

## The perception of the ageing process through time: historical highlights

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Ageing is a global phenomenon having many multifaceted consequences across the different countries of the world. Worldwide, in 1955 there were 12 persons over sixty-five for every 100 persons under the age of twenty, in 1995 the rate was 16 for every 100 and in 2025 the World Health Organization (WHO) reckons that the proportion will be 31/100 (1). WHO also states that the current 390 million individuals over 65 will become approximately 800 million in 2025, and therefore within twelve years from now at least 10% of the world population will be represented by elderly people. Even if ageing as a global phenomenon is quite a recent trend, social-health and medical-scientific attention for elderly subjects is well radicated in western societies, as here shown through the presentation of some historical highlights.

In some civilizations of the ancient western world, ageing was considered a pathological process, and not infrequently old age was deemed a genuine disease. The Egyptians, for example, adopted emetic and diaphoretic substances to implement the “art of longevity”, and even “to transform elderly people into young individuals”, as may be read in the Edwin Smith Surgical Papyrus. In ancient Greece too the attitude towards old age was ambivalent, if not ambiguous (2). On the one hand, for example, the town of Sparta was governed by a board of persons aged at least 60, since experience was retained fundamental for administering a city. On the other, the Greek philosopher and naturalist Aristotle thought that a person’s vital flame decreased continuously with age until its extinction, so that the human body appeared

tired and debilitated in advanced age. In ancient Rome, instead, the lawyer and orator Marcus Tullius Cicero, author of the text “De Senectute” (About Advanced Age), studied advanced age from a cultural and philosophical point of view and dedicated particular attention not only to the limits but also to the merits of elderly people, concluding that advanced age was a fundamental period of human life. Only in recent times has the medical-scientific study of the ageing process and of elderly age made its appearance, as documented by the selected list of fundamental books published on these topics from the middle of the nineteenth century to the middle of the twentieth century, included in Table 1. Not by chance many medical-clinical terms relating to gerontology and geriatrics date precisely back to the beginning of the twentieth century (3,4). In 1903 the Russian biologist and zoologist Ilya Metchnikoff coined the term “gerontology”, and six years later the Austrian doctor Ignatz Leo Nascher coined the term “geriatrics” to indicate the clinical dimensions of the ageing process. During this same period, and specifically in the first decades of the nineteen hundreds, the systematic assessment of human ageing also made use of the conceptual and operative tools rendered available by physiology, and subsequently by biochemistry, genetics and health technology. In 1923 the American educator and psychologist Granville Stanley Hall published his treatise entitled “Senescence”, considered today the first organic overview of ageing in the USA, and a few years later the Canadian biologist Edmund Vincent Cowdry published his book “The

**Table 1.** Selected treatises on ageing and elderly age.

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J.A. Salques, *Hygiene for old people*, 1843;  
 George Edward Day, *Disease of advanced life*, 1848;  
 Bernard Van Oven, *On the decline of life in health and disease*, 1853;  
 J.M. Charcot, *Clinical lectures on senile and chronic diseases*, 1867;  
 William J. Thoms, *Human longevity: its facts and fiction*, 1873;  
 Arnold Lorand, *Old age deferred*, 1910;  
 Ignatz Leo Nascher, *The diseases of old age and their treatment*, 1914;  
 G. Stanley Hall, *Senescence: the last half of life*, 1923;  
 Alfred Worcester, *The care of the aged, the dying and the dead*, 1935;  
 Edmund Vincent Cowdry, *Problems of ageing*, 1939;  
 Edward J. Stieglitz, *Geriatric medicine: diagnosis and management of diseases in the aging and in the aged*, 1943;  
 Alex Comfort, *The biology of senescence*, 1956;  
 James E. Birren, *Handbook of aging and the individual*, 1959.

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problems of ageing” (1939), paving the way to the systematic evaluation of research on ageing.

Interest in age and aging has progressively increased in the second half of the twentieth century, as well documented by the many biological theories proposed during the last sixty years (5) that have led to a re-evaluation of the concepts of gerontology, which is now considered the comprehensive study of the biological, psychological and social features of aging, and of geriatrics, which identifies the complex area of clinical medicine investigating the pathologies of elderly

people. As a result an advanced age in human beings is nowadays perceived, contrary to the past, as a productive and stimulating season of human life, and aging is retained to be a multidimensional and complex process.

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### References

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