) contention of helplessness. Since corridor residents are constantly bombarded by unwanted social interactions (which they cannot control) in the dormitory, they begin to elicit behaviors consistent with the notion of helplessness. Non-assertive reactions are one type of helpless responses. It can be concluded, then, that corridor residents report being less assertive than residents who live in suite-type dormitories. Whether or not this difference (between corridor and suite residents) extends to actual assertive behavior is an issue raised in the present study which should be considered in future research.

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The Rathus Assertiveness Schedule

Statement Number	Statement	$\bar{X}$ response		t	df	p
		suite	corridor			
6.	When I am asked to do something, I insist upon knowing why.	1.62	0.93	2.08	76	.05
12.	I will hesitate to make phone calls to business establishments and institutions.	-1.60	-0.93	-1.79	76	.08
18.	If a famed and respected lecturer makes a statement which I think is incorrect, I will have the audience hear my point of view as well.	-0.74	-1.55	2.10	76	.04
22.	If someone has been spreading false and bad stories about me, I see him(her) as soon as possible to "have a talk" about it.	1.45	0.30	2.77	73	.008
25.	I complain about poor service in a restaurant and elsewhere.	-0.02	-0.88	2.22	76	.03
29.	I am quick to express an opinion.	1.05	0.25	2.13	76	.04
	SUMMED TOTAL SCORE	11.85	2.06	2.11	76	.04

Note: Subjects indicated how much each statement was descriptive of themselves according to the following scale: +3 (very characteristic of me, extremely descriptive), +2 (rather characteristic of me, quite descriptive), +1 (somewhat characteristic of me, slightly descriptive), -1 (somewhat uncharacteristic of me, slightly nondescriptive), -2 (rather uncharacteristic of me, quite nondescriptive), -3 (very uncharacteristic of me, extremely nondescriptive).