

Occupational Terminology Interactive Dialogue

Explaining the Concepts of Time Use, Tempo and Temporality

This occupational terminology interactive dialogue concerns concepts that underpin our understanding of the human experience of time and time use. There have been many classic writings on time (Cottle & Klineberg, 1974; de Grazia, 1962; Fraser, 1987; Hall, 1983; Heidegger, 1962; Szalai, 1972; Zerubavel, 1981), however, this dialogue focuses specifically on time-related concepts relevant to human experience as occupational beings, particularly human health and well-being.

Adolph Meyer (1922/1977), in his address to occupational therapists, advocated not only that purposeful use of time had the potential to be both health-maintaining and health-regenerating, but also that the way in which individuals with disabilities used and organised their time in daily life was a measure of their adaptiveness. Philosophical principles, such as those espoused by Meyer, were subjected to little further investigation within occupational therapy until Kielhofner (1977) revitalized Meyer's philosophies in a seminal paper on temporal adaptation. He described temporal adaptation as the integration of a spectrum of activities, the organization of which supports health on a daily basis. In this paper, Kielhofner outlined several propositions supporting the notion that temporal functioning was a useful conceptual base from which human adaptation and dysfunction could be better understood, stating that "action and time are concomitant components of the human experience" (p. 237). Some key concepts relevant to understanding temporal adaptation are time use, tempo and temporality (Farnworth, 2003). In this paper these concepts will be defined and illustrations will be used to conceptualise their use, or potential use, within occupational science.

Time Use

Time use research is the area of social science that focuses on what we do with our time and why. As all human actions are located in time, including past, present and future, time use is a commonality of the human condition. Time use surveys in western industrialised countries provide substantial data indicating that employed adults have a relatively equal distribution of work, recreational, and rest occupations (Australian Bureau of Statistics, 1998; Castles, 1993; Robinson & Godbey, 1999; Statistics Canada, 1995; Sturgis & Lynn, 1998). Because these surveys provide data about the time use of populations, they allow social scientists to compare people across cultures (Robinson,

Andreyenkov, & Patrushev, 1988), age, lifestyle and gender (Singleton & Harvey, 1995; Zuranek, 1998; Zuranek & Mannell, 1993) and thus, to assess social change.

Time use studies of the general population suggest that the average person's actual use of time has changed little in the last 40 years (Bittman, 2000). For many people, this may appear contrary to their lived experience. What has happened is that some people are working longer hours than ever before in Australian history, while others are disenfranchised from the labour market for reasons of disability, lack of available work or appropriate skills, and so on. Neither situation is likely to support health and well-being in the longer term.

The International Classification of Function (ICF) (World Health Organization, 2001) frames human health in terms of the interrelationships among body structures and functions, activity participation, and personal and environmental contextual factors. Hence, in the terms of ICF, analysing how people allocate their time to activities, places, and interactions allows us to understand the interrelationships between their participation in activities and health and well-being. In general, time use studies of people with disabilities suggest that disability has a negative impact on time use, in terms of the frequency of activities participated in, higher unemployment, and altered time allocation compared with well populations (Moss, Lawton, Kleban, & Duhamel, 1993; Pentland, Harvey, & Walker, 1998; Suto & Frank, 1994; Weeder, 1986; Yerxa & Locker, 1990). This is important because people with disabilities also have been shown to experience less satisfaction with their performance of activities. So, they do less and they enjoy less. This clinically based research indicates that studying people's use of time can indicate their overall adaptation to the requirements of daily life, and has implications not only for intervention, but for understanding what is important for all human health and well-being. In this sense, time use is also a useful indicator of quality of life (Harvey, 1993) and health outcome (Fisher, 1999).

Tempo

Tempo concerns not only the biological makeup of every individual, but also reflects how our values are translated occupationally. Tempo concerns the pace of life, or time pressure, and is intimately connected to our biological rhythms, described by Fraser (1987) as the characteristic patterns of recurring behaviour. Tempo represents a flow of energy in time, and in relation to the environment. It is assumed that when rhythms are in synchrony, energy flows

more effortlessly, and feelings are enhanced in the way described by Csikszentmihalyi and Csikszentmihalyi (1988) as *flow*.

There are two competing forms of tempo, *time felt* and *time understood*. Biologically for every individual, time felt, such as feeling rushed, is interpreted by the older regions of the brain and hence, by the hidden levels of the mind. Time understood, or knowing the day or the hour, is interpreted by the newer regions of the brain, and hence by the easily accessible levels of the mind (Fraser, 1987). In this way, tempo is both beyond one level of awareness, as well as being readily accessible at another.

Living systems are distinguished from non-living systems by our synchronisation of a multitude of internal clocks, or circadian rhythms. For example, in the mouse at least 60 internal rhythms have been identified in the functions of the hypothalamus, pituitary and adrenal glands, in the chemical composition of bone marrow, and blood (Fraser, 1987). For humans, the sleep wake cycle is perhaps the most obvious rhythm (Horne, 1988). However, we are not only subject to rhythms across the day, but also to monthly cycles, for example, the menstrual cycle, and yearly cycles, such as food selection habits attuned to seasonal climatic changes.

To survive, it is necessary that these internal clocks be kept cycling in mutual dependence. Christiansen (1996) referred to this as chronobiological balance. When they are not properly maintained in synchrony, illness results, and a total lack of internal coordination can lead to death. Jet lag is the most familiar form of desynchronisation, but other examples can be seen in how shift workers manage, or do not manage, changing shifts (Costa, 1996), and even at the level of whether a person functions better in the morning or the evening.

There are also rhythms that are necessary to maintain life for individuals within their local cultural and social contexts. Larson and Zemke (2003) suggested that such biological tempo is also represented in occupational changes across the life span. These changes may include such decisions as settling into a committed relationship, having a child, and when to retire, decisions that are socially constructed as well as embodied in our biological make-up: our time felt.

Conversely, time understood, which is related to measurable time, has not always existed. Up until the 18th century, people could not be synchronised unless they were physically together (Fraser, 1987). The precursor of the modern clock was invented in about 1330 when the hour became the modern standard hour. It was not until 1764 that John Harrison was to build a marine chronometer that did not lose time (Sobel, 1998). Hence, the tempo of measurable time in most post industrialized nations is a culturally driven construction, rather than necessarily a part of our biological inheritance.

Several occupational scientists (Clark, 1997; Primeau, 1996; Wilcock, 1998; Yerxa, 1998) have discussed how the

increased pace of life in post industrialised societies, because of our restricted biological capacities, has resulted in detrimental health consequences. Clark (1997) suggested that, not only has this increased pace had an impact on individuals, but also, potentially impacts on our humanity. She used Kundera's novel on *Slowness* to describe the "secret bond between slowness and memory, between speed and forgetting" (p. 89). Kundera described how a man is walking down the street. At a certain moment he tries to recall something, but the recollection escapes him. Automatically he slows down. Conversely, a person who wants to forget something unpleasant "starts unconsciously to speed up his pace as if he were trying to distance himself from something still too close to him in time. That is, the degree of slowness is directly proportional to the intensity of meaning; the degree of speed is directly proportional to the intensity of forgetting" (p.89).

Clark (1997) surmised that the increased pace of life in post industrialised nations may not only produce stress and consequent ill health, but also robs people of a satisfying and meaningful life. She suggested that, "it is not sufficient to simply participate in occupations; the occupational being must also be able to remember and understand them within the framework of an unfolding life story" (p. 89). Living organisms use valued occupations to meet biological needs, yet humans are increasingly driven by cultural priorities of money and power (Schor, 1991). Such values, dominated by materialism, have little to do with meeting our biological needs, the consequence of which has implications for individuals and societies.

Temporality

Whereas tempo can be both culturally driven and an internal, integral experience of time, temporality is a subjective perception of time. Temporality concerns the temporal character of occupation that is imbued with meaning in relation to one's sense of past, present and future. All animals experience tempo, but only humans perceive temporality. As suggested by Young (1988), neither the future nor the past exist – but there is the present of past things (memory), the present of present things (direct perception) and the present of future things (expectations). That is, the past and future cannot be perceived except from inside the present. We do not wholly reinvent ourselves in each new present.

Rituals provide a means of linking past, present and future (do Rozario, 1994; Hocking, Wright-St. Clair, & Bunrayong, 2002; Rosaldo, 1989; Turner, 1988). For example, an individual's activities at the wailing wall in Jerusalem are full of meaning only when we know that they represent religious rituals that link orthodox Jews to past and future generations of Jews, and that the wall, as the centre of these activities, has come to represent the tradition and the people who celebrate it. Thus, rituals are recurrent events that can contain both continuity and change.

Individuals also differ in real and meaningful ways with respect to their time perspectives, and when these perspectives interact, conflicts often arise. Hall (1983)

suggested that a future time perspective is the basic formulation for construal of events in what he calls American-European culture. That is, time is held as having value, and people who are perceived to 'waste' it may offend those who see it as having value. The puritan work ethic has become the bureaucrats' time ethic. People, who are centred in the present time perspective, may be perceived to lack ambition and feel apathetic about the future, not only for themselves but for others, as was shown by Suto and Frank (1994) in their study involving people diagnosed with schizophrenia living in board-and-care homes. Conversely, a future time perspective can produce behaviour associated with health risks, and also extreme individualistic, and potentially antisocial patterns of behaviour. Charmaz (1991), Seymour (2002) and Farnworth (2003) provide further examples of how serious illness and disability disrupt the critical time-body relationships upon which our lives are based. However, time perspectives vary in other cultures. For example, in some Nations of Aboriginal people in Australia, such as traditional Wiradjuri, there is no word for time as an abstract concept. Instead, according to Yalmambirra (2000), time is defined as "a space in which something happened or did not happen, a space in which something continues but a space in which something has stopped" (p.133). A future time perspective may have no relevancy in this context.

Finally, there are other terms needed to address the complexity of relationships between occupation and time. Zemke and colleagues (Larson & Zemke, 2003; Zemke & Clark, 1996) propose *occupatio-temporality* as a term to describe the way in which occupations themselves shape time such that occupation influences the perception of time. To illustrate, the perception of time in a visit to the dentist is likely to seem longer than the timelessness experienced in a pleasurable occupation that is totally self-absorbing. Additionally, there need to be concepts that encompass occupations that are engaged in within other occupations or performed simultaneously. Frank (1996) described occupations like the Russian lacquer dolls that are nested within one another. For example, burning books in a public setting may be an act of vandalism, but together with marching and handing out leaflets, could also be understood as nested within the occupations that comprise public protest. Hence, without understanding the adaptive function of the action, it is impossible to categorize the occupation or to understand its purpose for the individual. The term *enfolded activity* has also been used to describe the tasks that involve doing several occupations at the same time, such as child care and home maintenance (Bateson, 1996). At the end of the day, or the week, many tasks have been performed in a seamless stream of occupations, none that could easily be separated and categorized, and hence, they are enfolded.

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