

**I.C.O.S. 2012**

**Abstracts**

## **“Advances in the Research and Clinical Domains of Stuttering”**

Ehud Yairi - University of Illinois, U.S.A.; Tel Aviv University, Israel

Since the beginning of the 21st century, significant advancements have been made in several research fronts concerned with stuttering. These include Epidemiology (incidence, onset and development, subtypes), Brain anatomy and physiology, and motor speech. Limited progress has also been made in the clinical arena, both in respect to treatment and evaluation of the disorder. These achievements will be highlighted and briefly discussed. Implications will be derived.

## **“Social anxiety in people who stutter: A complexity perspective”**

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Many people who stutter are socially anxious. This is not surprising, given that stuttering can interfere with a person's ability to communicate effectively. In this theoretical paper, we explore social anxiety and stuttering from a complexity perspective.

## **“Interactions between cognitive and motor processes in speaking and stuttering”**

Hans-Georg Bosshardt - Ruhr, Universität Bochum, Germany

Some prerequisites of fluent speech will be reviewed and contrasted with observations showing that the execution of speech movements is influenced by attention, concurrent processing load and linguistic complexity of speech. Speech movements of speakers who do and do not stutter can be subjected to this kind of influences. Data will be presented which show that stuttering relative to non-stuttering speakers are more sensitive to such forms of influences and theoretical interpretations of these group differences will be discussed.

## **“Stuttering: the state of the art”**

Oskar Schindler - Università degli Studi di Torino

Stuttering is a complex physiopathologic panel which has definite contour. Definition that we think most useful is “disfluency characterized from repetitions of syllables and phonemes or tense breaks earing or viewing, with embarrassment or negative feeling” (Schindler) Fluency is a skill in connection with genetic information SNC functionality, maturation, practise and the context. The main events are: change of speed of execution, the parasite acts, conglutinations or suppression of some components of complex acts. The outline of reference treaty for stuttering is the following trend: initial determining, motivating cause that all together provoke a symptom of disfluency. Negative conditionings are instead related of personal environmental experienced and transforming disfluency in stammering. Offset or conditioning will be established.

Before two or three years of life disfluency doesn't manifest. Between three and eight years of age disfluency of limbering appears. From six eight year of age to teenage decade of disfluency – stuttering are reduced. Actually in not possible behaving effectively on initial determining but they can act on motivating cause on individual, on offset conditioning.

## **“Five top Advances with Stuttering Assessment and Treatment”**

Mark Onslow - University of Sydney

This presentation is a personal view of what are the greatest advances of our field during nearly a century of research and theory. Johnson's diagnosogenic theory of stuttering had an extensive influence on researchers and clinicians worldwide. Its ultimate abandonment changed clinical practices forever. Now that the age of evidence based practice is upon us, it is wonderful that we now have three early interventions which are supported by clinical trials evidence. Equally important for clinical practice was the discovery of natural recovery from early stuttering, although the picture is not fully clear at present. The discovery and widespread use of prolonged speech to control stuttering has helped countless thousands of people worldwide. Finally, the arrival of clear evidence of an association between stuttering and social anxiety has been a watershed development.

## **“Answering back: helping teenagers have their say”**

**Willie Botterill, Frances Cook - The Michael Palin Centre, London, UK**

Many therapists have reported their lack of confidence in their knowledge and skills in working with people who stammer generally and that there are particular difficulties associated with this age group. Therapists tend to be less confident in working with teenage clients who they view as more complex and difficult to engage in therapy. This presentation will briefly describe a comprehensive treatment approach that includes cognitive, speech management and social communication skills components. The journey of three teenagers through the therapy process will demonstrate the different needs these teenagers have over time and the importance of therapy being flexible enough to meet the needs of the individual.

## **“Comparing and Contrasting Three Evidence Based Early Stuttering Treatments”**

**Mark Onslow - University of Sydney**

There are three treatments for early stuttering for which clinical trials evidence is available. These are (1) the family-based Parent-Child Interaction therapy, (2) the Westmead Program which draws on the well-known rhythm effect, and (3) the atheoretical Lidcombe Program. This presentation compares and contrasts them, and considers their relative strengths and weaknesses. One treatment has far better clinical evidence than others, but cannot ever be used for stuttering prevention. One treatment does not require the child to cooperate, and it hence can theoretically be used for stuttering prevention. The third treatment cannot ever be used for stuttering prevention, however it can be used for very young children and the treatment protocol does not require much clinical time.

## **“The Therapeutic Journey: guided by a roadmap or a sat-nav?”**

Frances Cook - The Michael Palin Centre, London, UK

This presentation will consider some of the key factors that are involved in providing the best possible clinical service to clients who stutter and their families. Controversies have always existed about which treatment approaches represent “best practice” and how success should be measured. Clinicians have a wide range of treatment programmes to choose amongst for their clients - but how do they select the right route to help the client reach their personal destination? And what can they do if the route is unexpectedly blocked?

## **“MIDA-SP : From the profile of the stutterer to his treatment”**

Donatella Tomaioli - Sapienza Università di Roma, CRC Balbuzie Roma

Today's talk is on the MIDA-SP programme, for the rehabilitative therapy of subjects with stuttering problems.

It is a modular and integrated programme that springs from an awareness of how necessary it is to offer the patient a global treatment, differentiated on the basis of his personal characteristics, his disorder and the results of the assessment process.

There is therefore a profiling of the subjects, starting from the identification of a number of variables which can only univocally be associated to the subject in question on the basis of a series of evaluation parameters.

The programme, which fits into the international strand of multifactorial models of intervention, is based on the recognition of the multifactorial nature of the disorder and of the existence of a symptomological and syndromic component within the patient. The presence of these two aspects which are interconnected requires an integrated treatment which can act on both components by adopting techniques which facilitate verbal communication and relaxation. This occurs together with the help of some cognitive-behavioural components and some personalized activities which aim to expose him to situations of social interaction related to verbalization.

Furthermore, the programme permits the patient to experiment with supplementary activities, traditionally considered far from the possibility of a stutterer, consisting of an art-mediated training which can take on a number of forms, such as theatre, dubbing of films and interpreted readings.

All the activities are managed in an integrated fashion and their results are constantly being monitored so as to improve their effectiveness.

The aims and nature of this programme will be illustrated in greater detail during the talk.

## **"Bridging the gap between science, diagnosis, and therapy"**

Hans-Georg Bosshardt - Ruhr, Universität Bochum, Germany

Limitations in time and other resources sometimes enforce therapists to assess and measure behaviours without having information about reliability, validity, and norms of their instruments. This occurs for example when tests are used which are not standardized and validated in the own language, when decisions about therapy progress are based on ratings or other informal measures and assessments for which no reliability information is available. It will be described how relevant information can be assessed in a robust way ("quick and dirty") that is useful for diagnosis and decisions about therapy progress.

## **"Is stuttering a disability?"**

Ann Packman - Australian Stuttering Research Centre, The University of Sydney, Australia

In 2001, the World Health Organization (WHO) declared that stuttering is a disability, within the framework of its International Classification of Functioning, Disability and Health (ICF). However, many adults who stutter do not consider themselves to be disabled. In this presentation, the 2011 World Report on Disability, published by WHO and The World Bank, is overviewed and the extent to which stuttering meets their criteria for disability investigated. The implications of rejecting the idea of being disabled by stuttering are explored.

## **"Clinical Management of Early Childhood Stuttering: A Review"**

Ehud Yairi - University of Illinois, U.S.A.; Tel Aviv University, Israel

Historically, therapy methods for preschool age children near stuttering onset has underwent several direct/indirect cycle-changes. These will be reviewed and assessed. Future directions will be discussed, as well as issues concerning early intervention strategies in light of data about the phenomenon of natural recovery.

## **“The stuttering patient’s voice”**

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Producing words requires a coordinated, extremely rapid and accurate neuromotor control of all the apparatus involved in speech articulation: respiration, producing fundamental sound, resonance and articulation. The specific alterations of the different forms of dysfluencies demonstrate that all the above mentioned systems participate to a lesser or greater extent in generating the relative motor dysfunctions.

Even the apparatus regulating the production of the voice may be involved, in a more or less evident way, contributing to the characterization of the phono-articulation alterations typical of dysfluencies. The inadequate tension of the laryngeal muscles – in particular the chordal one – may involve brusque frequency variations, occasional vocal utterances in the fry register and a tense, harsh voice. The involvement of the resonance apparatus may lead to sudden tonal modifications, particularly due to nasal resonance. The endoscopic assessment of the larynx as it emits phono-articulatory dysfluencies may show up supraglottic contractions, vibratory movements generated by false chords, asynchronous movements of the real vocal chords. An examination of the voice must not therefore be overlooked in assessing the stutterer: even a simple subjective assessment may allow us to observe elements of tension in the voice, with relative modifications of frequency and qualities that may be compared to hyperkinetic forms. An increase in the subglottic pressure may be seen as a sign of chord damage in spite of the lack of scientific observations in this regards. There may also be secondary vocal alterations, such as prosodic monotony, created by the stutterer in an attempt to overcome his stuttering. It is important that the patient becomes aware of the importance of the relaxed use of his voice and its prosodic aspects. The listener's difficulty in comprehending, as a result of dysfluencies, may in fact be exacerbated by the dysphonia. Within clinical research, a number of Authors have studied the coordination between phono-articulatory functioning of the stutterer, trying to explore more deeply the knowledge of neurological correlations between the orofacial motory and laryngeal respiratory system. One of the most widely used methods is to analyze the correlation between the speed of lip, tongue and mandibular movements with the F0 and the intensity of the voice during the repetition of simple verbal expressions emitted at different speed and intensity. This experimental method assumes that the movements of the articulatory organs, the phonic intensity and the F0 are correlated with underlying muscular activity. In particular we must consider that the F0 depends on the activity of the laryngeal muscle, whilst the intensity reflects the combined activity of the laryngeal and respiratory muscles. Different studies have demonstrated an excessive or reduced degree of coupling among the motor subsystems of dysfluent speakers. Mandibular movements resulted more highly correlated with the respiratory-laryngeal system than with the tongue and lip apparatus. This result can be interpreted in evolutionary terms as a result of the pre-existence of the synaptic connections between the circuits governing the cyclic chewing movements and the cortical system involved in swallowing/ respiration, compared to the most recent systems that link tongue and lips to vocalization.