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Crowded Urban Environment

Ying-keung Chan

SOCIAL RESEARCH CENTRE
THE CHINESE UNIVERSITY
OF HONG KONG

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URBAN ENVIRONMENT

by

YING-KEUNG CHAN

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Dr. Y.K. Chan (1944-) received his B.S.Sc. from the Chinese University of Hong Kong in 1967 and a Doctorat d'Universite (Très Honorable) from the University of Bordeaux, France. Currently he is Lecturer in Sociology, United College, The Chinese University of Hong Kong.

LIFE SATISFACTION IN CROWDED URBAN ENVIRONMENT*

Introduction

As population continues to concentrate in urban areas, living in low density surroundings becomes more and more expensive for most people. Indeed, crowding is a common feature in all metropolises today, and urban problems, particularly those of crowding and density, have in recent years drawn the attention of many social scientists. Many general studies have been done on crowding and density. Other more specific studies on the social consequences of high density deal with, for example, crime, delinquency, and the physical and mental health of dwellers in crowded environment.

Hong Kong is an extremely crowded metropolis, with a population reaching 4.5 million on a land surface of just about 1,049 square kilometers. Over 77% of the population reside in the built-up areas of Hong Kong Island, Kowloon Peninsula, and New Kowloon, which together

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constitute only 11% of the total area of Hong Kong.¹ The overcrowdedness of Hong Kong is of course the result of rapid population growth since the Second World War. The two immigration waves in 1945-47 and 1949-52 brought into Hong Kong over one million people, and the birth rate was high, reaching a peak in the mid-1960s when yearly births exceeded 100,000. Although fertility began to fall significantly after 1965, the population growth rate still averaged around 2.0% per annum.

Hong Kong is an ideal place to study problems concerning life in a densely populated urban environment. In fact, several studies have been carried out in Hong Kong since the 1960s. Based only on ecological data, Schmitt (1963, 1966) has found that, under high density and overcrowding conditions, Hong Kong had relatively low rates of mortality, morbidity and social disorganization. Mitchell (1971) has examined the social implications of high density housing, and concluded that high densities had little effect on individuals and families. Anderson (1972) has discussed Chinese ways of dealing with crowding

1 The 1976 by-census showed that in urban areas - Hong Kong Island, Kowloon and Tsuen Wan, the population density was 250 persons per hectare on the average. And in some districts, for example, Mong Kok, the population density was over 1,500 persons per hectare.

and maintained that although the Chinese could tolerate crowding, they could not eliminate tension, stress and conflict. Hong (1972) has compared rural and urban dwellers in Hong Kong, and revealed that urban dwellers had higher degrees of anomia; yet he found no significant difference between the two groups in extended kin visitations and cohabitations. Millar (1976) has analysed the biopsychic well-being of the people in Hong Kong in relation to high density living. She suggested that high density might be a potential stressor, but it had moderate effect on the biopsychic state of individuals. Chan (in press) has also examined the associations between population density with social relations, and the results showed that in urban Hong Kong, outdoor and indoor densities had very low or negligible correlations with individual attitudes and social relations.

These studies, carried out in whole or in part in Hong Kong, all tend to confirm that population density has little effect on the people of Hong Kong. However, the crucial question of "Are the people happy to live in such a crowded environment?" has still not been dealt with. Findings of many studies, usually using individuals as the units of analysis, revealed that life satisfaction is positively associated with the material well-being of the people (Gurin, et al., 1960; Inkeles, 1960; Wessman,

1959; Bradburn and Caplovitz, 1965; Rogers and Converse, 1975; Clemente and Caplovitz, 1976; Lee, et al., in press). It should be of great interest to envisage whether the crowded living environment, which constitutes part of the material well-being, has any effect on the people since "dissatisfaction with life, had played an important role in the genesis of mental disorder among individuals of various socioeconomic groups" in Hong Kong (Lee, 1976). In this paper, we intend to focus on the association between life satisfaction and density, and seek to find out whether there are ways through which the negative effects, if any, of overconcentration of population can be minimized under the constraint of limited space.

Data and Method

Data used in this paper are taken from the 1974 Biosocial Survey which was conducted jointly by the Social Research Centre of the Chinese University of Hong Kong and the Human Ecology Group of the Australian National University. With the assistance of the Government's Census and Statistics Department, a random sample of 3,983 adults, aged 20-59, were selected from the urban areas - Hong Kong Island, Kowloon, New Kowloon and Tsuen Wan. Information from respondents, 98.5%

Chinese and 1.5% expatriates, was collected through personal interviews with a standardized questionnaire. Another source of data for this paper is the 1971 Hong Kong Census.

Life satisfaction is measured by the questionnaire item: "Generally speaking, are you satisfied with your daily life (your status, things you do and the situation around you, etc.)?" (1=not satisfied, 2=neutral, 3=satisfied.) This measurement is similar to those used in previous studies (e.g. Gurin, et al., 1960; Mitchell, 1969). It reflects how the individual feels about his life as a whole, rather than his judgement on specific aspects of life. Indicators of overconcentration of population are: (1) Area population density (persons per hectare by tertiary planning unit), and (2) Per capita living space in the household (effective floor space in square feet, excluding kitchen, bathroom and balcony).

Other environment-related indicators have also been envisaged. These items are: "Physical conditions (ventilation, lighting, view) of the living quarter" (0=poor, 1=good), "Facilities (kitchen, toilet, bathroom) in the living quarter" (0=poor, 1=good), "Safety of going out alone in the area" (0=not safe both in daytime and in nighttime, 1=not safe either in daytime or in nighttime, 2=safe both in daytime and nighttime).

The socioeconomic attributes of individuals considered are age, sex, education, and socioeconomic status. Ages of respondents are divided into four categories (1 = 20-29, 2 = 30-39, 3 = 40-49, 4 = 50-59). Sex is a dichotomous item (0=female, 1=male). Education refers to the highest level of education the respondent had attained (1=no schooling, 2=primary tutoring, 3=secondary, 4=post-secondary). The socioeconomic status refers to that of the household and comprises three dichotomous items (housing status, household income and material standard, each score of 0 and 1 representing low and high respectively) in the form of a four-point scale (0=lowest to 3=highest).

Besides, several questionnaire items concerning the feeling and behaviour of the respondents are also taken into consideration. They are: "Find it enjoyable to be surrounded by a lot of people" (1=not enjoyable, 2=neutral, 3=enjoyable), "Sometimes feel being surrounded by too many people" (0=no, 1=yes), "Feeling about the number of people in Hong Kong" (1=not enough, 2=neutral, 3=too many), "Whether the number of people in Hong Kong has any effect on one's daily life" (0=no, 1=yes), "Number of hours in a day usually spent outside residence" (in hours and minutes), "During the past month, number of times the respondent has been to the beach, countryside,

open-air playground, public park, etc.", "When one wants to be alone, does one find it easy to do so?" (1=difficult, 2=neutral, 3=easy).

Findings

The Survey data show that 33% of the respondents are residing in densely populated areas (density \geq 1,000 persons per hectare), and 50.6% have a per capita living space of less than 40 square feet within their own household. But 63.7% of respondents report that they are satisfied with their lives as a whole, 24.5% give a neutral response, and only 11.9% are dissatisfied.

To measure the degree of association of life satisfaction with density and living space, the Pearson r is computed. And we find that the correlation between life satisfaction and area population density is negligible and insignificant ($r = 0.002$, significance : 0.441), and life satisfaction has a low positive correlation with per capita living space in the household ($r = 0.16$, significance : 0.001).

However, the relationship between life satisfaction and living space in the household may still be spurious, as housing/environmental conditions and individual socio-economic background all have effects on life satisfaction; and poor housing/environmental conditions and low

socioeconomic status are all associated with crowding (see table 1). Therefore, we proceed to the computation of partial r controlling for socioeconomic variables and housing/environmental variable, and we find that the relationship between life satisfaction and area population density is also negligible and insignificant, and the association of life satisfaction with per capita living space in the household can be explained away by socioeconomic and housing/environmental factors (see table 2). That is, both density and living space have negligible independent effects on the individuals' life satisfaction. People residing in more densely populated areas, and those dwelling in more crowded households are not likely to be more dissatisfied with life.

The negligible effects of density and living space on life satisfaction may be due to the reason that individuals do not perceive the urban environment as being crowded or the present situation does not interfere with individual behaviour. Therefore, we proceed to examine the association of density and living space with individual feelings and behaviour; and their relationship is indicated by Pearson r and partial r , controlled for age, sex, education and socioeconomic status. The results (as summarized in table 3) show that the association between density and living space with individual feelings

Table 1: Correlations (Pearson r) among variables (N = 3,983)

	Life satisfaction	Population density	Living space	Age	Sex	Education	Socio-economic status	Physical conditions	Facilities	Safety
Life satisfaction	-----	0.002 S:0.441	0.16 S:0.001	-0.003 S:0.417	-0.09 S:0.001	0.07 S:0.001	0.23 S:0.001	0.12 S:0.001	0.14 S:0.001	0.09 S:0.001
Population density	-----	-----	0.01 S:0.368	-0.02 S:0.072	0.02 S:0.129	0.06 S:0.001	0.16 S:0.001	-0.10 S:0.001	-0.08 S:0.001	-0.08 S:0.001
Living space	-----	-----	-----	-0.001 S:0.483	-0.004 S:0.392	0.39 S:0.001	0.50 S:0.001	0.16 S:0.001	0.33 S:0.001	0.16 S:0.001
Age	-----	-----	-----	-----	-0.03 S:0.057	-0.36 S:0.001	-0.09 S:0.001	0.02 S:0.100	-0.01 S:0.279	0.002 S:0.455
Sex	-----	-----	-----	-----	-----	0.30 S:0.001	0.01 S:0.307	-0.05 S:0.001	-0.04 S:0.009	-0.01 S:0.294
Education	-----	-----	-----	-----	-----	-----	0.38 S:0.001	0.03 S:0.027	0.15 S:0.001	0.05 S:0.001
Socio-economic status	-----	-----	-----	-----	-----	-----	-----	0.23 S:0.001	0.40 S:0.001	0.15 S:0.001
Physical conditions	-----	-----	-----	-----	-----	-----	-----	-----	0.20 S:0.001	0.15 S:0.001
Facilities	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.08 S:0.001
Safety	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

S = significance of correlation

Table 2: Correlations of Life Satisfaction with
Population Density and Living Space (N = 3,983)

Life Satisfaction	Population Density	Living Space
Pearson r	0.002 S:0.441	0.16 S:0.001
Partial r, controlling for physical conditions, facilities and safety	0.02 S:0.064	0.11 S:0.001
Partial r, controlling for age, sex, education and socioeconomic status	-0.03 S:0.027	0.04 S:0.001

S = significance of correlation

Table 3: Correlations of Population Density and Living Space with Individual Feelings and Behaviour (N = 3,983)

	Population Density		Living Space	
	<u>Pearson r</u>	<u>Partial r</u> (Controlling for age, sex, education and socioeconomic status)	<u>Pearson r</u>	<u>Partial r</u> (Controlling for age, sex, education and socioeconomic status)
Find it enjoyable to be surrounded by a lot of people	0.001 S:0.486	0.01 S:0.243	-0.10 S:0.001	-0.06 S:0.001
Sometimes feel being surrounded by too many people	0.04 S:0.013	0.05 S:0.001	-0.14 S:0.001	-0.12 S:0.001
Feeling about the number of people in Hong Kong	-0.001 S:0.470	-0.002 S:0.450	0.02 S:0.094	-0.01 S:0.392
Whether the number of people in Hong Kong has any effect on one's daily life	0.01 S:0.298	0.01 S:0.289	-0.02 S:0.168	-0.04 S:0.007
Number of hours in a day usually spent outside	-0.05 S:0.001	-0.07 S:0.001	-0.04 S:0.029	-0.06 S:0.001
During the past month number of times being to the beach, countryside, open-air playground, public park, etc.	-0.03 S:0.037	-0.06 S:0.001	0.14 S:0.001	0.04 S:0.006
When want to be alone, one finds it easy to do so	-0.05 S:0.002	-0.07 S:0.001	0.24 S:0.001	0.18 S:0.001

S = significance of correlation

and behaviour items are all negligible; except that living space correlates positively with the feeling of "when want to be alone; it is easy to do so" and inversely with that of "being surrounded by too many people", but still, both relationships are weak. In other words, people living in high density areas, more crowded households, do not necessarily feel being more crowded in their living environment, less enjoyable to be surrounded by a lot of people, or stronger spatial constraint.

Discussion

Hong Kong is an extremely crowded metropolis, available lands in inner-city areas around the harbour for domestic or industrial uses had long been exhausted. In view of the situation, the government has gradually begun to give up the laissez-faire policy towards the use of land in the 1950s, planned layouts have been imposed on further urban development, large scale reclamations have been carried out, and new towns have been developed in the New Territories. The population in certain older urban areas (e.g. Central, Sheung Wan, Tsim Sha Tsui, Yau Ma Tei, etc.) has slightly decreased; however, the problems of overconcentration of population in urban areas, housing deficiency, and lack of space for further development remain unsolved. In 1976, there were still

274,427 squatters in Hong Kong (Hong Kong, 1977). Public housing estates, which provide residence for nearly 2 million people in 1977, allow only a per capita living space of 35 square feet for their dwellers (in old type Mark I and II resettlement estate, only 24 square feet). And new towns in Hong Kong are also all of considerable large size in terms of population, and high population density and high degree of overcrowding are being observed (Chan 1973).

It is commonly agreed that high density and crowding produce negative effects on animals, but there is no substantial evidence that high density and crowding produce consistently negative effects on humans (Freedman, 1973). Various studies, whether of the survey, observational or experimental type, have come to different conclusions. Some argue that population density and crowding do have effects on human health, social adaptation and may even produce pathological behaviour in man. (Griffitt and Veitch, 1971; Galle, et al., 1972; Levy and Herzog, 1974; McCarthy, et al., 1975; Roncek, 1975; Schmitt, 1975), while others argue otherwise (Schmitt, 1963; Mitchell, 1971; Freedman, et al., 1972; Baldassare, 1975; Millar, 1976; Booth and Cowell, 1976).

The findings of the present study do not contradict those of previous studies based on Hong Kong data. Our study reveals that both the effects of area population density and per capita living space in the household on individual life satisfaction are nearly negligible. In sum, all these studies tend to confirm that the crowded living environment produces little or no effect on the people of Hong Kong. But why?

Individual life satisfaction is a function of the extent of consistency or discrepancy between valued goals and actual achievement. The less the discrepancy between goals and achievement, the more is the individual satisfied. Economic well-being, good education and better housing, etc. are some of the valued goals of the Hong Kong people. Hong Kong has emerged as a world centre of trade and industry; and in many areas of life, such as economic opportunities, housing, public services, and utilities, significant improvement has been made in the past two decades. It is understandable why only 12% of the respondents, unlike the findings of Mitchell's study in 1967-68 (33%), are not satisfied with life as a whole. (Lee and Chan, in press).

More living space is surely also a valued goal of the Hong Kong people. Actually, the Survey data show that 36% of the respondents are not satisfied with their living

space at present. But the people's awareness of the fact that Hong Kong is lacking space for further expansion may reduce the unhappy feeling even if the valued goals of living in low density, more spacious environment cannot be achieved.

Furthermore, the urban dwellers in Hong Kong are long used to live in such an environment. High density and limited space do not make them feel "surrounded by a lot of people is not enjoyable", "the number of people in Hong Kong is too many and has effect on one's daily life", or even feel "being surrounded by too many people". The limited space in the household does not force the people to spend more time outside, and the high population density does not keep the individual away from recreations in public open space (see table 3). These all help to explain why life satisfaction is not being affected by high density and limited space in Hong Kong.

However, we must not neglect that in this urban community, limited space is associated with other sources of dissatisfaction with life, such as low socioeconomic status, poor education, poor physical conditions and facilities, lack of safety, etc. It may not be easy to solve the problem of overcrowding in urban Hong Kong, but at least, to make people more satisfied with life, the authority should continue to explore ways through which

the housing/environmental conditions, particularly in areas of lower socioeconomic status, can be ameliorated.

The finding that "high density and limited living space have only minor or negligible effect on individual life satisfaction" does not imply that the problem of overcrowding can be ignored when planning for future development. It is difficult to set any standard for the private sector, but it is not impossible to improve the present standard of 35 square feet per person in public housing estates. Secondly, at present the population density in lower class residential (private housing) areas is generally higher than that set for public housing estates, because certain proportion of space has been reserved for communal usage in the latter. And we do not see any reason why similar planning standard cannot be applied to areas for the development of private housing for lower or lower-middle class people so that the congested condition of private, lower class residences can partly be improved. Furthermore, to deal with overconcentration of population in inner-city areas, Hong Kong should speed up the development of new towns in the New Territories. And the authority, besides concerning itself with building the physical environment, should also pay more attention to the social structures, institutions, culture and subcultures when planning for the development of new urban communities. So the people may feel more happy to move from the old urban areas into a new town.

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