To What Extent Does Our Understanding Of Space Depend On The Way We Think Of Time? Essay, Research Paper

‘Space and time are basic categories of human existence’ (Harvey, 1989: 201). They are such familiar concepts to human beings that there is a temptation to dismiss them as unimportant. Time is used everyday – ordered into minutes, hours, days, even millenia – while space is treated as a fact of nature, ‘…an objective attribute of things which can be measured and thus pinned down’ (Harvey, 1989: 203). However, this simplification of space and time, and their treatment as part of the mundane sphere of existence, cover over their importance to human psychology as, from a very early age, concepts of space and time can speak volumes about social, cultural and even economic interactions. For instance, the symbolic ordering of space and time provide a framework of experience, through which we learn who we are in society, as can be seen from the organisation of space in a household, which expresses both gender and age relations (Harvey, 1989).`Egocentrism and Ethnocentrism of the Concepts of Time and Space Space and time are both egocentrically-determined. Human-time is individually experienced as a one-way journey – life always being lived in our own future. Space is similarly always considered from the perspective of the thinker, ‘…orientated by each centre of consciousness…’near’ means ‘at hand’. ‘High’ means ‘too far to reach’ (Heidegger, 1962). This egocentrism is reflected in language – the capitalisation of ‘I’ in English, for example, or the derivation of the French ‘il’ from ‘ille’, which in Latin means: that, there or the latter (Tuan, 1974). Space, and particularly time, are not only viewed from a personal viewpoint, however; they are also culturally-determined phenomena. For instance, the modern Western view of time as a linear progression (which probably emerged from the Darwinian theory that biological species have evolved through aeons of time) is not shared by many Eastern cultures, such as the Chinese. For these peoples, time is viewed as being circular, in cycles such as reincarnation. Time is openly- accepted as being of great importance in many Eastern cultures, in a way in which it is largely neglected in the West. For instance, in Burmese, there are more than seven words to represent the ideas covered by the single English word ‘time’. Westerners, however, tend to be uncomfortable with the more abstract connotations of thinking about space-time. When talking about space, therefore, Westerners tend to emphasise what is in that space, rather than refer to the space itself; and, when referring to time, people will emphasise the changes taking place, rather than the abstract concept of time itself (Lefebvre, 1991). According to Tuan, it is possible to teach people to appreciate abstract notions of space, however, and, in this way, it is possible to appreciate the difference between ‘felt, perceived and conceptual spaces’ (Tuan, 1974: 213). `The sub-conscious importance afforded to time and space rapidly becomes apparent on closer investigation of the ways in which they are perceived by human beings. For instance, real time appear to speed up or slow down, dependent on changing external conditions. The journeys to and from work are used by Tuan (1974) to illustrate this idea – although the journeys themselves may be identical in route and duration, the psychological effect of going towards the workplace, compared with going towards the home cause the experience of travelling through time-space to be starkly contrasting. Our own activities can also affect the way in which we view time: ‘time is an ominous threat when we have little of it and a brooding, heavy presence when we have too much’ (Tuan, 1978: 12). `I have already indicated the complex relationships between space, time and human existence. The extension of this thinking is to look at the relationships between space and time as a natural progression from these ideas.`Ways in Which Our Understanding of Space is Dependent on Time ‘It is a challenge to accept that space and time are `universally and inseparably wed to one another’ `(Pred, 1977) Hagerstrand (1962) suggested that time and space are inseparable and that every human action or event occurs within a sequence; giving the individual’s existence both temporal and spatial attributes. Individuals are viewed as purposeful agents, engaged in projects that take up time through movement in space. An individual’s existence can, therefore, be considered as a trajectory – ‘a weaving dance through time and space’ (Pred, 1977: 208). Daily movement is constrained by time resources and the ‘friction of distance’, while ‘coupling constraints’ further restrict the time- space paths of two or more people who must intersect. Such transactions occur within a geographical pattern of available ’stations’ (places where certain activities occur) and ‘domains’ (places where certain social interactions prevail). `Geography has, by definition, always been particularly concerned with space, but Hagerstrand emphasised the importance of appreciating that the time component is equally important . The practical applications of this are, according to Hagerstrand, far-reaching. Indeed, his research was sponsored by the Swedish government in the hope that it would provide helpful insights for the study of regional policy, urbanisation, migration and political geography (Pred, 1977). `Movement provides one of the most obvious links between time and space, as it, ‘takes time and occurs in space; it postulates a space-time field’ (Tuan, 1978: 14). The measurement of space provides an obvious example of this. Natural cycles are used to measure time – the rising and setting of the sun or the changing of the seasons, for instance – but nature provides little help when it comes to measuring space. Movement is used to breach this gap, allowing space to be measured in metres per second, minutes by car or even light years. Indeed time can now be measured so accurately that the movement of electrons can be charted. Furthermore, this improved measurement of time has allowed an increased sensitivity to space. `Time is not just important when it comes to measuring at the micro-scale, however. Time is equally well-used by humans when it comes to the conceptualisation of huge distances. In science-fiction, for instance, distant stars are often represented as distant future worlds (Tuan, 1974). Similarly, the concept of being ‘far-sighted’ can refer to space or time; an open horizon stands for the open future, the unknown (Tuan, 1974). `Tuan (1974) also refers to the concept of the ‘zone of past experience’ (Tuan, 1974). Any object that a person cannot see, but whose existence he / she is aware of, Tuan refers to as being in the zone of past experience. Knowing that there is an object behind a wall, for instance, relies on the mind going back in time. Similarly, the person can foretell what they will see in the future, should he / she climb over the wall. In this way, present spatial awareness is always imbued with past experiences and, ‘the analysis of spatial experience seems to require the usage of time categories’ (Tuan, 1974: 224). Our knowledge of events, as well as objects, is similarly controlled by time. The fact that news takes time to travel means that ‘far away’ is often seen as analogous to ‘long ago’. As Tuan (1978: 12) expresses it: ‘here is now and there is then’. `Social theorists are also responsible for privileging time over space (Marx, Weber and Adam Smith, for instance). Social theory focuses on processes of social change, such as modernisation and revolution. Progress is the theoretical objective, but entails the conquest of space: the ultimate ‘annihilation of space through time’ (Harvey, 1989). As Lefebvre (1991: 55) states, ‘today, more than ever, the class struggle is inscribed in space’; as the bourgeoisie is still the major user of space. Peet (1981) further described the ’spatial dialectics’ of the economic system. He suggested that the geographic transfer of surplus value is a spatial manifestation of the social processes of exploitation. Class struggle then provides a link between these ’spatial dialectics’ and the change through time to new modes of production (Peet, 1981). The neo-Marxist view of the world economic system is, therefore, one in which its spatial structure changes through, and dependent on, time. `In many respects, therefore, space is heavily dependent on time. Indeed, the fact that time is a constantly changing variable means that everything that changes will ultimately appear to be dependent on time. However, in some respects, it can be argued that our understanding of space is independent of the way we think about time.`Space as the Independent Variable It can be claimed that time is dependent on space or, indeed, that they are both independent variables. Aesthetic theory is a classic example of the ’spatialization of time’, according to Harvey (1989). Aesthetic theory uses space to communicate certain values, via artistic media such as architecture and painting. Architecture, for instance, reflects the human spatial preference for the vertical and horizontal, over inclined planes. The vertical has been shown to be particularly important to human experience, possibly because we live in a gravity-dominated world. The psychological connections of upwards meaning a movement to greater things, also probably has a role in explaining the human passion for the construction of towers, spires, pagodas and other vertically-orientated structures. Architecture also acts as a means of familiarising a space to a particular community – as Harries (1982: 59-69) put it, ‘architecture is the domestication of space’. `Writing has also been held to be of particular importance to the time-space argument. Writing is effectively a ’spatialization of thought’, which ‘freezes the flow of experience’ (Harvey, 1989). In other words, writing allows ideas to be expressed irrespective of time, ‘Writing tears practice and discourse out of the flow of time’ (Bourdieu, 1977: 156). However, space is not the independent variable in every aesthetic field – music and film, for instance, are heavily dependent on time for their aesthetic effect. Despite these few examples of the importance of space as the independent variable, in almost every case the two variables are so closely linked that it is very difficult to separate their effects.`Changes in Space-Time Thinking According to Harvey (1989: 227), ‘…something vital has happened to our experience of space and time since the 1970s, so as to provoke the turn to post-modernism’. Marshall Berman (1982) went so far as to equate modernity with a certain mode of experience of space and time. The Renaissance started a period in which rapid influxes of information about the wider world became commonplace. Spatial knowledge soon became crucial to the accumulation of wealth, and this state of affairs continues to this day; consider, for instance, the amount of money which has been invested in remote sensing. In the post-modern world, however, this rapid turnover of information has reached incredible proportions – it has even been suggested that the present era should be termed the ‘Information Age’. This has led to an overall speeding-up of lifestyles and a reduction in perceived distances, as the speed of travel makes distant places seem just round the corner. This ‘time-space compression’ has revolutionised how we represent the world. `The capitalist mode of production has been cited by many authors as being partly responsible for time-space compression (Harvey, 1989; Lefebvre, 1991 and Peet, 1981, for instance). Better information and faster communications; the rationalisation of distribution, rapid financial services and the mobilisation of fashion in mass markets accompanied by a shift towards the consumption of ephemeral services, have all led to the speeding up of time in a post-modern capitalist lifestyle (Harvey, 1989). As far as space is concerned, the creation of world markets and better transport and telecommunications systems have both led to the effective ‘annihilation of spatial boundaries’ (Harvey, 1989). The domination of marketing networks and spaces remains a fundamental corporate aim, making accurate geographical information a vital commodity. `The urban process is, according to Harvey (1985: 32), deeply interwoven into these processes: ‘…urbanisation is framed by the intersecting concrete abstractions of money, space and time and shaped directly by the circulation of money capital in time and space’. The city is a particular human response to space, effectively attempting to alter space to our own design; but also altering the humans within the urban space, as they are influenced by urbanisation. ‘Capitalism…has produced, through its dominant form of urbanisation, not only a “second nature” of built environments…but also an urbanised human nature, endowed with a very specific sense of time, space and money as sources of social power’ (Harvey, 1985: 35). The city is defined as parcels of private property, violently defended against trespassers – thus rendering the urban space relatively static. Rational planning would appear to be an adequate response to such problems, but such power can be used for radically different class purposes, such as acquiring space for the purpose of capital accumulation. `The future is also an interesting factor in the time-space debate, as it brings in ethical problems of our moral obligation to future generations. Space can be used in numerous ways, but an appreciation of time allows humans to understand the consequences of their actions. The resurgence of environmentalism since the 1970s, is a case-in-point. The environmental movement is, ‘…critical of the idea of mobility and of expansive space on a ‘limitless’ earth and calls for a return to place and locality’ (Tuan, 1978: 11).`Conclusion The issues of time and space are, therefore, of great relevance, on a philosophical, as well as an mundane level. Fundamentally, time never stands still, and so our understanding of space will always be affected by the passage of time, to a certain extent. The degree to which the concept of space is dependent on time on a conscious level is, however, culturally-defined. An urban community, for instance, will probably have a far more commercial view of space than a Sioux Indian, whose appreciation of space is likely to be on a more aesthetic and philosophical level. `Overall, the changing values which we have assigned to time and space over the past century have led to destructionism. Instanteneity triumphs in the post-modern world, leaving people feeling detached from their sense of place. The future has become part of the present, as people attempt to guard against future shocks, via insurance. These combined problems have, in my opinion, led to the recent resurgence in the popularity of traditional values which has occurred in many industrialist countries, notably the USA and the UK. This represents an attempt to find stability once more in our ephemeral world. Nostalgia is effectively used to guard against time- space compression, which has already led to a reappraisal of our perceptions of time and space.`Bibliography Harvey, D. 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