

Accordingly, by the time that the principles and methodologies of spatial science had been codified and widely disseminated, something of a backlash had developed, with critiques being articulated by a number of geographers (ironically, including Harvey) who felt that positivism offered an inadequate philosophical and political basis for the development of theory in human geography. As we shall see, these criticisms concerned both the ontological and epistemological basis of spatial science, characterizing quantification variously as arid, simplistic, irrelevant and exclusive. While many of these critiques were misplaced, and only applied to caricatured versions of logical positivism (Sheppard, 2001), their cumulative impact was to fuel the search for alternative theoretical frameworks in human geography. None the less, positivism in its various guises continues to underpin much research in human geography, particularly (but not all) research involving quantification. Similarly, the search for 'ground truth' and the principles of spatial science have continued to inform the development of Geographic Information Systems (Pickles, 1995). Hence, Barnes (2001b, p. 416) has insisted that 'the quantitative revolution was a pivotal moment for human geography, shaping it theoretically, methodologically and sociologically for years afterwards'.

2.3 DEVELOPING 'HUMAN-CENTRED' THEORIES

As described above, the proponents of spatial science argued that an understanding of spatial structures through quantitative analysis and modelling would lead to an enhanced understanding of spatial organization and human activity. Yet criticisms of this approach became increasingly widespread in the 1960s and 1970s as the assumptions of spatial science and (logical) positivism were brought into question. One of the most obvious critiques was that the isotropic and featureless landscapes assumed by spatial science simply did not exist (Cloeke *et al.*, 1991). More fundamental, perhaps, was the emerging criticism that spatial science worked with a very limited view of what it is to be human. In many of the models developed by spatial scientists, people were frequently represented as vectors or movements (making up aggregated flows). Rejecting this idea, many geographers began to propose alternative models of human subjectivity in an attempt to articulate a more 'human' human geography. As Plummer (1983, pp. 77–8) explains, 'many sociologists or geographers begin with a view of the person as an active, creative world-builder, but before they have finished their theoretical endeavours, they have enchained, dehumanized, rendered passive and lost that same person' (see also Holloway and Hubbard, 2001, pp. 8–12). Two important (and related) traditions that emerged as a result of this critique were behavioural and humanistic geography.

2.3.1 *The behavioural critique*

Like those who attempted to restyle geography as a spatial science, behavioural geographers largely took their inspiration from the sciences, particularly

psychology. In broad terms, psychology is the 'science of the mind'. Many people's image of psychology is that of a laboratory-based discipline, of scientists in white coats monitoring the behaviour of rats in mazes; for others, it might be of the psychoanalyst asking the patients to lie back on the couch and to tell them about their childhood. Either way, it might seem a little surprising that some geographers looked to psychology to provide them with clues as to how people related to their surroundings. However, the engagement between geography and psychology remains a very important one, albeit one that has become somewhat ghettoized since its heyday in the 1970s. Attempting to identify when this interest in psychology first became apparent is by no means straightforward (Goodey and Gold, 1985), although certain figures have been cited as particularly influential in expanding the horizons of geography beyond the realms of locational analysis by exploring psychological ideas. Gilbert White, William Kirk, John Wright and David Lowenthal have all been credited with bringing such ideas into the geographical fold, although further archival analysis reveals less obvious lines of intellectual heritage from the Berkeley School (a North American group of historical-cultural geographers led by Carl Sauer and interested in the relationships between humans and environments as manifest in specific landscapes). Although many of these individuals and groups were writing in the 1940s and 1950s at a time when descriptive regional analysis was still predominant, their influence was primarily felt in the late 1960s as dissatisfaction with the mechanistic and deterministic nature of the models prominent in the discipline began to take hold (Gold, 1992).

One of the most important ideas that these geographers began to introduce to the discipline is that space is not a real (or objective) phenomenon which is experienced and understood in a similar manner by all individuals. Instead, behavioural perspectives alerted geographers to the fact that each individual potentially possesses a unique understanding of his or her surroundings, and that this understanding is shaped by mental processes of information gathering and organization (Porteous, 1977; Gold, 1980). Here, the key psychological concepts of *perception* and *cognition* became widely utilized by geographers in their anxiety to explain why human behaviour did not fit the patterns sometimes anticipated in the models of spatial science. Simply put, these concepts propose that people do not have complete or perfect understanding of their environment, but have only partial knowledge because of the way that the senses (touch, taste, smell, sight and hearing) acquire information from the surroundings (Rodaway, 1994). This perceived information is then organized through mental processes of cognition to construct selective, partial and distorted images of the world which vary from person to person. Thus an important precept underlying behavioural geography is that it is misleading to analyse human spatial behaviour in relation to the objective, 'real' environment, as people do not conceive of (and experience) space in this way. Instead, it is suggested that the focus should be on the way that people act in relation to the images of space that they construct, shifting the focus from the way people dwell in 'concrete' empirico-physical space to the geographies of the mind (Holloway and Hubbard, 2001).

Therefore, fundamental to a behavioural perspective is the idea that people's knowledge of their surroundings is perceived through the senses and mediated by processes of the human mind. The idea that people's behaviour in the world might best be understood by focusing on their perception of the world is often claimed to have been introduced to geography by William Kirk (1963, p. 361), who sought to make a distinction between the objective (or real) and behavioural environment. In his view, while the former consisted of the physical world around us, the latter consisted of the 'psycho-physical field in which phenomenal facts are arranged into patterns or structures that acquire values in cultural contexts'. Kirk thus believed it was the behavioural, not the objective, environment that provided the basis for human behaviour and decision-making. In effect, this idea challenged the idea that human responses to environmental stimuli are based on the environment as it 'really' is, and instead proposed that these responses are based on the environment as it is perceived to be. The implication here was that human beings do not make decisions based on full, accurate and objective information about what exists in the world, but on what our senses tell us exists and what our brain is capable of dealing with. According to Kirk, our daily interactions with our surroundings could only be understood in relation to the partial, distorted and simplified understanding that we have of our surroundings (see Walmsley and Lewis, 1993).

Methodologically, behavioural geography continued within the traditions of quantitative and scientific analysis, leading some to depict it as an outgrowth, rather than a reaction to, spatial science (Harvey, 1970). Foremost in this endeavour was the utilization of questionnaires, perceptual tests and rating scales to explore the images of the environment that informed individuals' decision-making processes. This included methods designed to measure people's ability to remember, process and evaluate spatial information. Acknowledging a dichotomy between fact/value and objective/subjective space, much of this was designed to identify differences between (for example) real and perceived distance/orientation (see Walmsley and Lewis, 1993). One of the more innovative techniques adopted for these ends was the mental map technique (devised by an architect-planner, Kevin Lynch, 1960). This technique simply required that individuals completed a basic sketch map of a town or area, marking those features that were most important to them. Examining these maps became a means by which geographers could see how people mentally simplified their surroundings and how images of place varied according to a person's gender, age, class, place of residence and so on (Kitchin, 1996). In part, such knowledge allowed geographers to explain why certain individuals adopted behaviour which might, in relation to the decision-making assumptions of neoclassical theory, be described as suboptimal or satisficing. In the work of **Reg Golledge** (Box 2.2), this notion of mental mapping was extended into a wider project of understanding spatial memory, cognitive ability and way-finding. This seemingly promised a full integration of psychological theory and ideas into an understanding of spatial behaviour, and hence the development of better models of spatial decision-making.

By the 1970s, behavioural geography was increasingly being adopted by

researchers to study a number of different themes, influencing studies of migration, retailing, housing, tourism, industrial location, town planning and so on. By focusing on the complex ways that people obtain sensory information from, make sense of and remember their surroundings, behavioural geography promised the construction of more realistic and human-centred models of the world. While this led to some research collaborations between (environmental) psychologists and geographers, in the main this led to geographers adapting concepts from psychology in a fairly loose and imprecise way. For some, this meant that behavioural geography was as reductive and simplistic as the spatial science it sought to critique (Ley, 1983). Indeed, some accounts of behavioural geography describe it as proposing a stimulus-response model of behaviour, whereby people's behaviour is seen to be a response to particular environmental characteristics or stimuli (Cox, 1981). In psychology, behaviouralism was none the less conceived as a reaction against the determinism of the logically positivist behaviourist theories that dominated in that discipline. Specifically, behaviouralism recognized the capacity of humans to think creatively, in stark contrast to the rigidity of Watsonian stimulus-response models that dismissed the notion of subjectivity (Gold, 1992). In geography, the distinction between behaviouralism and logical positivism was perhaps less marked, with many behaviouralists refusing to explore those aspects of the world that could not be observed and measured (cf. Golledge, 1981, on the more general and epistemologically less constraining philosophy of positivism underpinning his version of behavioural geography). Importantly, most behavioural theories continued to explore the differences between people's understandings of the world and a 'real' world that was still regarded as knowable and mappable. Simultaneously, behavioural theories in geography were developed inductively according to scientific principles of measurement, statistical testing and generalization (Gregory, 1978). This led to criticisms from those, particularly geographers subscribing to humanistic theories, who felt that the value-free and objective principles of scientific explanation espoused by behavioural geographers were overly simplistic. In

Box 2.2 Reginald Golledge (1937–)

Many of those strongly associated with behavioural geography in its heyday have subsequently rejected its theories and practices. Reginald Golledge is a notable exception to this. Working out of the University of California, Santa Barbara, his work over three decades has sought to develop a behaviourally based understanding of human spatial behaviour and decision-making. This has involved attempts to examine individuals' way-finding abilities through psychological investigations and computational analysis of 'place utility' and spatial choice. An important idea underlying these explorations is that the complexity of the world is reduced through cognitive processes that serve to summarize spatial relations in terms of key routes between anchor points. This marks an important elaboration of Lynch's (1960) basic ideas that the world is understood in terms of nodes, landmarks, neighbourhoods, edges and paths. On the basis of this, Golledge has been able to suggest the possibility of information systems and algorithms that can approximate human decision-making and spatial way-finding abilities (Golledge, 1991). Latterly, this

short, many saw behavioural geography as an inevitable appendage of spatial science, and depicted it as offering an inadequate (and mechanistic) understanding of human behaviour (see Golledge, 1981).

2.3.2 *Humanistic thought and poetic geographies*

Like behavioural theory, humanistic theory is concerned with articulating a human-centred understanding of the relations between people and their surroundings. In contrast to behavioural geography, however, the intention was to develop models of humanity based on different philosophies of meaning such as phenomenology, existentialism and idealism. Though very different in some ways, these ideas share the assumption that the reality of the world is, in fact, a human construct. Humanistic philosophies are strongly opposed to the naturalist assumption that social phenomena could be studied in the same way as physical phenomena – by looking for general laws or rules and causal explanations. Clearly, quantitative (positivist) geography, with its laws of spatial science, could be seen as adopting this naturalist perspective. The same criticisms were also extended to behavioural geography, especially in relation to the ideas of ‘rationality’ underpinning decision-making and cognitive processing of environmental information. According to Kevin Cox (1981, p. 3), behaviouralism remained firmly embedded in the presuppositions of naturalistic science, guilty of separating subject and object. Humanistic thinking rejects this separation, instead questioning ‘being in the world’ through a consideration of human agency and people’s ability to experience and create their own (subjective) worlds. From a humanistic perspective, there can be no world of ‘facts’ unaffected by the personal values of the investigator (Olsson, 1980): the search for scientific laws is replaced by an interpretive and reflective search for meaning.

This type of *eidetic* reflection on the relationship between the self and the space which is brought into being through consciousness drew strength from a

has involved Golledge seeking to harness the potential of behavioural theory to provide a basis for helping those with physical disability. This has led to something of a robust exchange between Golledge and those who think that such theories ignore the wider social context in which disabled people live (particularly the processes of disabilism that serve to discriminate against them). In this sense, Golledge (1993) takes a view of human bodily capabilities that is essentialist and biological when compared with more widespread ideas that emphasize the social construction of the body (see Chapter 4). None the less, Golledge remains one of the most forthright proponents of behavioural theory, and his co-authored book, *Spatial Behaviour: A Geographic Perspective* (1997), represents an impressive and voluminous overview of work carried out in the behavioural tradition.

Further reading: Golledge (1981); Golledge and Stimson (1997)

number of long-established philosophical movements. Important here were existential ideas that reality is created through the free acts of human agents. Associated with, for example, the French philosopher and novelist Jean-Paul Sartre, the German philosopher Martin Heidegger (see Chapter 4) and the Danish writer Søren Kierkegaard, this was a reaction to rational thinking. In sum, it is a philosophy which focuses on the subjective meaning of existence for the individual by stressing the specificity and uniqueness of each individual's experience of the world. Peet (1998, p. 35) explains that 'existence for existentialists is characterized by concrete particularity and sheer "givenness", as compared with the abstract and universal concepts of humanity and life common to positivist thought'. Translated into geographical practice, this was read as an argument for a human-centred interpretation of the world as opposed to the abstract, 'high-level' theorization that had turned diverse landscapes into isotropic surfaces populated by decision-making machines. Instead, existentialism demands a locally specific view from 'below'; a grounded view exploring the concrete and particular perspectives of individual people in specific places. Heidegger (1927) used the German word *dasein* to emphasize that what is important to human existence is being in the world (where 'being in' is opposed to rationally reflecting upon). For existentialists, this is a key to understanding the relationship between people and the world. 'Being' is characterized by existing physically in the world – taking up physical space and existing in relation to other physical objects (including other people).

In essence, then, existential ideas propose that humans create the world through the (mental) projection of meaning onto the physical phenomena – other people, places and objects – they encounter as they move through geographical space (Mugerauer, 1994). For thinkers like Sartre, this projection of meaning onto the world was related to our sense of separation, estrangement or alienation from the world (described as an essential part of the human condition). An *existential dread* results from the feeling that we are completely different from everything else we experience, so that we attempt to make the world of objects comprehensible to ourselves by giving these objects status and meaning.

Box 2.3 Yi-Fu Tuan (1930–)

Perhaps more than any other geographer, Yi-Fu Tuan defies easy categorization. Tuan's work often transcends and ties together ideas from the seemingly unrelated scholastic worlds of philosophy, psychology, urban planning, landscape architecture and anthropology. If it is possible to identify a unifying theme in his work, it is a concern with how individuals fashion personal and cultural realities from their surroundings, and how those processes reflect collective and personal ideas of appropriate human–nature relations. In turn, this has led Tuan to theorize place as humanized space – that is, a locality that has been transformed to place from space through human inhabitation and nurturing. In much of his work, he has been concerned with eliciting the rich and diverse meanings associated with particular places, contrasting these with the placeless qualities associated with space (particularly its modern articulations). This experiential framework gave rise to the concept of *topophilia* – a term that has

Objects, people and places thus become meaningful to us, while the systems of meaning that develop through this process become an essential part of the world we experience. The legacy of this type of thinking for human geography was a focus on the social construction of place – that is to say, an examination of the way abstract space was made into meaningful place through the thought and action of human agents. The work of both **Yi-Fu Tuan** (see Box 2.3) and Ted Relph (1976, 1987; see also Chapter 1) on the creation of place (and placelessness) can therefore be seen to be key examples of how existential philosophies inspired the development of ‘new’ human geographies in the 1970s. Both rejected the geometries and quantification of spatial science in favour of a more expansive and literate interpretation of the capabilities of human agency, indicating an awareness of the importance of critical reflection on questions of being in the world. In short, existentialism takes the view that each individual must provide his or her own meaning for life.

Alongside existentialism, *phenomenology* was to be another key influence on humanistic geography. Phenomenology is a philosophy based on the notion that we bring our own attitudes with us wherever we perceive things. It is related to existentialism, and can be seen as a methodology (way of studying) as well as an interpretative framework (way of knowing). This is an approach that suggests that the best way to find out about human relationships with the world is to use intensive forms of description. As with existentialism, individual human experience is central to this description. Phenomenology thus rejects scientific, quantitative methods of explanation in favour of understanding or appreciation. This reiterates the existential insistence that the external world does not consist of objects that can be observed and measured objectively. Instead, it suggests that experience is itself an essential part of reality, and there is no separate ‘real’ world external to human experience. In saying this, the founders of phenomenological thought, such as Edmund Husserl (1859–1938), sought to overcome the often assumed dualism between mind and matter (subject and object). This dualism, firstly, separated the human consciousness from a supposed ‘real’ world and, secondly, implied that this ‘reality’ could be studied independently of

subsequently come to be widespread as a definition of the type of close relationship that exists between richly symbolic places and the humans that use and inhabit them. In *Landscapes of Fear* (1978) he explored the inverse – the *topophobia* that makes individuals avoid specific spaces. Many of his ideas about the humanistic encounter of people and place were summarized in *Space and Place* (1977), while his later writing has continued to pursue an individualistic path through issues to do with the experience of place, language and culture. His last book before retiring from the University of Wisconsin in 1998 was *Escapism*, a wide-ranging text that explores the cultural and human histories of escapism as a practice (a theme that overlaps with contemporary geographic preoccupations with transgression and resistance – see Chapter 3).

Further reading: Tuan (1974, 1998b)

human experience. Instead, phenomenology seeks to appreciate the world in terms of the phenomena that are brought into existence through human experience of them. This is associated with the human subject's *lifeworld* – a concept used to describe the totality of a person's involvement with the places and environments experienced in everyday life. This is described by Peet (1998: 39) as the 'moving historical field of lived experience', implying that our experience is constantly changing as we live and do things in the world. This incorporates an appreciation of the *intentionality* that informs the relationship between a human body and the external world (see Chapter 4); Husserl insisted that intentionality links what we think about and the manner in which we think. He says that objects can only be understood as objects that human beings are conscious of and as objects that humans *intend* to use or interact with (Rojek, 1995). This happens spontaneously all the time, as we live and exist in the world, with phenomenologists aiming to recover the moment of intentionality (and hence the moment of objectification) by stripping away the accumulated layers of conscious meaning and conceptualization that hide the truth of human encounter and being. This suggests that things are created consciously and phenomenology is concerned with revealing the 'true essence' of the objects (and places) that people imagine or perceive to exist – irrespective of whether there really is a non-mental reality.

From this perspective, humanistic geography can be described as being concerned with eliciting the *relational* encounter that brings the world into existence for each person (Prince, 1980). In contrast to the view that reality and awareness are separate, phenomenology urges us to pay closer attention to our experiences of the world and to be prepared to think about it in new and different ways. This phenomenological perspective is distinct from the *epiphenomenalism* of behaviourism that regards mental processes as effects of physical events rather than having any causal properties. Humanistic perspectives thus see mental processes as having physical effects, bringing the world into being through consciousness. This means that our knowledge of the world can, firstly, be said to be *created* by us (rather than something we simply discover) and, secondly, come about through mental and bodily *encounters* with things (which are, for example, perceived to be in front or behind, above or below, bigger or smaller than our bodies). This latter focus on encounter was to prove influential in geographic work on movement, space and dwelling – as, for example, in the work of David Seamon (1979) on bodies in space and Anne Buttimer (1976) on the lifeworld. When coupled with widely cited and acclaimed work on social geographies of place (Tuan, 1974; Ley, 1983), this began to suggest a more human-centred foundation for studies of human geography than was offered by behavioural theories:

The purpose of the humanistic critique was to put man [*sic*], in all his reflective capacities, back into the centre of things as both a producer and product of his social world and also to augment the human experience by a more intensive, hence self-conscious reflection upon the meaning of being human. (Ley and Samuels, 1978, p. 7)

Methodologically, however, humanistic ideas of phenomenology and existentialism did not translate easily into practice. For example, describing the true essences of the objects and places brought into existence through human creativity and imagination involves being able to 'see' (as well as smell, hear, feel and touch) from the perspective of another human being. Given the impossibility of this (we are all unique, after all), humanistic geography thus developed by adopting qualitative methodologies that relied upon the ability of people to articulate the feelings and meanings that they associated with particular places. The 'truth' of such accounts was not brought into question: rather, they were used to create a faithful representation of people's world-view and engagement with place (see Eyles and Smith, 1988).

In practice, therefore, humanistic theories fuelled a geography in which qualitative methodologies were regarded as superior in the production of meaningful knowledge. Interviews, interpretative analysis and analysis of human texts (see Chapter 5) were all seen as viable ways of teasing out the emotional, aesthetic and symbolic ties that bound people and place. More controversially, perhaps, forms of covert and overt observational work were used to construct ethnographies of the particular and peculiar ways of life played out in different settings. Taking inspiration from the Chicago School of urban sociology, this involved researchers becoming observant participants (or participant observers) in social worlds that could be very different from their own (see Jackson, 1985; Herbert, 2000). Though this was an obvious reaction to the high-level abstractions of spatial science, the claim that this enabled the researcher to empathize with others' experience of being in the world remained contested (see Chapter 3). In sum, doubts were raised that geographers could develop appropriate methodological procedures for eliciting true meanings (see Pile, 1991). One fundamental critique, which has been raised in the context of post-structural debates surrounding the autonomy of the subject, is that people cannot easily articulate what they think (or even what they do!) because language relies on social conventions and traditions. In effect, it might be suggested that it is impossible to elicit people's true (inner) feelings because this relies on them using a set of social conventions, categories and descriptions that do not enable them to express or explain their world-view (see Olsson, 1980). In short, people are often unaware of the impulses and constraints shaping their decisions and behaviour and it is up to the researcher/analysts to identify these unrecognized/invisible aspects of behaviour. More widely, this points to the obvious methodological difficulty of a theorization that, in contrast to the natural sciences, takes consciousness and being (as opposed to observable action and practice, for example) as its object of study.

2.4 STRUCTURAL THEORIES AND RADICAL RESPONSES

In a variety of ways, both humanistic and behavioural geography articulated a people-centred geography that became widespread – if not paradigmatic – in the early 1970s. Yet, despite their many commonalities (particularly their focus