

Editorial

“To be or not to be” (a physician in Audiology)? (and also of course in Phoniatrics)

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Like a huge spinning wheel that alterns particularly rough and stinging surfaces and more or less smooth parts, the issues concerning the survival or cancellation of Audiology and Phoniatrics in Italy periodically disturb and make our professional and scientific life difficult and bitter.

These issues leave all those who work in this field astonished or at least perplexed because it is clear to everyone what was the benefit given from Audiology and Phoniatrics not only for scientific knowledge, but above all for patients with hearing impairments and for their families...or for patients with swallowing problems.

That is!!

I will try in the next few lines to summarize what has happened in the last hundred years, and the great contribution of Italian physicians.

In 1922, exactly one hundred years ago, Western Electric produced the first commercially available electronic audiometer for the measurement of the sensitivity of hearing, designed by E. P. Fowler and R. L. Wegel; it

allowed for hearing testing from 32 through 16,384 Hz.

Previously, diagnosis of hearing loss was based, for the quantitative evaluations, on the use of whispering or spoken voice and a watch, and, for a qualitative evaluation, on the use of a tuning fork. There were also other instruments: Politzer's acumeter, Galton's whistle, Struycken-Schaefer's monochord. Cochlear-phonatory reflex (Lombard's test), cochlear-eyelid (for newborns) or galvanic reflex for assessment of the eighth nerve. Tube function was evaluated by means of the Politzer inflator and with Valsalva's maneuver.

We can establish this date of 1922 *as the watershed* between a purely clinical but also empirical modality and the one we know today.

Audiology deals with the study of the auditory and vestibular apparatus function and disorders and it *was born “officially” immediately after the Second World War*, due to the convergence of the development of modern electronics (which led to the creation of audiometers and hearing aids) with the needs of an Hearing Rehabilitation for a very large

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number of “veterans” of the United States Army and Navy; since then Audiology had a very rapid development in the following 10 years both in the USA and in Europe.

The first “International Conference in Audiology” was held in Stockholm in 1948 and the second in London in 1949 (5 Italians out of 39 participants: Arslan, Bocca, d’Avino, Ferreri, Manci).

On 1950 the first International Course in Audiology was held in Stockholm and in that time Gunnar Holmgren said in front of “your Royal Highness” these words:

“Audiology – that is to say, the science of hearing – is still, in the present sense, only a few years old... We have long known that impaired hearing is very prevalent...In most countries very little has been done .. World War II left in its wake such a vast number of veterans with damaged hearing that the United States Army and Navy found it necessary to organize relief centers, so-called Audiology Centers for Rehabilitation of the Deaf...the number of such centers in the U.S.A. today is estimated to be well in excess of one hundred. Outside America, in contrast, plans for such organizations exist in several countries, but yet have scarcely been realized in any of them”.

In 1952 Pierre Trenque (Lyon), Terence Cawthorne (London), HAE Van Dishoeck (Leiden) André Aubin (Paris) founded the **International Society of Audiology** “to facilitate the knowledge, protection and rehabilitation of human hearing and to serve as an advocate for the profession and for the hearing impaired throughout the world.

The first International congress of the Society of Audiology, was organized in 1953 between Leiden and Paris, and a merger was made with the French Society who had organized the “1er Congrès de la Société Internationale d’Audiologie” with remarkable participation of the Italians. An extraordinary congress was held in Buenos Aires in 1954 (Aldo G. Remorino); the second international congress in 1955 took place again in Paris (André Aubin), also here the Italian contribution was worthy of note⁵ and the following two were held in Italy in Montecatini in 1956 (Pier Felice Pieri) and in Padova in 1958 (Michele Arslan).

During inaugural address Aubin in Paris said “notre jeune Société qui est agée peine de trois ans est en pleine activité” leaving the presidency to Luigi Pietrantoni. These con-

ferences were born as a rib of the Collegium Oto-Rhino-Laryngologicum Amicitiae Sacrum (CORLAS). From the very beginning, although the medical component was predominant, the discussion between “technical” audiology and “medical” audiology was very heated. In particular, Otologists, at that time the predominant component of CORLAS, warned of the danger that Audiologists could erode the scientific field of the specialty. Already after the presentation of Norton Canfield (Yale) at the first conference 1948, Edmund Fowler (New York) disputes the approach given on the organization of rehabilitation centers. Maurice Sourdille in the London conference of the following year, presented a reading on “coinsiderations generales sur l’ Audiologie” and proposed to insert it as part of one of the four “groupements spéciaux annexes” to the ENT specialty giving rise to the specialty of “Oto-Neuro-Optalmologie e d’Audiologie”.

The **fourth congress of the “Société Internationale d’Audiologie” was held in Padua on 2-4 October 1958**; Pietrantoni and Arslan in their introductory speech gave particular relevance to the the relationship between the “new” discipline of Audiology and Otolaryngology / Otology. Pietrantoni, president of the Société, in his inaugural speech explained the reasons why the congress was held in Padua:

«Notre ancienne et illustre Université de Padoue – dont les Instituts scientifiques et les Cliniques perpétuent les traditions d’un glorieux passé qui a vu se succéder au cours des siècles, de Fallope à Valsalva et à Cotugno, les grands pionniers créateurs des bases anatomiques de l’étude de l’organe de l’ouïe – était certainement l’endroit le plus indiqué de toute l’Italie pour accueillir les spécialistes de la physiologie, de la physique acoustique et de la physiopathologie auditive».

These first audiological congresses were attended by several important Italian figures: at the first congress in Paris Luigi Pietrantoni (Milan) was vice chairman and Lucio Croatto (Padua) was the “secrétaire des séances”; Michele Arslan was the “président du Comité des Barèmes d’Invalidité” and Azzo Azzi (Milan) and Lucio Croatto (Padua) were part of the “Comité de Dépistage de la Surdit  ”. At the second congress in Paris in 1955 the first relation “Les aspects m  taboliques des probl  mes audiolgiques” was presented by Leo-

poldo Fiori-Ratti and during the congress the Italian participants were very active.

In the following decade, the development of Audiology in Italy was mainly due to the ENT Clinic of the University of Milan directed by Professor Luigi Pietrantoni.

The city of Milan played an important role especially in the deafness area: in Milan, during the second half of '800 the "Pio institute for poor deaf and dumb in Milan" was founded and in 1880 was held the Second International Congress on Education on the deaf also known as the "Milan Conference or Milan Congress". During the conference, it was declared that oral education (oralism) was superior to manual education (signed) education and after it was deliberated the approval of the oralism and the sign language ban at school. Following this, schools in European countries and USA switched to using speech therapy without sign language as a method of education of the deaf.

The other great contribution to the development of the new discipline came from Turin: since the mid-1930s, an Oto-logopedic department has been active in Turin, directed by prof. Renato Segre, probably the first Italian center for the diagnosis and treatment of hearing, voice, and speech disorders. In 1939 Segre, due to the racial Fascist laws, was declared forfeited from university teaching and research and forced to emigrate to Argentina, thus Giuseppe Bellussi took his place (Bellussi, 2022).

At the end of the 1940s, clinics and research centers with a particular interest in the rehabilitation of problems relating to hearing, balance, and voice disorders were developed in many Italian universities and hospitals (Bari, Bologna, Milano, Napoli, Padova, Palermo, Pisa, Roma, Torino, Venezia ...).

In 1950, during the conference on Experimental Phonetics, Phoniatrics and Audiology, held in Milan, **it was founded the Italian Society of Audiology and Phoniatrics** of which Agostino Gemelli became president.

A particularly important step was the organization of the **"Audiology Course"** (13-21 January 1951) held at the Otorhinolaryngology Clinic of the University of Milan. The proceedings of this course were immediately published in a volume that has constituted in the

next years one of the principal basis for the study of Audiology in Italy.

In the same year, 1951, it took place the IX meeting of the "Gruppo Otorinolaringologico dell'Alta Italia", and the official report "Modern methods of clinical audiometry: tonal and speech audiometry" was edited by Ettore Pirodda and Ettore Bocca.

In January 1951, at the same time as the Audiology Course, it came out the **"Rivista di Audiologia Pratica"** (Journal of Practical Audiology), published by the Maico Audiological Center of Milan and directed by Enrico Buchwald, with the greeting addresses of Agostino Gemelli and Pietro Caliceti (Bologna) and of Luigi Pietrantoni (Milan); a crucial personality for the magazine was Azzo Azzi, the editorial committee made up of Giuseppe Bellussi (Turin), Ettore Bocca (Milan), Ugo Bombelli (Rome), Paolo Filippi (Genoa), Leopoldo Fiori-Ratti (Rome), Cesare Frugoni and Ettore Pirodda (Bologna).

The purpose of the publication was "to fill a gap in the Italian specialist literature" and it was aimed at both younger and more trained otologists; especially for the youngest this Journal will serve to clarify the foundations and developments of practical Audiology by proceeding in each question step by step, from easy to difficult; another initiative was to offer a free bibliographic service. The journal was published by Maico whose medical director and importer was the Italian Enrico Buchwald, who was certainly an innovator. The Journal of Practical Audiology came out regularly for more than 10 years at least until 1962 and was undoubtedly an updating tool for those who in those years began to be interested in a new discipline such as Audiology in Italy.

Later, in 1967 it was born the **"Notiziario bibliografico di Audiologia"** (Bibliographic newsletter for Audiology) published by Amplifon under the inspiration and direction of Antonio Antonelli.

The Italian scientific societies of Audiology and Phoniatrics that have occurred over the years since 1950 always stimulated and disseminated the scientific research activity with numerous publishing activities. In the late 60s, the audiological and phoniatric components of the society separated and then merged again in 2004 in the "Società Italiana

di Audiologia e Foniatria (SIAF)" at the Italian national congress in Rome.

The International Association of Physician in Audiology IAPA

In the Editorial of the first issue of the *Journal of Audiological Medicine* (JAM), Linda Luxon and Dafydd Stephens wrote: 'In 1980 the International Association of Physicians in Audiology was formed, to provide an international forum of discussion for audiological physicians. Six symposia, covering a variety of aspects of audiological medicine, have been held in various parts of the world. As the speciality has continued to develop and the prevalence of hearing and balance disorders became more widely appreciated, it became self-evident the need for a medical journal for the presentation and diffusion of clinical and scientific works in the field of audiology. This need has been met neither by the general "technical" audiological journals, nor by the ENT journals, which have a surgical perspective. For these reasons the Journal of Audiological Medicine has taken on a valuable role in the continuing development of this rapidly expanding area of medicine, it was significant both numerically and financially in terms of health care'. JAM was published by Whurr (London) from 1992 to 2002 under the auspices of the International Association of Physicians in Audiology (IAPA). Prior to JAM, the 'Association' published from 1981 to 1992 the IAPA Bulletin. Sue Bellman was the editor of the IAPA bulletin which was not only a 'bulletin', but the beginning of a journal, reporting not only the news from the meetings, but also scientific papers.

JAM gave a great impulse to the development of various European research projects: (1) on the genetic hearing impairment (which resulted in the European Concerted Action HEAR) (Gross, 1998), (2) on the protection against noise (resulted also as a European concerted action) (Lenarz, 1999) and (3) on European Concerted Action on Otoacoustic Emissions (Luxon, 2000). Linda Luxon was the founder editor, and Alessandro Martini Deputy editor; in 2001 Alessandro Martini was nominated Executive Editor and Valerie Newton Journal Editor (Grandori F, 1996). Valerie

maintained the role of Managing Editor also in Audiological Medicine and HBC, for around 20 years, till 2017 (Luxon, 1996)

JAM was a very active forum also for the discussion of the role of Audiological Medicine and in particular regarding the relationship with Phoniatrics (Martini 2013; Martini 2017; Martini 2020). In 2003, the journal was moved to another publisher (Informa) and it was renamed '*Audiological Medicine*'; finally, in 2013, after the IAPA International Symposium in Beijing, the journal received its current name *Hearing, Balance and Communication* (Martini, 1996; Martini 2004; Martini 2021)

The specialty of Audiological Medicine has been developing in a large number of countries into a stronger collaboration with other physicians involved in the diagnosis and treatment of communication disorders. (Martini, 2020) The aim of the transformation of the journal was to provide scientific information on the broad area of audiology and related sciences; a journal in which all the sciences/topics related to audiovestibular medicine and communication disorders have to be represented, e.g. molecular biology, genetics, cellular biology, pathology, neurophysiology, neuropsychology, neuroradiology etc., with particular attention to the 'clinical' implications of new scientific discoveries in our field. The aim of HBC is to cover all topics related to our clinical practice (hearing screening, pediatric audiology, auditory neuropathy, dysacusis, tinnitus, balance disorders, and others – mainly audiological, but also speech production and language difficulties). For this reason, the subtitle of the Journal changed to 'International forum for hearing, balance and communication disorders' (Martini, 2003; Stephens, 2001).

In the past century a dramatic change in hospital and community healthcare medicine was the rise of the medical specialties, but... what is the current situation? What type of specialist is needed today in the field of Audiology and Phoniatrics? The new technologies changed the way to practise audio-vestibular and phoniatric medicine.

Since last year (2021) was the jubilee of *Dante Alighieri* (1265-1321), we can say that our international association IAPA is in 'Midway upon the journey of life', to Hell, so Purgatory, or so Heaven? It will only depend on us.

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