CHAPTER-1
INTRODUCTION

The population explosion in developing countries and particularly in South Asia is the greatest threat to environmental quality. The population estimates for the Indian subcontinent at the beginning of the seventeenth century varied between 110 and 145 million. In the early nineteenth century, they ranged between 125 and 210 million. According to the Census of 1872, the population was estimated at 255 millions (Gadgil & Thapar, 1990). At present, the population of India alone is estimated to be over 900 million. There is a realization that the size of the population has reached an unmanageable level and it is directly responsible for the declining trend in environmental quality. Population characteristics such as density, mortality, population growth, distribution of population, urbanisation, seasonal and permanent migration, rise in elderly population; are all related to environmental issues (Pandey, 1999).

Crowding

Crowding is a syndrome of stress associated with high-density settings. It is a subjective, psychological state, usually negative in tone based on appraisal of the impact of density. To say that one is crowded means that one is made uncomfortable by or, is disturbed by the number of people present in the available
space. However, crowding is more consensually defined as a “subjective state, which typically has a stress component” (Raymon, 1984).

This definition highlights the fact that crowding results in an affective state of stress, which in turn results in the feeling of, reduced physical and/or psychological space. “Crowding is a motivational state aroused through the interactions of spatial, social and personal factors” (Stokols, 1972). Crowding is a psychological variable that reflects the ways in which people expect or believe density will affect them.

Altman (1975) suggested that crowding results when, “Privacy mechanisms” do not function effectively and the individual is subjected to an undesired amount of social contact. Essentially, crowding results when the privacy achieved is less than the privacy desired. Space is an important regulator of privacy (Worchol, Cooper & Goethals, 1991). Although crowding and density are highly correlated, yet the crowding must be distinguished from density.

**Density and Crowding:**

The amount of space available for each individual in a defined area is known as density (Worchol et al. 1991). Density is a physical variable, a ratio of group size i.e. the number of people present to the spatial extent i.e. the amount of space available (Raymon, 1984).
Until just a few years ago, the term density and crowding were not clearly defined nor were they well differentiated from each other. Stokols (1972) has cut through part of confusions by sharply distinguishing between crowding as a psychological state, a subjective and experiential process and the latter as a physical situation devoid of direct psychological meaning and reflecting number of people per unit space. According to Stokols (1972) "Density is an objective physical state that involves potential inconvenience because of the restricted movement or lack of privacy. Crowding is a psychological state of stress that occurs when the individual becomes sensitive to the restrictions imposed by high density. Feeling crowded depends on many social and psychological factors including the sense of personal control one has over one's situation. (Lundberg; 1975, Sundstrom, 1976). An important variable of being crowded seems to be who the other people are. It is less stressful to be close to friends than to strangers (Mc Clelland, 1976). It seems that low density leads to more pleasurable feelings, at least up to a point. One can react negatively even when he is alone, in restrictive, spatial conditions. It causes people to react negatively to their immediate surroundings and leads to more anxiety. Even the mere anticipation of being in a crowd elicits a negative mood (Saegert, MacIntosh & West, 1975; Baum & Greenberg, 1975). Thus density is a necessary but insufficient condition for the experience of crowding. People do not always feel crowded when density
increases. High density at a sporting event, concert, or political rally is necessary to generate desired levels of excitement. However, the same density can become aversive and can be experienced as crowding under other circumstances such as trying to get to one’s car and leave the parking lot after the event is over (Reymon, 1984). It is operationalised in two terms-inside density or the number of inhabitants in a house in proportion to available space, and outside density or the total population of a given locality in proportion to available space (Swain & Verma, 1997).

Crowding and density can be varied in two ways experimentally. Many authors distinguish social density from spatial density (Baum & Paulus, 1987; Bell et al., 1990). Some researchers have observed the effect of varying the number of persons in a room while holding the room size constant. This is a case of social density. Social density is critical to understand because it refers to the number of persons in confined space and usually results in unwanted interactions with persons. When the number of persons is held constant, it is a case of spatial density. Spatial density refers to the way the physical space itself can be felt crowded because it is too small to accommodate even a small number of people. Chal loo (1992) noted that a number of her china town informants reported feeling crowded even though they lived alone.
Crowding is the situation in which case a large number of animals, including man, are restricted in environmental space. Such an occurrence may start with just a few animals, in plants, including bacteria in culture, agriculture may be considered as an artificial example of this process. One can see the ontogenic forms of crowding developing from stress into super organism (such as certain social insects) and from stress into pathological crowding in animals, plants and man. Crowding is shown by environmental changes such as in the introduction of new species of certain rodents and lagomorphus into the Australian environment. Aspects of crowding play a role during the housing of zoos, domestic or laboratory animals. Space limitations and overpopulation initiates stress and infection such as tuberculosis and tumors. This is found in man himself in the development of slums through to urbanization as seen in Asia particularly, in prisons, the work place in the school or home (Burger & Kaiser, 1996). Some of the effects of crowding have been discussed in the following section.

**Crowding and Animals**

Past researches have shown that when animals interact under high population density, negative physiological effects occur. Interestingly, many of these effects parallel the characteristic reactions of Selye’s General Adaptation Syndrome. For example, high density is associated with changes in the number of body organs, such as the kidneys, liver, and brain (Myers, 1971).
Another consistent finding is that high social and spatial density lead to abnormalities in endocrine functioning, which may be seen as an indicator of stress (Christian, 1955). It leads to decreased fertility in both males and females (Christian, 1955; Synder, 1966, 1968). Males living under high-density conditions produce fewer sperms (Snyder, 1966). With females, of “low density” estrous cycles have been found to begin at an earlier age, occur more frequently and last longer. (Snyder, 1968)

Various high density manipulations can cause significant disturbances to normal social organization in animals. (Calhoun, 1962, Southwick, 1962, Christian, 1963, Snyder, 1966). Calhoun tried to unreveal the changes in behavior that over population causes. The animals that lived in behavioral sink (Calhoun’s experimental condition) of high crowding were hyper active, hypersexual, homosexual, and cannibalistic. One group, which lived in the behavioral sink, was completely abnormal, could fulfill no sexual and maternal functions, and “huddled” with the male rats. The second group, which lived in the less crowded pens, behaved much more like “normal” rats.

High density is associated with decrements in learning and task performance. High crowded conditions lead to decrements in complex task performance but it does not influence simple tasks performance (Goeckner, Greenough and Mair, 1974). Crowding influences the growth rate negatively in
rats. Crowded animals show less activity, than normal. Reduction of growth rate and aggression are more pronounced in crowded male rats (Singh, D'Souza and Singh, 1991). Aureli, (1997) –Reported that high-density condition decreases the rate of various forms of agonistic behavior in captive chimpanzees, such as aggression, bluff display, and hooting. It seems that crowding is also related to injuries. (Boyce, Wagner, Price, Haines and Suomi 1998). Highly inhibited animals had significantly higher injury rates during confinement, compared with their uninhibited peers, but equal or lower rates in the low stress periods that preceded and followed confinement. Inhibited animals appeared to have been specifically targeted for violence during the group stressor but were protected under normative, more predictable conditions.

**Crowding and Humans**

For animals high density is generally aversive, for humans it depends more on the situation. For the most part, it has been observed, that the effects of high densities on people are neither severe nor uniform. Because animal behavior appears to be determined largely by biological factors, whereas human beings depend much more on learning and cultural inputs (Swanson, 1973).

High density seems to intensify social interactions and make them more important. But it does not necessarily make them more negative. On the contrary,
high-density seems to magnify the typical reaction, whether that reaction is positive or negative.

Cultural heritage can also influence judgments of crowding: what is crowded in one culture may not be experienced as crowding in another. The nature of the situation is also important. If high density facilitates the goals of an individual in a situation, it is unlikely that crowding will be experienced. If density is high enough to disrupt or interfere with these purposes, crowding is more likely. Thus, density at a party is less likely to be experienced as crowding than is high density in a grocery store. (Raymon, 1984) According to Evan & Lepore (2000), it is widely believed that cultures vary in their tolerance for crowding. There is however, little evidence to substantiate this belief, coupled with serious shortcomings in the extract literature. Tolerance for crowding has been confused with Cultural differences in personal space preferences along with perceived crowding. It has been found that Asian Americans and latin Americans differ in the way they perceive crowding in comparison to their fellow Anglo-American and African American citizens, all four ethic groups suffer similar, negative psychological distress sequelae of high-density housing. Studies in India have shown that crowding leads to greater competition, tolerance, and a reduction in task performance; moreover, individuals residing in high density areas have been observed to experience greater crowding, to perceive the interpersonal climate as
less supportive, and to exhibit more adjustment problems. Further, crowding has been reported to have negative effects such as deterioration in the performance of complex tasks (Swain & Verma 1997).

Crowding results when people become aroused by such events as violations of personal space and then attribute that arousal to a lack of space or to the excessive closeness of other people. An important factor in the feeling of crowdedness is the salience of others in the environment. When other people are salient, we are likely to attribute our arousal to these others and feel crowded (Worchel, Cooper, and Goethals, 1991).

High density leads to arousal, which in turn may cause many psychological and physiological changes like increase in blood pressure, pulse rate, skin conductance, levels of epinephrine - an endocrinological marker of stress-related to arousal. (Aiello,... 1975; Lundberg 1976). Crowding stress causes almost total and persistent reduction in the hypothalamic pituitary-adrenocortical (HPA) responsiveness to noradrenalin, which stimulates the HPA axis via both alpha- and beta-adrenergic receptors (Bugaski, Michalsk, Borycz & Wieczorek, 1994)

There is an association between crowding and illness. Because high social density leads to negative feeling states and to physiological over arousal, residing under such conditions it results in negative consequences for health. High density is related to increased blood pressure and to high death rates (Paulus, McCain &
Cox, 1978). It is also interesting to note that people living in high density are found more prone to infectious disease like tuberculosis (Maclntyre, Kendig, Kummer, Birgo & Graham, 1997).

**Crowding and Social Behavior**

Crowding also affects a number of social behaviors. Griffitt and Veitch (1971) indicated that high-density conditions (4.06 square feet per person) resulted in the most negative evaluations of the stranger and decrements in attraction. Even merely expecting high density may elicit disliking for others (Baum & Greenberg, 1975). People of high social density residents are less willing to affiliate and discuss intimate topics in high density, they are found less satisfied and less cooperative. People are less likely to initiate interactions with other people when crowded (Sundstrom, 1973).

People sometimes avoid people when they are crowded. Baum and Valins (1977) reported a series of studies in college dormitories indicating that withdrawal is a primary response to crowding. Withdrawal may function as an anticipatory response to high-density, as a means of coping with ongoing high-density and as an after-effect. The mere expectations of high social density elicits withdrawal responses, including lower levels of eye contacts, head movements away from others (Baum & Greenberg, 1975). It appears that withdrawal can constitute an after-effect of exposure to density.
High density reduces the mutual willingness to help. Greater density leads to the less helping behavior, in comparison to low density (Bickman et al., 1973). Similarly city dwellers are less helpful and less informative to strangers than rural dwellers. Urbanites are less likely to admit a stranger who needed to use a telephone, less likely to assist a caller who had mistakenly called a wrong number, less likely to correct overpayments in making change, and less likely to report a theft than rural dwellers (Milgram, 1970; Gelfand et al., 1973; Korte Kerr, 1975). But it does not mean that unwillingness to help others isn’t necessarily an urban phenomenon, there may be variables, which may operate helping behavior.

Crowding has been associated with aggression. There is a positive relationship between high density and increases in aggression (Hutt & Vaizey, 1966; Ginsburg, 1977; Aiello et al., 1979). Apparently, the aggression enhancing affect of density are related to spatial resource problems and not to problems created by the presence of too many people (Baum & Koman, 1976). A lack of psychological space having no privacy or not being able to get sufficient rest - may be more important in triggering aggression than a lack of physical space (Nigman & Rector, 1999).

Personality can affect the response to crowding because the personal space needs of the individuals vary depending upon the personality disposition of the individual. Several studies of personal space requirement and perception of
crowding have reported variation in response to crowding, depending upon certain personality characteristics.

Individuals who place greater trust in people are less likely to experience crowding, than those who place less trust in people. The need for interpersonal affiliation determines the proneness of the individual to experience crowding. Those who have a higher interpersonal affiliation need, experience less crowding than those who have a low need for affiliation. Moreover, people who have high self-esteem are more prone to experience crowding (Iwata, 1979).

Interpersonal distance preference also determines the influences of crowding on the individual. Those who prefer far interpersonal distances experience more negative effects of crowding than those who prefer closer interpersonal distances (Aiello, Derist, Epstein and Karlin, 1977).

People who can screen themselves from interaction and organize their surrounding, are able to cope with high social density better than the people who can not screen themselves (Baum, Danis, Calesnick and Gathel, 1982).

It seems that the extroverts & introverts give different responses to crowding. The personal space requirement of introverts is more than that for extroverts (Leipold, 1963; Patterson and Homes, 1966; Patterson and Sechrest, 1970; Evans and Howard, 1973; Iwata, 1979).
On the basis of their personal space requirement, it seems likely that the experience of crowding will be more severe for introverts than for extroverts. Extroverts can handle crowding more effectively. This predisposition of the individuals is also likely to influence the performance of the individuals in the crowded setting.

Finally, males seem to be more sensitive to overcrowding than females. Wachs (1979) claims proper male development from childhood is dependent on non-crowded situations. Males seem especially bothered in situations such as lines (Insel & Lindgren, 1978).

But Burch et al. (1978) found females are more anxious in crowded conditions than males. Patterson et al. (1979) claim this is because females react more to mixed-sex situation. Aiello et al. (1981) found that females seem to be affected more than males in crowded dormitories because they spend much more there than males. These contradictory findings indicate that much of the confusion results from failure to specify the situations and compare them across studies. It may be said that some situations of crowding seem to affect men more than women while others affect women more than man.

Various postulates have arisen indicating the causes of these multiple effects of crowding on behavior.
Social Stress Theory

The first assumption made by social and environmental psychologists about crowding is that it is a stressor. Its effects are mediated by arousal and that they are mainly negative (Griffitt and Veitch, 1971; Altman, Freedman, 1975). This turned out to be oversimplified, under explicated and difficult to prove approach (Lawamce, 1974, Freedman, 1975). Evans (1978), reviews both the fairly consistent evidence that subjects in high density environment show elevated signs of physiological arousal and the much less consistent evidence that such arousal leads to decrements in complex and increments in simple tasks performance. He concludes that at present there is no clear way to differentiate the arousal model of the effects of crowding from Choen’s (1978) proposed model, which hypothesizes that environmental stresses are environmental conditions that place a high load on information-processing capacities. Thus, complex tasks, in themselves higher information-processing loads, would show decrements whereas simple ones would not, because cognitive capacity would not have been exceeded. In this paradigm, arousal is seen as a by-product of information overload.

Two factor Theory

It was proposed that experience of crowding occurs in a two-step process: first, the individual becomes aroused by violations of his personal space and then he attributes the cause of this arousal to other people in his environment Worcel
& Teddlie (1976) found that interaction distance was more closely related to crowding than was density and that the addition pictures reduced the experience of crowding only in the close interaction conditions. Worchel (1978) provides reasonable support for the significance of proximity in inducing arousal. For example, Worchel reports better performance on a cognitive task when subjects are induced to notice their arousal and to attribute it to white noise than when subjects are told there would be white noise that would be relaxing or when they are given no explanation. White noise, arousal-attribution subjects were also more positive to other group members. All of these effects were obtained only when subjects were in close proximity to others, in the far personal-space conditions, attributional condition made little difference.

**Stokol’s Theory**

Stokols, (1978) states that: (1) the experience of crowding involves the perception of insufficient control over the environment, (2) crowding evokes the desire to augment the physical or psychological space as a means of gaining control over the environment and avoiding actual or anticipated interferences; and (3) feelings of crowding will be most intense persistent and difficult to resolve when the failure to augment space maximizes security threats. Several other theories of crowding experiences share with Stokol’s an emphasis on control as the
critical issue, and are all informed by the extensive social-psychological research on this topic.

Seligman postulated that an individual who perceives that he or she has no control over the environment would experience a state of learned helplessness. Because of the feeling that they have no control over the environment such individuals stop trying to affect their surroundings. It has been suggested (Rodin & Baum, 1978; Baron & Rodin, 1978; Cohan & Sherrod, 1978) that some high-density situations cause individuals to feel a loss of control over social interactions. In these conditions, individuals are forced to interact with one another and have no means to regulate that interaction. According to Rodin (1978) this loss of control leads to feeling of learned helplessness.

**Boundary Regulation Theory**

Altman’s boundary regulation theory of crowding and privacy is seen as describing social transactions and ways of using space that allow an individual to deal with certain difficulties in maintaining control occasioned by high density settings. Rodin and Baum (1978) extend this analysis of control related problems experienced in high density settings to explain the emergence of a “learned helplessness” in the residents of chronically uncontrolled settings.
Density-Intensity Theory

According to Freedman (1975), the individual's state of mind must be known prior to being able to predict the effect of crowding on the person. This can be one of the three states, negative, positive or neutral virtually any effect of crowding is possible. There are a number of ways to explain how these effects are caused, and several models have evolved around these explanations. The overload concept posits that high density can be aversive because it may cause us to become overwhelmed by sensory inputs. When the amount and rate of stimulation occasioned by high density exceed our ability to deal with it, negative consequences occur. In contrast to the overload approach, the behavior constraint approach views high density as aversive because it may lead to reduced behavioral freedom. Finally the ecological model assumes that high density can have negative consequences since it may result in insufficient resources for people in the setting.

Crowding has been considered as an important factor leading towards negative effects on a variety of physiological and psychological behaviors. All these factors are the predictors of subjective well being also. However, there is a gap existing and no much work exists on the relationship between crowding and SWB, which is an important variable in the field of psychology.
Subjective Well Being

It was quite early when Warner Wilson (1967) presented a broad review of subjective well being (SWB) based on the limited data available at that time. Wilson concluded that the happy person is a young, healthy, well educated, well paid, extroverted, optimistic, worry free, religious, married person with high self esteem, job morale, modest aspirations, of either sex and of wide range of intelligence. In the three decades since Wilson’s review, many investigations into area of SWB have evolved and considerable progress has been made. Diener, Suh, Lucas, & Smith (1999) have emphasized that while describing SWB the happy person is blessed with a positive temperament, tends to look on the bright side of things, and does not ruminate excessively about bad events, and is living in an economically developed society, has social confidents and possesses adequate mental health for making progress towards valued goals.

Subjective Well Being is an integrative approach

Almost all have experienced what is like to be “On top of the world”. Every thing is going right, and we feel good about ourselves. In the word of a beer commercial on TV, “It does not get any better than this.” Some of us have also experienced the feeling that life is “the pits” Nothing is going right, we feel bad about ourself “there’s nowhere to go but up”. These positive and the negative extremes are the end points of a dimension along which one evaluate one’s life.
Subjective Well-being (SWB) refers to how people evaluate their lives, and includes variables such as life satisfaction and martial satisfaction, lack of depression and anxiety and positive moods and emotions. The idea of SWB of happiness has intrigued thinkers for millennia, although it is only in recent years that it has been measured and studied in a systematic way. A person's evaluation of his or her life may be in the form of cognitions. However, an evaluation of one's life also may be in the form of affect. Thus, a person is said to have high SWB if she or he experiences life satisfaction and frequent joy, and only infrequently experiences unpleasant emotions such as sadness and anger. Contrariwise a person is said to have low SWB if he or she is dissatisfied with life, experiences little joy and affection, and frequently feels negative emotions such as anger or anxiety. The cognitive and affective components of SWB are highly interrelated.

Most people evaluate what is happening to them as either good or bad, so they are normally able to offer judgments about their lives. Furthermore, people virtually always experience moods and emotions, which have hedonic component that is pleasant, signaling a positive reaction, or unpleasant, signaling a negative reaction. Thus people have a level of SWB even if they do not often consciously think about it, and the psychological system offers virtually a constant evaluation of what is happening to the person.
The field of SWB is concerned not just with the causes of depression and anxiety, but also with the factors (i.e., the entire range of well-being from agony to ecstasy) that differentiate slightly happy people from moderately happy and extremely happy people.

Second, SWB is defined in terms of the internal experience of the respondent. SWB is measured from the individual's own perspective. In the field of SWB, a person's beliefs about his or her own well-being are of paramount importance. Naturally, this approach has both advantages and disadvantages. Although it gives ultimate authority to the respondents, it also means that SWB cannot be consummate definition of mental health because people may be disordered even if they are happy. Thus, a psychologist will usually consider measure in addition to SWB in evaluating a person's mental health.

The field of SWB also focuses on longer-term states, not just momentary moods. Although a person's moods are likely to fluctuate with each new event, the SWB researcher is most interested in the person's moods over time.

**Components of SWB**

Heady & Wearing (1989) described the sense of well being as consisting of three dimensions: (i) Cognitive life satisfaction, measured by asking a series of questions such as "How do you feel about life as a whole?". Subjects respond on a scale ranging from "delighted to terrible". (ii) Positive affect and (iii) Negative
affect, both are measured by asking about each person’s emotional reactions during the past few weeks. Subjective well being is highest for those who are satisfied with their lives and who report experiencing positive rather than negative emotions. Low subjective well-being is characterized by dissatisfactions with one’s life and by reporting negative rather than positive emotions.

Subjective well being is structured such that these three components form a global factor of interrelated variables. Each of the three major facets of SWB can in turn be broken into subdivisions. Global satisfaction can be divided into satisfaction with the various domains of life such as recreation, love, marriage friendship and so forth, and these domains can in turn be divided into specific emotions such as joy, affection and pride. Finally pleasant or unpleasant affect can be separated into specific emotions and moods such as shame, guilt, sadness, anger and anxiety. Subjective well being can assess at the most global level or at progressively narrower levels depending on one’s purposes. (Diener, Suh & Oishi, 1997).

The usual method of measuring SWB is through self-report surveys in which the respondent judges and reports his life satisfaction, the frequency of his pleasant affect or the frequency of his unpleasant emotions.
In the area of SWB, researchers find that one can dampen or amplify one's emotions by what one thinks and thereby experiences more or less intense emotions. (Larson, Diener & Croponzano, 1987).

Happy people are likely to experience more events that are considered desirable in the culture, but also have a propensity to interpret and recall ambiguous events as good. People with high SWB are also likely to perceive "neutral events as positive." Thus people with high SWB may not only experience objectively more positive events, but they also seem to perceive events more positively than do people who are low in SWB.

The variables studied in relation to SWB include age, religion, marriage, personality and sex.

Although temperament appears to be strongly related to SWB, demographic factors are often only weakly correlated with it. Emmons (1991) reported that positive affect is associated with past fulfillment of goals and negative affect is associated with low perceived probability of success in meeting future goals. Happy people's aspirations are more coherently organized congruent with each other than those of less happy people. The importance that one places on one's goals and the amount of effort required to achieve those goals are associated with positive affect.
SWB is significantly correlated with religious certainty (Ellison, 1991). Religion may provide psychological and social benefits. Religious experiences can provide a sense of meaning in daily life as well as during major life crises. Religion may increase feelings, providing greater benefit of the cognitive aspects of SWB.

Married people report greater happiness than those who never married or are divorced, separated, or widowed. Among the non-married adults, however, people who cohabit with a partner are significantly happier in some cultures than those who live alone, (Kurdek, 1991; Mastekassa, 1995). The effects of marriage may differ for men and women. Married women are consistently happier than unmarried women, and married men consistently happier than unmarried men. It seems that marriage holds greater benefits for men than for women in terms of positive emotions, but married men and women did not differ in life satisfaction (Diener et al. 1998). Marriage can provide both economic & social rewards, yet the levels of these benefits are likely to depend on the values of society.

International studies based on representative samples from multiple countries also show that life satisfaction does not decline with age. Out of the three components (life satisfaction, pleasant affect and unpleasant effect), only pleasant affect declined with age, (Diener & Suh, 1998). There is a slight upward
trend in life satisfaction from the 20s to 80s, and the amount of negative affects people experienced exhibited little change across age cohorts.

**Personality And SWB**

Personality is one of the strongest and most consistent predictor of subjective well-being. One conceptual model for the link between personality and SWB is that some people have a genetic predisposition to be happy or unhappy, which is presumably caused by inborn individual differences in the nervous system. There are stable predispositions to experience happiness or unhappiness. It means situational factors may move SWB up or down from baseline levels but stable personality factors should exert a long term influence. Magnus and Diener (1991) found that measures of personality predicted life satisfaction 4 years later, even after controlling for the influence of intervening life events. However, stable personality traits can influence SWB, and, thus SWB has both trait-like and state-like properties. The current working model of researches in the field is that personality predisposes people to certain affective reactions but that current events also influence one's current levels of SWB.

(McCrae & Costa, 1985) labelled a five factor model of cardinal traits that are extraversion and neuroticism (personality traits), three more traits in this model are agreeableness, conscientiousness & openness. Agreeableness and
conscientiousness are correlated moderately with SWB. Openness relate to emotional intensity.

The personality traits, extraversion and neuroticism are traits which received the most theoretical and empirical attention in relation to SWB. Extraversion influences positive affect, whereas neuroticism influences negative affect. Neurotics and extraverts have a temperamental susceptibility to experience negative and positive affect respectively. Lucas, Diener, Grob, Suh, & Shao (1998) suggested that extroverts are more sensitive to rewards and that this sensitivity manifests itself in the form of greater pleasant affect when exposed to rewarding stimuli. Higher positive affect then motivates individuals to approach rewarding stimuli. Because social situations tend to be more fun and rewarding than nonsocial situations, extravert’s elevated positive affect and sensitivity to rewards leads to increased social behavior. If extraverts spend more time in social situations, their greater happiness could be explained by the greater amount of time spent in positive, happy engagement with people. It is interesting to note that extraverts are happier than introverts, however, even when alone (Sandvic, Pavot, Fujitia, 1992).

Self esteem is also related to SWB (Wilson,) although this relation is stronger in individualistic societies where the “self” stands out as more important. Self esteem or self-concept is a concept that a person has regarding himself his
own self which consists of any evaluation that he makes of himself or whatever feelings he has about himself. Self-esteem measures are strongly correlated with SWB. It has been often replicated in the Western samples but the relationship is not universal (Diener & Diener, 1995). There is also strong relationship between self-esteem and life satisfaction in some cultures like U.S. but this relationship is also not universal.

**Sex differences and SWB**

There are sex differences in SWB. It seems that in majority of nations women experienced more unpleasant affect than men. When differences are observed, women usually report higher SWB, but the differences often disappear when other demographic variables are controlled (Larson, 1978; Warr & Payne, 1982; Inglehart 1990; White, 1992). On average, both positive and negative emotions are experienced more strongly and frequently than men. Thus, in the general population, women’s more intense positive emotions seem to balance their higher negative affect, resulting in levels of global SWB similar to those of men. (Lee, Seccombe, and Shehan, 1991).

According to Wilson, (1967) health is also strongly related to SWB. Larson (1992) found that neurotics exhibit retrospectively more gastrointestinal and respiratory symptoms than they had previously reported on daily basis. The impact of one’s health depends on the individual’s perception of the situation. Ill health
may negatively influence SWB because it interferes with the attainment of important goals. Similarly income, education, and adaptation are other major important variables that may be related with SWB.

In such case it seems plausible to assume that the stressful work environment caused by crowding also may lead to a poor SWB.

Theories of SWB

Theories of SWB have seldom guided the empirical work on the psychology of well-being, and theories have often remained separate and distinct rather than being integrated into more synthetic conceptualizations. In addition, many theories of SWB have failed to be tested systematically. (Feist, Bonder, Jacobs, Miles & Tan (1995)

Feist et al. (1995) proposed two alternative structural models of subjective well-being. Top-down and bottom-up.

Bottom-Up Model: Bottom-up theories maintain that by simply summing up well-being in particular domains, such as marriage, work, and family, people develop an overall sense of subjective well-being (Brenner & Bartell. 1983; Bryant & Marquez. 1986; Haring, Okun, & Stock, 1984; Okun, Olding & Cohn, 1990;Weingarten & Bryant, 1987; Wood et al., 1989). In other words, satisfaction and happiness result from having many specific moments of happiness in life (Diener, Sandivik, & Pavot, 1991). A basic tenet of this position is that experience
is written on the blank slate of our minds. Philosophically, this model is derived from the Lockean notion that "nothing is in the mind except what was first in the senses. In the bottom-up view, objective life circumstances should be the primary predictors of one's level of overall happiness.

**Top-Down Model:** The top-down view, by way of contrast, assumes that people have a predisposition to interpret life experiences in either positive or negative ways, and this predisposition in turn colors one's evaluation of satisfaction in specific domains. Experience is not so much objectively good or bad but rather is interpreted that way. Philosophically, this model is Kantian, in that Kant held the view that the mind is an active interpreter and organizer of sensory experience, not a passive tabula rasa, and the knowledge could be "pure" rather than only empirical. The mind does not simply accept incoming sensations, but rather filters and selects only those sensations that are congruent with one's beliefs and attitudes. From a top-down perspective, our subjective interpretation of events, rather than the objective circumstances themselves, should be the primary influence on SWB.

Various theories of SWB as discussed by Diener et al. (1997) are as follows:-

**Adaptation:** The idea of adaptation is that people initially react strongly to new life events or circumstances, but over time habituate and return to baseline.
For example a positive event such as winning the lottery boosts one's mood, but the person is likely to return over time to his or her original level. Indirect support for the idea of adaptation comes from the data showing that many demographic variables correlate only weakly with SWB. For example, income in the USA correlates only about 12% with SWB - almost no correlation at all. Similarly physical attractiveness among young adults, like wealth, shows a weak covariation with SWB (Diener, Wolsic & Fujita, 1995). Many significant events are greeted with strong emotions, but that these dampen over time. Most events produced a short impact on SWB but some time they had a longer impact (Diener et al, 1997).

It appears that one’s long-term baseline of well-being is strongly influenced by one's temperament for example by traits such as extraversion and neuroticism. Good and bad events cause a positive or negative deflection, respectively from this baseline. In an Australian panel study spanning an eight year period it was found that the adaptation model provided a good description of the interaction of life events, personality, and SWB. But findings suggest that people may not adapt completely to all conditions, no matter how bad (Mehnert, Krauss, Nadler & Boyd, 1990). Thus although adaptation is a powerful force that may dampen the impact of most conditions, it may not be complete or may not occur in all circumstances (Diener et al., 1997).
Social Comparison and Subjective Well Being: In 1974, Richard Easterlin proposed that nations do not differ in SWB because people within nations compare only to each other on attributes such as income. Therefore, although richer people within a nation are likely to be happier than poorer people in that country, nations ought not differ in SWB, according to Easterlin. Furthermore, based on the imposed social comparisons approach, the average person in any nation ought to be neutral in SWB because about half of the people will be above average and about half will be below average. Representative surveys conducted in industrialized nations reveal that with most societies, people fall in the slightly to moderately happy range. Another evidence is that nations do differ in predictable ways in SWB.

Social comparison does not automatically produce happiness when one is around others who are inferior on some characteristics. Instead, the data support a coping model of social comparison in which people selectively choose others with whom to compare (Will, 1981; Taylor, Wood & Lichtman, 1985; Lichtman, 1983). People can increase their SWB by attending to others who are either superior or inferior to them. Thus the idea that SWB is usually influenced by we are better off than those who are immediately around us seems over simplified.

Values, Goals and Meaning: Telic theories posit that SWB is gained when goals and needs are reached (Diener, 1984). Thus, the causes of SWB are
not universal, but differ depending on people’s values and desires. Different aspects of goals are related to different components of SWB. Carver and Scheier (1990) further postulated that progress toward goals at a rate higher than the standard leads to positive affect, whereas progress at a rate lower than the standard leads to negative affect. The success of people in meeting their goals also depends on their strategies and situational affordances (Norem, Cantor, 1986; Norem, Niedenthal, Langston & Brower, 1987, Cantor, 1994, Spencer & Norem, 1996). In the telic approach, SWB ought to follow from people using strategies that are compatible with their personality and their environment in pursuing their goals. An individual’s life tasks or goals are influenced by developmental phases, cultural goals and individual needs (Cantor & Kihlstrom, 1989).

It appears that people’s SWB is to some degree related to their fulfillment of their values. The ideal society socialized citizens to cherish certain values. In such a society the citizens are likely to achieve SWB by work toward those values.

**Flow And Subjective Well-Being :** An approach related to goal models is the hypothesis that SWB depends on being involved in interesting activities. This idea is that humans construct, because of their large brains and reliance on knowledge for survival, so that interest (versus boredom) is a very compelling motivation. Interesting activities are those in which there is a balance between challenge and skill (Csikszentmihalyi, 1975). Such activities are pleasant because
they provide an optimal level of new information that is novel, yet not overwhelming. Thus an activity is boring, if it requires too little skill and is stressful if it requires advanced skills that the person does not possess. On the other hand, the activity can produce the highly pleasurable experience of “flow” if the challenge of the activity is equivalent to the amount of skill the person possesses. Activity theory points to the fact that interesting activities can supplement the pleasures that are achieved through people’s emotions and physical comforts (Diener et al., 1997).

With this background about crowding and SWB, we may now pass on to the review of investigations in this field.