Psychosocial perspectives on the management of voice disorders

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Implications for Patients and Clients
Options and Strategies for Clinicians

Janet Baker, L.A.C.S.T., M.Sc., Ph.D.

compton
PUBLISHING

This edition first published 2017 © 2017 by Compton Publishing Ltd.

Registered office: Compton Publishing Ltd, 30 St. Giles', Oxford, OX1 3LE, UK

Registered company number: 07831037

Editorial offices: 35 East Street, Braunton, EX33 2EA, UK

Web: www.comptonpublishing.co.uk

ISBN 978-1-909082-04-5

A catalogue record for this book is available from the British Library.

Cover image: **The Green Queen of the Night – Magic Flute, Arthur Boyd (1990)**

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Image from *Arthur Boyd: Art and Life by Janet McKenzie (2000), Thames & Hudson, London*

With further acknowledgement to Margaret and Christopher Burrell

Cover design: David Siddall, http://www.davidsiddall.com

Set in 11pt Adobe Caslon Pro by Regent Typesetting

1 2017

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To Douglas and Jeremy Baker
who have both always been there to hold me

To Professor Arnold Aronson
whose clinical acumen, humanity and academic scholarship have been my inspiration

To Professor David Ben-Tovim
who took me on and gently steered me into believing that clinicians can be scientists too

To Professor Richard Lane
who collaborated so generously with me to take my perspectives on voice and emotion to new levels

To my patients, students and colleagues
with whom it has been such a privilege to work and for whom the door is always open

Acknowledgements

I would like to acknowledge the following people who have all offered me such strong practical, intellectual and emotional nurturing throughout his process.

Johanna Flavell who has read all the chapters as each unfolds and offered diplomatic, helpful, humorous and insightful feedback throughout

Christina Shewell who has read all the chapters, offered sensitive feedback that always takes me to another place, and has so generously shared aspects of her work that have been represented in Chapter 12.

Annie Elias, Peter Butcher and Sara Harris for their most stimulating conversations over the years and their unswerving support for this book.

Jenni Oates who has been such a generous mentor to me throughout my career, always asking the searching questions and encouraging me to go further.

Mark Hallett, Jon Stone and Allan Carson whose work and conversations have added immeasurably to my perspectives on functional neurologic disorders including functional voice disorders.

Elaine Butler, David Ben-Tovim, Jane Bickford, Matthew Broadhurst, Peter Butcher, Jean Callaghan, Maria Dietrich, Deborah Hersh, Alison Hodge, Leah Helou, Kate King, Alison Laycock, Linda Matthews, Sharon Moore, Jane Mott, Catherine Sanders, Helen Sjardin and Helen Tiller who have supported me during this process.

Margaret Bowden, Editorial Assistant, who was originally by my side in the preparations of my thesis, and with every other publication since that time including this one. Always so encouraging, meticulous and so much fun.

Trudyanne Brown and Horst Kloss of *BMGART Gallery* in South Australia who have been so extremely generous in contacting artists on my behalf and supporting my book.

Julian Cress, on behalf of the *Fred Cress Estate*, who has kindly given me permission to use the stunning art work of his father Fred Cress who also showed a real interest in my work, especially in relation to the construct of Conflict Over Speaking Out

Håkan Pårup, Editor of Informa Healthcare, publishers for *The International Journal of Speech-Language Pathology (IJSLP*), who has kindly given me most generous permission to draw upon and re-use parts of articles already published in the IJSLP

To the Department of Speech Pathology and Audiology, and to the staff of the Medical Library at Flinders University and IT Help Desk for their unfailing willingness to assist with finding documents, helping me in practical matters related to Endnote.

To my family and friends – many of whom are mentioned here, but others too, who have waited so patiently – thank you for your understanding.

Noel McPherson who has believed in me from the outset, I thank you.

Foreword

Psychological factors arise in some way and at some time for virtually everyone who experiences a voice disorder, whether as predisposing, causal, exacerbating, or perpetuating influences or as a component of the impact of the voice problem on the individual's activity and participation in everyday life. Those psychological factors may range from slight to far more severe degrees of emotional distress. In order to provide effective care for people with voice disorders, speech-language pathologists and other health professionals who work with such patients therefore require a working knowledge of relevant theory that helps them to explain how and why psychological factors arise. These health professionals also require the knowledge and skills that will assist them to provide effective assessment and management of those psychological factors.

While much has been written and researched about the psychological factors associated with voice disorders from the time of Freud in the early 1900s to the present day, there are very few comprehensive and scholarly expositions devoted to the psychological aspects of voice disorders available to speech-language pathologists and other health professionals. Key figures in the voice literature including Arnold Aronson and Diane Bless, Peter Butcher, Annie Elias and Lesley Cavalli, Linda Rammage, Murray Morrison, and Hamish Nichol, Deborah Rosen and Robert Sataloff have made invaluable contributions through their writing, yet clinicians and scientists remain frustrated at the lack of a contemporary seminal text that provides theoretically driven and evidence-based frameworks for both clinical practice and research. Dr Janet Baker's new book, *Psychosocial Perspectives on the Management of Voice Disorders*, fills this void extremely well and will be a constant source of guidance and inspiration to health professionals and scientists for many years to come.

I had to smile when Janet invited me to write this Foreword. She intimated that she had asked me because I had been an important mentor to her, but the truth is very much the reverse! Having had the privilege of knowing her personally for more than 20 years, reading her many scholarly journal papers, listening to her many conference presentations and workshops, spending enlightening hours with her in in-depth discussion of theoretical and clinical

conundrums, and occasionally collaborating with her on research projects, I am not at all surprised that she has produced this extraordinary book. Clinicians and researchers alike should be eternally grateful that she has devoted so much of her life to deep and systematic thought, rigorous research and scholarship, her own professional development and training, and careful documentation of countless clinical cases. *Psychosocial Perspectives on the Management of Voice Disorders* is the culmination of one key aspect of Janet's life work. It will be particularly valuable for qualified and experienced clinicians, academics and researchers in the field of speech-language pathology, but also for those in psychology, psychiatry, laryngology, neurology, social work, family therapy and vocal pedagogy. Student speech-language pathologists and students across these diverse disciplines will also gain from reading Janet's book, albeit with guidance from their teachers to ensure that the more complex theoretical sections are interpreted as intended.

Psychosocial Perspectives on the Management of Voice Disorders provides readers with comprehensive foundation chapters on terminology, a diagnostic classification incorporating functional voice disorders (psychogenic voice disorder and muscle tension voice disorder) and organic voice disorders, and a succinct summary of what is known about the prevalence and demographic/biographic features of people with these disorders. The foundation chapters also introduce the reader to relevant psychosocial and psychobiological models of health and wellbeing, several key theoretical frameworks and associated explanatory propositions for functional voice disorders, and the research evidence underpinning those frameworks and propositions. Models, frameworks and explanatory proposals are explicitly linked and integrated rather than merely listed as a linear catalogue of separate perspectives. Later chapters turn to applications of theory and research evidence to clinical practice, always connected back to underlying theory and aetiological propositions. The more applied chapters address definitions, levels and stages of counselling, the scope of practice of speech-language pathologists in psychosocial interviewing and counselling, and applications of systems theory and family therapy to voice practice. The final chapter guides clinicians working with patients whose voice problems are associated with the most complex emotional and psychosocial issues.

There are many unique aspects to Janet Baker's seminal text, several of which I have already alluded to earlier in this Foreword. This book challenges readers to think for themselves, to critically evaluate theory and research evidence, to continually advance their own knowledge and understanding, and to seek mentoring and supervision from experts. It is certainly not a recipe book, but the guidance and insights it provides are the ingredients required to create the

master clinicians, teachers and researchers of the future. It does not emphasise one particular framework, explanatory theory or approach to working with people with voice difficulties, but presents readers with a breadth and depth of relevant material on which to build their clinical practice and research. It draws on evidence, theory and practice knowledge from a range of disciplines and perspectives, more effectively than we see in most texts in the voice field. Although much of the book focusses on functional voice disorders, Janet is careful to discuss the relevance of psychosocial mechanisms and interventions to patients with organic voice disorders; very few books make these important links so convincingly.

Janet's book does not shy away from unresolved theoretical or clinical issues, but takes the reader calmly and logically through several possible approaches to dealing with difficult dilemmas. A holistic and patient-centred approach is taken throughout and rich and highly informative cases examples are discussed. Janet's expertise as an accomplished speech-language pathologist and family therapist shines through the entire book, as does her fundamental regard for her patients, her clinical and research colleagues, and the many prominent researchers whose work she draws upon. Janet shares so much of herself through her writing too; her eloquence, her sense of humour and irony, the occasional foible, her uncanny ability to link the world of art, history and literature to science and practice, and her determination to tackle difficult issues head-on with both scientific rigour and humanity. Dr Baker's achievement in writing this book deserves the admiration and gratitude of all of us who work in the fascinating field of voice.

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Associate Professor, Discipline of Speech Pathology, School of Allied Health,
La Trobe University and Principal, Melbourne Voice Analysis Centre,
Melbourne, Australia

Foreword

During our professional and personal life we may experience a few defining moments that resonate with us and help shape our own journey of discovery. In this book the author, Jan Baker, describes a few such transformational moments. For me, one such enriching experience occurred 30 years ago when I had the good fortune of observing Jan Baker demonstrating her approach to helping a patient with voice loss to find their voice. With expertise, compassion and thoughtful awareness of the complex emotions that may be blocking the voice, Jan worked with great sensitivity to enable the patient to 'peel back the layers' of the block and to gently begin releasing the body, the emotions and the voice. Jan applied no pressure, there was no great ego in the room, she was not seeking a bells and whistles triumphant return of voice, instead she worked with intuition, skill and wisdom. What resonated with me all those years ago was Jan Baker's acknowledgement to the patient that she understood that the voice disturbance was more than a physical manifestation of a disorder of voice, that there were internal pressures and emotions that ran much deeper. Although few words were spoken, the patient felt listened to and responded by lowering their defences and allowed hope and voice to emerge.

At that time the landscape of voice and voice disorders was very different to the picture that we are looking at today. With the development of videostrobolaryngoscopy and specialist voice clinics there was a welcome focus on refining the laryngeal assessment and diagnoses of voice disorders. This led to a more systematic examination and development of the evidence base for physical voice therapy techniques. Less attention however was afforded to considering the psychological and emotional aspects of the voice. With a few exceptions, and most notably the early work of Professor Arnold Aronson, there were few studies that explored the patients with functional voice disorders and examined underlying psychological drivers. Indeed in the United Kingdom in the 1980's one trod tentatively and with some nervousness when suggesting that a voice disorder might have its roots in a psychological basis.

This book defines how much the landscape has changed. Jan Baker sets out an impressive literature base surrounding psychosocial influences on voice disorders including her own robust research and case studies. It is encyclopaedic in the breadth of work and evidence that it covers, including an exploration of the wider psychological research in relation to health. Against this backdrop of evidence that clearly articulates the causal link between psychosocial influences and voice disorders, Jan Baker then takes the reader through an illuminating exploration of the counselling process, systems theory and family therapy and the application of these to the psychosocial interview process and finally the integration of counselling and voice therapy.

This is a serious and scholarly book written with the rare perspective and combined qualities of an expert clinician and scientific researcher. Furthermore Jan Baker is dually qualified as a speech and language pathologist and a family therapist. As an informed scientist Jan Baker presents the evidence with respect for the work of others, with curiosity and with challenges to the reader to think more deeply. Her own versatile thinking and insights and her ability to eloquently translate complex ideas into memorable and accessible information for the reader is enhanced by her humanity, humour, examples from her deep wealth of clinical experience, and the stunning artwork that punctuates the text.

At the heart of this book the author never loses sight of the person with the voice disorder. It is clear that Jan Baker thinks deeply about the patient's dilemmas and struggles, about the therapeutic process and about an evidence based approach to thinking about and treating patients whose voice disorder is inextricably linked to complex psychological factors. In sharing all of this she reveals her talents as an extraordinary therapist and teacher.

This book represents a major contribution to the field of voice. It is special in its devotion to broadening our understanding of psychogenic voice disorders and the psychological skills and approaches required in their therapeutic management. Jan Baker has succeeded in giving us a rich and inspiring text that no student of voice, whether studying, researching or practising voice clinician should be without.

Annie Elias FRCSLT
Consultant Speech and Language Therapist in Voice
Understanding and treating Psychogenic Voice Disorder: A CBT Framework by Peter Peter Butcher, Annie Elias and Lesley Cavalli

Preface

The earliest foundations of this book are probably deeply rooted in a vibrant family life, where as one of five children there was always such a lot going on. As a middle child I grew up with a fascination for all things medical, psychological and musical, and a school life that fostered an appreciation of literature, public speaking, acting and singing along with the traditional subjects that seemed less memorable. With a G for mathematics, medicine was out of the question, and with a father who didn't want any second daughter of his cleaning toilets in between theatrical or singing engagements, auditioning for the National Institute of Dramatic Art or Conservatorium was a closed door too. This was not meant to be unkind – it was all about getting a proper job. I was far too rebellious to do nursing and play second fiddle to doctors, and speech pathology was the new career on the horizon if one didn't want to do physiotherapy. I envisaged that speech pathology might be a way to foster my interests in medicine and psychology, in voice, language and words, and above all in working closely with people in some capacity or other.

The absolute highlight of every week in our speech therapy training was the Tuesday afternoon sessions devoted to observations through a one-way mirror. Here we watched a master clinician assessing young children and interviewing their parents. In a tantalizing way the therapist would release snippets of assessments from the specialties of medicine, surgery, neurology, otolaryngology, clinical psychology or psychiatry, physiotherapy, and occupational therapy, and invite us to share our observations. We were then required to generate hypotheses and argue for a differential diagnosis, linking the evidence from our observations with our fledgling knowledge. The key was finding a way to integrate what we saw and what we heard, but also to share what we might have sensed more intuitively. We then had to formulate this into some coherent kind of diagnostic explanation that would be useful and helpful to the child and their concerned parents.

Part of the excitement of these sessions was the challenge of 'not knowing'. Another was the permission to consider things from different perspectives, and

the knowledge that if our suppositions or final conclusions were wrong there was no shame. Ironically all these years later, approaches just like these have now become the basis of the *problem based learning* approaches that underpin many of the programs in medicine and speech pathology around the world, including our own programs in the Schools of Medicine and Health Sciences at Flinders University.

In my work with adults, adolescents and children across the full range of voice disorders, those early foundations were a good start. However, as I gained experience, it became increasingly obvious that psychosocial factors contributed to the patterns of onset and clinical presentations of some vocal problems more than others, and that the psychosocial impacts of any voice disorder on a person and their family could be profound.

In order to be more effective in dealing with these complex issues I sought further education and training in counselling, psychotherapy and family therapy. This helped me to think much more respectfully about the individual in the context of his or her family, community, work environment or culture, and to appreciate why some people may be more vulnerable to developing vocal disorders at a particular time in their lives. It has also deepened my interest in the therapeutic processes involved in helping others to change and to understand why some people change, while others find it much more difficult. This advanced training in counselling and psychotherapy also led to serious reflections about the role of the therapeutic relationship and the personal qualities of effective therapists, even those of master clinicians during this whole process. These deliberations also carried into my academic and clinical teaching of students at undergraduate and postgraduate levels, and now into my supervision of experienced colleagues.

The book is structured in two parts. Part 1 incorporates Chapters 1–8. These chapters seek to clarify what is meant by the term *psychosocial,* and how research into the effects of acute and chronic stress in association with a range of other psychosocial factors may affect the physical and mental health of individuals. The empirical evidence for a number of psychosocial factors that have been explored in relation to voice disorders is then discussed. Chapter 8 represents the culmination of Part I by presenting several theoretical models that have been developed to explain how psychosocial factors may interact and operate as risk factors for the development of functional voice disorders, that also comprise the psychogenic voice disorder, and muscle tension voice disorder sub-groups.

Part II includes Chapters 9–12. These chapters are focused on the more practical implications of all that has been discussed in Part I. It addresses issues related to the therapeutic processes that may include different levels of counselling, highlighting a number of principles that underpin family therapy

and other models of counselling that can be readily integrated into traditional voice work. Emphasis is given to *incorporating counselling as a way of thinking* that may be helpful throughout the initial consultation and psychosocial interview and then during the action phases of intervention. Reference is made to the importance of the therapeutic relationship, and being alert to restraints to change that indicate the need for seeking a second opinion, inviting collaboration with more experienced therapists, attending supervision or referring on.

The book is intended for all students and particularly for experienced practitioners devoted to the care and management of voice disorders whether they come from speech pathology, otolaryngology, vocal pedagogy, neurology, psychiatry, psychology or family therapy. While the place of counselling across the full range of voice disorders has been discussed, a particular emphasis has been given to more advanced levels of counselling for individuals with psychogenic voice disorders.

Part I

Evidence for psychosocial factors contributing to theoretical and causal models for voice disorders

1

Terminologies and diagnostic classification of voice disorders

Introduction

In setting out to explore the way in which psychosocial perspectives may influence the management of voice disorders, an important first step is to clarify the meanings of those diagnostic terminologies being used in the current literature, and to highlight the differences in aetiological emphasis of several well-known *diagnostic classification systems*. This has particular significance for the relative weight given to psychosocial factors by speech-language pathologists (SLP) and otolaryngologists, who are the health professionals most commonly involved in the assessment and treatment of individuals with voice disorders. It is also relevant for other doctors, psychologists, family therapists, psychiatrists, neurologists, or medico-legal practitioners who may be involved with their care. Dare we suggest that it might also be of interest and some help to the person with a vocal disorder?

In this chapter, I will briefly outline some of the controversies regarding nomenclature and diagnostic classification, and then discuss the implications of these ongoing dilemmas for overall management. Reference is made to those diagnostic classification systems that highlight possible associations between psychosocial factors, as these may affect the aetiology and patterns of onset for the major groups of voice disorders. The *diagnostic terminologies* for voice disorders to be used in this book are then defined.

Diverse terminologies and different diagnostic classification systems

"What's in a name? That which we call a rose
By any other name would smell as sweet"
Romeo and Juliet Act II, Scene 2, Lines 1–2, William Shakespeare (1597)

When Shakespeare's Romeo made a noble offer to denounce his family name as a mark of his devotion to Juliet, she lovingly reassured him that names are merely superficial conventions. In declaring her love for the man whose family name was «Montague», she reminded him that her allegiance was to Romeo Montague the person, and not to the Montague name and all that would inevitably be associated with his entire family. Such sentiments seemed to be most apt in the setting of this dramatic tragedy, but in the dry and somewhat esoteric context of diagnostic terminology and classification, we too may need to be asking ourselves whether labels given to individual voice disorders and larger families of disorders are merely artificial conventions, or whether they do really matter.

I think that they do matter and would agree with Walsh (2005), who has argued that terminology is more than just a label. In her paper, Walsh challenges the speech pathology profession to recognise and overcome problems of inconsistencies in diagnostic terminologies being perpetuated across all clinical fields. She proposes that terminology refers to the whole problem and includes, even if only by implication, all the current associated nomenclatures, the language used to talk about the problem, the concepts developed about the issue and finally, the diagnostic classification. Walsh urges practitioners to acknowledge that this has significant implications for understanding the essential nature of communication disorders and therefore, how best to intervene.

These notions are directly applicable to the speciality of voice disorders, where experienced clinicians and authors continue to argue for consistency in the use of diagnostic nomenclature, and for classification systems to be founded on reliable empirical evidence, which clearly indicates the primary aetiology of the condition. However, in a recent review of the literature designed to explore the effectiveness and validity of those classification systems most commonly used in the field (Baker *et al*., 2007) it became evident that there is still a great diversity and confusion amongst terminologies used to refer to voice disorders in general, especially when referring to those classified as 'non-organic' or 'functional' voice disorders. Furthermore, it still remains debatable as to whether the aetiologies within this large heterogeneous group of voice disorders have been reliably

established (Baker *et al*., 2007; Verdolini, Rosen, & Branski, 2006). Some of these diagnostic terms have a strong behavioural emphasis, suggesting that *dysfunctional vocal behaviours* and *laryngeal muscle tension patterns* are causally related. The other terms clearly imply that *disturbed psychological processes* are fundamental to the aetiology (see Table 1.1 and Table 1.2).

Table 1.1 Diagnostic terminologies with a behavioral emphasis

Functional voice and related disorders*
Behavioral emphasis Muscle tension dysphonia Muscle misuse voice disorder Hyperfunctional dysphonia Hypofunctional dysphonia Phonasthenia/Vocal fatigue Ventricular phonation Paradoxical Vocal Fold Dysfunction
Globus pharyngis* Chronic/habitual cough* Hyperventilation syndrome*

*Disorders that might not be construed as disorders of the voice in the strict sense of the word

Table 1.2 Diagnostic terminologies with a psychological emphasis

Functional voice and related disorders*
Psychological emphasis Psychogenic voice disorder Conversion reaction aphonia/dysphonia Hysterical aphonia/dysphonia Medically unexplained voice disorders Mutational falsetto or Puberphonia Phononeurosis/war neurosis of the larynx Iatrogenic
Globus hystericus* Psychogenic cough* Gender dysphoria/transsexualism* Immature speech/childlike voice in adults* Psychogenic and/or Elective Mutism*

*Disorders that might not be construed as disorders of the voice in the strict sense of the word

As we review the range and diversity of terms listed in these tables, some may be more familiar than others, and many may continue to be used indiscriminately, interchangeably and often without clear operational definitions. These choices may be related to professional roles or bias, different clinical settings under which clinicians are operating, or due to cultural traditions. It could also be argued that some of the 'related disorders' in both tables may not seem appropriately placed in the Functional Voice Disorders (FVD) classification because some practitioners may not construe these conditions as disorders of the voice in the strict sense of the term. However, they are included here because they are often listed in well-established diagnostic classification systems within either the 'functional' or 'psychogenic' categories; they often present in association with an aphonia or dysphonia, and serious psychological issues are considered germane to their clinical presentation. These ongoing disparities are tending to perpetuate current controversies over appropriate diagnosis and classification, and to influence the attitudes of clinicians regarding the extent to which attention should be given to emotional and psychological factors in the overall management of voice disorders.

Organic or non-organic voice disorders

One of the ongoing controversies relates to the traditional delineation between '*organic*' and '*non-organic*' voice disorders often made in speech pathology or otolaryngology textbooks. Here, the terms 'organic' and 'non-organic' are intended to indicate that the neurophysiological state of the larynx or vocal folds is (or is not) the cause of the voice disorder. At first glance, this seems a logical delineation and makes good sense. However, as clinicians from our respective disciplines would acknowledge, organic changes to vocal fold tissue such as vocal nodules, even contact ulcers, polyps or chronic laryngitis can often arise in response to dysfunctional vocal behaviours.

As a consequence, while not denying that the above lesions do constitute organic changes, some practitioners would classify vocal disorders characterised by such organic changes as *behavioural voice disorders* (Mathieson, 2001); some would classify them as *muscle tension disorders* (Rammage, Morrison, & Nichol, 2001), and others would classify them as *psychogenic voice disorders* (Aronson & Bless, 2009). Here, the rationale would be that an individual's motivations to engage in vocally abusive behaviours reflect a degree of psychological vulnerability related to personality traits and coping in the face of life stresses. With all of these possible choices for diagnostic classification, any student of

speech pathology or otolaryngology could be forgiven for being uncertain about where to begin.

Controversies over the use of the term 'functional'

Another contentious issue is the use of this term 'functional', which has traditionally been used in medicine, psychiatry and neurology to distinguish between 'organic'- and 'non-organically'-based conditions such as medically unexplained seizures and movement disorders (Hallett *et al*., 2011), and by otolaryngologists and SLP when differentiating between 'organic' and 'non-organic' voice disorders. The main objection is that the term 'functional' is considered imprecise and ambiguous, and that it fails to denote the essential nature of the problem or its aetiology with sufficient accuracy. It is generally assumed to mean that the problem is due to dysfunction rather than to neurophysiological and structural changes, or that there is a psychological cause. Hallet and his colleagues (2011) also suggest that some clinicians choose to use the term when they consider the problem to be of psychological origin, but would prefer not to confront the patient with such a diagnosis, possibly due to the reaction that this might generate. This is a most valid concern, and one that is particularly relevant for SLP and otolaryngologists.

However, despite several cogent and strong arguments against the use of the term by many highly experienced clinicians and researchers (Aronson & Bless, 2009; Butcher, Elias, & Cavalli, 2007; Mathieson, 2001; Verdolini *et al*., 2006), it is somewhat surprising to see that the diagnostic term 'functional' has been the most commonly used label referring to 'non-organic' voice disorders throughout our literature during the last 150 years, both across disciplines and countries (Baker, 2002; Baker *et al*., 2007; Carding, Deary, & Miller, 2013; Roy, 2003). Furthermore, in recent collaborations between neurology and psychiatry, there has been a move to return to the terminology of '*functional movement disorders*' and a range of other '*functional neurologic disorders*' (Carson *et al*., 2012; Stone, Warlow, & Sharpe, 2010). As Walsh (2005) suggests, 'usefulness' of nomenclature determines whether or not a term persists. Perhaps it is because 'functional' can be interpreted to embrace concepts related to dysregulated vocal behaviours at one end of the spectrum, to disturbed psychological processes at the other end, or even that there may be an interaction between the two, that it remains a reasonable choice, even as a broad first distinction from the '*organic voice disorders*'.

Different emphases in diagnostic classification systems

A number of well-known *diagnostic classification systems* for voice disorders have been developed through the collaborative efforts of many experienced otolaryngologists, SLPs and mental health specialists, with the explicit intention of creating systems based on strong aetiological foundations (Aronson & Bless, 2009; Baker *et al*., 2007; Butcher *et al*., 2007; Mathieson, 2001; Morrison & Rammage, 1994; Rammage *et al*., 2001; Verdolini *et al*., 2006). Whether or not causality has been confirmed is still questionable, but there does seem to be some consensus over several key issues that need to be taken into account when diagnosing, classifying and planning interventions for all voice disorders. These factors are:

1) The neurophysiological status of the phonatory and respiratory system
2) The vocal behaviours as reflected in laryngeal postures and laryngeal muscle tension patterns observed during laryngoscopic examination
3) The auditory-perceptual and kinaesthetic signs and symptoms that shape the clinical presentation of the particular voice disorder
4) The psychological, emotional and psychosocial issues that are thought to contribute to the pattern of onset and clinical presentation of the voice disorders, those that may serve to aggravate or perpetuate the disorder, or those which may arise as a consequence of the voice problem or in response to intervention.

Although it is reassuring that there is agreement about the relevance of these broad causal factors with all voice disorders, the problem lies in the prominence given to the particular aetiologies, with some being placed in the foreground of the clinical picture and others being placed well into the background. This has inevitable consequences for the way in which clinicians think about the role that psychosocial factors may play, and how this will influence their approaches to both assessment and intervention.

For instance, in the classification system proposed by Aronson and Bless (2009) the term *Psychogenic Voice Disorders* is the preferred term for the 'non-organic' or 'functional' voice disorders. One major sub-group is thought to develop in response to *Emotional Stress with Associated Muscle Tension Patterns.* This group includes disorders without secondary pathology, those characterised by vocal fatigue, and those related to vocal abuse which may also lead to vocal pathologies such as vocal nodules or contact ulcers. The other major sub-group

is attributed to *Psychoneurosis* and lists conversion disorder, mutism, aphonia, psychosexual conflict, gender dysphoria, and child-like speech and voice in adults. Interestingly, muscle tension dysphonia is also included under this sub-heading for *Psychoneurosis*. Here, this large *Psychogenic Voice Disorder* classification is strongly influenced by the psychodynamic model, with different degrees of psychopathology considered fundamental to aetiology. The voice disorders are considered to be 'a manifestation of one or more types of psychological disequilibrium, such as anxiety, depression, conversion reaction or personality disorder, that interfere with normal volitional control over phonation' (Aronson & Bless, 2009) (p171). In cases where aberrant muscle tension patterns persist in the form of vocal misuse or abuse, these are thought to reflect psychological instability due to personality disorder or psychiatric disturbance that has led the person to persist in these vocally abusive behaviours.

Another well-known classification system which differentiates the 'non-organic' from the 'organic' voice disorders is that proposed by Rammage and colleagues (2001). These authors prefer the term *Muscle Misuse Voice Disorders*. Here, they argue that the vocal dysfunction resulting in the voice disorder is causally related to the 'misuse of the voluntary muscle systems that are employed for breathing phonation, articulation and resonance' (Rammage *et al*., 2001) (p.74). Their diagnostic classification is based upon laryngeal postures and visible features at the level of the glottis and supraglottic structures observed during laryngoscopic examination. They emphasise that aberrant muscle tension patterns may be influenced by a range of interacting aetiological factors underpinning all voice disorders, but to a different degree according to the specific circumstances for that individual. These factors are related to the person's technique and vocal skills, to lifestyle situations that may predispose a person to vocal abuses or vocal misuse, to medical issues (particularly the effects of gastroesophageal reflux), and a range of psychological factors including influences from personality traits and emotion. They highlight the fact that a range of factors may contribute to the overall clinical presentation of the voice disorder but stress that muscle misuse patterns are germane to the aetiology of the 'non-organic' voice disorders.

In the comprehensive aetiological classification system by Mathieson (2001), the term *Behavioural Voice Disorders* is used to distinguish between the 'organic' and 'non-organic' voice disorders. One major sub-group is referred to as *Hyperfunctional* and includes the muscle tension dysphonias both with and without pathology, such as nodules, polyps, contact ulcers or chronic laryngitis. The other major sub-group is labelled *Psychogenic* and includes *conversion disorders*, *puberphonia* and *mutational falsetto, anxiety state* and *transsexual conflict*.

This system proposes a well-balanced conceptual framework with richly detailed clinical profile templates for each disorder within the different sub-groups; these include reference to the pathophysiology, the presumed aetiology, the auditory-perceptual signs and symptoms, laryngoscopic findings, expected vocal profile, acoustic analysis, airflow and volume measures profile, and medicosurgical decisions where relevant. Mathieson emphasises the multifactorial nature of voice disorders, the complexity of the diagnostic process, and the possibility that more than one diagnosis may be relevant where secondary compensatory features may have developed in response to the original voice disorder.

More recently, my colleagues and I developed a modified *Diagnostic Classification System for Voice Disorders (DCSVD)* (Baker *et al*., 2007). This system draws substantially upon the strengths of the other classification systems mentioned above while also trying to redress some of the problems inherent in each. In our system we use the term *Functional Voice Disorders* (FVD) to refer to the 'non-organic' voice disorders. The choice to revert to this terminology was predicated by the fact that the term has been used so widely across disciplines and countries; it suggests disrupted vocal behaviours that may, over time, lead to poor vocal habits and the subsequent development of organic changes to the vocal folds, and also implies disturbed psychological processes that lead to a loss of volitional control over phonation. We consider that the term *Functional Voice Disorder (FVD)* enables both of these aetiological explanations to stand beside one another as distinct and related entities without the requirement for either entity to necessarily exclude the other, but rather to interact. One major sub-division is referred to as the *Muscle Tension Voice Disorders (MTVD).* This includes a sub-type where there is no organic pathology, and several other sub-types where the habitual patterns of vocal hyperfunction or misuse lead to minor pathologies such as nodules, polyps, and chronic laryngitis. The other major sub-division is referred to as the *Psychogenic Voice Disorders (PVD)*, with sub-types including *conversion reaction aphonia/dysphonia*, *puberphonia* or *mutational falsetto* and, in rare cases, *psychogenic spasmodic dysphonia*. The DCSVD is a *syndromal diagnostic classification system* that incorporates demographic and psychosocial information from the clinical history reported by the client, the auditory-perceptual and kinaesthetic symptoms, possible phonatory and laryngeal behaviours observed and measured by the SLP and otolaryngologist during laryngoscopy, and detailed operational definitions and guidelines that assist the practitioner in the process of differential diagnosis. These are intended to highlight the primary differences between the major sub-groups and sub-types while allowing for flexibility when

the clinical presentation is ambiguous or where multiple factors are operating. The guidelines include:

1. The essential nature of the disorder including the presence or absence of pathophysiology
2. Likely patterns of onset and course of the disorder
3. Symptom congruity in relation to presumed aetiology
4. The possible relationship between muscle tension patterns and co-existing organic conditions
5. Likely responses to techniques used to facilitate improved vocalisation
6. Predictions about possible patterns of resolution
7. The possible role of psychological factors in contributing to onset, aggravation or perpetuation of the condition.

The structure and operational guidelines are intended to reflect our conceptual framework that places a strong emphasis on the interaction between the neurophysiological, behavioural and psychosocial factors rather than on one isolated set of parameters presumed to be aetiologically significant. In this classification system, it is suggested that *psychosocial factors* need to be taken into account across the full range of voice disorders.

Assumptions about psychosocial factors and 'non-organic' voice disorders

As reflected in the various diagnostic classifications for voice disorders discussed above, and following a comprehensive review of the literature (Baker, 2008), it is clear that there are a number of assumptions about the way in which cognitive, psychological or emotional factors may contribute to the patterns of onset and influence the clinical profiles of the large group of 'non-organic' or 'functional' voice disorders. The literature suggests that these same factors, which we might collectively label as *psychosocial factors*, are also likely to affect the patient's ability to cope with changes to their vocal function, their motivation to consolidate vocal changes achieved in the clinic to the wider social or employment setting, or their grief over significant loss of vocal function and identity. They may even precipitate the development of more serious mental illness in response to the voice disorder, such as anxiety state or depression.

Paucity of assumptions about psychosocial factors and 'organic' voice disorders

While there have been many studies devoted to possible causal associations between psychosocial factors and 'functional' voice disorders (to be discussed in more detail in later chapters), it is interesting to note that there have been relatively few studies in which the organic voice disorder groups have been the primary focus. It could be argued that this is logical because causality with organic conditions is generally more straightforward, especially where acute infections, mass lesions, endocrine changes, structural anomalies or neurologic disorders can be readily identified, but considering the breadth and depth of research into possible associations between psychosocial factors and other medical disorders, such as cardiovascular disease, diabetes, cancer, endocrine disorders and skin complaints (Nyklicek, Temoshok, & Vingerhoets, 2004; Vingerhoets, Nyklicek, & Denollet, 2008), this could well be a fruitful area for deeper consideration. For instance, it would be very helpful to understand how psychosocial factors might contribute to medical or mental health conditions that may render an individual vulnerable to the development of organically-based voice disorders, such as acute viral laryngitis, thyroid disease leading to surgical intervention with implications for recurrent laryngeal nerve function, or cancer leading to total laryngectomy. It is also possible that patients with organic voice disorders, by virtue of their medical aetiologies and the extent to which these conditions alter their vocal function, may indeed face very different challenges in dealing with their voice problems from those with functional voice disorders.

Implications for clinical practice and research studies

Clearly, finding terminologies in common and developing clinically reliable diagnostic classification systems is a complex task. As expressed so cogently by Mathieson (2001), while the process is intended to help us to be 'conveniently tidy', the clinical reality is more difficult. The discussion above is intended to emphasise that these ongoing dilemmas over terminology and diagnostic classification may contribute to practitioners remaining conceptually muddled about what constitutes a symptom and what may be the true aetiology. Most significantly of all it can lead to feelings of nervousness about making a confident diagnosis (Butcher *et al.*, 2007). This inevitably leads to confusion when communicating diagnostic findings and decisions to other voice practitioners and health professionals, to the client's employers or associated medico-legal advisors. Most significantly of all, it directly affects the way in which

practitioners give information and explanations to their clients and families about the essential nature of their voice disorder, how they intend to approach the initial case history interview and decide which causal factors seem to be the most relevant and deserving of attention, what the focus of the assessment procedures will be and finally, their rationale for treatment strategies selected to facilitate the best outcomes.

Terminologies and definitions to be used

For the purposes of this book, I have chosen to apply the terminologies which I developed with my colleagues for the *Diagnostic Classification System of Voice Disorders (DCSVD)* (Baker *et al*., 2007) as shown in Box 1.1.

Box 1.1 Diagnostic Terminologies Baker et al. (2007)

Organic Voice Disorder (OVD) refers to an aphonia/dysphonia due to mass lesions, structural changes to the vocal folds or cartilaginous structures, or interruption to neurological innervations of the laryngeal mechanism. Psychosocial factors often arise in response to, or may aggravate the situation.

Functional Voice Disorder (FVD) refers broadly to an aphonia/dysphonia where there is no organic pathology, or if there is, it is either insufficient to account for the nature and severity of the voice disorder or is considered secondary to the functional problem. There are two main sub-divisions within the FVD classification:

Muscle Tension Voice Disorder (MTVD) refers to a dysphonia that develops as a result of psychological processes that lead to patterns of dysregulated vocal behaviours that over time may result in secondary organic changes such as vocal nodules, polyps or contact ulcers, and which are generally amenable to resolution through behavioural change. While psychosocial factors play a role in the onset or aggravation of the dysphonia, they may appear to be secondary to the vocal trauma produced by dysregulated vocal behaviors.

Psychogenic Voice Disorder (PVD) refers to an aphonia/dysphonia that occurs as a result of disturbed psychological processes leading to sudden or intermittent loss of volitional control over the initiation and maintenance of phonation, in the absence of structural or neurological pathology sufficient to account for the dysphonia. Symptom incongruity and reversibility are demonstrable, and psychosocial factors are often linked to onset. Whilst muscle tension patterns may be observed, such patterns are secondary to the psychological processes operating.

From The Diagnostic Classification System of Voice Disorders, Baker et.al (2007)

References

Aronson, A. E., & Bless, D. M. (2009). *Clinical voice disorders* (4th ed.). New York: Thieme.

Baker, J. (2002). Psychogenic voice disorders-heroes or hysterics? A brief overview with questions and discussion. *Logopedics Phoniatrics Vocology, 27*, 84–91.

Baker, J. (2008). The role of psychogenic and psychosocial factors in the development of functional voice disorders. *International Journal of Speech-Language Pathology, 10*(4), 210–230.

Baker, J., Ben-Tovim, D. I., Butcher, A., Esterman, A., & McLaughlin, K. (2007). Development of a modified diagnostic classification system for voice disorders with inter-rater reliability study. *Logopedics Phoniatrics Vocology, 32*, 99–112.

Butcher, P., Elias, A., & Cavalli, L. (2007). *Understanding and treating psychogenic voice disorder: A CBT framework.* Chichester: Wiley.

Carding, P., Deary, V., & Miller, T. (2013). Cognitive behavioural therapy in the treatment of functional dysphonia in the United Kingdom. In E. M.-L. Yiu (Ed.), *International perspectives on voice disorders* (pp. 133–148). UK: Multilingual Matters/ Channel View Publications.

Carson, A. J., Brown, R., David, A. S., *et al*. (2012). Functional (conversion) neurological sysmptoms: Research since the millennium. *Journal of Neurology, Neurosurgery and Psychiatry, 83*, 842–850.

Hallett, M., Lang, A., Jankovic, J., Fahn, S., Halligan, P. W., Voon, V., & Cloninger, C. R. (Eds.). (2011). *Psychogenic movement disorders and other conversion disorders*. Cambridge: Cambridge University Press.

Mathieson, L. (2001). *Greene and Mathieson's: The voice and its disorders.* (6th ed.). London: Whurr.

Morrison, M. D., & Rammage, L. (1994). *The management of voice disorders.* San Diego: Singular Publishing Group.

Nyklicek, I., Temoshok, L., & Vingerhoets, A. (Eds.). (2004). *Emotional expression and health*. Hove: Brunner-Routledge.

Rammage, L., Morrison, M., & Nichol, H. (2001). *Management of the voice and its disorders.* San Diego: Singular Publishing Group.

Roy, N. (2003). Functional dysphonia. *Current Opinion in Otolaryngology and Head and Neck Surgery, 11*(3), 144–148.

Stone, J., Warlow, C., & Sharpe, M. (2010). The symptom of functional weakness: A controlled study of 107 patients. *Brain, 133*, 1537–1551.

Verdolini, K., Rosen, C. A., & Branski, R. C. (Eds.). (2006). *Classification Manual for Voice Disorders – I*. Mahwah: Laurence Erlbaum Associates.

Vingerhoets, A., Nyklicek, I., & Denollet, J. (Eds.). (2008). *Emotion regulation: Conceptual and clinical issues*. New York: Springer.

Walsh, R. (2005). A response to eight views on terminology: Is it possible to tame the wild beast of inconsistency? *Advances in Speech-Language Pathology, 7*(2), 105–111.

2

Psychosocial factors in context

Introduction

There is a substantial body of research devoted to the exploration of possible associations between psychosocial factors and a range of physical and mental health conditions. Three fundamental propositions have driven much of this psychosocial research:

1) Heightened levels of emotion in response to external and internal influences may impact upon an individual's thoughts, feelings, behaviours and neuro-biological functioning
2) Biopsychosocial systems of human beings reflect the complexity typical of all living systems, where any one part of that system operates in a dynamic relationship with the whole
3) The health concerns of people need to be considered within the context of their wider social network.

In this chapter, I discuss the different ways in which the term '*psychosocial*' has been used throughout the literature, and relate current definitions to the wider contexts of the *Social Determinants of Health (SDH),* the *International Classification of Functioning, Disability and Health (ICF*), and how these conceptual frameworks reflect the broad principles of *Systems Theory and Cybernetics*. It is suggested that psychosocial perspectives may inform our thinking about the management of voice disorders without detracting from traditional and established neurophysiological knowledge, or from direct approaches to voice therapy shown to be reasonably effective.

Approaching the same phenomena from different perspectives

> *'Everything that one thinks one understands has to be understood over and over again, in its different aspects, each time with the same new shock of discovery'* (Psychoanalyst, Marion Milner (2011) (p. 47) (as quoted by Australian author Helen Garner, Inaugural Stella Prize Ceremony, April 16, 2013).

There are probably several experiences in our student and professional lives that we recall as pivotal and transformational. One of these inspiring experiences occurred when I attended a speech pathology conference as a student, where the highly revered otolaryngologist, Dr Paul Moore, presented his remarkable video-filmed images of the vocal folds during phonation. The first images were taken using the flexible nasendoscope with plain light giving an excellent functional view of the vocal folds during phonation (Fig. 2.1). The second images were filmed using the rigid Stortz laryngoscope with a stroboscopic light source, providing an image of the mucosal wave on the surface of the vocal fold, and a level of detail surpassing anything the naked eye could normally see or the mind could imagine (Fig. 2.2).

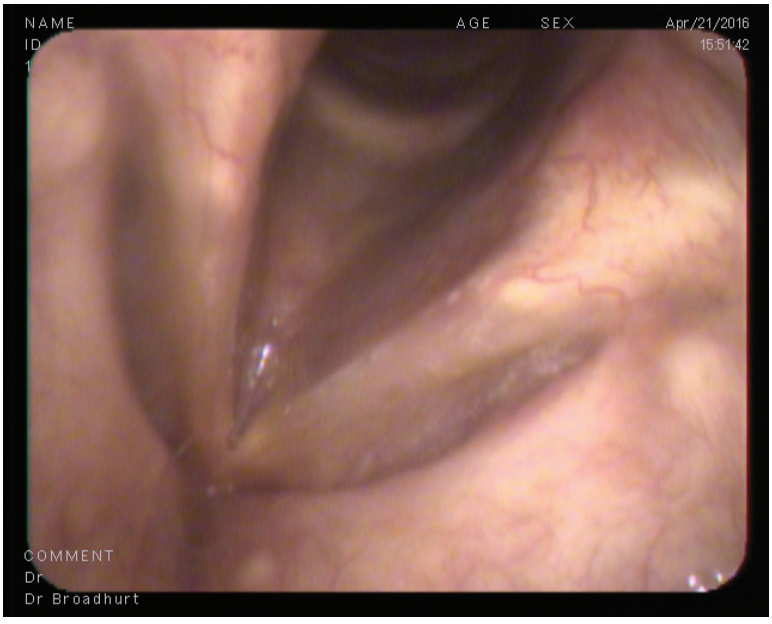

Fig. 2.1 Vocal folds with 'average' quality using flexible proximal chip endoscope (under plain light)

Image courtesy of Dr. Matthew Broadhurst, Laryngeal surgeon

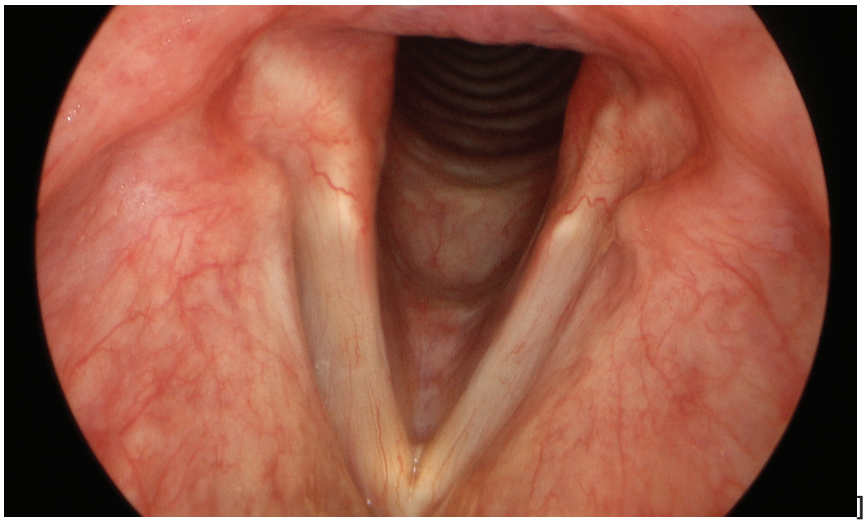

Fig. 2.2 Vocal folds using high definition magnified view of the rigid telescope (under stroboscopic light)

Image courtesy of Dr. Matthew Broadhurst, Laryngeal surgeon

Dr Moore's films highlighted how another lens or light source could produce new perspectives on what was essentially the same set of structures and series of vocal fold behaviours. These different ways of conducting laryngoscopic examination led the field in a new understanding of the normal and abnormal structure and function of the vocal folds, and established the foundations for the 'gold standard' of diagnostic assessment in voice analysis clinics around the world. For most otolaryngologists and speech pathologists there has been no going back, but even if there are situations where this, and even more sophisticated instrumentation such as *videokymography* is not readily accessible, or where there is a clinical choice not to seek these different perspectives, we know that the means to obtain these rich levels of detail do exist.

Another transformational experience occurred many years later when I attended a keynote address by the Welsh family therapist, Brian Cade, which was entitled "Stuckness, Unpredictability and Change" (1985). His main message was that in order for clinicians to be therapeutic and effective, it is crucial that they do not constrain themselves with the reification of one theoretical position or set of beliefs which predetermines their approaches to intervention. In quoting one of his own texts he said *"It is vital that we never believe what we believe, that way lies The Inquisition*". He also suggested the scientific principles underpinning the phenomena involved in holography might be an apt metaphor for therapists to consider.

About the author

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Adjunct Associate Professor Jan Baker is a speech pathologist and family therapist with post-graduate qualifications in psychotherapy. She studied classical singing through the Elder Conservatorium for over 10 years and has enjoyed performing as soloist in the mezzo soprano repertoire of recital and oratorio. Jan has specialized in the area of voice and counselling for over 40 years.

Jan was one of a small group involved in establishing the Australian Voice Association (1991) and she has been the president on two occasions. She has served as a member of the Scientific Committee – Voice for the International Association of Logopedics and Phoniatrics; a member of the Fellowships Committee for SPA; a member of Trust Fund and selection committee for scholarship offered by the International Federation of University Women in SA; and has been appointed as a Medical Expert for the Expert Review Panel of the Lifetime Support Authority by the Minister of Health.

Jan was the inaugural lecturer for the Bachelor of Applied Science in Speech Pathology at Sturt College, now Flinders University, and she has taught at undergraduate and post-graduate levels in Australia and overseas. After completing her PhD in 2006, Jan was appointed as Associate Professor and Co-ordinator for the Graduate Entry Master of Speech Pathology at Flinders University from 2007–2011.

She has presented at many national and international conferences seeking to integrate and share her knowledge in the practices of speech pathology, psychotherapy, family therapy and professional voice. Jan's clinical work, research interests and publications have been focused on the etiology and management of functional and psychogenic voice disorders, on working with the professional

singers, and understanding the psychological processes involved in the therapeutic relationship. Jan continues to teach nationally and internationally, and to supervise research in the areas of voice and counselling. She now offers services as Consultant in Voice and Supervision of Professional Practice to speech pathologists and mental health professionals throughout Australia and from overseas.

Jan is a Fellow of Speech Pathology Australia, and in May 2017, she was ratified as a Life Member of Speech Pathology Australia. This is the highest honour the Association can bestow on a member.