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5 Theory of Attachment and Place Attachment

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The theme of this chapter has its general reference frame in that sector of human experience represented by affect – feelings, moods, emotions, etc. – which people experience in various ways, forms, degrees, with varying awareness, with reference to the places in which they are born, live and act. Also, in relation to the other persons who live and operate in the same places.

We have all experienced some form of affective bond, either positive or negative, pleasant or unpleasant, with some place or other – a place that can be related to our current or past experience (childhood places), sometimes to the future (the place we dream of living in, where we would like to go/return to), and more or less restricted in scale: the house in which we live or have lived, a certain room in the home, the area around the home, the neighbourhood, the city, the country...

Each of us is familiar with peculiar aspects, nuances, of this affective world. It not only permeates our daily life but very often appears also in the representations, idealisations and expressions of life and affect represented by art products – in the first instance literature, but also other genres.

Indeed, not only do we acknowledge the existence of an affective bond with places, but also the importance that this can have in qualifying our existence, whether positively or negatively. And not just our individual, private, existence, but also the existence of entire human groups. There is perhaps no feeling of mutual affinity, community, fraternity among persons, whether formal or informal, institutionalised or not – nor feeling of diversity, aversion, hostility – that is not in some way related to matters of place, territory and attachment to places. For better or worse, this has far-reaching implications. The feeling we experience towards certain places and to the communities that the places help to define and that are themselves defined by the places – home (family, relations, friends), workplace (colleagues), church (fellow worshippers), neighbourhood (neighbours), city, country, continent – certainly has a strong positive effect in defining our identity, in

filling our life with meaning, in enriching it with values, goals and significance.

However, it can also have negative, and sometimes even disastrous, consequences. For example, the ethnic conflicts that have exploded for some time now in the former Yugoslavia, or the decades-long conflict between Israelis and Palestinians. These conflicts stem from an equal attachment to the same place, which puts them in competition.

In these cases it may be objected that, rather than attachment to a place, it is political, economic and religious issues that are at stake. But these issues themselves lead back more or less directly, more or less in good faith, to questions of attachment to the territory. Suffice it to consider the importance in Jewish culture of the idea, or rather the feeling, of a "Promised Land", of the greeting "next year in Jerusalem" that kept a people, physically scattered to the four corners of the Earth, spiritually united for centuries.

As a result of experience and common sense and general knowledge, affect related to places therefore exists, and is of a nature that, albeit not fully explicit and defined, nevertheless seems to distinguish it from other affective "systems" (towards objects, persons, ideas, etc.); furthermore it is perceived as one of those important factors that sometimes help and sometimes hinder our equilibrium, our material and spiritual well-being.

While this amply justifies the adoption of the topic as an object of scientific investigation, the transition from intuitive awareness of the existence of affective bonds with places to a scientific knowledge of the phenomenon is still far from satisfactory.

The interest in systematic investigation and the formulation of theories concerning affective bonds that individuals develop with their physical environment took a long time to emerge in environmental psychology. This does not imply a lack of awareness, but only that the phenomenon was long considered to be of secondary importance vis-à-vis the primary objective of studying the cognitive and behavioural aspects of such relationships. The very variety of terms used to refer to affective bonds with places – rootedness, sense of place, belongingness, insideness, embeddedness, attachment, affiliation, appropriation, commitment, investment, dependence, identity, etc. – seem to indicate not so much a diversity of concepts and reference models as a vagueness in the identification of the phenomenon.

Only recently has there been any convergence concerning the "technical", as opposed to the generic, common language use, of the term attachment, and interest in the topic is beginning to spread outside the strict people-environment research field (cf. Fullilove, 1996). Nevertheless, we

shall see how this term is still far from designating a specific phenomenon (Altman and Low, 1992; Giuliani and Feldman, 1993).

The caution with which affect has been approached in the psychological world is not however peculiar to environmental psychology. Cognitive psychology, dominant in the '70s, is only indirectly related to the role of affect in mental life and the term is of substantial significance only in the field of clinical psychology. Only in the '80s have cognitive psychologists rediscovered affect, although their interest is mainly circumscribed to the emotions ("hot" emotions) or to that ambiguous space between cognition and emotion represented by preferences (cf. Russell and Snodgrass, 1987, p. 249). The study of affect is even today the most problem-fraught sector in contemporary psychology, not only with reference to places, but also as regards interpersonal relationships. Fitness and Strongman (1991) vividly express the difficulties still encountered by those embarking upon research in this field:

> The study of affect in close relationships is simultaneously a fascinating, yet exasperating experience. On the one hand, because most human beings describe their close relationships in terms of their feelings and emotions (love, hate, fear, anger, contempt, gratitude, and so on), one has a sense that, of all possible theoretical and empirical approaches to close relationships, the affective is possibly the most basic and the most meaningful. On the other hand, the affective approach is also, without doubt, one of the most difficult areas in psychology to conceptualize, analyze, and theorize about in a meaningful way (p. 175).

Despite these difficulties, theorising about interpersonal bonds has certainly reached a more comprehensive state of elaboration than that about the links with places. In particular, starting from John Bowlby's early observations on the effects of maternal deprivation in children, a substantial corpus of theoretical and empirical research has accumulated over the past 40 years with regard to attachment (cf. Cassidy and Shaver, 1999). It is precisely with this model that we deemed it useful to compare the developments in research on attachment to places.

Before going on to describe this comparison, it is necessary, however, to settle one point. Speaking of affective bonds with places in the context of the theory of attachment in interpersonal relationships could give rise to misunderstanding. It might be taken to imply the assumption that predictive validity of infant's attachment patterns to significant figures applies also to attachment to places.

Instead we want to emphasise, on the one hand, the desirability for attachment theorists to broaden their concern to include significant relationships with places, if attachment theory seeks to be viewed as a comprehensive theory of affective development (Kobak and Sceery, 1988; Hazan and Shaver, 1987; 1994). Bowlby himself considered the attachment to a parent figure as part of a larger set of systems that have the effect of maintaining a stable relationship with the familiar environment (1973, Chapter 9)

On the other hand, environmental psychology, also because of the absence of any suitable general theories, does not appear to posit any questions for which researchers studying attachment in interpersonal relationships have endeavoured to provide answers, for instance, concerning the origins of attachment and its normal or distorted development – of possible relevance also in the case of places – and above all concerning the role of early experience in influencing later psychological outcomes.

The theory of attachment in interpersonal relations will thus be used as a stimulus towards reflection on aspects and concepts often used in environmental psychology literature outside any precise conceptual framework, that is, as a point of view from which to examine the problem, a point of view that is additive rather than opposed to the one from which attachment has been viewed in the other chapters (for instance, within the framework of identity or of schema).

In the following sections, after a brief illustration of those aspects of attachment theory that appear most relevant to the present context, we shall give an overview of the developments in research on affective bonds with places, before going on to address in greater detail several of the problematic issues arising out of the comparison between attachment to persons and attachment to places.

Attachment Theory in Interpersonal Relationships

In summing up the main aspects of attachment theory in one of his later works, Bowlby (1988) emphasises the importance of intimate emotional bonds as a basic characteristic of human beings:

> Attachment theory regards the propensity to make intimate emotional bonds to particular individuals as a basic component of human nature, already present in germinal form in the neonate and continuing through adult life into old age. […] Although food and sex sometimes play important roles in attachment

> relationships, the relationship exists in its own right and has a key survival function of its own, namely protection (p. 120-121).

Bowlby starts from observations on the effects of maternal deprivation and on children's behaviour during and after separation from the mother, and uses a theoretical apparatus that includes also psychoanalysis, ethology, developmental psychology, information theory and the theory of behavioural systems. His theory of attachment postulates that attachment behaviour – like other forms of instinctive behaviour, for instance, parental, reproductive, explorative and feeding behaviour – has biological roots and is characteristic of the species. Attachment behaviour of the child finds its complement in the mother's protective behaviour[1].

The antithesis of the attachment system is the exploratory system. The individuals are motivated to maintain a balance between behaviours that tend to maintain familiarity and reduce stress and behaviours that tend to extract novel information from the environment. When the child has a "secure base" to rely on, he is free to move away from it and explore the environment.

Despite the importance attributed to the "feeling" of attachment, the theory is concerned mainly with attachment behaviour, defined as 'any form of behaviour that results in a person attaining or maintaining proximity to some other clearly identified individual who is conceived as better able to cope with the world' (Bowlby, 1988, p. 26-27). The emphasis on behaviour nevertheless derives, according to Bowlby, not from a behaviourist paradigm, but from the characteristics of the method used, which are described at the beginning of volume one of the "attachment trilogy" (Bowlby, 1969, 1973; 1980). They are 'a prospective approach [i.e. to describe certain early phases of personality functioning and, from them, to extrapolate forward], a focus on a pathogen and its sequelae, direct observation of young children, and a use of animal data' (Bowlby, 1969, p. 7-8).

Attachment behaviour is mediated by an organised control system rooted in neurophysiological processes which incorporates information on the environment and allows behaviour to be planned as a function of its purpose. In the course of development, and on the basis of experiences of interaction with the main figure and the other figures of attachment, the child develops increasingly complex cognitive structures or representations of the world and of persons, including self and the attachment figures, which guide his interpretation of the world and his actions. These structures, or "internal working models" (Bowlby, 1973, Chapter 14; Main, Kaplan and

Cassidy, 1985), are produced as a property of the relationship, and are thus initially comparatively flexible in the sense that they are modified as a function of the environment. However, once they have become organised, they quickly tend to operate automatically and thus to become a stable property of the individual. Attachment behaviour begins to develop as an organised pattern as early as the first year of life.

Owing to its early onset compared with other social relationships and to the stability of the cognitive structures governing it, the relationship of attachment thus comes to represent a prototype of relational behaviour, an organising principle (Stroufe and Waters, 1977) of the affective personality.

On the basis of the experimental studies undertaken by Ainsworth *et al*. (1978) three principal models of attachment have been proposed – secure, insecure-ambivalent, and insecure-avoiding – to which is added a fourth type, insecure-disorganised (Main and Solomon, 1990). Research into individual differences of style of attachment and their persistence has been extended to include adults, in the direction of both intergenerational transmission of attachment models (Main, Kaplan and Cassidy, 1985) and of the reproduction of attachment models in adult affective relationships (Hazan and Shaver; 1987; Kobak and Sceery, 1988; Hazan and Shaver, 1994).

One aspect to bear in mind, particularly if attachment theory is to be taken as the first step towards an understanding of affective bonds in general, is the distinction between behaviour and bond or feeling of attachment. While attachment behaviour refers to any of the various forms of behaviour that the person engages in from time to time to obtain and/or maintain a desired proximity to the protective figure, an attachment bond is an enduring affective tie involving a specific individual.

Affects, feeling, and emotions are defined as 'phases of an individual's intuitive appraisals either of his own organismic states and urges to act or of the succession of environmental situations in which he finds himself' (Bowlby, 1969, p. 104). The roles of appraising processes are those of control of behaviour, of providing the individual with a monitoring service regarding his own states, urges, and situations, and of providing information to others. This explains why, given the fundamental role of attachment behaviour, 'no form of behaviour is accompanied by stronger feeling than is attachment behaviour. The figures towards whom it is directed are loved and their advent is greeted with joy' (*ibidem*, p. 209).

The formation of an affective bond seems mainly to be a function of the richness of the social interaction (intensity and quality of the interaction) with the person(s) towards whom the attachment behaviour is directed

(Bowlby, 1980, p. 39). The primary attachment figure becomes the one that takes the greatest care of and is most responsive to the child during the period of greatest sensitivity to bond formation. However, some other secondary figures are generally also the object of attachment (Bowlby, 1969, p. 303 and following). It seems even that the stronger and healthier the attachment to the main figure, the more likely there are to be secondary attachments (Bowlby, 1969, p. 308).

The relationship with the attachment figure tends to persist also under unfavourable environmental conditions, such as abuse and ill treatment, although this does not mean that it is not subject to change in the course of a lifetime. The capacity to adapt the models to fit the environmental situation is greater in the case of healthy development, that is of secure attachment, whereas adaptation becomes more difficult in the case of insecure attachments, as defence mechanisms come into play (Bowlby, 1980).

Thus, in this theory, "attachment behaviour" and "attachment bond" are precisely and narrowly defined compared with their common language meaning, although they are used with different nuances by the various authors, as will be seen more clearly in the following. To have an attachment bond with someone does not simply and generically mean to feel affection for him or her. It entails drawing a feeling of well-being and security from the proximity with or availability of a person. In this sense, one component of attachment may be present also in other affective bonds and attachment behaviour may be observed, especially in emergencies, at any age, even though it becomes harder to activate, less intense, and may be terminated even by purely symbolic conditions (Bowlby, 1969, p. 261). Moreover, with increasing age, the main attachment figure tends to change, and is often identified as the sexual partner, although the established ties with the parents are maintained.

The distinction between attachment and other affectional systems (Bowlby, 1969, p. 230 and following; Ainsworth, 1989; Weiss, 1991) is based on the functions they satisfy – reproduction, protection, affiliation or socialisation, etc. However, what characterises them all as bonds is that the partner is important insofar as he/she is a particular person that cannot be easily replaced by another, although there may well be a plurality of individuals to whom one is attached.

Before going on to examine the significance that the above theoretical framework may have for research on attachment to places, I shall briefly review the studies that have variously addressed the topic of attachment with reference to the environment.

First Contributions to the Concept of Attachment in Environmental Literature

The first non generic reference to affective bonds with places is to be found in the well-known study by Fried (1963) on the psychological effects of the forced dislocation of the population of a Boston suburb, the West End, in the course of a vast programme of urban redevelopment. The study, based on interviews administered prior to the transfer and two years thereafter, revealed that the reactions of a large number of interviewees resembled the sorrow experienced after the loss of a loved one. Fried postulated that the forced transfer from the place of residence represented an interruption in the individuals' *sense of continuity*, in that it involved the fragmentation of two essential components of identity, namely spatial identity and group identity, which are associated with strong affective elements. It is interesting to note that, as well as speaking explicitly of "attachment" to the place of residence, the article also refers to the psychodynamic literature on mourning. These references were dropped completely in later literature on attachment to place.

Although the study on the Boston West End is considered one of the cornerstones of environmental psychology, the possible theoretical implications that could be drawn from it for the purpose of formulating a theory of affective bonds with places were not developed. Even Fried in his later studies (Fried, 1982; 1984) uses the term attachment generically, more than anything else to mean satisfaction with one's neighbourhood.

For nearly twenty years, the notion of attachment is not included among environmental psychology research topics. Then, in the '80s, when attachment to places, and in particular to one's neighbourhood, increasingly becomes an object of study, the main reference time does not reflect the renewed interest in affect expressed in psychology in general, but in policy topics drawn from other disciplines, such as community sociology and human geography (Lee, 1968).

In the sociological field, there is lively debate on the alleged dissolution of local communities, which is theorised in particular by sociologists of the Chicago School as the inevitable consequence of modern urban life. The concept of local community, that is, of the system of social networks designed to function within well-defined geographic boundaries, includes as an essential component a sense of belonging, or attachment to the community. The term attachment is not used to denote any specific psychological phenomenon, but rather the complex of attitudes and

behaviours that may be associated with an affective bond with one's neighbourhood. In fact, very often no definition is given of the concept of attachment and the working definitions, which may be inferred from the indicators used to measure it, differ appreciably. Two publications, one British and the other American, which strongly influenced subsequent research, clearly illustrate this type of approach.

Janowitz and Kasarda (1974) reappraise the results of a wide-ranging survey carried out in 1967 in the United Kingdom with a view to examining the influence of a series of sociological factors on what is referred to as "community attachment and sentiment". Community attachment is measured using three variables: 1) the feeling of belongingness to the place of residence; 2) interest in what goes on in the neighbourhood; and 3) the pleasure or displeasure that would be experienced as a result of moving. The results of their survey show that the three indicators measure empirically separate phenomena in the sense that they are variously associated with both the independent variables considered (community size, population density, length of residence, and socioeconomic class), and with variables measuring social integration in the community. In particular, length of residence seems to be closely linked both to the feeling of belongingness and to the sorrow at moving out of the community – both of which are also age-linked –, while interest in what goes on in the community decreases with age and is linked mainly to socioeconomic class. The authors are concerned with demonstrating the superiority of a systemic model of social construction of the community over the model based on a linear development determined by population growth, and do not derive from these results a more comprehensive conceptualisation of attachment.

Conversely, Gerson, Stueve and Fischer (1977) state that their primary aim is precisely to clarify the 'nature and cause of attachment'. Attachment to place is defined as 'individuals' commitments to their neighborhoods and neighbors'. The authors claim that attachment is not a unitary phenomenon but one made up of several independent dimensions that allow four forms of attachment to be defined: three of which represent types of "social attachment" (*institutional ties*, that is, belonging to local institutions, *social activity*, the degree of involvement in neighbourhood organisations and social interaction with neighbours, *local intimates*, the presence of friends or relatives in the neighbourhood). A fourth dimension, denoted as "*affective attachment*", is measured by the satisfaction with the neighbourhood and the desire for residential stability. The proposed model is defined as one *of structural alternatives*, insofar as it emphasises the social and economic ties that limit the number of available alternatives.

Individuals thus *choose* to be attached to their neighbourhood in various ways that depend on their personal needs, opportunities and resources, as well as on the characteristics of the neighbourhood and their home. Also in this case the authors' interest is directed above all to those aspects of behaviour that are relevant to the notion of community and social cohesion, and not to attachment as an emotional phenomenon. Indeed, rather than an analysis of the affective aspects of the relationship with place, their research offers interesting results on the complexity of the factors affecting the choice of residential stability or mobility and the socialisation networks inside a given community.

The notion of attachment to place emerges in a much more substantial form in phenomenologically oriented human geography. One of the best known publications in this field, *Topophilia* by Yi-Fu Tuan (1974), already expresses in its title an interest in the affective aspects of the relationship with geographic space. It is the emotional significance that geographic spaces are able to take on in human experience that transforms them into "*places*".

Attachment to place is considered a fundamental human need (Relph, 1976), a need that contemporary society is increasingly unable to satisfy owing to its tendency towards gradual spatial uniformity, increased mobility and hence a purely functionalistic relationship with places. The most common situation in the western world is believed to be a stage that is mid way between complete attachment and a complete absence of attachment, so that places are experienced as intermediate between cognitive and emotional, between "points in a spatial system" and "strong visceral feelings" (Tuan, 1975, p. 152). An even more radical stance is introduced by the distinction between *rootedness* and *sense of place* (Tuan, 1980). The former is conceived of as an unconscious state of deep familiarity with a place which implies long continuous residence, while the latter is a conscious force of creation and conservation of "places" through words, actions and the construction of artefacts. Only this second type of bond with place is considered still to be possible for contemporary Americans, while rootedness is probably an "*irretrievable Eden*". However, we are not dealing with two levels of the same type of experience but with two opposite experiences: the attempt to retrieve a bond with place by searching through the past irremediably excludes that state of unself-consciousness that instead characterises rootedness.

Phenomenologically oriented authors base the centrality of place in human experience not so much on the psychological facts as on the Heideggerian concept of *Dasein* (Being-there), a concept which defines

man's existence as "Being-in-the-world", where world is understood as the complex of relationships between man, other men and things (Heidegger, 1962):

> Dasein is never 'proximally' an entity which is, so to speak, free from Being-in, but which sometimes has the inclination to take up a 'relationship' towards the world. Taking up relationships towards the world is possible only **because** Dasein, as Being-in-the-world, is as it is (p. 84).

A constitutive character of this Being-in-the-world is the "state-of-mind", the emotional tonality, that 'comes neither from "outside" nor from "inside", but arises out of Being-in-the-world, as a way of such Being' (p. 176). Even if Heidegger rejects a psychologistic interpretation of his discourse (p. 172-173), the analyses he made, in particular concerning the topic of the unauthenticity of existence, certainly contributed to thinking on the significance of places, above all, to the distinction between places and non-places.

The ideas of the human geographers exerted a strong influence on environmental psychology both by encouraging alternative approaches to the quantitative method and by focusing attention on individual experience as well as, with direct relevance to our topic, by stimulating debate on the psychological effects of residential stability.

It should be noted that although the above-cited work by Fried and the human geographers' research are often cited together as proof of the existence of affective bonds with places and the need for residential stability, their positions are actually somewhat different. Indeed the geographers advance the hypothesis that the affective bonds in question are universal and necessary for an "authentic" relationship with the environment. Fried (1963, p.168), on the other hand points out that 'this sense of continuity is not *necessarily* contingent on the external stability of place, people, and security or support' but that strong affective ties with the place of residence *may* be characteristic of particular groups of population under certain circumstances. Among other things, his work shows how such ties may to some extent prove dysfunctional, precluding adaptation to new opportunities (Fried 2000).

Developments in Research on Affective Bonds with Places

Starting from the '80s the concept of attachment begins to appear more and more frequently in environmental literature, especially with reference to the

home and the neighbourhood, although it still plays a marginal role. It was only in the '90s that attention focused on the affective aspects of the relationship between individual and environment as a topic of primary interest[2]. However, there is no correspondence between the amount of empirical research including one or more variables related to affective bonds with the environment, and the elaboration of theories capable of guiding the research itself in specific directions. Perhaps more than from the variety of definitions, the differences in the approaches are clearly expressed by the variety of attitudinal and/or behavioural indicators or predictors used to measure the presence or the intensity of the bond. Appendix 1 provides a long, although not exhaustive, list of the measures used in empirical studies.

In the following paragraphs we shall endeavour to illustrate the main research contexts in which the concept of attachment has taken on a certain importance, and precisely with reference to the quality of the residential environment, identity and territoriality.

Attachment and Quality of the Environment

One sector of research in which the concept of attachment was introduced with increasing frequency in the '80s is that of the evaluation of the quality of the residential environment.

Interest in the concept of attachment emerges from the concurrence of two research fields. On the one hand, within sociology and community psychology, as we have already mentioned, an affective dimension is acknowledged as essential to the concept of local community (Unger and Wandersman, 1985). As a result, an increasing number of studies are devoted to the identification of the relationship between the individual characteristics, socio-physical context and evaluative and behavioural responses possibly associated with the development of affective bonds. On the other hand, a main theme in environmental psychology is the search for measures of environmental quality sensitive to the inhabitants' needs, which allow for the psychological complexity of individual-environment relationship. With respect to satisfaction, which is seen as an attitude toward the residential environment (Weideman and Anderson, 1985; Francescato *et al.*, 1989), attachment represents a comprehensive measure, superordinate, able to include even behavioural and emotional aspects that go beyond a mere affective response. In fact, what qualifies attachment is not the positive valence of affects, but that it is perceived as a bond, with an

enduring quality, directed toward a specific target, not interchangeable with another with the same functional quality.

However, the distinction between satisfaction and attachment rests more on empirical results than on a theoretical basis. Fried (1982; 1984) for example, acknowledges that the concept of attachment spans a richer dimension of experience of place than satisfaction, but argues that the theoretical tools developed so far are unsatisfactory for the purpose of making an empirical analysis of the topic. His study thus focuses on residential and community satisfaction as a first step towards a broader conceptualisation of the meaning of residential places in the life of individuals.

Shumaker and Taylor (1983) have formulated a model of attachment which sets out to combine the concepts of satisfaction and attachment, and which represents both a deepening and a broadening of the concept of "place dependence" developed by Stokols and Shumaker (1981). Attachment is defined as 'a positive affective bond or association between individuals and their residential environment' (p. 233). Attachment can operate at the individual level as well as at the small-group and the neighbourhood level. From an evolutionary point of view, the functional value of the attachment bond can be identified as the promotion of residential stability until such time as the latter remains rewarding, while attachment is believed to decline when the place is no longer able to satisfy the inhabitant's needs. The model's core concept is the congruity between needs and the physical and social resources of the environment: in positive cases attachment is developed, whereas in the case of incongruity, the individuals will either not form attachments or be repulsed. The intensity of the bond is determined by the physical and social characteristics of the environment, by individual needs and peculiarities, and by the evaluation of the present situation vis-à-vis the possible alternatives and the effective possibility of making a choice. Also other outcomes of attachment may be postulated at a level of both social involvement and mobility, and at that of well-being and mental health. Moreover, like residential stability, attachment does not necessarily have a positive outcome, but may represent a source of individual hardship, conformist attitudes or social refutation.

Although the work is widely quoted in the literature, the relationship between satisfaction and attachment – that is, whether they are to be considered two separate concepts or whether satisfaction represents a component of or actually coincides with attachment – remains a controversial issue. Satisfaction is included among the indicators of attachment in Brown and Werner (1985), Stinner *et al.* (1990), Churchman

and Mitrani (1997), while Guest and Lee (1983) and Ringel and Finkelstein (1991) claim, on the basis of empirical results showing a different relation between the two variables and those referring to social, evaluative and behavioural aspects, that attachment and satisfaction must instead be considered as two separate, albeit related, notions. A similar stance is adopted also by Austin and Baba (1990), who measure attachment by means of a set of questions aimed at evaluating the interest in the neighbourhood, the sense of belongingness and orientation vis-à-vis residential mobility/stability, and evaluate the contribution made by social participation and satisfaction to attachment.

The greatest obstacle to setting up a unitary and agreed framework may be the excessive vagueness of the definition on attachment. Despite the parallel suggested by Shumaker and Taylor (1983) between person-place attachment and interpersonal attachment, the forming of bonds has not been related to a specific psychological need. Place attachment is seen as an umbrella concept embracing the multiplicity of positive affects that have places as targets. It is no wonder, therefore, that most empirical research concludes – in general on the basis of factorial analyses – that attachment is "multidimensional". At least two components can generally be identified as corresponding, albeit with some variation, to the two dimensions that Riger and Lavrakas (1981) call social bonding and behavioural rootedness. In the few cases in which attachment seems to be one-dimensional (see for instance Bonaiuto *et al.*, 1999), this appears to derive from the choice of items included in the scale.

Attachment and Identity

We have already seen how, in Fried's study of the West End of Boston, the author interpreted the suffering of the inhabitants caused by their forced transfer as a reaction to the fragmentation of their spatial and group identity (Fried, 1963). While the concept of group identity was already widely used in psychology, particularly in social psychology, the concept of spatial identity represents a new concept. Fried (1963, p. 156) defines it as

> a phenomenal or ideational integration of important experiences concerning environmental arrangements and contacts in relation to the individual's conception of his own body in space. It is based on spatial memories, spatial imagery, the spatial framework of current activity, and the implicit spatial components of ideals and assumptions.

Fried recognises that spatial components are included in Erikson's discussion of "ego identity", but justifies its introduction as a separate concept by postulating that 'variations in spatial identity do not correspond exactly to variation in ego identity' (*ibidem*, p. 156).

The issue of identity in relation to the physical environment was taken up again several years later by Proshansky (1978), who coined the term "place identity", as discussed in detail by Twigger *et al*. in this volume. In this chapter, therefore, only specific aspects of the theory associated with attachment are considered.

In Proshansky's first elaboration of the concept of place identity, attachment does not receive any particular attention: the feelings of attachment to places, objects and types of environment, together with aesthetic preferences, are considered to reflect the affective-evaluative dimensions of the individuals' place identity. In later papers (Proshanky *et al.*, 1983; Proshansky and Fabian, 1987), the concept of attachment to place is revised and extended, although there is no change in the basic approach as regards the formation of affective bonds. The feeling of affection for a place would develop in individuals whose positively-valenced knowledge of the environment in question largely exceeds the negatively-valenced knowledge. However, places normally associated with a positive affect can also preclude the emergence of any feelings of affection or even cause aversion when they threaten the individual's identity. The valence of cognitions making up the identity of a place depends on the overall quality of the physical environment and on its specific characteristics, on the quality of the social features associated with this environment, but also on the individual's capacity to adapt to the environment, or to transform it (in reality, or, particularly in the case of children, in their imagination).

Actually, the emphasis Proshansky puts on the evaluation of the environment as the driving force behind the process of attachment makes his position not significantly different from those already discussed concerning the quality of the environment. In fact, he does not seem to take up the aspect pointed out by Belk (1992, p. 38) that 'to be attached to certain of our surroundings is to make them a part of our extended self' and that the extended self is involved 'only when the basis for attachment is emotional rather than simply functional'.

A far more innovative aspect of Proshansky's theorisation concerns the emphasis on variability, which is derived from 'an ecological approach in which the person is seen as involved in transactions with a changing world. In effect, the implication is that it is no less crucial to explore the variability

of self-identity than to describe its more stable characteristics' (Proshansky *et al.*, 1983, p. 59).

The element of variation most frequently mentioned is the one associated with changes occurring in a person's lifetime, as the person's well-being demands both the preservation and the protection of his/her self-identity and changes of identity corresponding to transformations of the physical or social world, including changes in the roles played by the person during his/her life-time.

The tension between continuity and change, in particular in relation to social norms and cultural processes, is reflected in affective ties with places during one's life, as discussed Rubinstein and Parmelee (1992) and Feldman (1996). For a review of these works, see the chapter on place identity (Twigger *et al.*, this volume). Here we would like to underline that, although a positive correlation between length of residence and the intensity of attachment to the place of residence is a widely reported finding, the small number of studies in which longitudinal aspects of residential life have been taken into consideration have shown that the causal relationship postulated between high residential mobility and lack of affective bonds with places is far from having been proved.

Bahi-Fleury (1996) dedicates a research study precisely to the relationship between residential history, attachment and residential identity. The research involved a sample of 180 Parisians resident in different neighbourhoods of the city. The results show that, unlike relational rootedness (quality and intensity of social bonds), attachment, that is the affective investment made in the neighbourhood of residence, is comparatively unaffected by the length of residence. On the other hand, the modality of arrival in the neighbourhood, or the perception of whether it was a free or a compulsory choice, carries greater weight. One further interesting fact is that a high degree of mobility during childhood is associated with a greater desire for stability in adulthood, while global residential mobility does not seem to play any significant role. Affective investment seems to be closely linked to neighbourhood quality, but also to previous experiences and compatibility with residential identity.

The stage of life at which a certain residential experience was acquired does not however have the same weight in the development of attachment and in the construction of identity. Strong positive affective bonds seem to develop towards the environments experienced in childhood or adolescence, and more occasionally towards environments experienced only in adulthood. Moreover, affective investment in the present neighbourhood shows a positive correlation with intensity of affective investment in the course of

life, and unsatisfactory residential experiences occurring during infancy and adolescence seem to have negative long-term consequences on the capacity to form attachments in adulthood, even towards the more satisfactory environments.

The relationship between identity and childhood experiences seems to be less straightforward. For example, the fact that a rural identity is expressed more frequently by younger people, while for the older ones the previous rural experiences seem instead to encourage the expression of Parisian identity, seems to suggest that cultural models or stereotypes play a very important role (Bahi-Fleury, 1996).

Attachment and Territoriality

As we have seen, both in satisfaction and identity models, affective bonds are considered as stemming from an appraisal of the congruence between physical and psychological needs and characteristics of the environment. A more central role is played by the emotional component in the model of human territoriality described by Altman (1975). Territorial behaviour, or control of the territory, is viewed in this model not as instinctive behaviour, but as purpose-oriented behaviour subject to social rules, the primary function of which is to regulate social interaction.

Brower (1980) defines human territoriality as 'the relationship between an individual or group and a particular physical setting, that is characterized by a feeling of possessiveness, and by attempts to control the appearance of the space' (p. 180). The act of exercising control over a specific physical environment is defined as "appropriation of space", where "attachment" is one of three elements, together with "occupancy" and "defence". Attachment is defined as 'the feeling of possessiveness that an occupant has towards a particular territory because of its associations with self-image or social identity' (p.192). In a subsequent paper (Taylor, Goddfredson and Brower, 1985), the two concepts of territorial functioning and attachment are however distinguished on the basis of empirical data that indicate their association with two different sets of predictors. It must be pointed out that the operationalisation of attachment (see Appendix 1) emphasises neighbouring attitudes and behaviour more than emotional involvement. Two attachment dimensions are identified, one called "rootedness and involvement" and the other "local networks or cognitions", similar to those proposed by Riger and Lavrakas (1981).

A clearer focus on the affective aspects of human territoriality is found in Brown (1987). The primary function of human territoriality, in addition to

the regulation of the social system, is assumed here to be the expression of individual and group identity. The identifying function is expressed not so much in the form of occupancy and control behaviours but in the personalisation of space, which results in the formation or intensification of affective bonds between occupant and the territory. Territories are classified as primary, secondary and public in terms of both occupancy and defence, as well as of psychological centrality: primary territories are better able to express individual identity and are characterised by stronger feelings of attachment, while secondary territories tend to express a social or group identity. An operationalisation of the concept of attachment that fits this model is found in Brown and Werner (1985), who include, among the measures of attachment behaviour, knowledge and expressions of psychological investment (see Appendix 1). The results of research show that the street layout can facilitate attachment to the neighbourhood and thus the development of a secondary territoriality.

Harris, Brown and Werner (1996) relate home attachment to a central aspect of the territoriality model – namely the regulation of privacy. Attachment is described as 'an individual psychological process, embedded within the home setting, developing over time, and involving affect, cognition, and behaviour' (p. 289). Of particular interest is the attempt to break attachment down into several different aspects – which the authors admit are not exhaustive, especially with reference to environmental situations outside the home – by making a distinction between attachment as an "outcome" (i.e. feeling attached) and attachment as a "process" (i.e. reasons for attachment). Principal component analysis of the items adopted to measure attachment (see Appendix 1) is used to identify three interrelated forms of attachment to home, denoted as *"home experience"*, *"rootedness"* and *"identity"*, all of which are related in different ways to privacy control. One further interesting aspect of this research is the conclusion that not all forms of attachment – in particular that associated with the expression of identity – demand a long term experience with place and that the 'tendency to equate attachment with more permanent residences may have more to do with our cultural bias toward home ownership than with reality' (p. 297).

It must be underlined that, although the identity functions of territoriality play a central role in this framework, the development of an attachment bond is not derived from the salience of a place in the structure of one's own identity, but from the actual experience with a place. Precisely because of the lack of concrete experience of place, Brown (1987) excludes the so-called *"commemorative environments"*, that is places deriving their

meaning from the symbolic association with cultural values, from possible places of territorial attachment. The notion of territorial attachment has then a more restricted meaning compared with other approaches, which focus on the opposite on the very symbolic association between individuals or groups and particular settings or environments (Low, 1992):

> Place attachment can apply to mythical places that a person never experiences, or it can apply to land ownership and citizenship that symbolically encode sociopolitical as well as experiential meanings (p. 166).

Attachment to Places and Attachment to People: Open Questions and Direction of Research

This rapid overview of the principal contexts in which the phenomenon of attachment has been examined in the field of environmental studies clearly reveals both differences and similarities with Bowlby-Ainsworth's attachment theory. Perhaps the first question to be answered is whether attachment to places and attachment in interpersonal relationships share the same definitional features.

Even among those researchers who have been inspired by Bowlby's attachment paradigm, the views on what bonds have to be considered as attachment are not unanimous (cf. Ainsworth, 1982, p. 23-24). However, there is a general consensus concerning the criteria defining an affectional bond:

> I define an "affectional bond" as a relatively long-enduring tie in which the partner is important as a unique individual and is interchangeable with none other. In an affectional bond, there is a desire to maintain closeness to the partner. In older children and adults, that closeness may to some extent be sustained over time and distance and during absences, but nevertheless there is at least an intermittent desire to reestablish proximity and interaction, and pleasure-often joy-upon reunion. Inexplicable separation tends to cause distress, and permanent loss would cause grief (Ainsworth, 1989, p. 711).

In addition to these defining features, an additional criterion qualifies the attachment bond: 'a seeking of the closeness that, if found, would result in feeling secure and comfortable in relation to the partner'.

Do bonds with places meet these definitional criteria for attachment?

The persistency over time of the bond is a characteristic that also seems to apply perfectly to bonds with places; indeed, prolonged association

between an individual and a place is widely recognised as one of the distinctive features of attachment to place. As happens with attachment to people, individuals may not be conscious of their attachment to a place (Stokols and Shumaker, 1981; Giuliani, 1991), and only become aware of it under particular circumstances, such as when the bond is threatened. This does not mean, however, that a bond cannot fade away (Brown and Perkins, 1992), or that new bonds cannot be created during a lifetime. The relationship between the different kinds of bonds has been investigated relatively little from a developmental point of view. Bowlby maintains that although attachments to parents remain throughout life, in adulthood they are no more the most central relationships. The problem of changing the composition and structure of attachment hierarchies is only starting to be dealt with, in connection with investigations of adult attachment (Hazan and Zeifman, 1999). As concerns places, those of childhood often seem to maintain a particular status in the affective hierarchy, but because of the lack of longitudinal studies, there is too little data to be able to formulate precise hypotheses. Giuliani, Ferrara and Barabotti (2000), in a study of place attachments of a high mobility population, found that for the vast majority the place of greatest affection is one's birthplace, but there is also a great variability related to mobility experiences and life stages. In addition, only a minority wants to go back and live there. Hay (1998) found that, among people who had moved away after the age of 12, there were strong bonds to the birthplace in a "nostalgic" sense, as there was no intention to move back. Among those who had moved away at an earlier age, 'only some warm memories for the former place remained'. May we nonetheless consider this kind of bond an attachment bond?

The second criterion, namely the uniqueness of the attachment figure, seems to be a useful criterion, as already mentioned, for distinguishing attachment from satisfaction. But it also implies that the object of attachment is a particular figure. Rivlin (1982), in re-elaborating the distinction between the *geographical* and *generic place dependence* proposed by Stokols and Shumaker (1981), suggested using the nature of the experience to distinguish two levels of significance for places, and postulates that these two levels correspond to bonds of different intensity and nature. The first level of place meanings does not require direct experience of the places, but 'the sites act as symbols evoking the feelings'. On the other hand, the second level results from ties that 'develop through contacts within a place and through personal life history in an area'. Only these second places seem to satisfy the criterion proposed since the symbolic bond is not established with the place as such, but because of its

symbolic value. The difference in the nature of the two types of bonds emerges in relation to the way they are formed, the desire for contact and the function that they have. It is this difference that makes it difficult to establish a hierarchy of affective intensity: for example bonds with sacred places discussed by Mazumdar and Mazumdar (1993) are very intense.

Feldman's hypothesis (1990) of a "settlement identity" does not conflict with the specificity of the object. In fact, the settlement identity may be considered an element facilitating the establishment of an attachment, but need not imply being attached to all occurrences of a particular category of environments.

The third criterion, that is the desire to remain in contact with the attachment figure, seems to correspond to a desire for residence stability, widely used as one of the indicators of attachment to place. The desire for contact may be taken in a purely mental rather than physical sense, or through objects that represent or recall the place and may extend to places that are different from the residential environment. Visiting sacred places is part of a number of religious rituals (Mazumdar and Mazumdar, 1993), periodic returns to secondary residences and vacation homes are often intensely desired (Giuliani and Barbey, 1983; Hay, 1998). To what extent does this contribute to qualifying the bonds that can emerge as bonds of attachment?

The criterion complementary to the joy of reunion is the distress provoked by involuntary separation or the grief of loss. The fact that reactions similar to those for the loss of a loved one can be felt in relation to places was the starting point for the considerations on attachment to places and is amply described in all research on displacement (for a review, see Brown and Perkins, 1992). In addition, literature on homesickness (for a review, see Van Tilburg *et al.*, 1996) shows that it occurs frequently among both children and adults (Fisher, 1989; Eurelings-Bontekoe *et al.* 2000). However, leaving home is not necessarily associated with loss. Stokols, Shumaker and Martinez (1983), in a study on the relationship between residential mobility and health found that a high index of mobility is associated with an increased presence of symptoms of malaise, but also that the relationship between mobility and health is not always negative. Persons with less opportunity for choice who are obliged to live in an environment that does not come up to their expectations are more likely to have health problems than those with a high residential mobility. The authors postulate that mobility may be a strategy to correct undesirable aspects of one's life and one such undesirable aspect could be lack of attachment, since such a lack is a significant indicator of future mobility.

Furthermore, the indicators used to measure attachment only rarely allow for a distinction between affective bonds and the infinite network of practical and social relationships that tie each of us to our own place of residence and make moving home or any change of neighbourhood or city an event that is generally stressful (cf. Lee, 1990).

The final, and most important criterion, is the seeking of security and comfort. In environmental literature, the association between place and security has been investigated in particular with reference to the concept of home. Home in fact can be considered as the place *par excellence,* being 'a relationship or experiential phenomenon rather than the house, place, or building that may or may not represent its current manifestation in built form' (Dovey, 1985, p. 34). In the phenomenological perspective, this experience is defined in terms very similar to the bond of attachment to place: '… being completely at home – that is, unreflectively secure and comfortable in a particular locality' (Tuan, 1980, p. 5), or elsewhere 'home is a place of rest from which we move outward and return […] a place of security within an insecure world, a place of certainty within doubt, a familiar place in a strange world…' (Dovey, 1985, pp. 45-46).

The significance of the home emerges from the memory and the consideration of one's own residential experience (Cooper Marcus, 1992; 1995; Horwitz and Tognoli, 1982; Rowles, 1984; Sixsmith and Sixsmith, 1991; Chawla, 1993; Giuliani and Barbey, 1993), from the contrast between home and non home (Sixsmith, 1986; Smith, 1994), and again from the comparison between the experience of being at home versus voluntary departure therefrom, of travelling (Case, 1996).

Feelings of security and comfort are included among the constituent elements of the experience of home in several empirical research studies (Sixsmith, 1986; Dupuis and Thorns, 1996; Case, 1996; Wiesenfeld, 1997). Sebba and Churchman (1986) observed that the feeling of security is perceived as particularly important by the younger children (less than 13 years old) and is not a function of the physical protection offered by the home but of permanence (in Bowlbian terms we could say of accessibility). Chawla (1992) proposes a typology of infantile forms of attachment drawn from an analysis of literary autobiographies, which reveal the variety of meanings or psychological needs that places can perform in the life of children. The most common form of attachment that emerges is that of a feeling of *affection* associated with security and family love. Smith (1994), using only adult subjects, found that the feeling of comfort appears more and more frequently in women's description of homes.

In addition to security and comfort, many other psychological functions are attributed to the home, the importance of which may vary as a function of age or sex, or also of the stage reached in the process of constructing the place as a significant space in the inhabitants' lives. In order to reach a more comprehensive theory of affective development, attachment might be better conceptualised as a "component" of different ties than as a specific bond.

In fact, we may conjecture that the need for security and protection preponderates during certain stages of life (e.g. childhood and old age), while other needs emerge more forcefully in adolescence and at various stages of adult life (e.g. exploration, affiliation, self-expression, etc.). The strong attachment the elderly display towards the home might thus be seen as the re-emergence of the dominant need for security and protection. Impaired physical resources and the diminished capacity to adapt spatial behaviour patterns to changes in the immediate environment contribute to making the elderly retreat from the novel and seek security. Similarly, the stronger attachment to the neighbourhood found among the lower classes might be accounted for by the continued activation of stress reducing behaviours connected with poverty of resources (Fried 2000).

In relationships with places, just as in interpersonal relationships, the same relationship may have a number of functions. Just how important each of these may be in the definition of the type of bond, how the different functions interact and how their comparative relevance changes in the course of a lifetime and in accordance with personal experience and cultural context, remain open questions in both research sectors.

Conclusions

Marris (1982) points out that 'the relationships that matter most to us are characteristically to particular people whom we love…and sometimes to particular places that we invest with the same loving qualities' (p. 185). This is a statement that many would have no trouble subscribing to, and it suggests the need to elaborate theories of human affect that include persons, places, and even animals and physical objects.

The survey of literature on attachment to place outlined in the preceding sections seems to indicate that the end is anything but in sight. Many similarities emerge in the identification of aspects typical of affective relationships between human beings and between persons and places: the importance of the psychological functions performed by these relationships

in enhancing the well-being of individuals, the varying importance of particular functions at different stages of one's life, the persistence of the bonds over time, the reactions of sorrow in the case of loss, etc. On balance, however, the differences seem to outweigh the similarities.

One fundamental difference between the Bowlby-Ainsworth theory and the various approaches followed in dealing with affective relationships with place is the evolutionary framework adopted in the former compared with the socio-cultural perspective dominant in the latter. In suggesting a parallel between interpersonal attachment and attachment to place, Shumaker and Taylor (1983) present some arguments in favour of an adaptive function for attachment to place. Nevertheless, the argument plays a marginal role with respect to the emphasis placed on the cultural construction of the meaning of the places in society.

A second main difference, which derives directly from the first (Simpson, 1999), lies in the different way of considering developmental aspects.

Attachment theory has focused primarily on infancy and early childhood. Research on attachment beyond infancy has tried to find out how adolescents' or adults' different styles of affect regulation, associated with different working models of attachment, can be related to childhood experiences of attachment with caregiver[3].

Turning now to attachment to place, we observe a lack of specific hypotheses concerning the possible relationships between environmental experiences and the formation of attachment patterns (Giuliani, 1991), which allow comparison with the development of affective bonds in interpersonal relationships. The challenging question of the potential long-term (positive or negative) consequences of early experience is still open to discussion.

Finally, as we have already observed, in attachment theory "attachment" has an extremely restricted meaning compared with the extremely broad concept of "place attachment". Various authors have suggested talking about attachment**s** to place rather that merely attachment, acknowledging the need for a better characterization of the different kinds of bonds (Low and Altman, 1992). This is not a mere terminological matter: in order to achieve a better understanding of the relations between the different bonds, the psychological function of each kind of bond and the differences in formation process, in the behaviours that manifest it, in the characteristics of the object of attachment, in the way in which the bond dissolves or transforms, as well as its psychological consequences must be

identified. In doing so, comparison with interpersonal bonds can provide a useful contribution – but by no means an exact analogy.

Notes

1 Bowlby repeats on several occasions that he uses the term *mother* for "the sake of conciseness" and that it does not necessarily mean the natural mother but 'the person who mothers a child and to whom he becomes attached. For most children, of course, that person is also his natural mother' (Bowlby, 1969, p. 29)

2 Of the six reviews of environmental psychology appearing in the *Annual Review of Psychology* from 1973 to 1996, only the last one (Sundstrom, Bell, Busby, and Asmus, 1996) contains a section, albeit very brief, on attachment to place. In previous reviews the topic was not even mentioned.

3 What is important to underline here is that attachment theory is a "normative" theory: the norm is the secure attachment, and secure attachment means healthy emotional development.

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Appendix 1: Indicators or measures of attachment

Janowitz and Kasarda (1974)

Measures of community attachment (3 items)

- Is there an area around here where you are now living which you would say you belong to, and where you feel "at home"? (yes/no)
- How interested are you to know what goes on in *** [Home Area]? (4-points)
- Supposing that for some reason you had to move away from *** [Home Area], how sorry or pleased would you be to leave? (3-points)

Gerson, Stueve and Fischer (1977)

Measures of neighborhood attachment

Social involvements:

- institutional ties – the extent to which the respondent's family was formally involved in the neighborhood through church, school or work (5 items)
- sociable neighboring – a scale measuring the degree to which members of the respondent's family talked, dined, and spent leisure time with neighbors (5 items)
- organizational involvement – membership and activity in a neighborhood organization (2 items)
- kin in neighborhood – whether various relatives lived in the neighborhood (4 items)
- friend in neighborhood – the presence of at least some of the respondent's friends in the neighborhood (1 item)

Affective attachment:

- *happy with neighborhood* – how happy the respondent was with the neighborhood (3-point scale)
- *unhappy to leave* – how unhappy the respondent would be if he or she had to move (4-point scale)

Riger and Lavrakas (1981)

Measures of neighborhood attachment (6 items yes/no)

Bonding:

- In general is it pretty easy or pretty difficult for you to tell a stranger in your neighborhood from somebody who lives there?
- Would you say that you really feel a part of your neighborhood or do you think of it more as just a place to live?
- How about kids in your immediate neighborhood? How many of them do you know by name: all of them, some, hardly any, or none of them?

Rootedness:

- How many years have you personally lived in your present neighborhood?
- Do you own your home or do you rent it?
- Do you expect to be living in this neighborhood 2 years from now?

Stokols, Shumaker and Martinez (1983)

Measures of attachment to dwelling, neighborhood, city

to previous residences:

- Whether or not they missed earlier environments
- Degree to which they missed friends and relatives from those places

to present dwelling/neighborhood/city (5-point Likert scales):

- Feeling of attachment to
- How disruptive would be for the individual to move from that place

Taylor, Goddfredson and Brower (1985)

Indicators of attachment to the neighborhood

- owner status
- length of address in the neighborhood
- assessment of overall perceived similarity with neighbors on the block
- proportion of addresses on the block where he or she was acquainted with someone
- belongingness to any other local organizations to which other residents on the block also belong
- reliance on neighbors (3 items: if they had asked neighbors on the block to watch their house for them, take in mail, or water plants when they went away)
- ability to provide a neighborhood name
- gardening in back (as rated by the authors)

Brown and Werner (1985)

Measure of neighborhood and block attachment

- holiday decorating behavior (4 items)
- index of neighboring behaviors (amount and kind of contact with neighbors, 1 to 11)
- scale of satisfaction (5 items)
- scale of identification (4 items)
- scale of sense of security on the block (5 items)
- scale of pride in the homes physical appearance (6 items)
- scale of sense of privacy (2 items)
- scale of pleasure derived from decorating the home (2 items)

Austin and Baba (1990)

Measures of neighborhood attachment (5 Likert-scaled items)

- If I could keep the home I now have, but could move it to another neighborhood, I probably would move it
- I am interested in what happens in this neighborhood
- If I had to move from this neighborhood now, I would be sorry to leave it
- I plan to be living in this neighborhood still five years from now
- I feel like I am definitely part of this neighborhood

Ringel and Finkelstein (1991)

Attachment to neighborhood (1 5-point item)

- How attached do you feel to your neighborhood?

Satisfaction with neighborhood (3 6-points items)

- How satisfied or dissatisfied are you with your neighborhood as a place to live?
- How good or bad is your neighborhood as a place to live?
- How much do you like or dislike your neighborhood as a place to live?

Lalli (1992)

*General attachment sub-scale (4 5-point items)**

- I have got native feelings for Heidelberg
- I see myself as a 'Heidelbergian'
- I feel really at home at Heidelberg

- The town is like a part of myself

** Others sub-scales included in the "Urban-identity Scale" are the "external evaluation", "continuity with personal past", "perception of familiarity", and "commitment".*

Fuhrer, Kaiser and Harting (1993)

Measures of place attachment (rating of 17 statements on a 3-point scale) on

- social contacts in home and near home-home territories
- personal intentions about home and near home-home territories
- behaviors within home and near home-home territories
- opinions about home and near home-home territories

Feldman (1996)

Attachments to a type of settlement (volunteered statements included in in-depth interviews)

Psychological attachments:

- *embeddedness*, a sense of belonging in, being part of, and feeling at home in the residential environs
- *community*, a sense of being involved with and tied to geographically based social group
- *at-easeness*, a sense of being unconstrained and comfortable in a familiar place
- *uniqueness of place*, a belief in the uniqueness of one's home locale, a place that is unequaled and irreplaceable
- *care and concern*, a sense of responsibility and commitment to continue to attend to and tend for a home place
- *unity of identities*, a joining of the identity of self and referent group(s) to the physical setting of the past, present, and future residential environs
- *bodily orientation*, unconscious orientation of the body and bodily routines in the familiar spatio-temporal order of home place
- *appropriation of place*, perceived or actual possession and/or control over place
- *centeredness*, home place as a focal point of one's experiental space, a point of departure and return

Behavioral attachments:

- descriptions about where the interviewees currently lived and their plans for the future

Harris, Brown and Werner (1996)

Measures of home attachments

Attachment outcome (feeling attached) (6 9-point Likert scales of agreement):

- general attachment
- satisfaction with the apartment
- feelings of rootedness

Attachment processes (reasons for attachment) (17 7-point scales):

- *safe haven*, the home is a safe haven where the resident can relax, feel secure, and recuperate from the stresses of the outside world
- *connection*, the home is a place to spend time with family members and to feel a sense of belonging and connection

- *activity*, the home is a place to carry out daily activities that the resident enjoys and/or that the resident can not easily perform elsewhere
- *identity*, through personalization and as a repository for identity linked objects, the home expresses and reinforces a sense of identity

Bonaiuto, Aiello, Perugini, Bonnes, Ercolani (1999)
Neighborhood attachment scale (6 4-point agreement items)
- This is the ideal neighborhood to live in
- Now this neighborhood is a part of me
- There are places in the neighborhood to which I am very emotionally attached
- It would be very hard for me to leave this neighborhood
- I would willingly leave this neighborhood
- I would not willingly leave this neighborhood for another

Bahi-Fleury (1997)
Neighborhood attachment indicators (10 items)
Affective investment (4 3-point items):
- feeling at ease
- feeling at home
- being interested in the future of the neighborhood
- happiness/unhappiness to leave

Social investment (6 3-point items):
- presence of relatives/friends in the neighborhood
- occurrence of encounters with familiar people
- nature of neighboring relationships
- satisfaction with neighboring relationships
- nature of relationships with shopkeepers
- satisfaction with relationships with shopkeepers

Churchman and Mitrani (1997)
Measures of attachments at three levels: country level, city-neighborhood level, building-apartment level
Direct question (1 item):
- How attached do you feel to ***?

Indirect questions (4 items):
- How satisfied are you with ***?
- In comparison to with the EX-USSR, are you satisfied with *** more, less or the same?
- How sorry would you be to leave *** now?
- To what extent do you feel that this is your country/neighborhood/apartment?

Hay (1988)
Intensity of "sense of place" (composite variable developed from 4 questions)
- feelings of place attachment
- importance of localized ancestry
- feelings of being an insider

- motivation to remain on the locale

McAndrew (1998)

Rootedness scale (10 5-point items)

"Desire for change" subscale (6 items):

- Moving from place to place is exciting and fun
- I could not be happy living in one place for the rest of my life
- Living close to certain natural features such as the ocean or mountains is very important to me
- I like going places where no-one knows me
- There is not much a future for me in my home town
- Most of the people that I knew when I was growing up have moved away

"Home/Family" subscale (4 items):

- I am extremely satisfied with my present home
- My family is very close-knit and I would be unhappy if I could not see them on a regular basis
- I have several close, life-long friends that I never want to lose
- I love to reminisce about the places I played when I was a child

Mesch and Manor (1998)

*Measures of neighborhood attachment (3 items)**

- proud to live in the neighborhood
- sorry to move out
- have plans to move out during the next year

** Additional measures included in the study are "Local social ties", "Economic and social investments in locale", and "Satisfaction with the neighborhood".*