CHAPTER FOUR
THEORIES OF AGEING
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The review of literature chapter is preceded by a section on Theories of Ageing, as the theories have been fundamental in laying down the foundations for research in Gerontology. Also the results of various researches are interpreted in the light of these theories. With time, a lot of assumptions of the theories have changed and new theories have evolved, it is important to have a grasp or understanding of how one ‘ages’.

Schroots (1996) has listed the most distinctive ‘psychological theories of ageing’ since World War II. Theoretical developments are classified into three periods. The Classical period (1940-1970) is represented by Developmental Tasks/Activity Theory, Psychosocial Theory of Personality Development, Counterpart Theory, Disengagement-Activity Theory, Personality Theory of Age and Ageing and the Cognitive Theory of Personality and Ageing.


And finally the New Period (1980-1990 to date) is represented by Gerotranscendence and Gerodynamics/Branching Theory and the fairly recent Psychogerontological theory.
The researcher has listed the popularly known ‘theories of ageing’, that include biological, psychological, social and even economical aspects:

The Wear and Tear Theory/Rate of Living Theories: It states that the human body ages because it wears out over time because of the stresses of life. However, some types of activities are predictive of continued vitality and are essential to long life while some stressful activities are detrimental to longevity.

The Genetic Mutation Theory/Somatic Mutation Theory: It states that ageing is caused by changes or mutations in the DNA of the cells, in vital organs of the body. Mutations could be due to internal factors i.e. chance errors in DNA replication, or external factors i.e. toxins in food. The number of mutated cells increases to the point that the efficacy of the cell’s functioning is significantly impaired.

The Genetic Switching Theory: It suggests that certain genes cease to operate or switch off. So information needed to produce DNA is no longer available, so the cells atrophy. Eventually it causes loss of organ functioning and ageing.

The Error Catastrophe Theory: states that ageing is caused by damage to RNA, enzymes and certain other proteins rather than by errors in DNA. Such errors increase with age and decrease the functional ability of enzymes that leads to ageing. (Orgel 1963)
The Free Radical Theory: It is one of the biological random damage theories of aging. It states that certain molecules within a cell, display a violent reaction when they encounter oxygen, causing them to break away from the cell and form highly reactive molecular fragments called free radicals. These free radicals are unstable and try to bind with other molecular structures within a cell, which has a deleterious effect on normal cell functions, and can damage DNA. These cellular calamities ultimately manifest themselves as the signs of ageing.

Programmed Theory of Aging: The programmed aging theory maintains that bodies age according to a normal developmental pattern built into every organism. This programme present for each species is subject to only minor modifications. Each species has its own life expectancy and its own pattern of aging. This pattern must be predetermined and inborn. Leonard Hayflick (1974) who studied cells of many different animals found a limit on the number of times normal cells will divide, about 50 times for human cells. He holds that this time limit controls the life span, which for humans seems to be about 110 years. People may have genes that become harmful later in life, causing deterioration. One area of deterioration may be the immune system, which seems to become ‘confused’ in old age, so that it may attach the body itself.
The fact that every species has a fixed life span strongly implies that ageing and death are genetically programmed (Hayflick, 1987). The hypothalamus is responsible for at least ageing of one body system. By shutting off the production of the ovarian hormone estrogen at about age 50, it ushers in menopause, ending a woman's capacity for child bearing. Its far ranging effects make it a good candidate to regulate other manifestations of ageing (Comfort, 1979). Similarly, the thymus, a gland that is involved in the intricate immune response, slowly disappears during adulthood. Biologist Roy Walford (1969, 1983) suggested that this gland may be an ageing pacemaker, because its disappearance signals a weakening of the immune system that has far ranging effects. A weakened immune system loses its ability to fight off foreign attack and its ability to recognize one's own cells, may cause it to attack one's own tissues – autoimmune response.

Most theories are not really comprehensive and therefore do not touch several important issues. Leonard Hayflick (1996) further attempted to formulate a more comprehensive theory of human ageing that addresses both mortality and morbidity. He pointed out that one's ancestors did not experience the ageing process as one knows it now, as they did not live long enough. Improvements in nutrition, medical care, sanitation etc, have made human ageing a cultural invention. To understand ageing one has to
understand the evolution process. Evolution operates on a species, primarily for reproductive success. Evolution selects organisms that have a vital system that will allow them to survive environmental variations, disease and predation. Thus a species would increase its chance of survival by investing its resources in reproductive success rather than post-reproductive longevity. Therefore, in the post-reproductive years, humans age because of breakdown or glitches in their physiological systems that cannot be repaired in a meaningful way.

Quite consistent with the above theory, was that of antagonistic pleiotropy, which suggested that factors that enhance reproductive success may have a destructive influence later in life. E.g. the risk of breast cancer may be related to long term exposure to estrogen, which is necessary for fertility.

In addition to the Biological theories, there are theories of Person-Environment Interactions. These state that as a person ages, and becomes less competent, the greater the impact of environmental factors. To the extent, that people experience declines in health, sensory processes, motor skills, cognitive skills or ego strength, they are less able to cope with environmental demands.

The Loss Continuum Concept: It views ‘ageing’ as a progressive series of losses that reduce one’s social participation. This loss continuum includes children leaving, loss of social roles, loss of income, death of
spouse or close friends and relatives, loss of sensory acuity, and loss of mobility caused by poorer health. These losses reduce people's ability to partake fully in community resources, their own home and immediate neighbourhood take on a far greater importance. This increase in importance means that older adults are especially sensitive to even smaller environmental changes.

There are still other theories that highlight other significant aspects of aging such as the roles of socialization, economics and so on. They are:

Functional Theories of Aging: Basically, these theories have explained the process of ageing and the role of the elderly in terms of individual or group adjustment (Olsen, 1982; Marshall, 1987). These theories confirm ordinary life-style liberal or conservative sentiments. Elderly people are treated as a distinct homogeneous group in various stages of adjustment to the ageing process. These theories assume that the status of older people can be explained in isolation from the rest of the social and economic structure in any society. It is as if the influence of class structure ends at retirement age and all those beyond it face common problems. Also, the stereotype of the elderly as a homogenous group with special needs has exerted a considerable influence on both public attitudes and social policies towards this group.

Age Stratification Theory: Foner (1975) defines age stratification
as a shorthand description of the complex relationship between age and society. Age difference leads to formation of a stratum in which persons differ in both social roles and the culture they carry. Identification of a person as of a specific age leads to their cultural meaning or identification in terms of the constructs associated with that age. With this, they are subject to certain kinds of behaviour.

Life Course Theory: The main assumption of this perspective is that ageing is a lifelong process. The ageing process is multidimensional, and consists of three sets of processes – biological, psychological and social; and these three processes are all systematically interactive with one another over the life course. (Riley, 1979)

Structuralism/Dual Economy Theory: These theories lay stress on education, skill, age or other such human capital variables, which operate within the context of a segmentalised industrial order. They serve to demarcate the life world of individual workers quite independently of their personal attributes. There is a concern with the social creation of dependent status and the structural determinants of the competitive relationship between elderly and younger adults in the labour job market. The logic of capitalization is portrayed as a social and productive system irreconcilable with the needs of the elderly people whose lives cannot be adequately analysed in isolation from the web of economic relationships in
which they are caught up. Economic relationships influence the way one thinks about the process of growing old and about the position of older people within the social structure. They focus on how society and its system of stratification influence and constrain the experience of old age.

The Exchange Theory: According to Dowd (1980), this approach suggests that the lives of elderly people are shaped by the relative power resources of the social actors involved. Old people in modern society tend to be disadvantaged because they generally possess fewer power resources than young people, but some are able to manipulate in innovative ways the few resources they do possess. Thus, the long term 'exchange' view recognizes that possession of resources also leads to power in social relationships, the short-term view appreciates the creative ability of humans to use resources in unique ways.

Modernisation Theory: This theory is based on a major qualitative cross-cultural study of the effects of modernization on processes of aging. (Cowgill & Holmes 1972). Modernisation models of aging have traditionally held that modernization worsens the prestige and power of the old, maintaining that the life of the elderly people is characterized by disengagement, de-culturation and alienation. The notion that urbanization and industrialization have eroded the status of old people everywhere is widely accepted. The basic issue is the different ways in
which change affects the old and the various dimensions of their status, such as health, authority, economic independence, household situations and so on.

Developmental Theory: This Gerontological approach sees adjustment to old age as primarily determined by the individual's personality characteristics. Developmental theory has resulted in the categorization of the elderly. Such an analysis attributes minimal importance to the social context in which ageing takes place and disregards completely the external constraints with influence the aging process.

Activity and Continuity Theories: Havighurst (1963) saw the process of normal ageing as maintenance of activities and attitudes of middle age. If one is forced to give up a role through retirement for example, other roles should be substituted. Social participation is regarded as necessary criteria for satisfactory aging in order that lost roles be replaced with other types of behaviour. Successful ageing requires finding new ways of being involved, o compensate for losses of retirement or the death of long-time friends. (Atchley, 1977)

Disengagement Theory: As people grow older they have less energy, and sustain a diminishing number of interactions/roles with others. Retirement from work, loss of dear ones and deteriorating health cause
them to become more egocentric. The Kansas City Studies of Adult Life is the earliest major study of personality change in middle and later life. Several hundred married middle class couples, ranging in ages 40 to 90 years, living in Kansas City during the middle 1950s were assessed. Using the TAT, psychologists analysed unconscious motivations. Headed by University of Chicago, psychologist Bernice Neugarten and Associates (1964) found that men and women in their early 50s, they tend to become less involved in the world. This internal withdrawal, accompanied by a reduction in the actual number of roles that the researchers found among the men and women in their 60s, caused members of the team, Elaine Cumming and William Henry (1961), to propose the ‘Disengagement Theory’. People begin to distance themselves emotionally from society and withdraw from the world. This withdrawal is normal and the correct approach to aging. It was also found that in later life, personality differences between the sexes blur or reverse with women being more dominant and men more nurturing. The elderly person’s mutual withdrawal is seen as a natural and inevitable procedure of functional benefit to the individual and society. The lowering of activity levels and involvement in social interaction is regarded as indicators of ‘correct’ aging (Cumming, 1963). Platt (1972) has seen this disengagement theory as a geriatric euphemism of social death. It serves as a justification for the
exclusion of elderly people from social activities and does not regard their separation from society as a problem warranting concern but rather as a beneficial process.

The Ancient Hindu scriptures provide an interesting example of an ethno-model of the life course coupled with a culturally constituted disengagement theory. In this framework, the ideal life course is conceived of having four stages, student, householder, hermit (a period of spiritual reflection and development) and renunciation (a period of complete social disengagement).

In the Indian context, the Ashramas, the ideal scheme of the Hindu life life-cycle, appear superficially to be a form of prescription for healthy ageing via disengagement, since the last two stages tend to be less directly involved in the affairs of the material world and concentrate more on spiritual and preparation for the ultimate goal of life. This was not really withdrawal or disengagement but a replacement of certain socially valued material roles by others, including spiritual roles (Kapadia, 1966). However, Hochschild (1975) has given the idea of ‘differential disengagement’.

A study of aging and disengagement in India by Vatuk (1980) concluded that the influence of the ideal of withdrawal in later life was still apparent in Hindus but that although a degree of social and
psychological retreat took place, it did not mean a total cessation of social activity. The existence of a normative prescription for a form of withdrawal from material power enabled older people to give in gracefully to younger people and to avoid direct intergenerational conflict. This did not imply social inactivity, though the elderly did not generally exercise authority.

However, none of the existing theories explain some of the key experiences associated with old age, such as the marginalization of elderly people and the differential impact of retirement or the feminization of ageing. One reason for this could be the relative neglect of women in studies. Research in gerontology has yet to make an adequate reflection of the changes in the role and status of elderly people.

The MacArthur Foundation Research Network on successful ageing (Rowe & Kahn, 1998) has offered a new, interdisciplinary perspective on the distinction between usual and successful ageing. Those characterized by usual ageing may be functioning well but are at high risk for disease, disability and reduced capacity for functional independence. In contrast, the successful ‘agers’ are characterized by three interdependent features. They have a low risk of disease and disease-related disabilities, high mental and physical function and active engagement with life. This feature of active engagement has become a frequently repeated theme in the field of gerontology.