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TERRITORIALITY AND PLAYGROUND DISTURBANCES

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ABSTRACT

The concept of 'territoriality' has become a fairly common term within social scientific literature - and yet its application in the analysis of human behaviour appears to have been made with little reference to, or regard for, the concept's original form. The present investigation serves two purposes - first, to attempt to use the concept in the description and explanation of the etiology of social disturbances in school settings; and second, to look closely at the concept and assess its general worth in the analysis of human behaviour.

Before investigating the possibility of a correlation between disturbances and the manifestation of territoriality, observations were made of the school pupil population during intervals to establish whether or not the pupils tended to occupy specific locations for protracted lengths of time - perhaps the most basic requisite of territorial behaviour. Observers gathered data in terms of the specific activities occurring and the sex and number of players. Time sampling was used, and the data confirmed that pupils do tend to return to the same geographical location to perform the same activity over a period of time.

The stability of the pupil activity groups over time provided the foundation for a participant observer subsequently to investigate a second feature of territoriality - that territories are defended. The observer's task was to interview those involved in identified disturbances, and attempt to establish the etiology of the disturbance. The hypothesis

was that the disturbances would be a function of the territorial behaviour of the groups. In so far as territorial behaviour can be defined in terms of Barker's (1968) 'maintenance mechanisms', the hypothesis was supported. 83% of disturbances were deemed to involve at least one feature of territoriality - be it membership, equipment, space, boundaries, or a combination of these.

A further feature of the concept of 'territoriality' within animal behavioural research is that the territorial group members recognise each other on the basis of certain membership criteria. Within the pupil activity groups observed to investigate this feature among humans, membership criteria were also found to exist. These criteria were identified as being sex, class level, the amount of space available, family relationships, and physical size. On the basis of these criteria pupils were observed to be accepted or rejected from activity groups during school intervals.

The findings of these initial investigations into the existence of three features of animal territoriality within human group behaviour, lend weight to an acceptance of the concept of territoriality as an adequate unit of analysis in the explanation of human group behaviour. However, throughout the investigations certain assumptions which underlie the concept tended to surface from time to time and raise doubts about the concept's applicability in human behavioural analysis. These assumptions included the idea that the territorial behaviour was manifested by members of both sexes; that territorial groups were family groups only; and that territorial behaviour was designed to repel intruders. All

of these were shown in the present study to be not accurate. Added to these assumptions, the ethological literature reflects two crucial points of dissention. Ethologists, it seems, can not agree whether or not man is a territorial species. Again, among those who do accept that man is a territorial species, there is an argument over whether the territorial behaviour manifested by man is learned or instinctive.

There are apparent problems in transferring a unit of analysis of animal behaviour to cover human behaviour as well. The problems are accentuated in the assumptions and debates outlined above, and compounded by the fact that within the social sciences there already exists a number of other theories and concepts which serve to explain the same human behaviour as territoriality attempts to do. While not completely rejecting the applicability of the concept of territoriality within human behavioural analysis, the conclusion arrived at was that the concept was of limited utility to the social scientist.

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INTRODUCTION

Much research into the function and performance of the role 'teacher' concerns itself with the interactions which occur within the classroom. However, an important teacher function occurs outside the classroom - when the teacher is on duty. If teachers were asked to state that which they enjoyed least about their occupation, the chances are that a majority would mention 'duty'. From attitudes expressed by many, duty produces a certain amount of anxiety and stress in some teachers. This stress appears to be rooted in the expectations of misbehaviour by certain identifiable groups of pupils. In staffroom conversations reference is not uncommon to 'that group which is always under the trees'; or 'that group which is always near the bike sheds'; or 'that group which is always near the tractor shed'.

Duty teachers have observed that certain groups of pupils regularly inhabit a certain part of the school playground during intervals. Not only do these groups regularly return to the same geographical location, they also appear to contain the same membership from day to day. It is from these regularly formed groups that many duty teachers anticipate and report trouble, within a climate which reports increasing belligerence by pupils towards teachers.

To ease duty teacher stress, then, some investigation into the behaviour of school playground groups, and the disturbances associated with them, would seem appropriate.

Given that the groups tend to congregate in the same location day after day, they could be said to be occupying a territory. If such terminology were accepted, then the behaviour termed 'territoriality' would also become an acceptable descriptive term within the school playground context. Could it be that the defence of space by the occupiers of that space, which is so characteristic of animal territoriality, is at the root of school playground disturbances? In fact, it could be claimed that the concept of 'territoriality' is the most appropriate concept within which to analyse group behaviour in the playground because of the observed existence of features characteristic of animal territoriality. The following thesis develops answers to these two conjectures.

CHAPTER 1A REVIEW OF LITERATURETERRITORIALITY IN HUMANS

Territoriality, as a basic concept used in the study of animal behaviour, has been defined as:

"behaviour by which an organism characteristically lays claim to an area and defends it against members of its own species." (Hall, 1966. 7)

The concept has importance within animal behaviour research because it has been found to provide an explanation of:

- 1) population density regulation, which ensures propagation of the species;
- 2) 'behaviour settings' (Barker and Wright, 1954) for learning, playing and hiding;
- 3) co-ordination of group activities, which helps keep the group together; and
- 4) the keeping of members of the group within communicating distance of each other, so that the presence of food or an enemy can be signalled.

"An animal with a territory of its own can develop an inventory of reflex responses to terrain features. When danger strikes, the animal on its home ground can take advantage of automatic responses rather than having to take time to think about where to hide."

(Hediger in Hall, 1966. 8)

Carpenter (1958) points out that those who have studied animal territoriality have generally attempted to conceptualise the behaviour in two ways:

first, as a spatial or geographical phenomenon; and, second, as a behavioural phenomenon. However, Carpenter suggests that:

"It would seem advantageous to view territoriality primarily as a behavioural system which is expressed in a spatial-temporal frame of reference."

(Carpenter, 1958. 228)

Ardrey, one of the seminal writers in the field of animal territoriality, had, as his basic premise, the idea that only one question need be asked in the study of the territory of a species, viz: "Is it (the territory) defended?" (1969. 210) He claims that defence defines territory, and, since territoriality is a complex behavioural system, there must be wide variations of characteristics of it for different types of animals. The variability of the defence becomes the description of a species' territoriality.

While Carpenter (1958), Hall (1966), Ardrey (1969) and Hulbert (1971) all provide comprehensive reviews of the concept of territoriality within animal research, the concept has also been found to be applicable to some human behaviour.

"People cathect their territories, and resist invasion of their privacy. They use their territories to increase power, comfort and control."

(Roos, 1968. 75)

-- whether their territory is defined as their desk, office, field or shop, etc. Similar sentiments, regarding the applicability of the concept of territoriality in the explanation of human behaviour, have also been expressed by Hall (1959, 1966), Lyman and Scott (1970), and Shaw (1971). Other literature in the behavioural sciences, though reflecting

interest in the concept, recognises the tenuous nature of the link between animal and human behaviour. For example:

"Although a great deal of evidence has been accumulated from animal data with regards to territoriality, there is very little similar data regarding humans."

(Krupka, 1971. 3877)

and "Even though the phenomenon of territoriality has been demonstrated repeatedly in studies of animal behaviour (Carpenter, 1958) few attempts have been made to observe a similar phenomenon in humans."

(Wieck, 1968. 390)

Indeed, overt criticism of the ready extrapolation of 'territoriality' from animal behaviour to human behaviour is also to be found. Leach, for example, attacked the analogy when he maintained:

"It is true that living human beings, both as individuals and as groups, do, on occasions, exhibit symptoms resembling the 'territoriality' displayed by various species of birds and fish; but this human behaviour is not a species characteristic, and this makes all the difference. It is optional, not instinctive behaviour."

(Leach, in Roos, 1968. 76)

Perhaps the most all encompassing overt criticism comes from Sherif and Sherif (1969), who noted that periodically the phenomenon of territoriality among animals was proposed as a direct analogue to human conflict over territory. They comment:

"This analogy is inadequate for several reasons:-

1. not all subhuman animals become attached to territories and defend them by aggressive response to invasion.

2. not all human groups that engage in conflict are territorially based, nor does human conflict always involve disputes over territory.

3. the physiological processes and past events underlying subhuman and human aggression associated with territoriality are vastly different."

(Sherif and Sherif, 1969. 225)

It does appear, however, that counter arguments can be mounted against the Sherifs' position. First, the literature on animal territoriality does not define defence of territory as being exclusively 'aggressive' defence, and neither does it claim that all animals maintain territory. Second, as Boulding (1962) points out in his general theory of conflict, there must be at least two parties in any conflict - and if a 'party' is seen as being some aggregate or organisation that is capable of assuming a number of different positions while retaining a common identity or boundary, and

"may be a person, a family, a species of animals, or artifacts, a class of ideas, a theory, or a social organisation such as a firm, a nation, a trade union or a church,"

(Boulding, 1962. 2)

then the concept of territoriality becomes broader than the Sherif's would have it. Because the idea of 'boundary' is central to the concept of territoriality, and as all parties are involved in boundary maintenance, it thus becomes possible to argue that all human conflict can be viewed in terms of territory - at least to the same degree of certainty with which the Sherif's claim that it can not. Third, nowhere in the literature is it claimed that the physiological processes of human and subhuman species are identical. All that is claimed by writers such as Hall (1959, 1966), Lyman and Scott

(1970), Hulbert (1971), Shaw (1971), and others, is that the functioning of an element of observable human behaviour, very much akin to that of 'territoriality' in animal behaviour, does manifest itself.

The problem most central to the usage of the concept in explaining both human and animal behaviour; and one which remains unresolved in the literature; is that of the origin of territorial behaviour. Scott (1968) maintained that the occurrence of territorial behaviour in human beings was a human invention rather than a basic primate trait - see also Leach in Roos, 1968. 76 - but he conceded that in human beings;

"at this distance in time we cannot tell whether territoriality is a cultural or a biological invention."

(Scott, 1968. 635)

The use of the word 'characteristically' in Hall's (1966. 7) definition of animal territoriality also indicates the dilemma over the cultural or biological origin of the behaviour in animals.

There does remain, however, one minor point of difference between animal and human territoriality. While Scott (1968. 634) referred to "territoriality in the sense of permanent occupation of a specific area and a defence of its boundaries....." in reference to animal territoriality, human territoriality tends to have a more loose definition in that it suggests

"that territory is simply occupied, either permanently or intermittently, by an individual (or group) who then acts as if the property belongs to him."

(Shaw, 1971. 119)

Having covered, thus far, the source of the concept of territoriality in the science of animal behaviour, and having discussed some of the major criticisms of the use of the concept within the behavioural sciences, it is now time to review the literature which attempts to use the concept of territoriality and related concepts for the explanation of human behaviour.

TERRITORIALITY AND THE BEHAVIOURAL SCIENCES

It is a common observation, according to Hall (1966), that individuals tend to assume proprietary rights over space in almost all situations in which several people come together for any length of time. Shaw (1971) and Hall (1966) give examples: unassigned seating for students in a lecture theatre; Dad's chair; and Mum's kitchen; etc. Thrasher (1927), Whyte (1943), Suttles (1968) and Keiser (1969) all use the examples of gangs or groups of people who assume proprietary rights over areas to which they have no economic claim. Such 'territory' is used for the individual's or the group's own business, and intruders are generally chased out, or excluded.

For review purposes, the literature in this field can be organised under four categories, which, coincidentally, tend to reflect an historical sequence.

- I Human Ecology - Studies from Chicago. Begin in the 1920's.
- II Psychological Ecology - Studies from Kansas. Begin 1954.
- III Studies using 'Territoriality' As the Central Concept. Begin in the early 1960's.

IV Studies using 'Territoriality', but giving it another Name. Begin in the late 1960's.

I Human Ecology - Studies from Chicago.

The approach of the Chicago studies to the explanation of human behaviour evolved from the writings of McKenzie in the early 1920's. He focused on the aggregate of individuals - i.e. man's collective life - as the unit of observation. Early studies were, characteristically of urbanisation, and "The City" by Park, Burgess and McKenzie (1925) is typical. According to Hawley:

"the implied hypothesis was that the cumulative effects of an aggregate of individuals pursuing their respective ends in a given environment, and with a given technology, produces a predictable pattern of relationships."

(1968. xii-xiii)

In directing attention to the aggregate-environment relationship, former interdisciplinary boundaries were breached, and this 'human ecological' methodology came to share kinship with Geography, Demography, Economics and the Social Sciences.

McKenzie presented the foundation for his term 'human ecology' by defining 'ecology' as:

"that phase of Biology that considers plants and animals as they exist in nature, and studies their interdependence, and the relation of each kind and individual to its environment."

and 'human ecology' as:

"the study of the spatial and temporal relations of human beings as affected by the selective, distributive and accommodative forces of the environment."

(McKenzie, 1925. 63-64)

McKenzie intended that the environment be regarded as a matter of space and distance, with society being made up of individuals spatially separated, territorially distributed, and capable of independent locomotion.

Out of these foundations there grew at least four significant studies within the behavioural sciences - by Thrasher (1927), Whyte (1943), Suttles (1968) and Keiser (1969). Up to the 1950's, when it was considered by some critics that the method had exhausted itself (Janowitz in Suttles, 1968. vii), two virtual 'classics' had been published. First, there was Thrasher's (1927) "The Gang" - an account of gang life. Although, by today's standards, the work is unsystematic and unscientific, Thrasher found that 'enemies' of the gang were chased from the gang's territory, and, if caught, beaten. Associated with this was his discovery of the fear the resident gang members had of going out of their own areas.

"Thrasher's impression...was that usually the gang becomes fairly well attached to a definite locality and wanders only occasionally beyond its frontiers."

(Short, 1963. 1i)

Second, in "Street Corner Society" Whyte (1943), provided a record of the social order of a slum area of Chicago. Whyte noticed, for example, that within the gang's favourite cafeteria, positions at the tables were fixed by custom, and the rights to these positions were recognised by other 'Cornerville' gangs, (the sort of territoriality also recorded and discussed in Shaw (1971)). Both Thrasher and Whyte recognised the existence of 'home territories' and 'enemy territories' for their gangs. 'Home territories'

were usually located in the immediate neighbourhood in which the boys were living, and about which the gang had very definite ideas as to where the boundaries lay. Beyond the frontiers of the gang's home territory lay the domains of the enemy, which were regarded as unsafe, especially if a member strayed in there alone (Thrasher, 1963. 92-93; Whyte, 1961. 256).

Since the 1950's, two more studies of Chicago slum areas have been made within the Chicago School's 'Human Ecology' tradition, namely those by Suttles (1968), and Keiser (1969). Suttles (1968), retaining a strong urban sociological approach in his investigation into the social order of the Addams slum area, recognised the importance of the locality as a proper element of social structure. He maintained that:

"the most obvious reason for centering in on locality groups is that their members cannot simply ignore one another. People who routinely occupy the same place must either develop a moral order that includes all those present or fall into conflict."

(Suttles, 1968. 7)

Territorial segregation between racial groups was the moral order Suttles identified in his research. Similar segregation can be identified in the gang territories of the Thrasher (1927), Whyte (1943), and Keiser (1969) studies. Keiser (1969) proposed a more complex analysis of the concept of territoriality, as it applies to slum gangs, than did either Thrasher or Whyte. Keiser found that there were three distinct types of territory recognised by the members of the 'Vice Lord' gang. First, there was 'Territory', which was

the space the 'Vice Lords' controlled; second, there was 'Branch Territory', which was the territory spatially separated from 'Territory' of the 'Vice Lords' by 'Territory' of other gangs; and third, there were those sections of the 'Territory' the defence and security of which were the responsibility of sections of the gang. This third category Keiser called 'Section Territory' (Keiser, 1969. 22-27).

From these four studies the relevance of the concept of territoriality to an aspect of human behaviour can be readily recognised. However, studies have yet to establish the relevance of the concept in explaining the behaviour of groups of individuals in non-slum areas.

II Psychological Ecology - Studies from Kansas.

A town in Kansas (United States) became the centre of psychological ecology studies for Barker and his colleagues in the mid 1900's, and those studies comprise the second major era of behavioural research relevant to territoriality. The literature which has resulted from their work - Barker and Wright (1954), Barker (Ed) (1963), Barker and Gump (1964), Barker and Wright (1966), Barker (1968) - has firmly established the concept and methodology of psychological ecology within the behavioural sciences.

The term 'psychological ecology' was based on the Greek word 'ecology' - meaning 'home' or 'homeland'.

"In the biological sciences, ecology refers to the study of the relations between the homelands or habitats of plants and animals and their functions, structures and population characteristics. The present study is a psychological analogue of this concept of ecology.

It is concerned with the psychological habitats of Midwest children, and with the structure, dynamics and content of their behaviors in these habitats."

(Barker and Wright, 1954. 1)

Certain strong similarities between this rationale and that of the human ecology school can be identified, but no reference to the McKenzie-type studies is made in any of the psychological ecology literature to date. The Kansas studies appear to be completely autonomous and, in a manner of speaking, ego-centric-i.e. they refer to earlier Kansas studies for support for current work, rather than using 'outside' references.

The contribution of the psychological ecology group to the behavioural sciences has been that:

"Ecological psychology is concerned with both molecular and molar behavior, and with both the psychological environment....and the ecological environment."

(Barker, 1968. 1)

Necessarily, the development of methodology and concepts has comprised much of the work, (Barker and Wright, 1954; Barker and Gump, 1964; Barker, 1968), and this, rather than findings per se, appears most relevant for research into human territoriality. The concepts of 'behavior setting' and the associated 'Territorial range' are germane. Both are dealt with below.

The Behaviour Setting.

In "Midwest and Its Children" Barker and Wright (1954) discuss the etiology of the term 'behavior setting' putting forward the alternatives 'behavior episodes' and 'standing

behavior patterns' before settling for 'behavior setting', because of its empirical and theoretical strength. Much has been written on the definition and identification of behaviour settings- Barker and Wright (1954), Barker and Gump (1964) - with the most thorough definition being presented in Barker (1968). Here Barker defined a 'behavior setting' in terms of both structural and dynamic attributes.

"On the structural side, a behavior setting consists of one or more standing patterns of behavior-and-milieu, with the milieu circumjacent and synomorphic to the behavior. On the dynamic side, the behavior-milieu parts of the behavior setting, the synomorphs, have a specified degree of interdependence among themselves that is greater than their interdependence with parts of other behavior settings."

(Barker, 1968. 18)

Barker then proceeded to analyse each specific attribute of his definition, but, in simple terms, all that is meant is that a 'behavior setting' consists of both physical components and overt behaviours. These have the following characteristics:

- " a) one or more regularly occurring or standing patterns of behaviour;
- b) behaviours which are compatible with and closely related to the physical characteristics of the place in which the behaviours occur;
- c) temporal and physical boundaries."

(Wicker, 1972. 267)

According to the theory of behaviour settings (Barker, 1968), a person who inhabits and contributes behaviour to a setting is a component of that setting.

"As such, he is anonymous and replaceable, and his behavior is subject to the nonpsychological laws of the superordinate unit. At the same time, however, every inhabitant of a behavior setting is a unique person subject to the laws of individual psychology, where his own private motives, capacities and perceptions are the causal variables."

(Barker and Gump, 1964. 17)

The behaviour setting method of analysing human activity has been used most widely within the context of the Kansas studies, but as early as 1956, Sutton-Smith and Gump were applying it to compare the attributes of two, presumed different, settings within a boys' camp in the United States.

Their objective was:

"to show that each of these play-settings has a distinctive social climate which has its effect upon the social behavior of the children involved in that setting."

(Sutton-Smith, 1956(b). 59)

(For more on social climates, see Simpson, 1963).

Wicker (1972), who did not belong to the Kansas fraternity, has also put forward a definition of the 'behavior setting'. He contended that use of the behaviour setting unit of analysis answers three questions:

What takes place?

Where does it take place?

When does it take place?

(Wicker, 1972. 267)

He maintained, however, that a fourth question should also be answered when using this approach - Why does it take place? In attempting to broaden the behaviour setting unit of analysis to cover this fourth question, Wicker used Barker's

(1968) framework from the theory of behaviour settings. Wicker stated that Barker's basic assumption in behaviour setting theory was that people obtained satisfaction from the settings they occupied, and that they actively sought to maintain these settings. In order to maintain personal satisfactions, people employ either 'maintenance mechanisms' - to deal with events within or outside the setting which are judged to be disruptive or potentially dangerous to the setting's continued existence - or 'operating mechanisms' - when they wish to continue the standing patterns of behaviour in the setting and continue to receive the satisfactions.

The term 'behavior setting', then, has close affiliations with the concept of territoriality on both a definitional level, (Wicker, 1972. 267, and Carpenter, 1958. 228) and on an application level, in that they both give explanation to similar human behaviour.

Territorial Range.

People and groups inhabit a number of different behaviour settings. 'Territorial range' refers to the number of different community behaviour settings involved. The 'range' is supplemented by the terms 'occupancy time' and 'territorial index'. The former is the amount of time spent by a population subgroup in particular settings or groups of settings, while the latter is the percentage of all identified community settings which a population subgroup inhabit. The 'occupancy index' is the percentage of the total occupancy time which the subgroup spends in a setting or group of settings.

Measurements of these elements of behaviour can be converted to 'territorial range maps' (Barker and Wright, 1954. 99, and 152-176). The significance of these four elements is that they can be identified and used as a viable method of analysis and comparison between various population subgroups - once the universe of behaviour settings has been specified.

III Studies Using 'Territoriality' as a Central Concept.

Hall (1959. 187-209; 1966. 107-122) developed the concept of territoriality in humans in his theory that space or distance between people is an important feature of communication. In 1966, Hall put forward what he called 'The Anthropology of Space - An Organising Model'. In this he claimed that territorial behaviour for any given stage of life was quite fixed and rigid.

"The boundaries of the territories remain reasonably constant, as do the locations for specific activities within the territory.The territory is, in every sense of the word, an extension of the organism which is marked by visual, vocal and olfactory signs."

(Hall, 1966. 97)

Further, Hall suggested that man created material extensions of territoriality as well as visible and invisible territorial markers. Hall was one of the first researchers to use the concept of territoriality, per se, in the explanation of human behaviour, although the definition he used was not too far different from either 'behavior setting' (Wicker, 1972. 267), or from a human ecology approach to environment and activity within it (McKenzie, 1925). The use of the term 'territoriality' within behavioural research, however, marks a clear

third era in the appropriate literature.

From his definition of territorial behaviour, Hall (1966) drew three organising terms. The first he called 'Fixed feature space.' This space included material manifestations as well as the hidden, internalised designs that govern behaviour as man moves about. He specified such features as buildings, kitchens, bedrooms and dining rooms. 'Semi-fixed feature space', the second of Hall's organising terms, are those spaces in which material or fittings, such as furniture, can be shifted to a different part of the space. Hall pointed out that what would be seen as 'fixed feature space' in one culture could very well be 'semi-fixed' in another. The third type of space which Hall organised human behaviour around, was that of 'informal space'. Here, the distances people maintain between themselves and others during encounters were elaborated. Hall maintained that these distances could be classified into

- i) intimate distance;
- ii) personal distance;
- iii) social distance; and
- iv) public distance

the distance being defined by the civil relationship between those in the encounter. Around each of these encounters Hall maintained that there was an unseen boundary, which delimited the encounter territory.

Shaw (1971), in establishing his organising terms, used research similar to that which Hall had used when constructing his theory of space. Shaw, however, used his own conception of the nature of territoriality when he distinguished between 'individual territoriality' and 'group territoriality'. Individuals usually assume, according to

Shaw, territorial rights over spatial objects such as tables - (refer also to the cafeteria example from Whyte, 1961. 256), - chairs, beds, and even rooms, while group territoriality differs from this in two ways:

"First, it is the group qua group that establishes territorial rights and defends against invasions. Second, the areas are usually larger and sometimes less clearly delimited than in the case of individual territoriality."

(Shaw, 1971. 121)

There are obvious similarities between Shaw's first point and that of the individual being subject to the nonpsychological laws of the superordinate unit (Barker and Gump, 1964. 17). Once again there appears the definitional similarity between the 'behaviour setting' and 'territoriality'.

Shaw also spent some time discussing the paper by Lyman and Scott (1970), in which the authors establish the link between the concept of 'territoriality' and those of 'boundary' and 'defence'. They set out, first, to categorise the types of human territoriality which they differentiate - public territory; home territory; interactional territory and body territory - after which they use these types of territoriality as a framework within which to discuss how some deprived groups cope with certain aspects of territoriality - or lack of it. 'Public territory' is territory in which the individual has freedom of access, by virtue of his citizenship, but within which he does not necessarily have freedom of action. Within such territories certain expectations of behaviour may be enforced; e.g. expectations relating to behaviour in a public park may be enforced

by the police. 'Home territory' is that in which the regular participants have a relative freedom of behaviour and a sense of intimacy and control over the area. Keiser (1969) would subdivide this category into his three types of group territory - territory, branch territory and section territory. 'Interactional territories' are those areas where a social gathering may occur. Lyman and Scott (1970) maintained that surrounding any interaction there will be an invisible boundary - see also Hall (1959, 1966) - which is a kind of social membrane, and the territory thus defined is maintained for the duration of the interaction. This type of territory seems to parallel that of the 'behavior setting' of the Kansas studies. 'Body territories' are those areas occupied by the human body, and the anatomical space of the body. Upon each of these four types of territory Lyman and Scott (1970) enumerate three forms of identifiable encroachment - violation, invasion and contamination. The methods of handling such encroachment were said to be either 'turf defence' - the exclusion of the non-members - 'insulation' - the placing of a barrier between the invader and the invaded - or 'linguistic collusion' - the verbal ostracism of the invader by those who inhabit the territory.

The model of territoriality and territorial defence postulated by Lyman and Scott (1970), is, to date, the most generally applicable model for varying aspects of human activity. Whereas the Thrasher (1927), Whyte (1943) and Keiser (1969) models of territoriality apply specifically to their appropriate gang samples, the Lyman and Scott model appears to account for both individual and groups territoriality. However, the Lyman and Scott model appears to

be applicable to a situation at only one point in time. It does not contain any dynamic aspect with which to trace the change of territory from for example, a 'public territory' to a 'home territory' - as seen in the case of Keiser's Vice Lord gang's 'Territory'. Lyman and Scott also elucidate only rejection-type reactions to encroachment in to territory, as exemplified in the Thrasher and Whyte studies. However, does this mean that there are no circumstances in which encroachment would be met with acceptance-type reactions from the inhabitants of the territory - similar to that found in some animal behaviour? (Ardrey, 1969. 250). Such shortcomings can only be rectified through more applications of the model to actual behavioural situations, and appropriate modifications being made to the model as a result.

While there appears to be no significant development towards a universally acceptable definition of territoriality for human behaviour, writers and researchers have tended to approach the matter by setting up definitions which, while actually defining territoriality, can only be used within the context of their specific study or theoretical framework. Lyman and Scott (1970) provide a good example of this, while Hulbert (1971. 3) used the concept of territoriality merely "as an organising concept to describe and explain the use of space by classroom inhabitants." Again, Eigenbrod (1969. 2329) used ownership - in the sense of occupancy - as his basis for defining territoriality, while Krupka (1970. 3877) studied the problem of those actions which constituted invasions of territory among College students. Loomis and

Loomis (1965), in a summary of the contributions of some modern American social theorists who have used the term 'territoriality', frequently pointed out that most of the applications occurred within urban sociology with reference to the physical proximity of groups. In this case, territoriality was viewed almost solely within its spatial aspect. Still other uses of the concept of territoriality have been recorded in a variety of research applications. Labowitz (1966) used 'territorial differentiation' as an index of the difference between various societies; Doolin (1966) used the term 'territoriality' in a review of international relations; Barkman (1972) referred to the perceived territory of teachers; Stoltman (1972) studied the development of 'territoriality' in children's perception of space; and Marinescu (1966) coined the term 'territorial indicies' in his statistical comparisons between various indicators in two or more enterprises, districts, regions, or countries in the field of agriculture. All these are an indication of the proliferation of studies using the concept of territoriality in an attempt to explain some aspect of human behaviour. The proliferation of studies relevant to the concept's application in the social sciences is the main feature of this third era of territorial studies among humans.

IV Studies Using 'Territoriality', But Giving It Another Name.

This final section of the literature differs from the other three in that, unlike the first and second categories, this category offers no new framework within which to apply

the concept of territoriality to various types of human activity. Unlike the third category, which introduces the actual concept of territoriality within the theoretical framework, this fourth category covers those studies which use concepts very closely related to territoriality.

Goffman's (1969. 92-122) term 'regional behavior' has much in common with the territoriality concept. Goffman defined a 'region' as being any place that is bounded to some degree by barriers to perception. He suggested that when a 'performance' is given, boundaries with respect to time are often added. (In Goffman's writing, the term 'performance', and others, are consistent with the dramaturgical model which he sought to expound, to explain certain human behaviours).

"The impression and understanding fostered by the performance will tend to saturate the region and time span, so that any individual located in this space-time manifold will be in a position to observe the performance and be guided by the definition of the situation which the performance fosters."

(Goffman, 1969. 92)

This quotation reflects important elements of the concept of territoriality which have been discussed by other writers. For example, it has marked similarities with 'behavior setting' characteristics (Wicker, 1972. 267). In fact, Goffman does refer to the Barker and Wright studies, as a footnote, and in his reference he acknowledged that Barker and his colleagues have established the senses in which expectations regarding conduct come to be associated with particular areas. (See also Lyman and Scott, 'Public Territory', 1970. 306).

Goffman, in elaborating his model, employed terms such as 'front region', 'audience', 'decoram', 'sanctions', 'back region', 'outside region', and 'intrusion'. Here again, although presented in a conversational manner, there is another attempt at structuring and identifying the types of human territoriality (regions) in which behaviour takes place. Again, the spatial element of territoriality is to the fore, in a form which is specific to the settings for which it was conceived and with little wider application possible. While Lyman and Scott (1970) listed three reactions to encroachment of others in to occupied territory, Goffman suggested that an intruder may be handled by:

"having those present submit to a definition of the situation into which the intruder can be incorporated. A second way of handling the problem is to accord the intruder a clear cut welcome as someone who should have been in the region all along."

(Goffman, 1969. 121)

Here, at last, is the proposition that encroachment or intrusion into others' territory may be met by acceptance-type reactions.

Although unstated in either the Lyman and Scott (1970) article, or in the Goffman dramaturgical model (1969), it would appear that the perceived intention of the intruder, as much as his appearance or behaviour, has a great deal to do with the kind of reception he is given.

Roos (1968. 75-83) is another who used the concept of territoriality but called it by another name - jurisdiction. (The term is also used in the social theories of Talcott Parsons (Loomis and Loomis, 1965. 424)). Roos' justification for the use of the term 'jurisdiction' was that:

"as a result of a ship's design, the high density of personnel, and the intricate social structure, not all shipboard spatial behaviour can be dealt with in terms of territoriality or personal space."

(Roos, 1968. 77)

He proposed that the term 'jurisdiction' be defined, from 'Webster's', as "authority or power in general; the range of authority; the territorial range of authority."

On board ship, jurisdiction gives the sailor temporary defence of space during which time he can carry out specialised duties - in this case, cleaning, washing and polishing the ship. Roos also suggested that jurisdictional, like territorial behaviour, has the social function of helping to order shipboard life.

"We can speak of two distinct types of jurisdiction:

- a) over a space for a specific, and rather short time, and
- b) over things which may or may not be dispensed."

(Roos, 1968. 77)

Roos' study discussed these two types of jurisdiction in relation to the 'field day' activities aboard a warship.

Roos considered that jurisdiction could be understood as being 'temporary territory'.

"Those who exercise jurisdiction (for janitorial purposes) displace those who exercise territorial prerogatives (e.g. employers) - who usually have higher status - or inmates - who usually have lower status."

(Roos, 1968. 79)

He concluded that although the characteristics of human territoriality were not universally agreed upon, territorial behaviour maximised control over space to enhance positive

values. Jurisdiction, on the other hand, is generally forced onto an individual or group by the structural nature of the specific social surroundings.

While Goffman's (1969) and Roos' (1968) works are closely related to the actual term 'territoriality', some other studies used terms which are part of the broader concept of territoriality - namely 'conflict', 'defence' and 'boundary'. First, there is the term 'boundary' which Miller (1971. 310) defined as:

"the subsystem at the perimeter of a group that holds together the components which make up the group, protects them from environmental stresses, and excludes or permits entry to various sorts of matter-energy and information."

A matter-energy boundary is maintained by soldiers, guards or a sergeant at arms, while teachers, who regulate the information flow, are seen as being maintainers of an information boundary. Boundaries in general, according to Miller, have such characteristics as:

- "a) a very complex shape within the dimensions of space and time;
- b) physical separateness and independent mobility of their component organisms which give the boundary structure;
- c) artifacts which supplement the boundary - artifacts such as rooms, buildings, fences, or walls;
- d) territory within the boundary."

(Miller, 1971. 310-313)

Sutton-Smith (1971. 103-110) viewed the term 'boundary' as a problem associated with the entering or leaving of children's games. He maintained that in some children's

activities, like sports, the spatial and temporal boundaries are usually fixed, whereas in free play games such as chasing, entry and exit are more likely to be loose, and the spatial arrangements more pliant. He also maintained that individuals go about their boundary transitions in different ways but most frequently by use of a set of metacommunications which indicate an intention to cross a boundary. This normally consisted in making one's actions acceptable to those who already occupied the territory. Once inside, integrating techniques such as complying, apologising, assisting and promising prevent the boundaries from breaking down.

Goffman (1963. Chap. 9) discussed the idea of communication boundaries between people in an 'encounter'. An 'encounter' appeared to be another name for what Hall (1959) called 'personal space', and what Lyman and Scott (1970) called 'interactional territory'. Entry into many social encounters is made, according to Goffman, via socially acceptable and defined means - e.g. by attracting the attention of those involved before engaging in oral communication - and thus taking cognizance of the boundary around them. Then followed the usual 'discussion application', which is a feature of Goffman's work.

These three studies, along with the relevant sections of Barker and Wright (1954), Hall (1959,1966), Keiser (1969), Lyman and Scott (1970), Miller (1971) and Shaw (1971), all establish quite firmly the connection between 'territoriality' and 'boundary'.

Two other terms which are similarly bound to the concept of territoriality are those of 'defence' and 'conflict'

Boulding (1962. Chap. 1) attempted to present a general theory of conflict. In this he explained conflict in terms of two parties (behaviour units) in conflict within 'behaviour space', which was defined as being all the possible future positions of the behaviour unit. The behaviour units were said to be either in 'conflict' or 'competition', and in either situation, the unit has a choice of positions (or actions) open to it - limited only by the 'boundary of possibility'. The theory was then developed through explanation of 'rational behaviour' in mathematical/economic terms. Later Boulding (1962. 113) suggested that in groups where the members were contiguous, in the sense that they occupied a well-defined area (territory), and in some kind of space from which members of other groups were excluded, the conflict would usually be manifested in attempts to move the boundary line.

While 'defence' and 'conflict' appear as inseparable partners in much of the literature - Boulding (1962), Lyman and Scott (1970), Thrasher (1927) - Fawls (1963. 99-127) used the term 'disturbance' to refer to the behaviour which other writers would have called 'conflict'. In his original definition of the term 'disturbance', Fawls defined it as being:

"an unpleasant disruption
in the ongoing feeling tone of immediate awareness
evoked by, and in reference to,
a discernable event or situation.

(Fawls, 1963. 100)

Such events were identified from specimen records of five children from the Barker and Wright studies. The records included reports of experientially disturbing incidents in

the children's behaviour. It does not seem impossible, using Fawl's definition, to apply the term 'disturbance' to the behaviour which occurs as a result of the breaching of territorial boundaries of children's free play activities. Such a term would allow for both the reactions to encroachment listed by Lyman and Scott (1970), which could be termed 'rejection reactions', and those suggested by Goffman (1969), which could be termed 'acceptance reactions'.

From the discussions above, the behaviour which animal researchers have termed 'territoriality' has also, apparently, been identified in a variety of different segments of human behaviour. In fact, some writers - the Ethologists - maintain that:

"In some respects there exists a surprising agreement in the social behaviour of animal and human groups, so that one may be encouraged to hope that animal psychology could be useful in discovering laws that also govern the social life of human groups."

(Katz in Eibl-Ebesfeldt, 1970.
305)

Arguments for an against the point of view that concepts can be applied equally well to the analysis of both animal and human behaviour have been outlined above. The frequent use of the term 'territoriality' by social scientists indicates a certain degree of support for the term in the explanation and description of human behaviour. However, very few studies of human behaviour, which have employed the concept of 'territoriality', have analysed the appropriateness of the concept in that application. The objective of the following thesis is to enter into such an analysis.

CHAPTER 2BEHAVIOUR SETTINGS, TERRITORIES, AND PUPIL ACTIVITIES

The contents of the previous chapter indicated the extent to which the concept of 'territoriality', which originated in studies of animal behaviour, has permeated the study of human behaviour. It also showed that there is both support for the acceptance of the territoriality concept in the description and explanation of aspects of human behaviour, (Hall, 1959, 1966; Lyman and Scott, 1970; Shaw, 1971), and oppositions to it (Leach, in Roos, 1968; Sherif and Sherif, 1969). The objective of this present investigation, which has its origins in this debate, is to explore the relevance of the 'territoriality' concept to one specific aspect of human behaviour - that manifested in the school playground.

If the concept of 'territoriality' is to be usefully applied to the study of human behaviour, one of the first issues to be resolved is whether or not definite human territorial areas can be identified. The present chapter is principally concerned with this question.

There is immediate, common-sense verification of the 'fact' that human territories do exist - in the geographical organisation of human communities into a series of 'localities' or 'territories', such as urban/rural; suburb/county/riding; house/flat; and so on. However, whether or not these geographically defined territories are also behavioural territories is part of the broad issue under question, and the school

provides the opportunity for an examination of this question.

The school, as a small social system, has its geographically defined territories which are functionally equivalent to others in the broader community in which it is embedded. The school's territories would include inside/outside; departments; classrooms; Forms; Offices; and playing areas. The focus of this part of the investigation, however, is with the 'informal' territories that pupils might or might not create in the playground environment. It is concerned with whether or not the pupils actually devise territories while engaged in their activities during school intervals. During these intervals, the pupils, according to James (1953) tend to congregate in 'free forming small groups'.

"Free forming small groups are those whose members are relatively free to maintain or break off contact with one another, that is they are ones where informal controls on behaviour are at work, and spontaneity at a maximum."

(James, 1953. 569)

Such freely-formed groups were the basis of a study into what turned out to be the positive relationship between group size and the socio-economic level of the pupils.

"It was found that group size tends to increase with both age and socio-economic level and the most frequent group size is two, with the exception of top grade, high socio-economic level children, for whom the dominant size is four."

(Eifermann, 1970. 161)

The range of group sizes observed in the Eifermann studies was from two to 47 members.

Barker and Wright (1954), in evolving their theory of 'behaviour settings', also included observations of groups of pupils in the school playground. A 'behaviour setting' is a

unit of analysis of human behaviour which takes into account not only the overt behaviour of the members of the setting, but also the physical components of the setting which may constrain the members to behave in certain ways. According to Barker and Wright (1968), and Wicker (1972), a behaviour setting has the following characteristics:

- a) one or more regularly occurring or standing patterns of behaviour;
- b) behaviour patterns which are compatible with, and closely related to the physical characteristics of the place in which the behaviour occurs; and
- c) temporal and physical boundaries.

Some of the behaviour settings identified by Barker and Wright (1954) include High School Boy's Baseball Game, High School Football Game; Primary School Coatrooms, Football Field, Primary School Playground, and the High School Junior Class Meeting, to name but a few.

Many researchers have made use of the behaviour setting unit of analysis in describing and explaining various aspects of human behaviour. Among these studies is the work of Sutton-Smith (1956) - which was completed under the direction of Gump, a colleague of Barker and Wright - into the way in which different play settings, namely swimming and craft settings in a camp for boys in the United States, have different effects upon the participants' social behaviour. The conclusion arrived at was:

"that each play setting sets up its relevant types of social interaction which have an important effect upon the participants according to their stage of social development."

(Sutton-Smith, 1956(a). 59)

The behaviour setting unit has proven to be a useful organising concept to describe and explain the use of space by human groups. The characteristics of a behaviour setting, however, are also the characteristics of the concept of 'territoriality'. Territoriality, as defined by the Ethologists, features a patterned use of space, and can be defined as follows:

"a behavioural system, which is expressed in a spatial-temporal frame of reference."

(Carpenter, 1958. 228)

The congruence between this definition of territoriality and the characteristics of a behaviour setting recorded above, are apparent - the terms are virtually synonymous.

For the present study, then, the initial quest to be undertaken is to find evidence of the existence of behaviour settings.

Procedures.

Wicker (1972) offers some pertinent advice.

"The process of identifying and describing behaviour settings requires non-interfering, unobtrusive observers, who note the physical and temporal aspects of the setting, as well as the patterns of behaviour which occur."

(Wicker, 1972. 267)

Heeding Wicker, it was decided that teacher observers would be drawn from the school selected, as they were likely to be the most unobtrusive observers available for the environment. An observation strategy was designed - the details of the evolution of which are described below.

Preliminary Preparations.

Given that the data required to establish the existence of a behaviour setting involves the identification of behaviours or patterns of behaviour which occur regularly, the first problem was that of creating a method for recording such information. It was decided that the five observers would spend the intervals of one school day walking around the playground noting the activities in which the pupils were engaged. The activities were to be identified on the basis of the equipment and markings being used. In their absence, the everyday behaviour of the members was to become the basis for identification. Under no circumstances were the observers to interfere by questioning the players about their activity. (This approach became the norm for all further observations in this piece of research). From the notes made, a master list of all the activities was compiled. This master list was then used on the following day for the observers to check each activity they observed being performed. At the end of this trial, all those activities which were not checked were removed from the list. Those activities which remained became the activities listed on an observer's formal record sheet, (See Figure 2), which was to be used during the observation preparations and in the data collection.

During the initial casual observations of activities, the observers encountered their own territoriality problem. They continually met each other, and observed the same activities. Consequently it was decided to set up 10 autonomous observation zones (See Figure 1). Each observer

Figure 1. The Observation Zones.

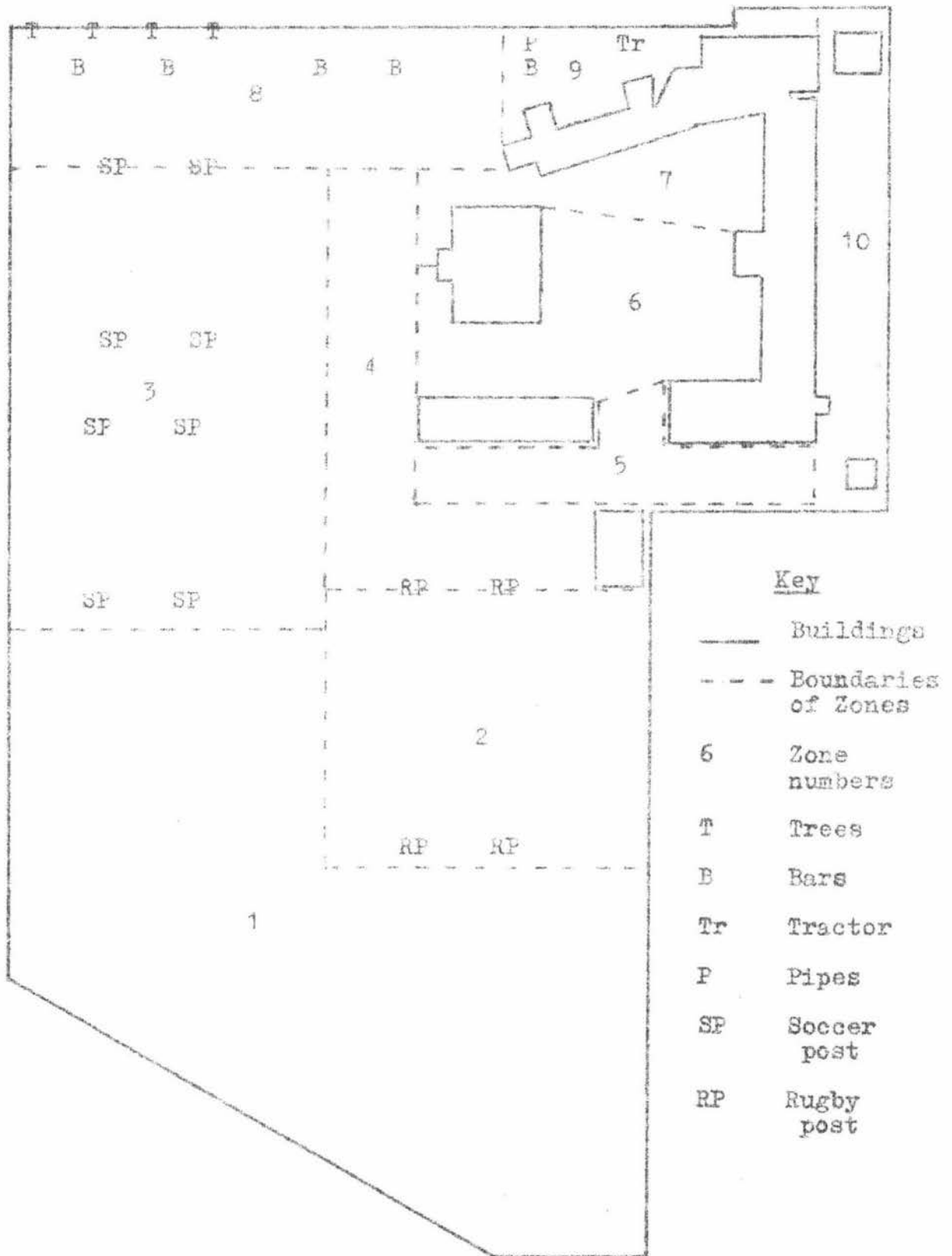


Diagram not to scale.

assumed responsibility for two of these. As shown in Figure 1, each zone was, where possible, delimited by clear boundaries - such as football field sidelines, fences, paths, trees, limits of hard seal, and buildings. The observers took responsibility for the zones as follows:

Observer A	Zones 1 & 2;
Observer B	Zones 3 & 4;
Observer C	Zones 5 & 6;
Observer D	Zones 7 & 8;
Observer E	Zones 9 & 10.

The heaviest concentrations of pupil activity observed during master list observations were found in, what subsequently became, Zones 2, 3, 6, 8 and 9 - i.e. one zone of each observer's pair.

Given the final activity list, and the observation zones, another trial observation was carried out. The activities of each zone were checked on the observer's record sheets. Afterwards, when assessing the worth of each sheet, some modifications were mooted and adopted. First, identification specifications - date, and zone number spaces - were added to the sheets, so that confusion during any collation of information could be avoided. Second, it was decided that the numbers and sex of those engaged in each activity should be recorded. Third, in order to standardise the time of observation, and to take account of the 'regularly occurring' characteristic of a behaviour setting, three 'counting times' were agreed on. These were 10.30 a.m., 12.20 p.m., and 12.40 p.m. The first two counting times were set at 10 minutes into a 15 and 40 minute interval, respectively. These times gave the pupils a chance

to finish eating and join in an activity before the observations were made. The 12.40 p.m. counting time, which was 10 minutes before the end of the 40 minute interval, gave pupils the time to either start a new activity, change from one activity to another, or to return from having lunch at home and join in an activity. The final form of the record sheet, complete with identification data, activity list, and counting time recording space, is shown in Figure 2.

The observation zones, and the observation recording sheets were then tried out. The task - counting the number of pupils engaged in each activity - proved to be too difficult. Not enough time existed between the 10.30 and 12.40 counting times and the bell - at 10.35 and 12.50 respectively - for the observers to record all the information required for both their zones. It was decided, therefore, that each observation should take two consecutive days - thus enabling the observers to record the information from one zone at each counting time. Over the two days, however, each zone would be observed at each of the three different counting times. The organisation for the two day observation was as follows:

<u>Observation</u>	<u>Day 1</u> - 10.30 a.m. and 12.40 p.m.
	Zones 1,3,6,8,9 observed.
	- 12.20 p.m.
	Zones 2,4,5,7,10 observed.
	<u>Day 2</u> - 10.30 a.m. and 12.40 p.m.
	Zones 2,4,5,7,10 observed.
	- 12.20 p.m.
	Zones 1,3,6,8,9 observed.

FIGURE 2. THE OBSERVATION SHEET

Date _____ Zone Numbers _____

What were the pupils in your zone doing?

<u>Activity</u>	<u>Zone</u> _____		<u>Zone</u> _____	
	10.30 a.m.	12.20 p.m.	12.40 p.m.	
	<u>BOYS/GIRLS</u>	<u>BOYS/GIRLS</u>	<u>BOYS/GIRLS</u>	
1. Bar Play	____/____	____/____	____/____	
2. In Bike Racks	____/____	____/____	____/____	
3. Chasing	____/____	____/____	____/____	
4. Creative Play	____/____	____/____	____/____	
5. Creeping up Game	____/____	____/____	____/____	
6. Eating	____/____	____/____	____/____	
7. Fighting	____/____	____/____	____/____	
8. Following Teacher	____/____	____/____	____/____	
9. Four Square	____/____	____/____	____/____	
10. Hopscotch	____/____	____/____	____/____	
11. Jumping Games	____/____	____/____	____/____	
12. Knitting	____/____	____/____	____/____	
13. Large Ball Activity	____/____	____/____	____/____	
14. Marbles	____/____	____/____	____/____	
15. Netball	____/____	____/____	____/____	
16. Reading	____/____	____/____	____/____	
17. Rugby	____/____	____/____	____/____	
18. Sitting Alone	____/____	____/____	____/____	
19. Sitting Talking	____/____	____/____	____/____	
20. Skipping Games	____/____	____/____	____/____	
21. Small Ball Activity	____/____	____/____	____/____	
22. Soccer	____/____	____/____	____/____	
23. Sports Practise	____/____	____/____	____/____	
24. Standing Talking	____/____	____/____	____/____	
25. Swinging or Climbing trees	____/____	____/____	____/____	
26. Undefined Activity	____/____	____/____	____/____	
27. Other identifiable activity - specify	____/____	____/____	____/____	
_____	____/____	____/____	____/____	
_____	____/____	____/____	____/____	

Again, the strategy was put to the test. From the trial, the observations accounted for over 80% of the pupil population, and the observers all expressed satisfaction as to the ease of recording. The strategy was thus deemed adequate for the purpose of collecting the required data.

Data Gathering Observations.

The observers were all briefed with regards to the requirements of both the recording and the observation of the activities. The observers were requested to identify, on their Observation Sheets, each separate group of pupils engaged in any one activity, as well as the number and sex of the pupils involved.

In order to establish the 'regularity' of any activity in any zone, it was decided that there should be two full observations - each taking two consecutive days. The organisation for the first observation was the same as that used in the earlier trial. For the second, so as to avoid any patterning effect, the daily organisation of the first observation was reversed.

The two observations of the activities of the \pm 540 pupils at the primary school involved were matched on weather conditions. The first observation was conducted over two consecutive fine, but frosty days in June, and it was not until late July that similar weather conditions came again.

Findings.

Over the four days of observation, the observers accounted for from between 74% and 90% of the pupil population

of the school. The missing were presumed to be:

- inside the buildings and out of sight of the observers;
- passing between zones at the time of the count, and being missed by both observers;
- out of sight of the observers within the zone, such as being behind a tree, or in a hedge;

or

- during the lunch counting times, being out of the school grounds getting or having lunch.

Behaviour Settings.

In order to determine whether or not behaviour settings existed, the observed data were examined for the presence of the three characteristics which Wicker (1972. 267) outlined: viz,

- 1) regular occurrence of the behaviour patterns;
- 2) behaviour compatible with the physical surroundings;
and
- 3) temporal and physical boundaries to the behaviour settings.

1) Regularity of the behaviour: For an activity to be considered as occurring regularly, it had to show up in the data on at least five of the six counting times for any one zone. The activity would, thus, have been performed in the same locality on at least three of the four observation days. Eleven activities fulfilled this criterion. These were - with the frequency and Zone number in respective columns after the name of each activity -

Rugby	6	Zone 2
Soccer	6	Zones 3 and 8
Skipping Games	6	Zones 5, 6 and 7
	5	Zone 9
Bar Play	6	Zone 8
	5	Zone 9
Tractor Play	5	Zone 9
Pipe Play	5	Zone 9
Hut Building	5	Zone 8
Chasing Games	5	Zone 8
Jumping Over the		
Rope Games	5	Zone 4
Kicks	5	Zone 4
Walking through	6	Zone 6
	5	Zones 4, 8 and 9

2) Activity in 'compatible' surroundings: Rugby and Soccer activities were pursued on a grassed surface, normally designated for these activities, which contained the requisite goal posts. The Bar Play, Tractor Play, and Pipe Play all took place on the piece(s) of equipment indicated by the name of the activity - again; activity compatible with the environment. The location of a portable piece of equipment, the skipping rope, determined the exact location of both the Skipping Games, and the Jumping Over the Rope Games. These games were found to be in areas not marked for any other game and away from obstacles. In the case of the Jumping Games, the surface was grassed. Again, a compatible environment for both the activities. The trees attracted those who wished to build huts, and the remaining three activities - Kicks, Chasing Games, and Walking Through -

all require open spaces, in which they were all observed.

All the activities were found to be performed in an environment compatible with the activity.

3) Temporal and physical boundaries: This third characteristic presented no problem as far as the temporal boundary aspect was concerned. All the activities were bounded by the times set by the school's administration, in accordance with the local Education Board's Bylaws*.

Although the boundaries of the school could have been taken as being adequate for the fulfilment of the physical boundary characteristic of a behaviour setting, the boundaries referred to by both Barker (1968) and Wicker (1972) are more specific than this. Barker maintained that the boundaries referred to were a 'precise and delimited position in time and space' (Barker, 1968. 18). The boundaries serve, continued Barker, to separate settings. Taking the school playground as being the 'space', the boundaries referred to as 'physical boundaries' must be within that space. Using this interpretation of a 'physical boundary', the 11 activities measure up as follows:

- a) Rugby - this activity took place in Zone 2 within the markings and posts provided.
- b) Soccer - this activity took place in two Zones. In Zone 3, the activity was performed within the Soccer fields' markings and posts, while in Zone 8,

* Bylaw Number 27. Wanganui Education Board, 1968.
'Except with the prior approval of the Board, the recess between morning and afternoon school shall not be less than one hour. At a convenient time during morning school there shall be an interval not exceeding 15 minutes, and during afternoon school, there may be an interval not exceeding five minutes.'

the boundaries were less clearly defined. They were found to be the goal line of the Soccer field, a tin fence, the bars, and an extension of the sideline of the Soccer field.

- c) Skipping and Jumping Over the Rope Games - in both these cases, the activity was performed by several groups of pupils. The boundaries between them were in terms of the pupils holding the rope, the queue of waiting players, and, in the case of the skipping, the turning rope. In the case of the jumping games, the landing area of the jumpers marked the third boundary.
- d) Bar Play, Tractor Play, and Pipe Play - these activities all took place at the location of the equipment, with obvious boundaries, i.e. the equipment itself.
- e) Building Huts - the boundaries of this setting were the tin fence on two sides, the path, and the end of the tree line on the fourth.

The other three activities - Chasing Games, Kicks, and Walking Through - were all observed to be activities which could encroach within the boundaries of other activities - even for very short periods of time. In the case of Chasing, for example, the game was observed to be anywhere the players were, within the school's boundaries. Similarly, the Kicks activity was located basically within Zone 4, but in actual fact, it was anywhere the ball happened to go within the grassed area of the school grounds. As for the Walking Through activity, it appeared to have no physical boundaries at all - and it was never observed to involve more than one person at a time. It could be said that this activity did not involve physical boundaries of any kind, beyond the skin of the individuals, and because of this fact, it is not

relevant to a study of group behaviour settings. These three activities did not exhibit any physical boundaries which separated them from other activities, and therefore, did not meet the third characteristic of a behaviour setting.

The analysis shows that behaviour settings were identified. From the observation sheets, the number of settings for each activity were as follows:

Rugby	1, in Zone 2
Soccer	2, in Zone 3 1, in Zone 8
Skipping Games	3, in Zone 5 6, in Zone 6 4, in Zone 7
Bar Play	5, in Zones 8 and 9
Tractor Play	1, in Zone 9
Pipe Play	1, in Zone 9
Building Huts	1, in Zone 8
Jumping Games	2, in Zone 4.

Discussion.

The behaviour settings identified in this piece of research involved approximately 60% of the pupil population at each observation. The remaining 40% were pupils who engaged in non-regularly occurring activities, such as Four Square, Large Ball Activity, and so on. Other well populated activities noted ~~was~~ were Following the Teacher, and Sitting and either talking or watching others at play. The identified behaviour settings also occurred in zones other than

those noted above, but not with the same frequency of regularity. Other activities, such as Four Square, would have undoubtedly qualified as behaviour settings had they occurred the required number of times in the data.

From the findings it appears that there existed within the school boundaries, a place for Rugby, a place for Soccer, a place for Skipping, and so on. It is the regularity and consistency with which the pupils perform the same activity in the same location which gives support for the contention that activity territories exist in the playground. These activity territories have become a convention among the school population. Some of the territories were defined by the location of fixed features - such as Bars, Tractor, Pipes, Trees or Goal Posts - and it is these features which serve to attract certain activities to certain areas of the playground. Areas of the playground devoid of any fixed features appeared to attract those activities which supported portable equipment such as skipping ropes. It is interesting to note that the five zones which supported the fixed features all attracted behaviour settings. It is of further interest to note that in these five fixed feature zones, the population was predominantly male. Of the seven zones with grassed surfaces, four were populated predominantly by males - a fact associated with a school rule which banned girls from the Soccer and Rugby fields. One of the other three grassed zones was Zone 10 - out of bounds to all pupils. There were three zones which had hard seal surfaces, and it will come as no surprise that they were all inhabited predominantly by girls.

The behaviour settings identified in this piece of research were formed primarily on grassed or dirt surfaces - i.e. with the exception of the Skipping Games of Zones 5, 6 and 7. Of the eight activities which were found to support behaviour settings, six were associated with fixed features of the environment. All settings identified had some equipment as part of the activity.

To the extent that behaviour settings and territoriality are functionally equivalent terms, territories can be said to exist in this school's playground during intervals.

To the extent that behaviour settings exist within the school playground, the question of the existence of definite human territories has been resolved. However, many of the Ethologists and animal and human behaviour researchers maintain that for a territory to be territory it must be defended. The question of whether or not activity territories are defended is the substance of the next chapter.

CHAPTER 3TERRITORIALITY AND PLAYGROUND DISTURBANCES

In the previous chapter the relationship between pupil free-time activity and the use of playground space was investigated and described in terms of territories. A 'territory', for that purpose, was taken as being a geographical space used for the same activity over a period of time. As a result of the investigation it was found that certain locations were reserved for certain activities - a place for Rugby, a place for Soccer, a place for Skipping, and so on. Such behaviour settings -- a location plus an activity (Barker and Wright, 1954) -- were characterised by a 'patterned use of space' (Ardrey, 1967), and existed over a period of time.

The concern of the present chapter is with how the groups of playing pupils retain their playing space as a preserve for their own activity -- the manner in which these groups of pupils express their 'territoriality'. To this end, the concept of 'territoriality' will first be reviewed and discussed, with findings from both animal and human behavioural research juxtaposed. Second, behaviour identified as being 'territoriality' will be investigated.

TERRITORIALITY

Defensive Behaviour.

Human territoriality, claim both Hall (1959) and Shaw (1971), is usually manifested by individuals or groups who assume a proprietary orientation over a space, and then defend that space from invasion by others. The inhabitants occupy space either permanently or intermittently, and use it for their own purposes. These claims are supported in a paper by Lyman and Scott (1970). The authors maintain that central to the manifestation of human territoriality is the ability of persons to attach boundaries to space and command access to or exclusion from the territory.

The significance of defensive behaviour in human territory studies is apparent in the writings of Thrasher (1927), Whyte (1943), Hall (1959), Keiser (1969), Lyman and Scott (1970), Shaw (1971) and Sutton-Smith (1971). The focus on defensive behaviour and the control of access to a territory employed by these writers is consistent with, and follows the same line of approach as, the research into animal territoriality. In the animal studies, the delineation of a territory invariably hinges on the identification of defensive behaviour in relation to geographical space. Ardrey (1967), one of the leaders in this field, defined a territory as being:

"an area of space which an animal or group of animals defends as an exclusive preserve."

(Ardrey, 1967. 3)

When investigating 'territoriality', Ardrey asked only one question - 'Is it (the territory) defended?' (Ardrey. 1967. 210). Similarly, Barnett (1967), in his work on animal behaviour, held that "a territory is defined as a defended region" (Barnett, 1967. 89). Other writers in the animal field have been less direct in their definitions, but basically they all lead towards the use of manifested defensive behaviours as the basis for establishing the existence of a territory. Eibl-Eibesfeldt (1970) maintained that:

"many animals defend certain areas of their habitat as a territory against members of their own species."

(Eibl-Eibesfeldt, 1970. 306)

Etkin (1964) reflected the emphasis on defensiveness when he wrote:

"a most significant aspect of territorial behaviour...is its relationship to aggressive behaviour. The central point, of course, is that a territory of the defended type is maintained by the aggressive actions of the territory holder."

(Etkin, 1964. 27)

The aggressive behaviour the territory holder(s) may submit intruders to, claimed Etkin, can involve actual fighting, and even fatal combat. It is worth noting in passing, that Etkin, in defining animal 'territoriality', used a definition similar to Lyman and Scott's definition of human territoriality, which stated that territoriality was:

"any behaviour on the part of an animal which tends to confine the movements of the animal to a particular locality."

(Etkin, 1964. 21)

Barnett's position, with regards defensiveness, was similar to Etkin's. Barnett (1967) suggested that the behaviour most likely to be used in rebuffing intruders of the same species would be signals which he called 'threats' - a threat being defined as:

"a sight, sound, odour, or contact which does not wound but tends to prevent the approach or cause the withdrawal of a member of the same species."

(Barnett, 1967. 98)

There is obvious affinity between Barnett's position and Lyman and Scott's. The latter maintained that:

"freedom of action.....(is) intimately connected with the ability to attach boundaries to space and command access to or exclusion from territories."

(Lyman and Scott, 1970. 308)

The defence of territory also features in the work of Thrasher (1927), Whyte (1943), and Keiser (1969). All reported the fates of individuals who were found to have breached the boundaries of another gang's territory - enemies of the gang were chased from the gang's territory and if caught, beaten. Such descriptions of human territorial behaviour could well be paralleled with the aggressive behaviour of the animals in the Etkin studies. In fact, Coser (1956) maintained that within the behaviour of human groups:

"group boundaries are established through conflict with the outside, so that a group defines itself by struggling with other groups."

(Coser, 1956. 87)

It would appear, then, that the territory of any animal of human group is likely to be defended from invasion by intruders. In some specific cases - such as mating in animals (Ardrey, 1969 and Barnett, 1967); and initiation into gang membership (Thrasher, 1927; Whyte, 1943 and Keiser, 1969) - the intruder may actually be accepted within the territory, but generally speaking, the boundaries of any territory are likely to be defended from invasion by intruders of the same species.

"When one group assumes territorial rights to a given geographical area, good inter-group relations depend upon other groups respecting that assumed right."

(Shaw, 1971. 119)

Any challenging of that assumed right by others most often results in the cessation of the occupying group's activity and a change in attention of the group members from the activity to the defence of their boundary.

Typologies of Defence.

In animal territorial research, defensive behaviour has been described in terms of 'threats' (Barnett, 1967) and 'combats' (Etkin, 1964), and are said to have the effect of spacing out the individuals, or, more usually, pairs and their young, or larger groups.

"Regions favourable to a species are, in this way, prevented from acquiring a population above a certain density."

(Barnett, 1967. 106)

In the research into human territorial behaviour, the defence of territory has been explained in several different

ways. Lyman and Scott (1970), for example, categorised human territorial defensive behaviour into 'turf defence' - the exclusion of non-members; 'insulation' - the placing of a barrier between the intruder and the invaded; and 'linguistic collusion' - the verbal ostracism of the invader by those who inhabit the territory. Goffman (1969) maintained that an intrusion could be handled either by switching the definition of the situation into one in which the intruder may be incorporated, or by the occupants acting as though the intruder should have been there all the time.

In his explanation of the behaviours people perform when intruders enter a behaviour setting (territory), Barker (1968) maintained that people would react in one of two ways. First, if the events perceived were judged to be not disruptive or dangerous to the setting, the occupants would employ 'operating mechanisms' - that is, they would continue with the standing patterns of behaviour within the setting. Second, if the events were judged to be disruptive or dangerous to the setting, the occupants would employ 'maintenance mechanisms' to either:

- a) take steps to counteract or alter the interfering conditions to an extent where they could be incorporated within the setting so that 'operating mechanisms' could be resumed. These behaviours Barker termed 'deviation countering mechanisms';

or

- b) eliminate the interfering conditions from the setting altogether. These behaviours Barker termed 'veto mechanisms'.

(after Wicker, 1972.
271-272)

"In less technical terms, Barker is saying that people are sensitive to environmental events (such as an unruly student) which may disrupt their present behaviour or future goals in a setting. When they see such an event occurring, they seek to correct the situation either by modifying the disruptive condition (quieting the student), or by removing it from the setting (expelling the student). If their attempts to correct the situation succeed, they proceed with their original plans. If their attempts fail, they will continue to deal with the disruptive condition until it is corrected."

(Wicker, 1972. 272)

The mechanisms Barker described could well be taken as being the probable reactions of territorial inhabitants to intruders. The 'maintenance mechanisms' of human territory holders could also be taken as being parallel to the 'threats' of animal territory holders -- both being designed to control access to geographical space.

The studies of Barker (1968), Goffman (1969) and Lyman and Scott (1970), were all related to group occupation of territory, and to group reaction to intruders. Hall (1959, 1966), however, concentrated on the reaction of the individual to intrusion into his/her 'personal space', or territory. Having defined 'territoriality' as "the act of laying claim to and defending a territory" (1959. 187), Hall went on to spend most of his time investigating and measuring distances between interacting individuals of varying relationships - the interaction being in terms of verbal contact (Chapter 10, 1959), and physical contact (Chapter 10, 1966). While the findings and hypotheses Hall relates in

his books are intriguing, his emphasis on the study of individual territoriality makes the application of his findings in an investigation into group territoriality inappropriate. However, in other sections of his books, Hall discusses territoriality within a general frame of reference, and use has been made, and will be made of these sections of Hall's work herein.

Pupil Behaviour.

In investigating human territoriality, then, as in animal territoriality, the attention of the writers has generally been drawn towards behaviour in defence of geographical space. Such behaviour has invariably been manifested by the occupants of a territory towards intruders, with the result that the occupants cease their original activity and turn their attention towards boundary maintenance. The attention of the occupants is not likely to return to the original activity until the intruder is either accepted into the territory, or is driven from within its boundaries. The cessation of the group's activity is what Fawls (1963) would call a 'disturbance' - "an interruption in the smooth flow of behaviour" (Fawls, 1963. 334).

"It would seem that possession and defence of territory, which is found so widely among vertebrates, including both the human and sub-human primates, may be a fundamental biologic need. Certain it is that this possession of territory motivates much primate behaviour."

(Carpenter in Ardrey, 1961. 37)

To assess the applicability of the concept of 'territoriality' to human behaviour it would appear that 'disturbances', and their origins, need to be studied. Once again the school playground provides the research opportunity. During the intervals of the school day, the pupils, while engaged in activity territories - some of which were identified in the previous chapter - from time to time become involved in disturbances.

Procedures.

The principal problem was to design a procedure that would permit 'disturbances' and their causes' to be traced and identified, without at the same time creating intrusions in the natural behaviour settings. Opportunity presented itself in the guise of the duty teacher, who, while pursuing his official role, could also act as a participant observer. The task of the duty teacher in the playground is to exercise semi-formal control over the activities of the freely-formed groups (James, 1953. 569), and to maintain the general health and wellbeing of the pupils.* In exercising this control, from time to time the duty teacher becomes involved with disturbances that occur among the playing pupils. They thus have a good opportunity to trace the etiology of such disturbances.

*Bylaw Number 31 (a) of the Wanganui Education Board; under whose jurisdiction the observed school falls, states: "The teacher is responsible for the welfare of pupils, and in this regard shall take all the precautions that a prudent parent would take to avoid risk of injury or harm to the health of pupils while they are in the school."

The question to which the present chapter addresses itself, then, is: are disturbances that occur in the playground behaviour settings the consequence of the territoriality of the members of the activity groups?

Observations.

To undertake a systematic observation of the disturbance among the \pm 540 pupils of one primary school, the participant observer - cum - duty teacher went outside, as though on duty, during every morning and luncheon interval for the last four weeks of the second term. During these intervals the teacher had occasion to become involved with pupil disturbances, either by his being asked by representatives of an activity group to assist in settling some dispute, or by his deciding to intervene, because the participants' behaviour seemed likely to lead to injury. The behaviours most frequently observed in this latter category were fighting and rough physical activity in the course of a game.

On becoming involved in a disturbance the teacher performed two functions or roles. First, he acted as 'duty teacher' by settling disputes, and attending to the distressed. Second, he acted as a 'participiant observer' by gathering, from those involved, information relevant to both the cause of the disturbance, and the behaviours manifested during the disturbance. The latter information was recorded on a 'Record Card' of the type illustrated in Figure 3.

Figure 3. The Record Card.

Date _____ Observation Number _____ Time _____

Nature of the disturbance _____

How disturbance was noticed _____

Nature of the playing surface _____

Equipment used in the activity _____

Who owned it _____

Name of the game disturbed _____

Class level and number of players _____

Class level and number of disturbers _____

Sex of players _____

Sex of disturbers _____

What happened to the game during the disturbance _____

General description of disturbance
as seen by observer _____

The Record Card categorised the information under specific headings, dealing respectively with identification features - Date, Time, Observation Number - contextual components - Nature of disturbance, How the disturbance was noticed, Nature of the playing surface, Equipment used, and Who owned the equipment - and social components - Class level and number of players, Class level and number of disturbers, Sex of players, and Sex of disturbers. The headings of 'What happened to the game during the disturbance?' and 'General

description of the disturbance as seen by the observer' were included to provide room for a brief resume of the behaviour observed, and of the interview conducted with those involved.

In the course of his observations, the observer became involved with 42 disturbances. It should not be inferred that these were the only disturbances which occurred in the playground during the four weeks of data collection; rather, they constitute the number of disturbances that came within the ken of one teacher over one month of activity as a duty teacher. To that extent, the 42 instances were random. Whether they were also representative is unknown -- because criteria are not available. Non-systematic observation would suggest, however, that they were fairly typical of the usual type and quantity of disturbances in the playground of this particular school.

Of the 42 incidents, the observer intervened directly in 45% (19) of the cases, and was invited to intervene in 55% (23) of the cases.

Findings.

Behind this investigation into playground disturbances lay the intention to both investigate the applicability of the concept of 'territoriality' to a specific set of human behaviour, and to investigate the etiology of playground disturbances. The hypothesis incipient in these intentions was that playground disturbances were a function of territoriality.

Disturbance Causes.

Of the 42 disturbances observed, 17% (7 cases) were the result of disputes over rules of the game being played. For example, in a game of Rugby, a fight between two players, (watched by about 30 others), developed because one of the fighters maintained that the other had stepped into touch. The runner denied the claim and the fight ensued. In a game of 'Bull Rush' - where some pupils stand in the middle of an area and others, when called, have to try to run past all those in the middle without getting tagged - one player was called. He decided he did not want to run and left the immediate vicinity of the game. Those in the middle gave him 10 seconds to begin running, at the end of which two of the boys from the middle ran after him and kicked him for not playing properly. In a game of 'Cat Fighting' - a game where the players tackle anyone who is standing - one player was deemed by the others to be tackling too roughly. The others ganged up, tackled the offender, and then each smacked him on the rump.

Disturbances such as these occurred from within the activity groups, and on each of these seven occasions, rule disputes were given by the players as being the cause of the disturbance.

However, the remaining 83% of disturbances (35 cases) were all reported to be over problems which could be related to territory. These 'causes' were as follows:

- *29% (12 cases) occurred as the result of intruder's not wanting to join in the activity, but breaching the invisible boundaries of a group, and annoying the players.
- *26% (11 cases) were reported to be disturbances over refusal of entry to pupils who wished to join an activity which was already being played.
- *14% (6 cases) involved disputes over equipment.
- * 7% (3 cases) occurred as the result of disputes over geographical space.
- * 5% (2 cases) involved disputes over the use of equipment, which lead to disputes over membership.
- * 2% (1 case) involved a dispute over membership, which developed into a dispute over geographical space.

All of these met Hall's (1959) criterion of territoriality -
 - 'The act of laying claim to and defending a territory'
 (Hall, 1959. 187).

We next turn to an examination of the ways in which 'defence' of territory was manifested.

Disturbance Behaviours.

In 1968, Barker specified three mechanisms -- 'operating mechanisms', 'veto mechanisms' and 'deviation countering mechanisms' -- as being useful in the analysis of the defence of behaviour settings. If it can be established for each of the 35 disturbances involving intruders into a territory, that the behaviour displayed by the territory-holders was the manifestation of one such mechanism, then the claim already made - that territoriality is an element

of the majority of playground disturbances - will have added support.

In all but one case of the 35 disturbances, veto mechanisms were employed against the intruders -- i.e. the intruder(s) were not permitted entry to the territory. On the isolated occasion a deviation countering mechanism was employed. Of the 34 veto mechanism cases:

- *38% (13 cases) involved aggressive actions such as wrestling, kicking, punching, pushing, hitting, pulling of hair, pinching, throwing, and chasing.
- *12% (4 cases) involved the occupiers in making an appeal to the duty teacher to remove the invader(s) from the territory.
- * 9% (3 cases) involved the use of verbal rejection.
- * 6% (2 cases) involved moving the activity away from the intruders.
- *35% (12 cases) involved the invocation of two or more veto mechanisms by the territory-holders, namely:
 - verbal rejection + moving the game away (1 case)
 - verbal rejection + appeal to the teacher (2 cases)
 - verbal rejection + aggressive actions + appeal to the teacher (2 cases)
 - moving the game away + appeal to the teacher (2 cases)
 - aggressive actions + verbal rejection (4 cases)
 - aggressive actions + appeal to the teacher (1 case).

As all the 35 disturbances which involved aspects of territory also involved behaviour identified as being in defence of territory, the hypothesis that territoriality was

at the root of playground disturbances has been, in the main, supported. In fact, it has been supported in 83% of the disturbances which made up this sample for this investigation. As a corollary to this conclusion, it would seem that the concept of 'territoriality' can be applied quite usefully to this aspect of human behaviour. It also follows that territorial defence is one of the major elements in the etiology of playground disturbances.

Discussion.

On the one occasion where deviation countering mechanisms were employed, the intruder was eventually accepted into the group. However, as a result of the actual fight and the injuries subsequently sustained by the two fighters, the original activity of 'Tag' was terminated. All the boys, including the intruder, began a new game on a set of bars. This was the only time the observer found the intruder being accepted into a territory-holding group. While the reaction of redefining the group membership and the territory violates the behaviour setting definition of territoriality -- the defence of territory -- the turn of events is consistent with the scope of reactions Goffman (1969) suggests as reactions to an intrusion.

"It has been suggested than an intrusion may be handled by having those present switch to a definition of the situation into which the intruder can be incorporated."

(Goffman, 1969. 121)

The behaviour is also consistent with the 'deviation countering mechanisms' of the Barker (1968) terminology. The

incident represents only 3% of the cases of disturbances involving maintenance mechanisms in defence of territory.

The focal features of the behaviour termed 'human territoriality' discussed earlier, were the defending of occupied space, and the control of access to occupied space. Both these features were very much in evidence within the disturbances investigated for this piece of research. Even the tendency for the defence of territory to involve aggressive behaviour has been shown to exist, as 57% of the intrusions into a territory involved behaviour such as wrestling, kicking, pinching, pushing, hitting, pulling of hair, punching, throwing, or chasing.

However, an interesting point arises out of the findings of the disturbances. A common assumption implicit in writings on territoriality is that the territory-holders will stand their ground against those who would try to take the territory from them. Of the behaviours observed, 83% were seen to be in defence of territory in terms of aggressive actions, appeal to a teacher, or verbal rejection, and were behaviours designed to retain the territory for the activities of the incumbent group, and also to control access to that territory. However, in 15% of the cases, some territory-holders left their territory when threatened, and re-established themselves some distance away. That territory-holders actually vacated their territory when it was threatened calls into question the geographical concepts of territoriality. Could these groups be said to be manifesting territoriality if they do not actually defend their territory? On two of the five occasions the teacher intervening in the disturbance suggested that the group shift to

another site for their activity, but on the other three occasions the pupils themselves decided to move their activity away from the disturber. On these three occasions, the players were always girls, and the disturbers always boys from the same class level. The moving of the activity away from the disturber appears to have been a method of not only preserving the membership of the activity, but also a method of preserving individual safety from the aggressive actions of the disturber. For example, on one of these occasions the boy intruder wanted to join in a game of 'trains' being played by four girls. The girls refused his request, so he began pushing over each of the girls. The girls moved the game away from where the boy tended to play, and began their game again without his interfering. From an observer's point of view, it would almost appear as if the girls took on the role of intruders into the boy's territory, and moved away when they threatened his boundaries.

One imagines that this unusual defensive behaviour is unlikely to occur in the crowded animal world, where the territory of each individual or group within a species is likely to border on others. In the setting in which this human 'avoidance-defence-behaviour' occurred, there was adequate open and unused space for the groups to shift to and re-establish themselves without breaching the boundaries of any other group. The question remains, however: does the density of the population in an area define in any way, in animals or in humans, the tenacity with which a territory is likely to be defended? And can retreat to an alternative space be regarded in any way as being an expression of defence

of territory?

It was suggested earlier, that during the defence of their boundary, the members of a group would cease their activity (Hall, 1959; Shaw, 1971) -- a somewhat circular argument if territoriality is defined as the defence of boundaries. Within the 35 disturbances of this investigation which involved intruders, the claim is supported. In 80% (28) of the cases, the group's activity was ceased by all members of the group while the dispute over the invader(s) was settled. However, in the other 20% (7) of the disturbances, many of the group members continued to engage in the activity of the group, with only a few of their number breaking off from the activity to engage in boundary defence.

The findings of the present study are consistent with those of Dawe (1934) who investigated the quarrels of children during their free time at nursery school. He found, for example, that the majority of quarrels between the children began as struggles over possessions. In the current piece of research, it has been found that the majority of quarrels (disturbances) have occurred as struggles for possession of territory. Dawe also found that the most frequent motor activities during these quarrels were pushing, striking, and pulling - and, similarly, in the current research it has been found that aggressive activities occurred in 57% of the disturbances involving intruders. Dawe found that boys quarrelled more frequently than girls, and this too was the case in the current study, where girls alone were involved in 21% of the disturbances; boys alone were involved in 43% of the disturbances; and where boys and girls

were involved in disturbances 36% of the time. Dawe also found that younger children quarrelled more frequently than older children, and this too was a feature of the current research. There was an almost decreasing proportion of involvement in disturbances among the current population from Infants (28%), to Standard 1 (25%), to Standard 2 (22%), to Standard 3 (6%), to Standard 4 (9%). The other 10% was taken up with groups of mixed ages. Finally, Dawe found that the usual verbal activities displayed during quarrels were crying, forbidding, and commanding; that quarrels, on average, lasted 23 seconds; and that older boys quarrel more aggressively than younger boys. These findings could not be verified by the current research findings, but there is an apparent similarity between the pre-school age group free-time quarrels, and the free-time disturbances of the primary school age group - even though 40 years have elapsed.

Conclusion.

The results of this section of the investigation support the original hypothesis -- that of the relationship between territory and playground disturbances -- and therefore provides reinforcement for the argument that the idea of territoriality is generalisable - at least to human behaviour in school playgrounds. The implication is that the territoriality concept is useful for explaining why disturbances occur, and for providing a basis for predicting conditions under which disturbances are likely to occur.

However, given the relative impermanence of playground behaviour settings, and the implication that each behaviour

setting has its own etiology with, no doubt, some degree of initial negotiation over the establishment of membership rights, one wonders at the full extent of the validity of the territorial concept for explaining human behaviour. Are there possible exceptions to the 'intrusion' cases? Do all intrusions invariably involve defence? An attempt at replying to these questions will constitute the substance of the following chapter.

CHAPTER 4THE HIDDEN MEANING OF TERRITORIALITY, AND
MEMBERSHIP OF TERRITORIAL GROUPS

The findings of the previous chapter revealed that the focal behaviour studied within the context of animal territoriality - defensive behaviour - is also manifested in at least one segment of human activity - playground disturbance behaviour. Defensive behaviour was shown to exist within the playground setting, and since territoriality is generally defined as being behaviour in defence of territory (Ardrey, 1967; Barnet, 1967; Hall, 1959), the concept of 'territoriality' could be deemed appropriate for application in that setting. The territoriality concept appears, on face value, useful for both the description and prediction of disturbance behaviour. There is, then, an apparent link between animal behaviour and human behaviour in terms of territoriality. There is also apparent verification of the Ethologists' suggestion that the strength of their animal based research is sufficient to warrant application of the term in human behavioural analysis.

It is the purpose of this present chapter to explore this claim further, using the playground setting again as the locus, and to concentrate largely upon one specific aspect of territoriality - that of membership of the territorial groups. Within this concentration on membership, the chapter will critically examine the use of 'territoriality' in animal research, and then attempt to relate this to human activities.

The examination begins with an analysis of the meaning of the term 'territoriality' as used by both animal and human behavioural writers.

THE MEANING OF 'TERRITORIALITY'

From the definition of 'territoriality' quoted previously, (Chapters 1, 2, 3), it would appear that the term used in both animal and human texts refers to the same type of behaviour. However, one prime difference between the human and animal sets of definitions is apparent -- the animal researchers consistently record that as either a part of, or corollary to, their definitions of 'territoriality', the behaviour is directed against members of the same species.

"Many animals defend certain areas of their habitat as a territory against members of their own species."

(Eibl-Eibesfeldt, 1970. 306)

"Within it (a territory) an individual pair, or group lives, perhaps entirely peacefully, but strangers of the same species are repulsed."

(Barnett, 1967. 89)

"In most but not all territorial species, defence is directed only against fellow members of the kind."

(Ardrey, 1967. 3)

"It (a territory) is a geographical area to which the animal confines itself and from which it excludes others, particularly members of the same species."

(Etkin, 1964. 23)

Definitions of human territoriality contain no such specification.

"The act of laying claim to and defending a territory is termed territoriality."

(Hall, 1959. 187)

"It is clear that (individuals and groups) assume territorial rights over physical space and objects in that space, and that they will defend this territory against intruders."

(Shaw, 1971. 121)

"People cathect their territories and resist invasion of their privacy."

(Roos, 1968. 75)

One might reasonably infer that when the authors of human behavioural texts make reference to the defence of territory, they mean against other humans. However some interesting implications emerge if the face value difference between the two sets of definitions is pursued further. For the animal behaviourists, Ernst Mayr, one of the leading authorities in the study of species, defined a species as follows:

"Species are groups of interbreeding natural populations that are reproductively isolated from other small groups."

(Mayr, 1970. 12)

In coining this definition, Mayr made it clear that members of a species constitute:

- a) a reproductive group,
 - b) an ecological unit, which interacts with other species with which it shares the environment,
- and
- c) a genetic unit, consisting of a large inter-communicating gene pool, whereas an individual

is merely a temporary vessel holding a small portion of the contents of the gene pool for a short length of time."

(Mayr, 1970. 12)

Using these criteria as his base, Mayr has no hesitation in claiming that all men on the face of the earth are members of the one species. If the 'species clause applies, it follows that once a territory has been established, the human members should be unselective in their defence of it -- all other humans are violaters. Similarly, the animal researchers appear to be claiming that once a territory has been established all conspecifics will be denied entry.

Territoriality in Animal Behaviour.

The definitions of territoriality, as recorded by the animal researchers, do not, as it turns out, refer to a single, observable form of behaviour in all territorial species -- as one would have expected from reading the definitions. In fact, lists of variations and differences, with regards the manifestations of the behaviour, are to be found within their writings. For example, Carpenter (1958) summarised the variations to be found in animal territoriality as being differences of species and their habitats, and also differences relating to:

"seasons and climates, to population pressures, to social organisation, to fluctuations of food supplies, to predation, and to many other factors."

(Carpenter, 1958. 229)

Notwithstanding the implied complexity of conditions affecting defence of territory, a broad spectrum of similar behaviours across the various species have been identified under the label of 'territoriality'. These are the behaviours associated with mating, spacing between groups, and population/food regulation (Etkin, 1964. 30-32).

Again, the definitions of animal territoriality apparently refer to heterosexual behaviour. In actual practise however, this is not exclusively the case.

"A territorial species of animal, therefore, is one in which all males, and sometimes females too, bear an inherent drive to gain and defend exclusive property."

(Ardrey, 1967. 3)

And, again;

"Often, it is primarily, if not exclusively, the male that occupies the territory."

(Eibl-Eibesfeldt, 1970. 307)

As we saw earlier, territoriality supposedly involves the defence of a certain geographical space from intruders of the same species. But even this assumption is not always borne in actual practise. Johnsgard is typical of a number of animal researchers when he says:

"Territoriality may also facilitate mating, in as much as unmated females will be attracted to males through their territorial behaviour (calls, visual displays, olfactory signals), which thus may serve both to repel other conspecific males and to attract unmated females."

(Johnsgard, 1972. 62)

The behaviour reported in the definitions as being 'defence' may, it appears, serve not only repel intruders, but also to

attract members -- a somewhat unexpected effect.

Within animal behaviour then, the term 'territoriality' refers to certain varying behaviours, manifested primarily by the males of the species, and which serves to both attract and repel conspecifics.

Territoriality in Human Behaviour.

The single - sex nature of animal territorial behaviour does not appear within the findings of the human behavioural researchers. Hall (1959, 1966) discussed the general territorial nature of humans of both sexes when studying the seating in a lecture hall, and the use of rooms and furniture in a home. The gangland territories revealed in the studies of Thrasher (1927), Whyte (1943), and Keiser (1969), were all inhabited by males, but this is not to say that female gang territories do not exist. The human territorial studies thus far, have avoided any conclusions regarding the relationship between the behaviour 'territoriality' and the sex of those who manifest it. Similarly, there is a lack of research into the repulsion/attraction function of territoriality in human behaviour. The gang studies of Thrasher (1927), Whyte (1943), and Keiser (1969) all related the strong influence the gangs who occupied territories, had in both attracting and retaining members, but analysis of the functions of human territoriality have yet to be undertaken beyond a specific group level.

The variation in the manifestation of animal territorial behaviour, however, has also been shown to exist among humans. Ship crews, for example, were found by Roos (1968) to establish

territories at certain times - especially during pre-inspection cleaning. Again, Keiser (1969) investigated the different forms of defence the members of a territory exercise over different parts of their territory.

On looking closely at the difference between the meanings of human and animal territoriality, that which appeared initially to be a superficial difference has turned out to be an important issue. Differences of sex, and of the very function of the behaviour -- attraction and/or defence - - appear as integral elements in animal territoriality, but have yet to be verified in human territoriality. Since the Ethologists maintain that the concept of territoriality is applicable to both animal and human behavioural research, does it follow that the variations and refinements of animal territoriality also transfer to human territoriality?

MEMBERSHIP OF TERRITORIAL GROUPS

In animal behavioural research, the term 'territoriality' has been used to describe the behaviour associated with such activities as mating, spacing of groups, regulation of population and food, and protection from predators (Etkin, 1964. 30-32; Carpenter in Hall, 1966. 9; Johnsgard, 1972. 62). From these functions, and from the above discussion on 'species', it seems reasonable to assume that the behaviour termed 'territoriality' is one of the primary methods by which the reproductive functions of a species are both maintained and regulated. The concept in animal behaviour is most often associated with what could colloquially be called 'animal

families' -- the male, his females, and their offspring. The male, and sometimes the female too (Johnsgard, 1972. 62; Ardrey, 1967. 3) defend the family home and the members of the family. In doing so they manifest the defensive behavioural aspect of the territoriality of a species.

Thus confined, in animal studies, to the behaviour of the 'family group', territoriality, as a potential explanation of human behaviour, appears to falter - since a great deal of human behaviour is performed outside the family group. Hall (1959, 188-190) discussed family-type territories of humans in terms of 'dad's chair', and 'mum's kitchen', but this is a somewhat limited, conditional interpretation. Other Ethologists, in attempting qualifications, have suggested that non-family visitors to a person's home perform certain defined rituals - such as the giving of presents, or the reading of a meter - as an accepted way of breaching the home's boundaries without being repelled. But without an extensive examination of these rituals, their etiology and implications, the qualifications do little to protect the territoriality concept. The claim of the Ethologists that the concept applies equally well to animal and human behaviour appears rather tentative in that so much human behaviour occurs outside the family group, in groups whose membership is not created through the procreative activities of the members. A great many human groups have voluntary or negotiated memberships, with only the family's membership being defined through reproduction.

If the concept of territoriality is to be used in the explanation of human behaviour, and if the concept incorporates

the single-sex and familial features discussed above, then territoriality has limited currency in such explanations.

While the general claim of the Ethologists is that in animal behaviour, territoriality is a 'family' based form of behaviour, one of their number - Eibl-Eibesfeldt (1970) - maintains that a territory can be held by either an individual or a group. When a territory is held by a group, he maintains, the group will only repel conspecifics that are not members of the group. Even though Eibl-Eibesfeldt quotes some examples of animals, such as House Mice, and Norway Rats which form a group through succeeding generations' remaining together, he does allow that some groups which express territoriality come together through social attraction. If the individuals of a species form a group, but do not develop a bond based on individual recognition:

"one speaks of 'anonymous groups'. They can be open or closed to others....If a group of animals is kept together by bonds of individual acquaintanceships, we speak of 'individualised groups'."

(Eibl-Eibesfeldt, 1970. 350-351)

In either of these non-family type groups the members are recognised on some criterion - either by individual recognition in the case of 'individualised groups'; or by other cues, such as length in Minnows, or odour in Rats and Mice, in the case of 'anonymous groups'. "Only group members are tolerated; strangers are vigorously attacked." (Eibl-Eibesfeldt, 1970. 351). Herein lies the potential for the application of the territoriality concept to general human behaviour -- to human groups whose membership is based on social attraction. In terms of human behaviour, a majority of behavioural groups would fall under the categories of

either 'anonymous' or individualised' groups - to the behaviour of which, it is claimed, the concept of territoriality can be usefully applied.

Human Social Groups.

In developing the idea of social groups of humans occupying space, Barker and Wright (1954) identified 107 varieties of behaviour settings - all of which took place outside the family and home. Within these varieties there were 585 separate and specific behaviour settings observed. The varieties of settings included School Classes, Indoor Entertainments, Government and School Offices, Barbers and Beauticians, Music Education Groups and Church Group Meetings, to name but a few. James (1953), too, used social groupings of humans as the basis for his investigation into freely-formed human groups. James observed groups formed by pedestrians, shoppers, people (including pupils) at play, and by people attending public gatherings. It is with play groups, as an example of human social grouping, that this part of the investigation is concerned. If territoriality is manifested by groups formed on the basis of social attraction, then certain membership 'cues' or 'criteria' should be able to be observed. In terms of pupils' play groups, some pupils should gain entry to a play group by supporting the group cues, while others should be seen to be rejected by the group through not supporting these cues and thus producing the playground disturbances which were investigated in the previous chapter.

Since the groups formed in the school playground during intervals are clearly not family groups, the claim that these

groups manifest territoriality can only be supported if their criteria for membership can be identified.

Investigation Into Group Membership Criteria.

Procedures.

The objective of this phase of the research was to identify the cues or criteria by which territory holding groups accept or reject intruders. If certain criteria were identifiable as being the basis for the rejection of intruders, then these must also be the basis for the acceptance of members.

The strategy employed to gather the relevant information was, first, to analyse the criteria used by the behaviour setting groups in rejecting intruders, and in doing so, causing a playground disturbance. These disturbances were observed as part of the investigation of Chapter 3. After establishing these criteria, further observations were made at random, and directed primarily at ascertaining the criteria by which pupils became accepted as members of a group. These latter observations, in the interest of ease of observation and identification of new members, were confined to the Skipping behaviour settings. They were in Zones 6 and 7 of the school grounds. (See Figure 1). The observer recorded the number and sex of the players, and also made notes regarding the group building of each activity group by observing the creation of the groups during the first few minutes of the intervals. During this time the pupils finished eating their playlunch and joined groups.

Findings from Rejection Data.

Of the 35 disturbances which involved intruders and which formed the raw material for the findings of Chapter 3, 13 occurred within behaviour settings which were identified in Chapter 2. During these 13 disturbances the intruder(s) were not permitted entry to the territory holding group on the basis of three main observable criteria - viz:

1) sex; 2) class level; 3) space.

1) Sex. In three of the disturbances the intruder was of the opposite sex to the members of the settings - and in each of the three cases, the players were girls and the intruders boys. The settings were Hut Building, Soccer and Skipping. In all the other 10 disturbances the players and the intruders were of the same sex.

2) Class Level. In three disturbances the intruders were of the same sex as the players, but from a different class level. In the Soccer setting, a Standard 3 boy was rejected from a Standard 2 boys' game; in a Pipe Play setting an infant boy was rejected from a Standard 4 boys' setting; and in a Bar Play setting an Infant girl was rejected from a Standard 2 girls' group.

3) Space. There were six disturbances which occurred over the lack of space for the intruder on, or within, the equipment being used by the group in their activity territory. Four of these six cases occurred in the Bar Play setting, where the bar the intruder wanted to use was already well populated. Similarly, in the Tractor Play setting only one person at a time could be expected to sit on the seat of the tractor, and this lack of space again appeared to be the cause

of the rejection of an intruder. The sixth disturbance occurred in the Hut Building setting when a boy attempted to join in the group but was rejected, after the hut, through overcrowding, collapsed.

There was one disturbance in the Soccer setting, where a Standard 4 boy was rejected from a Standard 4 boys' game for no apparent reason. He qualified on the criteria of sex and class level, and there was certainly enough space for him to be readily accommodated. The criteria for his rejection are obscure and not observable from a distance.

Findings from Acceptance Data.

From the second set of observations, of successful intruders during group building times of Skipping settings, sex and class level were again very apparent criteria for membership. Each of 12 groups observed were single-sexed and the members were from the same class level. On three occasions boys attempted to join girls games, but were rejected outright, while girls of the same class merely joined in the queue of those waiting, without any fuss. Similarly, on the one occasion a boys' skipping game was observed, boys of the same class were admitted while girls were rejected. One other Skipping setting comprised 10 members - five boys and five girls - all from the same Standard 2 class. Other Standard 2 pupils of both sexes were admitted freely until at its peak, the membership numbered 22.

Sex and class level were the prime criteria observed as membership cues within the Skipping settings. However, other criteria were also observed. Younger sisters were allowed to stand with older sisters, while the older sister

was engaged in the Skipping setting. The younger sister was not allowed to have a turn at skipping, nor turning the rope, even though she was freely admitted within the boundaries of the setting. Family relationships then, were a criterion which allowed some unusual members into groups. Another criterion observed was that of size. In a game of Skipping, the Standard 4 members were approached by three Standard 1 girls, who obviously wanted to join in. At the conclusion of the discussion and negotiation, the tallest of the three intruders was permitted entry to the group, while the other two were permitted only to sit beyond the group and watch.

Interpretation and Discussion.

The great majority of groups formed in the playground during intervals were single-sexed. Disturbances occurred when pupils of the opposite sex, or from a different class level, or both, attempted to join in the settings; and again when there was not enough space on/in the equipment for another member to be accommodated. Of the 13 disturbances which occurred within the identified behaviour settings of Chapter 2, only 22% (three) involved intruders of the opposite sex invading a setting - a figure which is comparable with the 26% of the 35 disturbances observed and analysed in Chapter 3. Boy disturbers of boy-inhabited-settings in these 13 disturbances comprised 39% (five cases), while in the larger sample of 35, the proportion was 43%. Girl disturbers of girl-populated-settings comprised 39% (five cases) of the 13 setting disturbances, compared with 22% of the larger sample. In the larger sample, a further 9% involved either mixed - sex

playing groups, or mixed - sex intruders. It is thus apparent that the pupils play largely in single-sex groups, and that disturbances, in the main, come from pupils of the same sex. The 13 disturbances which involved the rejection of intruders is fairly representative of the disturbances as a whole.

Differences of class level were more likely to be the criterion of membership than was sex, since opposing sexes were involved in only 23% of the setting disturbances. Of the 77% of setting disturbances which involved the same sex of players and disturbers, however, the difference of class level was observed as the prime criterion in only 23%. Space, or its shortage, was observed to be the criterion in 46% (in 8% no criterion was noted).

These proportions of observation of rejection criteria were not found in the observations directed primarily at identification of acceptance criteria. In the latter the sex and class level criteria assumed prominence, while space did not feature at all. It would be reasonable to conclude that the space criterion was invoked only in the rejection of members - since pupils were accepted on other criteria entirely. Minor criteria of acceptance were also observed, but in the case of the Standard 4 boy being rejected from a Standard 4 boy Soccer setting, it is difficult to tell just what criterion was involved. It may well be that non-visible criteria operate - such as when a pupil becomes disliked by his peers and is isolated from them in non-class activities; or when a pupil has proven him/herself to lack proficiency in the activity of the setting with the consequence that no team or side within that setting wants him. Such criteria would take more

sophisticated research techniques to assess, but since the animal researchers can only observe and assess the criteria of animal members from a distance, and without talking to their sample, so it was deemed reasonable to attempt a similar analysis of human membership criteria herein. The fact remains that criteria were certainly in operation with regards membership of playground setting groups.

If social groups are accepted as occupying territories - and thus able to express territoriality - and if their members can be recognised on the basis of non-family criteria, then groups of pupils in the playground could well be classified as being an example of such territorial groups.

CHAPTER 5

CONCLUSION

Within the literature relating to both human and animal territorial behaviour the authors have become involved in two main debates - namely whether or not man is a territorial species; and whether territorial behaviour in man is learned or instinctive. Underlying these debates are certain assumptions which are an integral, but rarely acknowledged element of the term 'territoriality'. Some of these assumptions were discussed in the previous chapter. The purpose of this concluding chapter is first, to highlight these two debates; second, to identify more of the covert assumptions; and third, to appraise the utility of the term 'territoriality', and its applicability in the analysis of behaviour in the school playground setting.

Is Man A Territorial Species?

Central to the Ethologists' claim that the term 'territoriality' can be usefully applied to the analysis of both animal and human behaviour is their contention that man is a territorial species. This contention has become a crucial issue in the literature with arguments for and against featuring in almost every text which covers this form of behaviour. On the one hand, there are those writers who maintain that man is a territorial species.

"Man is a territorial species, and the behaviour so widely observed in animal species is equally characteristic of our own."

(Ardrey, 1967. x.)

"We observe in man distinct territorial behaviour."

(Eibl-Ebesfeldt, 1970. 444)

"Man, too, has territoriality and he has invented many ways of defending what he considers his own land, turf or spread."

(Hall, 1966. 9)

"Hypothesis 1: Individuals and groups typically assume a proprietary orientation towards certain geographical areas which they defend against invasion."

(Shaw, 1971. 149)

The point of view expressed by writers such as these is well summarised by Katz (1971), who states that:

"In some respects there exists a surprising agreement in the social behaviour of animal and human groups, so that one may be encouraged to hope that animal psychology could be useful in discovering laws that also govern the social life of human groups."

(Katz In Eibl-Ebesfeldt, 1971. 305)

Diametrically opposed to this point of view, on the other hand, are those who argue that man is not a territorial species. They reject even the broad point of view of the Ethologists expressed by Katz. They contend that:

"In comparing animal and human social behaviour, explicitly or not, they (the pieces of research) often contain the question: How can we learn to control our own behaviour? The answer is not to be found in the behaviour of other species. Their physiology ... may tell us much about ourselves. But, when we look for wisdom in our dealings with each other, the Delphic exhortation still holds: know thyself."

(Barnett, 1967. 109)

The point of view offered by these 'opposition' writers - aspects of which were discussed in Chapter 1 with regards the writing of Leach (In Roos, 1968) and Sherif and Sherif (1969) - is that the behaviour manifested by man, which has been given the term 'territoriality', is vastly different in nature from that animal behaviour which has been given the same term.

"Even if the possessiveness certain men show towards real estate is termed 'territoriality', it is doubtful whether this behaviour has any but the most superficial features in common with the territoriality of a bird or a prairie dog."

(Klopfer, 1973. 142)

"The only species which certainly does not possess stereotyped territorial behaviour is man, Homo sapiens."

(Barnett, 1967. 97)

Human Territoriality: Learned Or Instinctive?

The obvious polarity of positions between the Ethologists and supporters, and the 'opposition' writers and their supporters, over the existence of territorial behaviour in both humans and

animals is also evident in an associated debate. This second debate revolves around the issue of whether territorial behaviour in man is learned or genetically inherited. The Ethologists maintain that the behaviour is genetically inherited.

"The territorial nature of man is genetic and ineradicable."

(Ardrey, 1967. 116)

"Man's innumerable territorial expressions are human responses to an imperative lying with equal force on mockingbirds and men."

(Ardrey, 1967. 6)

The 'opposition' writers, however, maintain that the behaviour - if it is accepted that man does display a form of territoriality - is both learned and culture bound. For example, as part of his synthesis of the relevant literature, Hulbert (1971) came to the conclusion that:

"the territorial aspects of behaviour are seen to reflect cultural influences whereby forms of behaviour have been developed in accordance with norm and convention."

(Hulbert, 1971. 3)

Similarly, when expressing a point of view echoed by both Hall (1966, 187) - who tends to side with the Ethologists - and Barnett (1967. 108), Scott (1972) maintained that:

"in man, territorial behaviour largely reflects the culture in which a particular individual lives."

(Scott, 1972. 245)

In an earlier statement, however, Scott (1968), in attempting to rationalise the problems associated with proving whether or not man's territoriality is learned or instinctive, chose to take a more neutral stance in the midst of the debate.

"The occurrence of territorial behaviour in human beings is ... a human invention rather than a basic primate trait; however, at this distance in time, we cannot tell whether territoriality is a cultural or biological tendency."

(Scott, 1968. 634-635)

The arguments for and against this learned/instinctive issue are apparently irreconcilable. While some writers argue adamantly one point of view, others argue equally adamantly on the contrary.

Assumptions Inherent In 'Territoriality'

The existence of diverging opinions over such significant issues as those discussed above is a drawback to the 'purity' of any unit of analysis of human behaviour. However, the problems associated with the application of the concept of 'territoriality' to the description and explanation of human behaviour do not end there. There are certain assumptions inherent in the concept which also have a part to play in its comprehension and its application. The first of these assumptions is that if a territory is delimited by some members, then the inhabitants will defend that territory. Associated with this idea is the assumption that in defending the territory the inhabitants will invariably succeed in repulsing the intruder(s). From the research available into human territoriality, these assumptions appear to have been completely

accepted, since the researchers have concentrated their observations on those who have been rejected. The researchers have tended to ignore, in both their observations and their subsequent theories, the possibility that either the intruder(s) may be accepted into the territory, or that the intruder(s) may actually defeat the defenders and take over the territory. The following questions thus arise: What happens to the vanquished? And, do the defenders always succeed in driving off the intruders? These questions could well serve as the focus of future research into human and even animal territoriality.

Another intriguing assumption which underlies the concept of 'territoriality' is that all individual members of a species belong to a territory. However, in researching the behaviour of birds, Hensley and Cope (1951) found that this was not the case. They attempted to shoot each pair of territory-holding birds in an area.

"As quickly as a territorial pair announced its presence the birds were shot, yet each day the territories were found to be occupied anew. Clearly, a substantial non-territorial population must have been skulking about in the undergrowth; birds that had no posts in the pattern produced by the breeding population, but that could quickly move into any that were vacated."

(Hensley and Cope In Klopfer, 1973. 55)

The question Hensley and Cope concluded with was whether or not the territories of birds remain the same size, with only the inhabitants ever changing. Other questions, relevant to human territoriality, as a result of the Hensley and Cope investigation may also be raised. Are there non-territorial

human populations in any behaviour setting? If so, where are they, and how do they occupy themselves? Do the territories of all groups in a setting actually border on each other? Do human territories remain a constant size for any activity despite changes in membership? These questions too, indicate avenues for future possible research into human territoriality.

Other assumptions which are associated with territoriality include those of anticipated hetero-sexuality of the behaviour; the behaviour being of a single form or type; and the behaviour serving only to drive intruder(s) away. These assumptions were revealed and discussed above in Chapter 4. When one considers both these assumptions and those discussed immediately above, then it can be seen that the concept of 'territoriality' is far from being a well-defined and an unfragmented unit of behavioural analysis.

Territoriality And Playground Disturbances.

The purpose of coining a term such as that of 'territoriality' is that it will have utility in both the explanation and description of certain events - in this case, originally events occurring within animal behaviour, but latterly, events occurring within human behaviour also. In fact, as far as the animal behaviour studies go, the concept has proven to be of considerable utility. However, just how much utility has the concept proved to be in explaining the disturbances of the school playground?

The original hypothesis of this whole thesis was that school playground disturbances were a function of activity

groups expressing their territoriality. This hypothesis has proven to be valid only in so far as the features of the concept of 'territoriality' have been found to be involved in a majority of such disturbances. Features of territoriality, including the occupation of geographical space over time; the defence of such occupied space from invasion by others; and the operation of membership criteria by territory-holding groups, were all found to be a part of both the pupil playground groups and their disturbances in the foregoing investigations. But, for it to become applicable to the setting of the school playground, the concept, with its modifications associated with animal behavioural research, has had to undergo further modification. The term had to be applied to non-reproductive groups, and to the behaviour of both male and female members of the species - as against the 'family' group, and single-sex emphases of animal territorial behaviour. Such modifications, however well intentioned, do nothing to retain the original nature and meaning of any concept - rather, they add to both the fragmentation of the concept, and to the confusion over the concept's relevance in any specific application.

It seems unfortunate that a concept, which has proven utility in the analysis of animal behaviour, should be 'aborted' to the extent that territoriality has been, merely to broaden its sphere of application to include human behaviour. This 'abortion' is all the more futile in that, first, the modifications necessary to provide this breadth of application give rise to issues which polarise the concept's supporters; and, second, an abundance of concepts already exist within the social

sciences, in an unadulterated form, which give explanation to the same human behaviours as 'territoriality' attempts to do.

In this thesis the territoriality concept was employed to give explanation to group occupation of space, group defence of that space, and to group membership acceptance/rejection criteria. However, within the setting used in this investigation, other theories might have served just as well. The most competitive concept would have been the 'behaviour setting' concept of Barker and Wright (1954). The 'behaviour setting' theory, which dichotomises the environment into environmental and behavioural features as they impinge on the behaviour of persons, may be said to oversimplify complex interrelationships. Such breakdowns may be necessary for research purposes, as the behaviour setting, and the characteristics of behaviour settings, have been shown to be important determinants of the overt behaviour of children, adolescents and adults (Barker and Wright, 1954; Barker, 1963, 1968; and Barker and Gump, 1964). The behaviour setting, in concentrating on physical components and the overt behaviours of people, has characteristics which are almost identical to those of territoriality - as was discussed above in Chapter 2. However, the behaviour setting theory does not suffer from the polarising nature of debates which are a feature of the concept of 'territoriality'.

Other social scientists have viewed group behaviour in terms of the existence of similar or complimentary variables between the members and potential members of those groups. Of these variables, personality has been one of the more widely investigated.

"A clear case can be made for the influence of personality characteristics of group members on interaction within (and between) groups."

(Hollander, 1968. 307)

In studying the variable of personality, as an element in the choosing of friends, Izard (1960) came to the conclusion that personality similarity facilitates the expression of interpersonal positive affect.

Another variable investigated in terms of friendship choice has been that of needs.

"while numerous studies have shown that friendship choice is correlated with perceived need similarity and/or complimentary" "it seems reasonable to assume that similarity rather than complimentary is the more adequate hypothesis."

(Pierce, 1970. 231 and 236)

Attitude similarity (Newcombe, 1956; Newcombe et al., 1965) is another variable which has been found to influence group membership.

"If an interaction group is to be stable and effective, there is probably no more important requirement than that its members have favourable attitudes towards one another."

(Newcombe et al., 1965. 292)

It is not too difficult to associate school playground disturbances over membership with theories such as these.

Some other authors have chosen to collate all the various theories which have been coined - Hare, 1962; Berelson and Steiner, 1964; McGrath and Altman, 1966; and Cartwright and Zander, 1968 - while others have spent their time ratifying and coining new theories which give explanation to the behaviour of groups in group membership building.

Among these new theories is that of 'affiliation by social comparison'. Redloff (1968) used a wide range of studies and research in creating this theory, which maintains that:

"we remain in the company of those who agree with us or are similar to us, and we shun those who disagree with us or are dissimilar from us."

(Redloff, 1968. 950)

While this social comparison theory bears a close relationship to those theories which concentrate on a specific variable, it goes further than the latter in that it does not specify the criterion of similarity. It is implied in the Redloff theory that the criteria may vary from setting to setting. It also gives some indication of the possibility that intruders into a group may be accepted or rejected. Here again there is a viable alternative to the territoriality concept for the explanation and description of playground disturbances.

Still other authors have explored the phenomenon of the peer group in their search for an explanation of the behaviour and membership of children's and adolescent groups. These authors include Thrasher, 1927; Whyte, 1943; Strom, 1963; Munn, 1965; and Costanzo and Shaw, 1966; to name but a few. The peer group theory has it that:

"the peer group is one of the great motivating forces of adolescence. The relationship of an adolescent to his peers and his participation in their activities is usually one of the most important things in his life."

(Horrocks In Munn, 1965. 554)

A similar theory - that of reference groups - has also focussed on the group membership phenomenon among children and adults (Kemper, 1968; Purnell, 1970). The reference group, which is a group to which an individual relates or aspires to relate, is said to influence the behaviour of the individual. These groups offer specific roles for the individual; give exemplification of how the roles should be performed: and give rewards to the individual for outstanding performance within a role (after Kemper, 1968. 31-45).

Within the social sciences, then, there exists a variety of concepts and theories all of which could have been used in the analysis of school playground group behaviour. However, most would have had as many limitations as the concept of 'territoriality' has been shown to have - with all its assumptions and debates. But this is not to say that these concepts lack utility. They all, including territoriality, give part explanation of the complex whole of human behaviour. Each has its own positive attributes which makes it, more than another, particularly applicable in a specific investigation. The concept of 'territoriality', for example, is a particularly useful concept within research which involves the observation of the behaviour of groups in contact, and also in research which involves the analysis of the use of space by individuals or groups in contact.

At the outset of this thesis the author was very excited about the relevance of the concept of territoriality, and its characteristics, to the explanation and description of school playground disturbances. The first two investigations produced results which gave added impetus to that excitement. However, when it came to the investigation into group membership criteria, and when the hidden assumptions of the concept became evident, the excitement began to wane. The questions which grew out of these assumptions seemed to the author to produce problems which so many authors in the past have either glossed over or ignored, but which should have been resolved when the concept was first applied in human behavioural analysis.

While the concept remains a potentially useful part explanation of aspects of human behaviour, there are many definitional problems yet to be adequately resolved before the concept of 'territoriality' becomes a widely used tool of the social scientist.

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