People like to maintain a certain distance from other people. How far we prefer to be from others depends on who they are and the setting we are in. The people we interact with tend to have the same preferences as us so we may not usually notice that we carefully maintain the same physical distance from each other during a given interaction. However, we may feel odd or uncomfortable if someone else ‘breaks the rules’ by being too close or too far away. The study of these unspoken rules of ‘personal space’ is called proxemics and was pioneered by Edward Hall (1966). Hall suggested that, in Western society at least, distance during social interactions depends on the relationship between the actors. According to Hall, personal space can be divided into four zones (see Table 1).

### Personal Space

People with whom they are interacting. Research has generally supported Hall’s ideas, so friends typically stand closer to each other than acquaintances, people that are attracted to each other stand closer than those who are not and those that wish to appear friendly tend to choose smaller interpersonal distances (Taylor et al, 1997). Of course, there is some variation in how rigidly social distance is applied. As Gross (1992) observes, we sometimes allow near-strangers, such as doctors, dentists and hairdressers, into our intimate distance zone as physical contact is a necessary part of our transactions with them. People may be prepared to modify their response to the proximity of others when the physical environment constrains them from maintaining preferred social distance, as when travelling in a lift or on a crowded train. In addition, there are considerable cultural and individual differences in what is considered appropriate social distance (see below).

### Invasions of Personal Space

Generally, failure to maintain appropriate social distance results in psychological discomfort for the person who feels their space has been invaded.

<table>
<thead>
<tr>
<th>Zone of Interpersonal Interaction</th>
<th>Approximate distance</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intimate distance</td>
<td>0cm – 45cm</td>
<td>Sexual intercourse, nursing an infant</td>
</tr>
<tr>
<td>Casual-personal distance</td>
<td>45cm – 1.2m</td>
<td>Conversation with a friend</td>
</tr>
<tr>
<td>Social-consultative distance</td>
<td>1.2m – 3.6m</td>
<td>Conversation with a stranger, business meeting</td>
</tr>
<tr>
<td>Public distance</td>
<td>3.6m – 7.6m</td>
<td>Giving a speech or lecture to a group of people</td>
</tr>
</tbody>
</table>

Hall suggests that the nature of the social situation determines the proximity people maintain to others. People try to maintain a balance between being uncomfortably close to and awkwardly distant from the

The source of this discomfort is increased autonomic arousal, which can result in the experience of anxiety. One rather striking study that illustrated the impact of personal space invasion on anxiety was conducted by Middlemist et al (1976). It is known that anxiety can result in a delay in the onset and a decrease in the duration of urination. Middlemist et al used these measures as the dependent variables in a field experiment on the effects of unwanted proximity. The setting was a male toilet in which there were three urinals and a cubicle. Once an unsuspecting participant was using a urinal, a confederate would either position himself at the adjacent urinal (close) or at the urinal further away (moderate distance). In a control condition, participants were undisturbed. The time to onset and the duration of the participants’ urination were discreetly observed and timed. Predictably, when the confederate was adjacent, the participants’ average time to onset of urination was increased and their average duration of urination was decreased. This finding appears to confirm the suggestion that unwanted invasion of personal space increases anxiety. This, however, is not inevitable but appears to depend on the cognitive appraisal made by the person whose space has been invaded. When there is an obvious legitimate reason for the invasion, such as the press of a crowded train, then there appear to be no ill effects (Worchel and Yohai, 1979).

However, people do appear to take preventative action against invasions of personal space under such circumstances. For example, if you travel regularly by bus or train, you may have noticed that commuters frequently block off the seat next to them by filling it with coats or bags.

Animal studies identify two types of response to unwanted proximity. Under certain circumstances, an animal will attempt to increase the distance between itself and the invader (flight) and under others it will
act aggressively to drive off the invader (flight). Since the social norms governing human behaviour rarely sanction aggressive responses, much of the research into human responses to invasions of personal space have concerned the 'flight' response. Felipe and Sommer (1966) arranged for a female confederate to position herself near unsuspecting female participants studying alone in a public area. They manipulated the distance between the confederate and participant from 30cm to 1.5m. They found that the closer the confederate sat, the quicker the participant would leave. Additionally, they observed that, before leaving, the participant would engage in strategies to distance themselves from the confederate, including leaning and turning away and erecting barriers of books and other possessions (see the section below on territorial behaviour).

Try This...
Studies that involve observing participants without their knowledge or causing them to feel uncomfortable raise many ethical issues and both Middlinist's et al (1976) and Felipe and Sommer's (1966) are good examples. Using the ethical guidelines published by the BPS (or another professional body, such as the APA), write a short assessment of the ethical acceptability of these studies.

Gender Differences
Research appears to suggest that men and women define and use their personal space differently, although it should be added that there is considerable variation between and within cultures and possibly over time. However, as far as research in the West is concerned, it had been found fairly consistently that two men interacting prefer greater social distance than two women, who in turn prefer a greater distance than a male-female dyad (Gifford, 1997). This trend is a rather vague one, as research has typically failed to take into account the nature of the relationship between the two individuals in the dyad. For example, it might be expected that people in a romantic relationship will tend to sit closer to each other, regardless of their sexual orientation, although little research appears to have been conducted to confirm this. Severy et al (1979) suggest that trends in gender and personal space are not clearly discernable except when other factors, such as ethnicity, age and relationship are accounted for. However, between Western strangers, some gender differences in personal space can be discerned. Byrne et al (1971) suggest that men and women show different preferences for where they sit in relation to friends. They claim that, whilst men prefer to sit opposite their friends, women prefer to sit beside them. These differences apparently extend to how women and men respond to having their personal space invaded. Fisher and Byrne (1975) arranged for a confederate to invade the personal space of male and female users of a library. The confederate would infringe on the participant’s space either from the front or the side. They found that female participants reported feeling more uncomfortable when infringed upon from the side, whilst male participants felt more negatively about the experimenter when invaded from the front.

One criticism of the foregoing research concerns its age. If it is assumed that social norms of physical proximity (including gender differences) are the result of socialisation, then as society changes, so may the norms. Given that gender roles have changed quite markedly (in some respects) over the past few decades, we should not be surprised if what was found by Byrne and Fisher nearly 30 years ago is no longer apparent today. This is an example of why research into social behaviour should always be considered with reference to the social and historical context in which it took place.

Cultural Differences
As with many aspects of social behaviour, there are marked differences between cultures in what is considered an appropriate distance for conducting different types of social exchanges. These differences only usually become noticeable when members of different cultural groups interact. A colleague of the present author, from Southern France, frequently used to complain that his co-workers were unfriendly towards him, as they were always backing away from him in conversation. His co-workers, in turn, complained that he was overly aggressive in social exchanges, as he would stand far too close, invading their space. The problem, quite obviously, was one of cultural differences in their understandings of what was an appropriate distance for conversation between colleagues. Anecdotal examples like this are borne out by systematic research. For example, Sussman and Rosenfeld (1982) compared preferred social distances between students from different countries when interacting with a stranger from their own country. Their results are shown in Table 2.
As well as specific differences between countries, broad differences can be discerned between people from different cultural regions. In generally, White North Americans and Northern Europeans prefer the largest interpersonal differences, Southern Europeans tend to stand closer and the closest conversational distances are found between people from Arab and Latin American backgrounds (Sommer, 1969). As the anecdotal example given above indicates, such differences have important consequences, especially in a world where contact between members of different cultures is far more frequent that previously, for example in business. Taylor et al (1997) give the example of a business conversation between a North American, whose preferred social distance is about 1.2m and a Pakistani, who would typically stand closer to a conversational partner. As each attempts to shift to a comfortable distance, the Pakistani ends up feeling that the American is distant and unfriendly, whilst the American feels that the Pakistani is over-familiar. Such perceptions could have consequences for the outcome of their business discussions and examples like this highlight the need for sensitivity towards the expectations of other cultures.

Fortunately, this is something that can be taught. Collett (1971) describes a study in which English men were taught to stand closer and to make more eye contact with Arab men. As a result, the English men were better liked by the Arab men. It is now the case that proxemics is increasingly taught as one aspect of learning a foreign language, precisely to help avoid misunderstandings based on different cultural expectations.

### Violent Offenders

Some research has indicated that violent offenders have different preferences for interpersonal distance than other people. Hildreth et al (1971) found that people convicted of violent crimes were much more sensitive to the proximity of others than non-violent offenders. Kinzel (1970) reports similar findings, additionally suggesting that violent offenders are particularly sensitive to approaches from behind. However, this finding has not been a reliable one (Blackburn, 1993). Although it is possible that the inconsistencies of the findings relating to personal space in offenders are the result of methodological problems (e.g. unreliable classification of offenders as ‘violent’), it remains obscure what the significance of increased preferred personal space might be. One possibility is that those with a larger requirement for personal space are more likely to perceive the behaviour of others as threatening and hence are more likely to behave aggressively, resulting in a higher chance of them committing a violent offence. On the other hand, it could be that increased personal space represents a response to the stresses of incarceration (e.g. crowding and the continual threat of violence). On the basis of the evidence currently available it is impossible to say.