

Traits of Civilization and Voice Disorders

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To our families.

Preface

This book is unique. Civilization has evolved over centuries. So has understanding, function, and dysfunction of the voice. Changes in civilization have had dramatic impact on the development of voice over time. Voice function, voice dysfunction, and voice treatment need to be understood in the context of each individual's cultural environment and influences. No previous book has explored the complex interactions of culture and voice.

Chapter 1 provides a brief introduction to the impact of civilization on voice and the need to understand each voice user within his/her cultural context. Chapter 2 is a classic chapter on the cultural history of the larynx and voice written by Hans von Leden for the second edition of Sataloff's *Professional Voice: The Science and Art of Clinical Care* in 1997 and which also appears in the third and fourth editions. It is republished with the permission of Plural Publishing, Inc. This comprehensive chapter traces the evolution of culture and voice through the mythical, metaphysical, traditional, and realistic stages of development, placing the evolution of voice in context with the evolution of culture. Chapter 3 explores the influence of culture, language, and of the intrinsic musicality of language on voice and voice disorders. Chapter 4 is the first of three chapters on urbanization and voice. It reviews the impact on voice of the shift in population from rural to urban areas, highlighting changes in pollution, disease, noise, stress, and other factors. Chapter 5 discusses how the increase in the number of cities and the urban population resulting from industrial and commercial growth has affected social interactions, altered and increased stresses, and affected mental health. Mental health issues ranging from anxiety and depression to schizophrenia can affect voice. Chapter 6 reviews the changes in diet and nutrition that have accompanied urbanization. Dietary intake provides the biochemical substrates responsible for the structure of the body, including components related to voice. Nutrition also affects general health, obesity, reflux, and other health parameters essential to voice function.

Chapter 7 explores the somewhat delicate issue of class structure and its relation to voice. Class and related factors including occupation affect how the voice is used for credibility, dominance, prestige, and other social strategies. It is necessary to understand those factors in order to understand how voices function and how they dysfunction. Chapter 8 explores the interactions of religion and voice. In many religions, voice is central to prayer. Religious uses of voice involve not only singing and chanting, but also preaching, lecturing, teaching, choir singing, and many other

activities. While the most obvious impacts of religious activity on voice may occur among clergy and choir members, congregants also are involved in speaking and singing in many denominations; and such activity can affect voice both during and after religious activities and can lead to voice pathology. Chapter 9 explores the fascinating topic of digital health literacy and the emerging role of technology in voice health, including the impact of artificial intelligence and machine learning on physicians, patients, and large healthcare organizations. Chapter 10 describes the interactions of art and voice. Art is a particularly revealing expression of culture, and various forms of art provide insights into the development of culture and related developments in voice. This chapter also reviews the value of studying voice and art for physicians, especially for those physicians involved in care of the voice.

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Introduction

1

Abdul-Latif Hamdan, Robert Thayer Sataloff,
and Mary J. Hawkshaw

Civilization is a word derived from the Latin term “civilis” meaning citizens living in a city [1]. It denotes a complex view of socio-cultural diversity in human behavior. Historically, almost all civilizations had agriculture as a basis for subsistence and centralized bureaucracy [2]. Both dry and wetland farming drove the invention of tools and other implements that paved the way for artisanship and domestication of animals [3]. In turn, these led to the emergence of settlements and formation of cities. Clustering of people in one geographic area fostered social stratification and the structuring of social edifices. Each civilization became characterized by sociological traits that defined its class structure and differentiated it from tribal living [4]. The aggregation of people and development of cities furthered advances in economic systems to improve productivity and trading. Economic platforms were devised across different civilizations to streamline productivity and allow the transfer of surpluses to destinations within cities and further abroad. The complexity in the social setting of civilizations and the engagement of citizens in diverse and specialized activities nurtured art and science. Each civilization became distinguished by an array of art-work and technological advances. Social stratification and diversity in human tasks were accompanied by the need for hierarchy and governance. Political institutions were established to mitigate arbitrary ruling and rationalize law enforcement [5].

Across history, the term civilization also carries a spatiotemporal definition. Despite the belief that civilization started after the last stage of the Neolithic

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revolution [6], the noun “civilization” was used first by the French in 1760 to describe human advancement in opposition to barbarism [7]. Subsequently, the term evolved in the West in the nineteenth century to denote “progress in humanity”, which in several instances was linked to political, economic, and military influences. In the realm of occupation and colonial expansion spreading from Western countries, political circles applied the term civilization in reference to the geographic location of groups of people, whereby the occupier was referred to as “civilized” and the occupied or “primitive inhabitant” as the “barbarian” or uncivilized. The spread of civilization also was achieved by trading and conversion of religious beliefs. This led many countries to become a “Nation-State” in an attempt to preserve or crystalize its own civilization and help its spread. The state controlled the military, political and fiscal powers and became the sole authority that helped maintain the safety and culture of its citizens [5, 8].

Despite the many differences across civilizations in history, and the lack of “closeness” in the perception and understanding of civilizations as an ongoing stream, there are common core characteristics. These include the presence of settlements, referred to as cities and/or urban centers, social classes and edifices fostered by the congregation of people in one geographic area, a state or an advanced legal structure that governs the settlements via a socio-political and an economic structure, often a common ideology and/or religion for spiritual guidance, and a written language or symbolic mode of communication that helped unite people. Additionally, many argue that monumental architecture is also integral to the presence of any civilization, like works of art and science. Scholars across history have debated which of the above themes is more pivotal to defining civilization. Some have focused on the cultural theme that stresses the distinctive elements, materials and rituals within a civilization, whereas others have focused on the sociological theme that stresses the organizational structure and distribution of classes and power within a civilization [1, 4, 9].

With civilization becoming an advanced form of society, a change in individual conduct was bound to happen. Norbert Elias, in his illustration of civilization as a process, stressed the impact of civilization on human behavior [10]. In the *History of Manners*, the first volume of his book “*The civilization process*” published in 1939, Elias traces the transformation in social manners, among which are speech and other body functions, to the development of social norms that constrain human behavior [11]. The author argues that social attitudes and connections mold the individual’s psyche and enhance “self-restraint”. The animal nature becomes suppressed gradually as civilization evolves, and feelings of embarrassment and shame rise when violent or “non-civilized” behavior is observed. Elias couples change in human behavior with change in sociopolitical structure. Human behavior and manners become one facet of what he referred to as “sociogenesis”, with the other facet being politics. Going further, Roland Robertson distinguished civilization as a sociocultural complex in which ideological and cultural norms influence the individual’s attributes [12]. Civilization is perceived as a complex system or a large organization, the character of which depends on the interaction between economic, political, social and cultural spheres.

Whether civilization is thought of as a process or a sociocultural complex, it led to reform in human behavior. Like other body functions that are influenced by the transition from barbarism to civilization, so are speech and phonation as means of communication. In 1953, in his book on “Nature of culture”, Kroeber stressed the role of communication in the distribution and maintenance of cultural traits within a civilization which he described as temporary arrays or crystallization of elements held together [13]. In 1950, Gordon Childe listed naturalistic art and writing, both considered as modes of communication, among the complex criteria that defined civilization [14]. In 1961, Carroll Quigley described civilization as an “instrument of expansion” that is contingent on communication [15], and in 1962, Redfield highlighted the intricate role of communication in facilitating the flow of information across social organizations and structures [16].

The odyssey of voice, as a means of communication, must parallel the evolution of civilizations. The way we express ourselves through voice and speech changes in the process of individual adaptation to different sociological complexes. As an indispensable carrier of semantics and personal traits, voice is challenged by cultural and linguistic barriers, hazards of urbanization, dominance in social edifices, religious behavior, art and technology. Urbanization and evolution of cities, for instance, fueled air and noise pollution, both considered as voice risk factors. Class structure enforced dominance and prestige, traits of social hierarchy that can lead to voice modulation. Division of labor helped stratify and distinguish professional voice users from non-professional voice users and foster research in the field of voice and voice pedagogy. Religious observance has affected the prevalence of voice disorders through the practice of sacred dietary habits such as fasting and through specific voice demands. For example, religious practice has contributed to an increase in vocal loading in a category of religious people, through preaching, chanting and singing. Emerging technology as a prominent factor in recent evolution of civilization reformed communication strategies and contributed favorably and unfavorably to voice health. Virtual meetings have altered our vocal habits, and the use of smart applications has improved health-care by decreasing the need for phonation. As such, digital health literacy is a double edged sword in voice health, and the emerging role of technology should be analyzed cautiously.

The authors of this book review the interface between the traits of civilization and voice. What is the impact of civilization on voice as a means of communication across the diversities in culture, social hierarchies, and religious practices? This unanswered question warrants discussion. Understanding voice disorders in the context of “civilization” and analyzing the impact of the different core characteristics of civilization on phonation is invaluable for otolaryngologists, speech-language pathologists, voice teachers and others who are engaged in the diagnosis, treatment and/or training of patients with dysphonia, as well as for voice users and the general public. The information in this manuscript will help voice care providers and voice users understand the multifaceted etiology of dysphonia across different social and cultural contexts and plan optimal individualized management strategies.

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A Cultural History of the Larynx and Voice

2

Hans von Leden

Like other aspects of human development, the concept of voice production passed through four cultural phases.

The first stage, the fictitious or mythical stage, may be considered under the heading of folklore. In this stage, man explained natural phenomena as magical, religious, or supernatural events. The physician was considered a god, or at least a priest.

The second stage was the metaphysical stage. In this era, knowledge was based partly on observation, but mainly on speculation. Doctors considered themselves philosophers.

I have termed the third stage the traditional stage. In this period, all information was based on tradition or revelation, on the great authorities of the ancient world, and on the fathers of the Church. Medicine served as a repository of ancient wisdom throughout the early Christian era, the age of Arab medicine, and the age of Scholasticism.

The fourth stage may be defined as the realistic stage. This phase started with the Renaissance. Knowledge was based on actual observation, experimentation, and coordination. In other words, medicine became a science, and physicians were expected to become proficient in both art and science.

The Fictitious Stage

The first, or fictitious stage, is readily explained if one remembers that mythology was the common mother of religion, poetry, the arts, and science. The psychologic genesis is identical in all these fields. Thus, voice was originally interpreted as a magic or religious phenomenon.

Hans von Leden was deceased at the time of publication

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