

WORKER'S PERCEPTIONS OF TIME, TIME-USE-ATTITUDES AND PRODUCTIVITY

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ABSTRACT

Decreasing productivity and increasing wage demands are singled out as being crucial problems facing the economy of South Africa. Changes in the time perceptions and time-use-attitudes of workers could play a decisive role in increasing productivity. The relationships between time perception, needs, motivation and productivity are analysed. Culture, tradition, economy, and environment lend a specific significance to these variables. Workers in a technological society should be guided to adapt to and live by the value system needed to uphold productivity.

OPSOMMING

Voortdurende afnemende produktiwiteit teenoor looneise wat styg, is een van die kritieke probleme waarmee die Suid-Afrikaanse ekonomie gekonfronteer word. Die verandering van werkers se tydpersepsie en verandering van houdinge teenoor die benutting van tyd kan deurslaggewend in die verhoging van produktiwiteit wees. In die lig hiervan is die verwantskap tussen tydpersepsie, behoeftes, motivering en produktiwiteit ondersoek. In die ontleding word aandag geskenk aan die invloed wat kultuur, tradisie, ekonomie en die omgewing op hierdie veranderlikes het. Opleiding in 'n tegnologiese samelewing behoort daarop gerig te wees om 'n waardesistiem by werkers te laat ontwikkel wat produktiwiteit kan bevorder.

In the Republic of South Africa the gap between the continuously increasing demands for higher wages and a stagnant or even decreasing productivity, is one of the acute problems facing the economy of the state (Sunter, SABC TV program 13 March 1989; see also Sunter, 1987). In contrast to the situation in South Africa, many world markets are becoming more efficient and more competitive. The traditional solution has been to keep the wages of workers low. This is no longer an effective or accepted method for entering world markets on a competitive basis. In order to enter a world market, productivity should be raised. Although this might seem an obvious solution, the raising of the productivity of a work force is usually prolonged and elusive.

Researchers, economists, business men and politicians have suggested a variety of ways to tackle the problems which result from this disparity of decreasing productivity and a striving for higher wages. Several factors believed to have an impact on productivity, have been identified and addressed by researchers (President's Council, 1989). Programmes to enhance productivity are greatly in demand. Various institutes and universities offer short courses or even degree courses in productivity. This article investigates a somewhat neglected, but most important and relevant factor in the economy of South Africa, namely time. Time as discussed in this article encompasses the perceptions thereof and the resulting Time-Use-Attitudes (TUAs) of both workers and management.

Raubenheimer (1978, pp. 33-72) stresses the importance of time as the fourth dimension of human behaviour. According to him, a person's time orientation and time perception can be utilized as a basis of typifying and classifying human behaviour. These ideas are important to understand a worker's component in the work situation. *Time perception*, within the context of this article, is described as the process of observation, experience and personal interpretation of time as an observed reality (Myburgh, 1990 p. 3). A person's time perception directs his attitudes towards time. Within the context of this article three facets of *time-use-attitudes* are distinguished,

ie affect (feelings), cognition (beliefs) and a behavioural tendency (an intention component) towards time. Personal attitudes towards time will direct and even determine an individual's behaviour in any given situation (Myburgh, 1990, p. 4; Baron, 1986, p. 142). Furthermore, an individual's time perception and TUA determine his time-orientation, ie *temporal orientation*. In the discussion that follows, the relationship between a worker's time perception and his temporal orientation and productivity, is analysed.

PRODUCTIVITY AND TIME PERCEPTION

The diversity of the factors contributing towards productivity and the variety of approaches of practitioners in addressing the problems thereof, are illustrated by the various definitions of productivity (Marx, et al, 1986, p. 12; Gous, 1987, pp. 44-55). In this article *productivity* is defined as the ratio between effective yield, ie work or results, and the set time period needed to produce this yield, ie "Productivity = Results/Time" (Hornbruch, 1977, p. 2). Thus according to this definition productivity in the work place is measured in terms of Time. In most programmes aimed at improving productivity, the usual approach is to increase the results of productive activities during a specific time period. This article reflects the view that the nett effect of increasing productivity can be brought about by influencing the worker's attitude towards the denominator, time, in this ratio. This approach emphasizes the importance of the denominator.

In general, productivity is negatively influenced by ineffective use of time by managers and workers (Gous, 1987, pp. 52-53). A worker's productivity is affected by his attitude towards the utilization of *Time* in the work situation (see also Raubenheimer (1978, p. 69)). Nevertheless, although time perception, time-use-attitude and temporal orientation have been studied extensively (Augustyn, 1978), it appears that the interaction between these concepts have not received much attention. (Ben-Baruch, 1985, pp. 25-34). Time is perceived

differently by various individuals (Van Rensburg, 1990, p. 5). According to Nasser (nd, p. 33) workers and management perceive the job situation differently. It is therefore reasonable to expect that time is perceived differently by management and by workers. What variables determine these differences in Time perceptions? The usual answer is different backgrounds, goals and orientations. Management, for example, is interested in utilizing time more *effectively* and economically. Usually this implies the shortening of the time units needed for productive activity. Workers, on the other hand, would often be indifferent to, or even resist such attempts. The reason for this is that a striving for higher productivity often imposes a change in working procedures and routines.

The conclusion that differences between the backgrounds and interests of management and workers explain the differences in time perception, requires amplification. A more comprehensive explanation needs also to consider that time perception and time-use-attitudes are interpreted differently by individuals from the various strata of society. This observation is also valid for the South African situation. The various time perceptions determine and influence the interests, interpretations, needs and motivations of individuals belonging to a specific sector (Van Rensburg, 1990, pp. 71-80). These differences have important implications for the way in which specific individuals perceive economic factors and task execution. In addition, culture, tradition, custom, environment, ethnicity, and religion may result in the assigning of different meanings, values, order of preference and interpretations of individuals to the same economic factor (Myburgh, 1990; see also Raubenheimer, 1978, pp. 44, 50, 64)). These differences in time perceptions and other factors, could explain why management and workers are often at loggerheads with each other.

TIME PERCEPTION AND TIME-USE-ATTITUDES

It follows from the above explication that the problem of productivity, time perception, TUA and *temporal behaviour* is multi-faceted (see also Wessman's (1973) ideas on personality and the subjective experience of time). Ben-Baruch (1985) suggests a classification of the modes in which persons, groups, nations and even entire cultures may perceive time. These time perceptions shape the prevailing time-use-attitudes and the overall temporal orientation of workers. Perception of time is related to growth and development on a *personal* level, i.e. biological and mental growth in developing from childhood to adulthood; and *socially*, i.e. economic and technological development at the level of classes and nations. Ben-Baruch distinguishes three ways in which an individual may perceive time:

1) *Time is perceived as cyclical*, i.e. as repetitive and rhythmic, hence reversible. This perception of time is to a large extent inborn and a result of the synchronization of our biological clocks to the cycles of nature around us. Time is perceived as repeating itself, always coming back. Hence, in general, there is no particular need to be in any hurry, because the perception is that time is over-supplied. Tasks can be left for tomorrow, next week, or even for next year. Behaviour is most often activated by impulses, drives and instincts. The prevailing TUA is instinctive, i.e. oriented towards the *self*, the *here* and the *now*; it disregards future consequences of actions. This TUA is often found in young children and in some underdeveloped, economically backward, traditional societies. Individuals in which this TUA is dominant, do not view time as a valuable and scarce resource. Intervention programmes to improve the productivity of a person with this TUA, should be aimed at altering his TUA to an attitude that assigns a greater value to available time.

2) *Time is perceived as linear*, i.e. time is perceived as existing independently of the individual. Time flows, like a river, endlessly and in one direction. Thus time is perceived as irreversible. Recollections of earlier points of time constitute an

abstraction of the past. Similarly, points ahead in time constitute an abstraction of the future. Man, however, lives with the feeling that he is confined to the present, "dragging" himself and his present along the river of time from his past towards his future. Being irreversible, time becomes more valuable. Time should be utilized efficiently by planning activities to achieve future goals. Although a higher value is attached to time, it is still not perceived as a scarce resource. Perceiving time as being linear is not inborn, but is learned mainly through the process of socialization. Hence, the impact of culture, tradition, religion, socio-economic stratification and environmental conditions of life is profound and decisive. The linear time perception is characteristic of stable, traditional societies. The prevailing time-use-attitude is normative, conforming to authorities with a strong need to belong. Further, this TUA is typical of children in elementary school, prior to adolescence. Intervention programmes must be aimed at accentuating the intrinsic scarcity value of time. This is because this person has already accomplished the shift towards perceiving time as linear.

3) *Time is perceived as task-related*, i.e. time is inseparably linked to tasks. Tasks are approached in accordance with the amount of time allowed for the completion of each given task. Time is no longer a separate, unrelated entity controlled by the individual. It becomes integrated into the task definition as a yardstick, determining the degree of effective completion of the task. People are less at liberty to decide how much time may be used to accomplish a given task. Society sets standards of permissible time limits allowed for the completion of tasks. As economic demands increase, time standards become increasingly shorter and more rigid. Competition is tough. Survival requires efficiency and higher productivity. This reality starts at school, spills over into tertiary training, research institutions and most important, to the work-situation. No matter how capable a person is at accomplishing a given task, if he has not finished it on time, society will judge him a failure and will most likely penalize him. Thus time becomes one of the major criteria for determining success and achievement. Time is not interpreted as being simply linear. Rather, it is subdivided into task-related units, according to the extent of a specific task. According to this approach, time becomes a most valuable resource which requires careful management. Temporal orientation shifts from the present to the future. The present is perceived merely as a transition towards the future. Future orientation becomes a necessary condition for survival in a modern society. Only success with above-normal achievements is rewarded. Whoever is capable of accepting these challenges, and is able to adapt to changing circumstances, has a better chance than those who are slow to respond to changes. The various ways of perceiving time and the implications on the TUA and temporal orientation of an individual are summarized in Table 1.

TABLE 1: TIME PERCEPTION, TUA AND TEMPORAL ORIENTATION

TIME PERCEIVED AS	PREVAILING TUA	TEMPORAL ORIENTATION IS TOWARDS
1) Cyclic and reversible	Instinctive	Here and now
2) Linear and irreversible	Normative, traditional	Present; some future
3) Task-related. Time inseparably linked to task	Achievement	Future

The prevailing time-use-attitudes of individuals in technological societies are towards achievements and success; goal setting; and restrictions on time use. This could lead to the postponement of immediate gratification in favour of long term gain. This attitude demands a positive orientation towards the future, based on the confidence that present actions influence future results. Due to the vital role of this TUA in the marketplace and the accompanying productivity of a work force, individuals have to be sensitized towards perceiving time

futuristically. This orientation could be utilized as a lever for increasing productivity. The awareness of a worker that an increase in productivity could lead to long-term satisfaction of his personal needs, can serve as a powerful motivating mechanism. In the following paragraph the interrelationships between needs, motivation, time perception and productivity will be investigated.

MOTIVATION AND PRODUCTIVITY

The perception of an individual is determined inter alia by his personal "needs" and "motivation" (Baron, 1986, pp. 71-100). The problems surrounding productivity could be addressed by investigating the relationship between "needs", "motivations" and temporal orientation of the individual worker. Needs and motivation are often perceived differently by management and workers (Nasser, nd, p. 33). If needs are defined as "the deficiencies that an individual experiences at a particular point in time" (Gibson, et al, 1982, p. 63), the reference to time is the *present*. If needs serve as: "inherent motivating forces of an individual's behaviour" (Gerber, et al, 1987, pp. 266-285), the connotation of "motivation" has reference to the *future*. Time, therefore is a mutual component of both "needs" and "motivation". Needs seem to be primarily focused on the present, whereas motivation affects the individual's intentions towards the future. This distinction can illuminate the relationships between needs, motivation, time perception and productivity.

In view of the above discussion it is interesting to note that Younge (1975, p. 601) commented on the fact that Maslow did not make any reference to time in his theories. According to Maslow's hierarchical needs theory lower-order needs demand *immediate* satisfaction (Baron, 1986, p. 77). Upon their satisfaction, even partially, higher-order needs will become evident. However, perceptions of time, and temporal orientation can profoundly affect this hierarchical order of needs. For example, a strong orientation towards the future, coupled with a readiness to postpone the satisfaction of pressing, lower-order deficiency needs (such as security) for the sake of future, higher-order growth needs (such as status and self-fulfillment) apparently seem to contradict Maslow's theory. This, however, requires re-consideration. By introducing the concept of temporal orientation, an effort is made to gain a better understanding of how motivation and needs are related to productivity.

A future orientation could be instrumental in focusing on long-term growth needs rather than short-term deficiency needs. If the temporal orientation of an individual worker could be guided to focus on the future, then the short-term needs might lose their usual pressing and directive motivating power. This does not necessarily mean that lower-order needs will be ignored or neglected, but rather that a temporal orientation towards the future might lead to managing needs in a structured way. Such an approach towards available time might lead to higher productivity. In Table 2 the relationship between needs, time orientation, culture and productivity, is illustrated.

TABLE 2: THE RELATIONSHIP BETWEEN NEEDS, TIME, CULTURE AND PRODUCTIVITY

NEEDS	ORIENTATION IN TIME	IMPACT OF CULTURE	PRODUCTIVITY
Lower order deficiency Higher order growth	Present Oriented	Immediate satisfaction of needs	lower
	Future Oriented	Willingness to postpone immediate satisfaction for the sake of long term gratification	higher

RELEVANCE OF FINDINGS TO THE WORK FORCE IN SOUTH AFRICA

The time orientation and time perception as indicators of an individual's fundamental inclination towards life and work have to be scientifically investigated and measured (Raubenheimer, 1978, p. 65). Along this line of thought Ben-Baruch, Bruno & Horn's (1987) research to develop an instrument to identify the dominant time perceptions and time-use-attitudes of individuals is an example. Ben-Baruch, Myburgh, Anderssen, Wiid and Van Zyl (Anderssen, et al, nd) adapted the instrument for use in South Africa. Results from research utilizing this instrument and adaptations thereof may be applied in developing intervention programmes within the work situation. The feasibility of this is currently being investigated. The concept of intervention programmes aimed at developing a worker's orientation towards the future, can serve as an important vehicle for raising productivity. Such intervention programmes must be aimed at changing an individual's current orientation towards a dominant future orientation.

It is proposed that well orchestrated attempts be made to determine whether, and how, the relationships between needs, motivation, TUA and productivity are relevant to the work force in South Africa. Research projects should focus on designing diagnostic tools to evaluate the attitude of the work force towards time. Following the diagnostic phase, intervention programmes, geared at eliminating the identified deficiencies, can be developed. These programmes should provide for the needs of the different interest groups. Two guidelines in this regard seem to be important:

1. Changes in time perception and time-use-attitudes may lead to conflicts with existing traditions and norms. The success probability of any changes depends largely upon the degree to which possible conflicts can be foreseen and resolved. Transitions from one value system to another in which time plays a dominant role can be facilitated by utilizing facets of the current value system supporting the value system needed to uphold a productive society. Supporting buttresses should be found, reinforced and used to implement change. Culture must not be fought, but recruited as an ally.

2. Rees (1985-86, p. 26) states that workers perform in view of anticipated rewards. If workers could be guided to perform in accordance with specific goals related to such anticipated rewards, they could be motivated to perform more productively (Baron, 1986: p. 89-93). To operationalize these concepts in the practical work situation, programmes can be developed in which gradual, small-scale experiences are aimed at promoting changes in the time perception of the worker. Successful changes in TUA should be rewarded and reinforced. Short-term goals could be utilized to promote long-term goal setting. The practical implications of such actions need to be researched and implemented in intervention programmes aimed at increasing productivity of workers.

CONCLUSION AND IMPLICATIONS

The gap between decreasing productivity and increasing wage demands was singled out as a crucial problem facing the economy of the state in South Africa. It was reasoned that changes in the time perceptions and time-use-attitudes of workers could play a decisive role in the increase of productivity. The relationships between time perception, needs, motivation and productivity were analysed. It was suggested that all these are profoundly affected by the prevailing perceptions of time and time-use-attitudes of individual workers. Culture, tradition, economy, and environmental (not genetic) factors give a specific meaning to time perception, needs, motivation and productivity. Well orchestrated efforts should be undertaken to change individual workers' TUAs by intervention programmes. Culture can and should be recruited as an ally for this purpose. Workers in a technological society must be guided to adapt to and live by the value system needed to uphold productivity.

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