

## The Sway of Gender and Anxiety on Perception of Personal Space

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### Abstract

The study investigated anxiety and gender as correlates of undergraduates' perception of personal space. The study aimed at examining the relationship between anxiety and undergraduates' perception of personal space and also assessed gender differences in undergraduates' perception of personal space. The study employed a descriptive survey research design. It study adopted a multi-stage sampling technique in the process of the selection and the collection of data. These sampling techniques include: the stratified sampling method and the simple random sampling. A total of 232 respondents were used for this research work; all randomly selected from the various faculties and departments of full-time undergraduate students of University of Lagos. A standardized questionnaire was used to measure respondent's level of anxiety and perception of personal space.

Two hypotheses were tested at 0.05 level of significance, using T-test and Pearson product moment correlation coefficient. The result of the first hypothesis shows a significant relationship between anxiety and undergraduates' perception of personal space [ $r^{cal}=(0.432)$ ,  $r^{tab}=(0.139)$ ,  $P^{>}(0.05)$ ]. The result of the second hypothesis shows that there is a significant gender difference in undergraduates perception of personal space [ $t^{cal}=(11.492)$ ,  $t^{tab}=(1.645)$ ,  $P^{>}(0.05)$ ]. While male ( $n=106$ ) have a mean score of 1.471 and a standard deviations of 0.733, the corresponding mean score of female ( $n=126$ ) is 1.936 with a standard deviations of 0.961. The study concluded that, anxiety and gender are significantly correlated with undergraduates' perception of personal space.

**Keywords:** Anxiety; Gender; Perception; Personal space

### Background to the Study

Personal space refers to a person's perceived self- boundaries. The boundaries are invisible and enclose a space which has been likened to a bubble. According to [1], each individual's boundaries are relatively stable, but they fluctuate for different types of interactions. An invasion of personal space occurs when those not entitled to entrance or use nevertheless cross the boundaries and interrupt, halt, takeover or change the social meaning of the territory. In American culture, a person is likely to experience discomfort if another person moves closer than 30 to 36 inches, except in intimate relations [1]. Personal space is an approximate area surrounding an individual in which other people should not physically violate in order for them to feel comfortable and secure. The amount of personal space required for any given person is subjective. For example, one who is accustomed to busy city life, especially riding on crowded subways, is more tolerant of others impeding on their personal space than someone who may live in a more rural area. In fact one who is used to having their personal space respected may become extremely anxious and claustrophobic when placed in a situation where personal space is a luxury.

According to scientists, personal space involves not only the invisible bubble around the body, but all the senses. People may feel their space is being violated when they experience an unwelcome sound, scent or stare: the woman on the bus squawking into her cell phone, the co-worker in the adjacent cubicle dabbing on cologne, or the man in the sandwich shop leering at you over his panini. But whether people have become more protective of their personal space is difficult to say. Studies show people tend to adapt, even in cities, which

are likely to grow ever more crowded based on population projections [1], even put numbers to the unspoken rules. He defined the invisible zones around us and attributed a range of distance to each one: intimate distance (6 to 18 inches); personal distance (18 inches to 4 feet); social distance (4 to 12 feet); and public distance (about 12 feet or more). But personal space is not merely a game of numbers. Preferences differ from culture to culture. Scholars have found that Americans, conquerors of the wild frontier, generally prefer more personal space than people in Mediterranean and Latin American cultures, and more than men in Arab countries. For the majority of people who find some amount of personal space necessary for their security, an unexpected violation can be very disconcerting. For example, if you were standing in an airport that was relatively vacant and a person that you did not know came up and stood in very close proximity to your body, you would probably feel extremely alarmed. This violation of personal space and the discomfort that it causes works to keep you safe from potential threats such as those who might wish to harm you.

There are common exceptions to one's need for personal space especially when the exceptions are anticipated. Crowded events such as concerts, fairs, and sports arenas normally don't leave room for ample personal space. But event goers normally don't mind suspending their space requirements in exchange for the fun they provide. Another reason to quell one's need for personal space is in romantic relationships. In these cases the lack of personal space is usually expected as well as desired. Similarly family members often welcome hugs and affection in exchange for their personal space. These close and personal situations are often built on high levels of trust which is critical due to the physical and emotional vulnerabilities that a lack of space creates. But the issue of trust as it is related to personal space

works both ways which is why experts believe that intimacy in relationships helps them to grow stronger over time.

For optimal performance of students, there must be a reasonable level of anxiety. One of the major factors that determine anxiety is the maintenance of a respectable and convenient personal space. But due to the neglect of academic sector, particularly, tertiary institutions, undergraduates have to receive lectures in crowded lecture rooms. The extent to which this is tolerated could be determined by the gender and anxiety level of the undergraduates. Anxiety could increase the need for personal space in that, undergraduates who are very anxious will not be ready to share a space with others; whereas, those with low anxiety level may not show concern about this. Also, female undergraduates may not feel good with the idea of having to sit close to a male in a lecture room. This can potentially reduce how comfortable these undergraduates would feel, and this in the long run would have an adverse effect on their academic performance because they are preoccupied with the defense of their personal space.

Many factors have been found to influence personal space perception, some of which are; age, gender, culture, personality, anxiety, abnormal behaviour, situation and cooperation, status, expectation and social perception [2]. Males interacting with other males require the largest interpersonal distance, followed by females interacting with other females, and finally males interacting with females. However, it depends on the situation, or the relationship, or the age group and so on as well. Some evidence suggests that personal space gets bigger as we grow older [3]. Children tend to be quite happy to be physically close to each other, something which changes as awareness of adult sexuality develops. In addition the gender difference does tend to also appear at this time [1]. Identified the importance of cultural variation. He suggested that while all cultures use personal space to communicate, and tend to conform to the different categories, the size of the space within the categories varies across cultures. Hall also identified the essential issue in inter-cultural difference as the tendency to interpret invasions of personal space as an indication of aggression.

The cooperation versus competition effects on personal space interact with orientation. Generally, people in cooperation will select a smaller interpersonal distance unless the competition requires interpersonal contact [4]. The general finding for status focuses on differences in status and it appears that the greater the difference in status between individuals, the larger the interpersonal distance used. There doesn't seem to be any evidence regarding personal space between same status individuals at different levels. Our anticipation of the type of person we are going to meet in a situation also influences our choice of interpersonal distance. When we anticipate meeting a warm and friendly person we tend to choose smaller distances [5]. We are also less likely to offer help to someone if our personal space has been invaded, however if we perceive the persons need to be great the negative effect of the invasion may be offset.

Gender has been specifically chosen as a factor in this study because of the controversies surrounding its influence on personal space perception. Many researchers have argued that males demand more personal space than female while others have posit that females demand more. According to Gifford [6], male requires much more personal space than female in general, this include both physical and psychological space. Cassidy [7] believes that there are much more physical touching for female than male, when Major [8] stated that women derive greater pleasure from being touched than do men. It is widely believed that each individual has certain "body buffer zone" or

areas of his or her physical body, which if intruded upon will produce anxiety. In the same manner, different individuals have different anxiety levels which in turn could influence their demand or need for personal space. That is, low anxiety level could influence the perception of personal space just as high level of anxiety could do the same.

The integrity of personal space and privacy is protected by territoriality. No wonders, undergraduates demarcate their spaces in their respective hall of residence with different kinds of curtains and cloths. This is done to protect and keep reasonable boundaries between their space and that of others; this is done with the primary goal of maintaining privacy. Territoriality is the use of boundary markers to maintain one's privacy; this is evident in the use of rugs and carpets in different bed spaces in the undergraduate's halls of residence, and also in them giving specific period of visiting among others. Territoriality is known to confer dominance and to maintain social order. Individuals feel more comfortable when they have their own space without other people infiltrating into their space.

#### Statement of the problem

Generally, failure to maintain appropriate personal space results in psychological discomfort for the person who feels their space has been invaded. When someone invades our personal space we become aroused (e.g., nervous, excited) and we use this information to decide what to do. We need personal space to avoid being inundated with too much information (e.g., smells, facial details). It is known that anxiety can result in a delay in the onset and a decrease in the duration of urination. Once an unsuspecting participant was using a urinal, a confederate would either position himself at the adjacent urinal (close) or at the urinal further away (moderate distance). In a control condition, participants were undisturbed. The time to onset and the duration of the participants' urination were discreetly observed and timed. Predictably, when the confederate was adjacent, the participants' average time to onset of urination was increased and their average duration of urination was decreased. This finding appears to confirm the suggestion that unwanted invasion of personal space increases anxiety. This, however, is not inevitable but appears to depend on the cognitive appraisal made by the person whose space has been invaded. When there is an obvious legitimate reason for the invasion, such as the press of a crowded train, then there appear to be no ill effects.

The university admits/enrols more students than the available resources can satisfy. This poses a number of problems and severe demands on the students. Some students are able to cross these hurdles because of their gender and personality, while others find themselves less well equipped to cope with such concerns. This leads us to the second problem area which involves the differences in the demand for personal space as a result of gender and anxiety. In essence, gender and anxiety may influence the demand for personal space among undergraduates. It is these variances that lie at the heart of the problem areas proposed for this study. If a link can be established between gender and personal space as well as anxiety and personal space, then it might be possible to look toward increasing privacy among different genders and undergraduates with different levels of anxiety. From the above analysis, this study examine the relationship between anxiety and undergraduates' perception of personal space and also assess gender differences in undergraduates' perception of personal space.

## Research Design

The study employs a descriptive survey research design to determine the relationship between the independent and dependent variable. The objective of the study design is to provide a quantitative or numeric description of some fractions of the population (the sample) by asking relevant questions that address some unknown aspect of the population.

## Study population

The population from which this study was carried out consists of full-time undergraduate students of the University of Lagos. The University of Lagos- popularly known as Unilag- is a federal university with a main campus located at Akoka, Yaba, and a college of medicine located at Idi-Araba, all in Lagos, Lagos state, southern Nigeria. The university has full-time undergraduate student strength of over 25,000 individuals. The university has a college of medicine, nine (9) faculties and an institute of distance learning.

## Sample size and sampling procedure

The study adopted a multi-stage sampling technique in the process of the selection and the collection of data. These sampling techniques include: the stratified sampling method and the simple random sampling. The stratified sampling method was used to divide members of the population into homogeneous subgroups (faculties). Using the stratified sampling the university was stratified into ten (15) stratas along faculties as follows: Faculty of Arts, Faculty of Business Administration, Faculty of Clinical Sciences, Faculty of Engineering, Faculty of Education, Faculty of Environmental Sciences, Faculty of Law, Faculty of Pharmacy, Faculty of Sciences, and Faculty of Social Sciences etc. The simple random sampling technique was then used to draw samples from each strata, thereby giving each undergraduate in each faculty an equal probability of being selected from the strata. The sampling procedure took cognizance of factors such as undergraduate's age, gender, and academic level.

A total of 250 respondents were used for this research work; all randomly selected using stratified and simple random sampling method, from the various faculties and departments of full-time undergraduate students of University of Lagos. Two hundred and fifty (250) represents one percent (1%) of the total population; twenty five thousand (www.unilag.edu.ng)

## Research Procedure

The research instruments were administered to the respondents who were full-time undergraduates of University of Lagos. The researcher ensured that the questionnaires were collected immediately the respondents fill them. Explanations were made to guide the respondents in providing answer to each item. The respondents were constantly reminded that their response will be treated with utmost confidentiality.

In order to have adequate representation of each department, the researcher painstakingly adhere to the simple random sampling method after the sampling units have been determined using quota sampling technique. On the whole, a total number of 250 questionnaires were distributed out of which 243 were returned. Out of these, 232 were found to be duly completed and useful for analysis. 7 questionnaires were not returned, while 11 were either not filled or not

completed and thus rejected. Altogether, a response rate of 93% was recorded.

## Descriptive analysis of result

Variable	Group	FREQuency(N)	Percentage (%)
Sex	Male	106	45.7
	Female	126	54.3
	Total	232	100.0
Age	15-20	92	39.7
	21-25	113	48.7
	26-30	20	8.6
	31 and above	7	3.0
	Total	232	100.0
Faculty	Social science	154	66.4
	Health science	9	3.9
	EDM	4	1.7
	Pharmacy	4	1.7
	Science	20	8.6
	Education	2	0.9
	Art	16	6.9
	Administration	8	3.4
	Technology	6	2.6
	Law	4	1.7
	Agriculture	5	2.2
	Total	232	100.0
Level	100	140	60.3
	200	45	19.4
	300	25	10.8
	400	19	8.2
	500	3	1.3
	Total	232	100.0

Source: Author's Field Survey (2014)

**Table 1:** Showing percentage distribution of the respondents according to socio demographic characteristics.

Table 1 shows that 106 (45.7%) of the respondent were male, while 126 (54.3%) were female. The result from age variable shows that 92(39.7%) of the respondents were of ages 15 and 20, 113 (48.7%) were of ages 21-25, 20 (8.6%) were ages of 26-30, and 7 (3.0%) were of ages 31 and above. Also, (66.4%) of the respondents are in faculty of social science, 9 (3.9%) health science, 4 (1.7%) EDM, 4 (1.4%) pharmacy, 20 (8.6%) science, 2 (0.9%) education, 16 (6.9%) Art, 8 (3.4%) Administration, 6 (2.6%) technology, 4 (1.7%) Law and 5 (2.2%) are in faculty of Agriculture.

The result from level variable show that 140 (60.3%) are in 100 level, 45 (19.4%) are in 200 level, 25 (10.8%) are in 300 level, 19 (8.2%) are in 400 level while 3 (1.3%) are in 500 level.

## Hypothesis testing

**Hypothesis one:** There is no significant relationship between anxiety and undergraduates' perception of personal space.

Table 2 Showing correlation analysis of relationship between anxiety and undergraduates' perception of personal space. To test the hypothesis, data collected on anxiety and personal space were

subjected to Pearson Correlation coefficient analysis. Table 2 presents the summary of the result.

Variable	N	Mean	SD	Df	r-cal	r-tab	P-val ≤ 0.05
Anxiety	232	1.892	1.879				
				230	0.345	0.139	>0.05
Personal space	232	1.724	0.893				

**Table 2:** Pearson Correlation Analysis on the relationship between anxiety and undergraduates' personal space

Table 2 above table showed Pearson correlation analysis of the relationship between anxiety and undergraduates' perception of personal space [ $r^{cal}=(0.432)$ ,  $r^{tab}=(0.139)$ ,  $P^{val}>(0.05)$ ] which is not significant at P 0.05 level (2 tailed). Since the r- calculated is greater than the r-tabulated we then reject null hypothesis and accept the alternative hypothesis. Thus, there is significant relationship between anxiety and undergraduates' perception of personal space.

**Hypothesis two:** This hypothesis states that there is no significant gender difference in undergraduates' perception of personal space.

To test this hypothesis data collected on gender and undergraduates' perception of personal space were subjected to t-test analysis. Table 3 presents the summary of the result.

Group	N	Mean	SD	df	t-cal	t-tab	P-val
Male	106	1.471	0.733				
				230	11.492	1.645	> 0.05
Female	126	1.936	0.961				

**Table 3:** T-test analysis showing Gender differences in undergraduates' perception of personal space

Table 3 above shows the T-test analysis of gender differences of undergraduates' perception of personal space. The mean and standard deviation for the group, i.e male and female on perception of personal space shows the mean effect on female is greater than the mean on male on perception personal space. For instance, while male (n=106) have a mean score of 1.471 and a standard deviations of 0.733, the corresponding mean score of female (n= 126) is 1.936 with a standard deviations of 0.961. These result were subjected to t-test analysis which yielded [ $t^{cal}=(11.492)$ ,  $t^{tab}=(1.645)$ ,  $P^{val}>(0.05)$ ] which is significant at P 0.05 level (2 tailed). Since the t- calculated is greater than the t-tabulated we therefore, reject the null hypothesis and accept the alternative hypothesis that there is a significant gender difference in undergraduates' perception of personal space.

## Discussion of Findings

The primary focus of the present study is to contribute to knowledge in the area of understanding anxiety and gender as correlates of undergraduates' perception of personal space. With regard to the hypotheses formulated to guide this study, the first hypothesis, which states that there is no significant relationship between anxiety and undergraduates' perception of personal space revealed that there is a

significant positive relationship between anxiety and undergraduates' perception of personal space; this implies that undergraduates with high level of anxiety have a high perception of personal space while those that are less anxious have low perception of personal space. This finding is consistent with [9], who found that there is a significant relationship between anxiety and perception of personal space. The findings also support McBride, King and James [10] who found physiological evidence of anxiety at close distances in a laboratory. Subjects who looked at experimenter's eyes at 1, 3, and 9 ft showed lower GSR at 9 ft, indicating arousal at close proximity [12]. also found that during interviews in a laboratory setting at seated distances of 2, 6, and 10 ft subjects with high level of anxiety exhibited less eye contact at 2 ft than at greater distances. Those interacting at what may have been an uncomfortably close distance of 2 ft may have compensated for the close proximity by low level of anxiety. Similar results were obtained in other studies, partial support has been reported in two other studies.

The result of the second hypothesis which states that there is no significant gender difference in undergraduates' perception of personal space also revealed that there is a significant gender difference in undergraduates' perception of personal space. i.e, a female undergraduate tends to exhibit high level of perception of personal space than her male counterpart as shown from the study. This implies that, a female undergraduate will reacts more negatively when her personal space is being invaded than a male would. This result is consistent with the findings of that there is a significant gender difference in perception of personal space. In study, the experimenter entered an individual's personal space while he or she was sitting alone at a table studying. The result showed that females felt more negatively about the experimenter sitting adjacent to them and the males felt more negatively about the experimenter sitting across from them. The evidence gathered from study also supports the findings of this study. He showed that there is a significant relationship between males and females in their perception of personal space. While sitting alone at a table, males were more inclined to value and protect the space directly on front of them whereas females were more inclined to protect the space next to them. Balgooyen et al. also found out that females are more likely to perceive threat due to invasions of personal space when the setting is not crowded.

The findings of this study however differ from [11,12] who argued that anxiety has nothing to do with individual's perception of personal space. The result of Mehrabian et al. is also different from that of this study. Mehrabian et al. argued that male and female demand exactly the same level of personal space depending on the situation they find themselves. This findings also differ from [6], who maintained that male requires much more personal space than female in general, this

include both physical and psychological space. This is because a male is more willing to give up his personal space to a female than to another male. By implication, males have a high perception of personal space than females who can give up their personal space to any male they have a close relationship with and also to other females.

## Summary of the Study

This study investigated anxiety and gender as correlates of undergraduates' perception of personal space. This study was presented in five chapters. The introductory chapter (chapter one) presents background to the study; the statement of problem, objectives and significance of the study. The review of empirical literature in chapter two covers concepts of personal space, anxiety, and gender; as well as theoretical framework and review of empirical studies.

The methodology and technique of gathering and processing the data for study were reported in chapter three. Relevant data were collected using questionnaire survey technique. The research questionnaire consists of three major parts. The first part consists of the demographic information about the respondents, the second part examined anxiety level, while the third part assessed the perception of personal space

Quantitative data were analyzed using T-test, Pearson correlation coefficient. The fourth chapter presents the analysis result of data while discussion and summary, conclusion and recommendation were the focus of chapter five. The two hypotheses were tested at 0.05 level of significance. The results showed that;

There is a significant relationship between anxiety and personal space perception among undergraduates.

There is a significant gender difference in perception of personal space among undergraduates.

## Conclusion

The integrity of personal space and privacy is protected by territoriality. No wonders, undergraduates demarcate their spaces in their respective hall of residence with different kinds of curtains and cloths. This is done to protect and keep reasonable boundaries between their space and that of others; this is done with the primary goal of maintaining privacy. Going by the findings of this research work, it can be easily inferred that the gender and anxiety level of an individual has a lot to do with his/her perception of personal space. From the analysis above, this study therefore conclude that, anxiety and gender are significantly correlated with undergraduates' perception of personal space.

## Implications of the study

The findings of this study have very relevant and important implication on students' interactions in school. An important influence

on behaviour is the impact of other students, and in particular our interaction with other students. The findings of this study contributes to the existing body of knowledge on how an undergraduate's anxiety level affects how he/she perceives personal space and also how gender differences affect an undergraduate's perception of personal space. Every individual has their personal space; friends and classmates are not exceptional. There are times that classmates can play and chat closely in the hall of residence; however, this is hindered under the condition that does not step over the line of others personal space. Different people have their specific way to define their own personal space, and these could also be affected by many factors; in which anxiety and gender is no exception.

With all the above concerns, data from this research will certainly help undergraduates learn how to build a better relationship with their hall mates concerning how to communicate with them beyond their personal space; this can prevent them from frightening others away. The findings of this study will also serve as a data for various private and federal universities interested in improving the physical, social, and psychological well-being of their undergraduates/students. It will also help researchers to understand more about the male and female definition of personal space.

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