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INTRODUCTION

Singing and Education:

Learning to Sing and Singing to Learn

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This is an Accepted Manuscript of a book chapter published by Routledge (Taylor & Francis Group) in *The Routledge Companion to Interdisciplinary Research in Singing, Volume II: Education* (June 2020), available here:

<https://www.routledge.com/The-Routledge-Companion-to-Interdisciplinary-Studies-in-Singing-Volume/Gudmundsdottir-Beynon-Ludke-Cohen/p/book/9781138061149#:~:text=Book%20Description-,The%20Routledge%20Companion%20to%20Interdisciplinary%20Studies%20in%20Singing%20C%20Volume%20II,of%20communication%20with%20social%2C%20psychological%2C>

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Introduction Chapter; pages 1-12

Editors: Helga Rut Gudmundsdottir, Carol Beynon, Karen M. Ludke, and Annabel J. Cohen

ISBN: 9781138061149

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INTRODUCTION

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Prologue

In 1929, renowned Hungarian singing educator, Zoltan Kodály, noted that the expertise and quality of teaching by the singing teacher in schools was far more important than the opera maestro for imprinting the foundation of joy and value of singing for a lifetime. He said:

It is much more important who the singing master at Kisvarda (small village) is than who the director of the Opera House is, because a poor director will fail. (Often even a good one.) But a bad teacher may kill the love of music for thirty years from thirty classes of pupils (Halápy & MacNicol, 2004, p. 124).

The indelible lifelong influence that teachers have on their students, as boldly stated by Kodály, is further illustrated by the following personal vignette of one of the co-editors of this volume:

Born in Iceland in 1913, my grandmother always claimed that she could not sing. At the age of nine, her music teacher told her to “move her lips” when others were singing because she sang out of tune. She never sang again in the presence of other people, and no one in the family ever heard her sing. I do faintly remember her singing me a lullaby,

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but I later dismissed this as imagination because she never sang and strongly objected to singing when I asked. Still, she enjoyed listening to music on the radio at home.

However, at the age of 89 when her eyesight and her memory were gone, we heard her sing. Perhaps she forgot that she did not sing, a blessing of her memory loss. We discovered the wonderful yet tragic fact that she had a beautiful voice and sang perfectly in tune. Although she had forgotten who I was, she remembered all the songs from the radio that we had listened to in her kitchen when I was little. The best way to connect with her was to say: "Grandma, should we sing together?" She would reply with a radiant smile and happily join in my singing. While it made me sad that it took 80 years and memory loss to release my grandmother from the spell of this inconsiderate music teacher, it was encouraging to see the miracle of singing in my grandmother's final years after a lifetime of silence. Singing became her path to intimate connection with her loved ones (H. R. Gudmundsdottir, 25 February, 2019).

While this poignant incident occurred decades ago, stories of our own university students show that sadly such practices still occur today. Children are often told not only by teachers, but by peers, family members, and others that they are not good at something, and that feeling of inadequacy, shame, and failure may stay with them throughout their lives. We suspect that each of us can recall at least one such incident in our own lives. Telling a child (or adult for that matter) that s/he doesn't sing well often ends that individual's experiences with singing before they have ever had a chance to start, as with Helga's grandmother.

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Any reader of this volume might be seen as a teacher or expert by those with less experience, and this vignette forces us to think deeply about our teaching practices in relation to learning to sing and about singing. As a result, in this volume on singing and education, we explore the processes of singing and song learning, at various levels of formality. The volume also concerns the relationship between learning about, and through, singing. It focuses on the many ways of learning to sing, the variety of social contexts of singing, and some of the powerful lifelong educational effects of singing on acquisition of other types of knowledge and experience.

Historical context of singing education

Singing has been a basic subject discipline and an integral component of education since the earliest days of formal schooling. Renowned philosophers Socrates, Plato and Aristotle of the 4th and 3rd Centuries BCE have often been considered the first formal educators of Western civilization. Each founded a significant school of philosophy that is still held in high regard some 2000 years later, and each included aesthetics as a critical component of education. In most cities of ancient Greece, education aimed to produce (male) citizens who were able to contribute to society. Oration and rhetoric (including epic poetry, which was usually sung and accompanied by the flute or lyre), literacy, music theory, science and mathematical reasoning, athletics and military training were valued disciplines of study (Mark, 2013).¹

Aristotle (384-322 BCE) wrote that singing brings joy and because of that, young men [sic] should have training in singing (n.d., part V). He adds that “enough has been said to show that music has a power of forming the character and should therefore be introduced into the education of the young” (part V., p. 188). He then goes on to indicate that children should learn to sing and

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play music themselves, not merely to appreciate music. He concludes that learning to perform music is necessary, if only to become better judges of music, and he discusses which kinds of music, modes and instruments are suitable for children's education (part VI).

Throughout the centuries, singing as an opportunity to actively engage in making music has been both easily accessible and affordable. Singing has served not only to teach music per se, but as a means to learn through music and as a powerful means to indoctrinate political, religious, and/or cultural ideologies (Beynon, 2009; Cloonan & Johnson, 2002). In early Western-world schooling, formal education was organized for the élite, and historical accounts document the influence of church and state. For example, the Slavic people experienced a rich history of singing education that the Catholic church began as early as 800 AD and continued through several evolutions of church and state control throughout the centuries (even during Communist domination) as an integral part of the education curriculum. The Slavic singing curriculum promoted ethnic identity and culture for the people of the Czech Republic and Slovakia, instilling values, ideologies and pride in their heritage and culture even when their territories were dominated by the Austro-Hungarian Empire (Martinec, 2014).

Similar practices were replicated elsewhere across Europe. In Germany, singing was a required daily activity in the children's school curriculum as early as the 17th century (Kertz-Welzel, 2008). Documents from the Middle Ages also demonstrate that singing was considered an appropriate method for learning through singing, such as a foreign language. One of the first examples is found in 14th century treatises intended for English speakers learning French (Leach, 2005). Such examples show us that singing has a long history of being both an integral

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component of the curriculum as well as an effective tool for learning external to singing (as shown in Section 3 of this Volume) (Bernhard, 2002).

Education

Education is a complex term and as such can be difficult to define. Borrowed into English in the mid-16th century from the Latin verb *educare* (meaning “to train or to mold”), the Oxford English Dictionary provides two definitions: (1) “The process of receiving or giving systematic instruction, especially at a school or university” and (2) “An enlightening experience” (OED). The term “educate” also branches off into “training in or information on a particular subject” which came from the Latin word *educere* “to lead out” (OED), suggesting that the role of an expert who is an educator involves helping a person (student) to discover or learn something new. Bass and Good (2004) discuss this distinction from the point of view of Western education systems, arguing that these two meanings underlying the modern concept of education are, to some degree, at odds with each other.²

Informal and formal education

The second definition of “education” (emphasizing active learning guided by an expert) brings us closer to the contexts, circumstances and environments of learning that are the subject of much of the discussion in this volume. Learning can take place in many situations, and for the purposes of this volume we define learning to be the acquisition of new skills or knowledge and break down forms of learning into formal, nonformal, semi-formal, and informal.

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It is important to note that education occurs on a continuum from informal to formal, and each is respected as a valid and important form of effective learning. Traditionally formal learning refers to practices of education that are legislated and accredited, entailing defined curricula, with certified teachers, leading to some form of recognized accreditation for personal advancement, such as a diploma or degree (e.g., Sparks & O'Neill; Edwards & Martinec). At the other end of the spectrum is education that occurs in informal places such as at home or on the playground (e.g., Swanson). A child who observes a skipping song on the playground and then engages in the vocal and motor activities of singing and skipping is an example of informal learning (Malcolm, Hodkinson, & Colley, 2003). Semi-formal and nonformal learning fall on the continuum between formal schooling and informal learning and can occur in either structured or flexible situations. In these cases, the learner chooses to participate in a learning community for the purpose of acquiring or improving a skill, such as singing in a community choir, attending a lecture series, taking a cooking class, etc. Semi-formal learning (e.g., Cannady) occurs in loosely organized activities such as an interest club where there may not be experts leading the discussion/activities. Nonformal learning, on the other hand, includes situations where individuals choose to participate for learning and/or enjoyment, where people interact socially or individually, led by an expert but without need of certification (e.g., Lang & Beynon). The authors in this second volume on Singing and Education write from all four perspectives on the continuum. Section 1 focusses on informal learning while Section 2 and 3 tend toward nonformal and formal learning practices (as explained below). These are not hard and fast types of learning; rather each category of learning as described above often blends and overlaps into another.

Education as a topic has been researched for years from the perspective of a wide range of disciplines, and each has added critical insight. In part because of the multidisciplinary nature, we know that unpacking the concept of education is complex.¹ Education's outcome is learning and is therefore ubiquitous. It happens all around us, every moment of the day, in the informal activities of day-to-day living and through formal schooling.

Formal education is seen globally as a crucial means to improve the human condition.

UNESCO's Declaration for Education 2030 mandate is to ensure inclusive and equitable lifelong learning opportunities with a focus on improving our planet, prosperity, people, place, peace, and partnerships through access to education for all global citizens (2016). However, while learning occurs in structured formal environments, such as in schools and similar training institutions, it would be simplistic to assume that schools are the dominant venue of 'education.' Learning is a far more complex concept. Life experience plays an equally significant role in shaping learning – and in many cultures, is a preferred form of education – and occurs both planned and serendipitously in less rigid settings than schools. Hence, the chapters in this Volume focus on pedagogies and environments specifically related to learning about singing ranging from informal to formal. As such, the collection is both global, drawing on the insights of researchers and teachers from around the world, and multidisciplinary, encompassing studies of singing education from disciplines of psychology, sociology, and education, including health education, early childhood education, music education, language education, and even mathematics education as well as perspectives from philosophy, semiotics, and psycholinguistics.

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The 39 chapters in this second volume offer a rich and diverse collection and invite the reader to consider the multiple ways in which humans, from infancy to senior years, both *learn to sing* and *sing to learn*. Some sing for avocational purposes, some for vocational pursuit, and others to make sense of their world outside of an educational context. Individually, each chapter stands on its own and helps the reader, whether student, educator, professional musician, and/or researcher to consider the varied aspects of learning to singing and singing to learn.

Singing as an intercultural and social phenomenon

Singing is a social enterprise and is prevalent in some form or another in every culture in the world. The international aspect of this series on singing serves to enhance our understanding of singing in education by considering diverse practices from around the world. The authors in this volume report on studies of singing and education from their individual perspective, which collectively transforms into a global perspective as these studies emanate from 14 countries on five continents.

Learning to sing depends in large part on social learning and interaction with others. The motivation for this acquisition is the need for a channel of communication and requires social interaction. Joy and playfulness are often inherent in social communication making earliest and potentially later singing experiences pleasurable. In the social learning mode of singing acquisition, the precision of intervals is less important than melodic contour, words, word-sounds, rhythm, and overall form of songs.

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Singing, like any other activity, can be analysed into smaller but nevertheless complex components having various functions and whose study can lead to greater understanding of what it means to learn to sing. In their research, the authors in Volume 2 use a combination of quantitative, qualitative, mixed method, and narrative approaches to explore a specific problem within singing and education; each provides a richness and depth to this collection that leads to a view of singing as both an holistic entity and a collection of many moving parts.

Learning to Sing and Singing to Learn

According to music education philosopher David Elliott, the purpose of music education, including singing, reaches far beyond the learning of performance skills. “When music education is ethically guided – when we teach not only in music (i.e., to do music) [...] but also (and crucially) through music – we empower people to pursue what many philosophers throughout history consider to be the highest human values: a virtuous life, a life well lived, a life of well-being, flourishing, fulfillment, and constructive happiness for the benefit of oneself and others” (Elliott, 2012, p. 22). As Elliott explains so clearly: singing is a powerful tool for inculcating values, beliefs and ideologies. The following chapters direct our attention towards the contexts and processes of learning that explain different types of singing skills and singing proficiencies, including considerations of a) singing as complex skill acquisition, b) the social aspect of learning to sing, and c) learning models of singing.

Singing as complex skill acquisition

Variability in singing proficiency is often explained by individual differences in musical giftedness or natural talent. However, as the contents of this volume demonstrate, there are

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multitudes of contexts, rules and styles that dictate the way(s) that singing proficiency is achieved and also varied ways in which it can and should be evaluated. There are many types of singing from lullabies to *bel canto*, and we do not privilege one form of singing over another.

Viewing singing acquisition as a form of complex skill acquisition applies when the voice is regarded as a musical instrument. The singer needs to have command over this instrument in order to produce the correct pitches in the right sequence in time with other singers and/or accompanying instrumental music. Music cognition theorists propose thinking of singing skill as a sensory-motor loop (Dalla Bella, Berkowska, & Sowiński, 2015; Pfordresher, Halpern, & Greenspon, 2015; Tsang, Friendly & Trainor, 2011; see also Volume 1, chapters by Tsang & Trainor). That is, the vocal sound production during singing is constantly monitored and influenced by the auditory perception mechanism. In order to sing, humans must hear their own voice and dynamically adjust it in tune to the external vocal sounds. However, as the evidence in this volume highlights, the technical aspects of skill acquisition in learning to sing also depend on social contexts.

It is useful to consider singing skill acquisition from the combined perspective of two models of learning, social learning (Bandura, 1971) and complex skill acquisition (Ackerman, 1988) respectively. Complex skill acquisition takes over in singing particularly in social contexts when precision of pitch accuracy (e.g., for harmonizing or singing in perfect unison) is highly regarded. The acquisition of singing as a social and complex skill learning concerns understanding and mastering the principles that govern the singing of a given context, tradition and culture. While some singers (e.g., those who take private lessons, study with a guru, or are

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lifelong dedicated members of a professional choir) may pursue skill acquisition in singing at its highest formal level of performance, other individuals may never enter the phase of singing as a complex skill acquisition - a discrepancy that helps to explain the large individual differences in singing skill found anecdotally and in the research literature (see e.g., Dalla Bella, Giguère, & Peretz, 2007; Davies, & Roberts, 1975; Leighton & Lamont, 2006).

The interactive model of learning to sing through a balance of social learning and complex skill learning suggests that singing can be viewed through this dual model and that different contexts dictate which aspect is dominant, either the complex skill learning or the social skill learning. In effect, the two models interact with each other in most situations of singing skill acquisition. For example, learning to sing naturally, in a particular context, is a process that seems to be easily applied to a social-skill learning model. Nevertheless, in order to achieve proficiency in the singing style and music-structural aspects of any given culture, a certain degree of complex skill learning is necessary.

The continuum of natural/informal to formal learning

The first section in this volume is mostly concerned with natural contexts of singing and song learning, while the second and third sections explore more formal and nonformal structures for singing whether for performance or to learn about something other, through singing. The use of the word “natural” could be seen as problematic as it suggests that other learning or other contexts are somehow “unnatural”. Although “informal” contexts of learning can be deemed as “natural” this does not suggest that some complex technical skills cannot be acquired through natural processes of imitation and playful means in a formal context. For example, children in

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English-speaking countries, as young as 18 months, can often sing the diverse 26 letters of the English-language alphabet because it is sung in rhyme to the favourite childhood tune of *Baa, Baa Black Sheep* (which originated with the French song, *Ah! vous dirai-je, maman* [Ah, I wish I had told you, Mom]).

The chapters in the second section of the volume focus on singing primarily in formal contexts where singer benefits from the instruction of a trained professional in the voice studio or the choral environment. Some students may be required to sing in the choir for credit and others may sing in the choir as part of an avocational choir learning community. Both benefit from an expert teacher and learners willing to commit to learning to sing at a deep level.

Learning through singing: A natural, social means of making connections

The third and final section of this volume compiles examples of how singing and listening to songs can be a vehicle for various types of learning other than singing as a discipline. Most of the chapters involve the learning of skills in domains other than singing, through the act of singing which augments learning in other domains than singing. This idea, that listening to songs and singing has the potential to enhance learning in various other domains, has been debated for decades. Why should education through singing be considered different from education through other skills like gymnastics, dance, drama, or swimming? All of these are physical skills learned in a human social context, like singing, albeit these are rarely considered as educational aids.

What seems to stand out from the different accounts of the use of singing in educational contexts in this Volume is the deeply rooted idea of singing as a natural human and social phenomenon,

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which is strongly supported by the many examples in the first section. Not only is the act of singing seen as a natural phenomenon in human life, but the processes of singing seem to connect the human cognition and physical being in a unique way. Furthermore, the proximity of singing processes to language processes may lend the act of singing a unique role in accessing and augmenting cognitive processes involved in learning (see Christiner & Reiterer, 2015, for an example related to foreign language accent imitation).

Singing can be a powerful motivational tool for sparking interest and directing attention to subjects and domains that may not be as appealing when stripped of a musical context. Although singing can be “the spoonful of sugar that helps the medicine go down,” it is also apparent that stronger forces are at play when singing skills enhance learning and retention across different cognitive domains.

Introduction of Each Part

This volume on education, and more specifically learning, can be summarized as focussing on three aspects of learning: i) the natural aspects of learning about singing; ii) learning to sing in formal environments; and iii) learning through singing. As noted above, the first section of this book provides an overview of the research on singing acquisition from early in life and provides a myriad of examples of how singing is learned naturally in various social and cultural contexts. The second section concentrates on expert knowledge about the learning of singing in nonformal and formal educational contexts for purposes of artistic excellence in performance. Examples of vocal pedagogy from widely different musical cultures further contribute to the enhanced understanding of formal learning of singing with content discussions about pedagogical insights

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ranging from young to elderly choral singers. The third and last section provides examples of the applied effects of singing as a method of instruction or a vehicle of learning, or simply put, learning through singing. Acquisition of elements such as phonetics and phonology, other aspects of language, and cognitive and academic skills are reportedly facilitated through singing-based methods, which may be particularly appropriate and effective during childhood. Singing is seen as a natural human expression which can enhance learning processes and elevate learning experiences through tapping into innate paths of motivation.

In summary, and returning to the metaphor of the continuum raised above, the first section in this volume, on the one hand, is concerned with natural and informal contexts of singing and song learning, while on the other hand, the second and third sections explore more formal structures and contexts for learning to sing and using singing as a tool. In this section, we see how listening to songs and singing, even if extra-curricular to learning to sing *per se*, supports learning in other disciplines. (Each section in the volume is introduced in greater detail as a separate chapter by its co-editor.)

Section 1: Learning to sing naturally

Following an introductory overview, Section 1 opens with chapter by Matt Swanson that provides a theoretical review of informal singing practices, emphasizing children's informal singing through the lens of social learning and play theory. In a review on empirical studies of how singing is learned early in life by Helga Rut Gudmundsdottir, the theory of complex skill acquisition is added to the social learning theory, creating a combined model of the two theories.

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Further focus on children's singing is found in the writings of Perdue and Campbell who analysed the content of children's spontaneous singing in various settings.

In two consecutive chapters, informal song learning of Brazilian and Tanzanian children is explored and analyzed by Beatriz Ilari, and Kedmon Mapana, followed by analyses of internet-based resources of children's singing by J. Christopher Roberts. More formal contexts of children's song learning are described in highly different contexts of singing in South Africa by Andrea Emberly and Thomas Pooley. The former describes a rural tradition aimed at young women being prepared for adulthood through song, while the other describes singing in a more traditional school system. The last three chapters of the section investigate singing in adulthood in formal and less formal contexts. Annabel Cohen, Christopher Robison, Quincy Beck, and Michael Speelman report on a study about the antecedents to a career as a singer-songwriter. Kimberley Cannady looks at the semi-formal transmission of Icelandic traditional singing and Esther Mang explores the vocal self-image of Chinese adults with and without formal training in singing.

Section 2: Formal teaching of singing

The formal teaching of singing is approached from multiple perspectives in the private studio and in the choral setting, providing significant insights. In each of these chapters, the essence of learning to sing always comes back to the importance of the relationship between the learner and the vocal pedagogue as expert, yet the necessity to understand the individualized nature of learning even when in the formal environment.

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Issues concerning learning in the private studio setting and the necessity for informed practice are introduced first by Lynn Holding as she explores science-informed vocal pedagogy. We then turn to breaking down the components of singing and learning singing into specific components, such as breathing, articulation, performance practices, etc. Darryl Edwards, singing expert, and Jennifer Swan, dance expert, co-examine breathing practices in the training of professional opera singers as they relate to breathing in the athleticism of dance and movement. Vaike Kiik-Salupere and Jaan Ross write about the implications of performance anxiety for singers while the perspectives of singers and vocal students are given careful consideration in the self-studies of Jane Ginsborg. Subsequently, Pilar Lirio explores innovative methods of using the International Phonetic Alphabet in singing, while Hans Utter's chapter focuses on the oral transmission of classical Indian vocal music training.

From the issues concerning the training of professional singers, the focus moves towards vocal training in formal and nonformal choral settings. A chapter by Darryl Edwards and Jakub Martinec examines the differences between solo and choral singing techniques and instruction, recognizing the tensions that can evolve. They emphasize the necessity for private teachers and choral teachers to work reciprocally to ensure the best possible learning situation for the singing student who may be caught in the middle. This is followed by thorough reviews and a summary of the pertinent hot issues in the contemporary literature on choral pedagogies by Jason Noble. The following chapters look at gender and age-related issues in voice training. Jennifer Beynon-Martinec and Jakub Martinec, experts in the field of adolescent male singing, review the literature and provide a pedagogical model for working with the "whole" voice, rather than limiting singing education to the changing voice. Vindya Khare's chapter provides an overview of the

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hormonal and aging process of the female singing voice. James Sparks and Susan O'Neill examine a pedagogical framework for increasing the level of engagement in singing among youth. Carol Beynon and Jennifer Lang close this section discussing pedagogical strategies for the aging voice with implications for working with seniors' choirs.

Section 3: Learning through singing

The third and final section of this second volume compiles varied examples of how listening to songs and singing can be used as a tool for learning in other domains. Many chapters involve the learning of new information and skills through listening to songs and the act of singing.

Although it is not fully understood how these singing methods transfer to enhance learning and memory retention in other domains, there is growing recognition that they can support educational aims in a wide range of other subject areas. Thus, the chapters within this final section of the book focus on the applied effects of singing when included as methods of instruction and as alternative and creative means to achieve the outcomes of learning. Examples show that skills and concepts in subjects ranging from mathematics to reading and literacy, phonetics, and foreign language skills can be facilitated through singing-based learning methods.

Martin Gardner opens Section Two with a chapter on various academic benefits of singing instruction with children, with empirical evidence that can explain the effects of such training on mental skill development, particularly for those children who most need a "boost". Several of the chapters that follow report on projects that involve singing as a method for improving language learning. Nora Kulset looks at singing as a way to improve second language learning among immigrant preschoolers in Norway, while Karen Ludke and Arla Good examine singing as a

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second language learning tool in two very different primary and secondary schools. Henrietta Lempert examines the efficiency of singing based methods on the learning of grammar in a novel language, whereas Sandra Cornaz and Diane Caussade review methods for teaching phonetics through singing and music. Kathy Liperote considers the use of singing and audiation to support instrumental music teaching. June Countryman and Martha Gabriel explore young children's improvisational singing alongside spontaneous, playful movement. George Gadanidis and Ricardo Scucuglia close this section with a discussion of how to make mathematics special in part through the composition of new songs.

This volume concludes with a chapter that consolidates the evidence gleaned from our authors. A biopsychosocial approach as well as new approaches to singing theory offer different ways to examine the stages and patterns we can observe in singing development, as well as cultural differences and characteristics of singing as a phenomenon.

Considering a biopsychosocial approach to singing and education

There is no doubt that singing is complex; the voice is an internal, individualized musical instrument and for production requires the involvement of the total person, whether it is the child in the schoolyard improvising or an opera singer on the stage using no amplification to perform powerfully in a massive concert hall over an 80-piece symphony orchestra.

Originating in medicine (Engel, 1977) and later applied to clinical psychology and other fields, the biopsychosocial model takes into account the complex interactions that exist within an individual, including biological, psychological, and social factors, and which can affect their

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health and well-being. As introduced in Volume 1 and continuing through Volume 3, this model may deepen our understanding of the complexity of the factors influencing the relation between singing and education, specifically learning to sing and concomitantly the deeper complexity of teaching singing. The biopsychosocial model includes three clusters that influence human behaviors, practices and health, most notably: biological (inherited), psychological (e.g., personality, motivation), and sociocultural (experiential), and draws attention to the dozens of factors that can influence why, when, whether, and what someone sings.

With respect to music education and biopsychosocial approaches, Marjanen (2009) describes an approach to pedagogical goal-setting which involves the holistic integration of specific musical, cognitive, socio-emotional, psychomotor and aesthetic goals tapping into biological, psychological, and sociocultural factors simultaneously. Using this approach, a specific musical goal such as accurate rhythm reproduction might be linked with a cognitive skill such as rhythmic memory and then connect with the motor and social skills of synchronised hand-clapping in a group, followed by a group discussion of the aesthetic or emotional effects of using different rhythms and speeds. However, for any of this learning to occur, one must consider the critical relevance of the process and the context.

Process and context: Time and space

This biopsychosocial framework is reflected in each chapter of the volume but is embedded in a framework of process and context. The Process is concerned with the “how” and “when” we learn to sing, forcing us to consider the details and applications of methods, techniques, and age

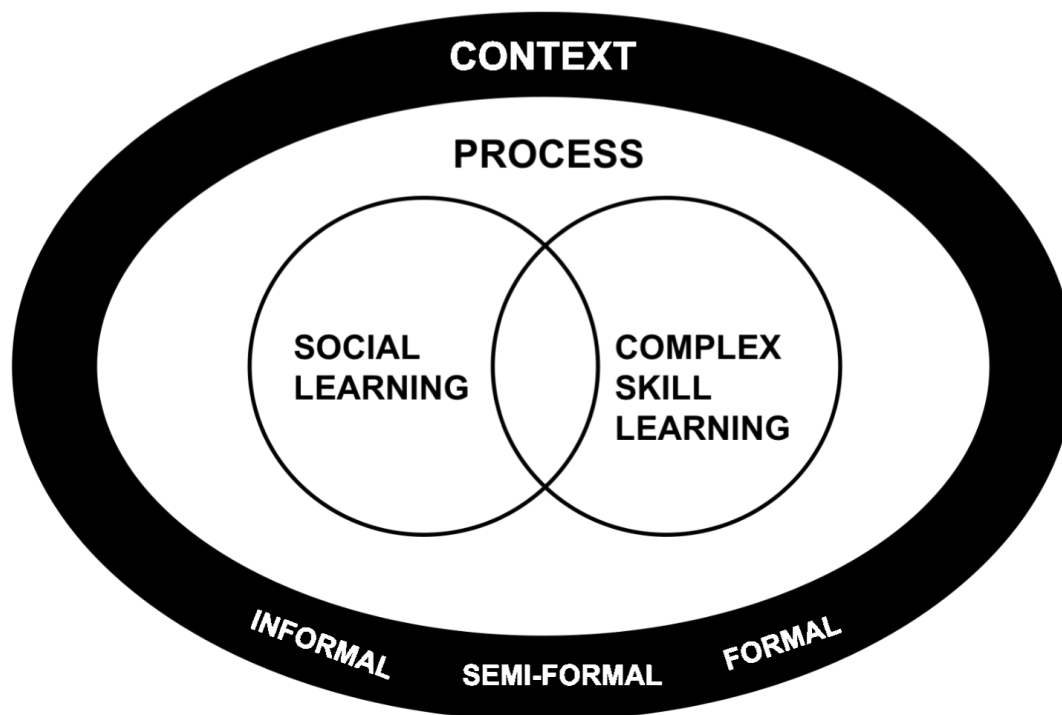
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and/or experience of the singer to produce various types of singing. The Context, on the other hand requires us to ask the “what”, “where” and “why” of singing, specifically as it pertains to the culture, the community, and the traditions of certain styles of singing.

Another way to view the Process is as the element of Time while the Context is seen as the element of Space. The elements of Time and Space are also explored in the other two volumes of these series, wherein Volume 1 on Singing Development focuses on what evolves with Time (diachronic and synchronic) and the content of Volume 3 on Singing and well-being also considers these dimensions whereby Well-being arises by bringing persons together in singing and also creating changes on time scales of various orders, from the extremely short to the long-term. Therefore, this present volume on Singing and Education seems to combine the two dimensions of Time and Space through the forces of the Process and the Context of singing.

A model of the learning of singing is proposed in Figure I.1, depicting the Process of learning to sing over Time within the Space of Contexts that can be ranging in type of contexts from informal, or semi-formal to formal. Within the learning processes of singing there are two interacting theories of learning, i.e. the Social learning and the Complex skill learning theories shown.

Fig. I.1 The interacting process and the context of singing and learning



Singing Education to Develop a Complex Social Skill

The focus on singing and education considers both social learning and complex skill learning as they relate to singing, and acknowledges that these are both inter- and intradependent.² Learning to sing can arise without formal training through informal social experience with others, while formal and nonformal training entails interaction between instructor and pupil(s) usually in a closed environmental structure. Besides individual learning acquisition in singing per se, singing can also facilitate other kinds of learning, be it academic content such as languages, mathematics or the sciences.

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The role of ‘teacher’ can be held formally by an expert or informally in everyday settings by a parent, a sibling, a peer, a book, even technology - each of which can be a means to scaffold singing skills through singing to a young child, depending on circumstance, traditions, and situations that arise (as described in Section 1). Or, the instruction can take place in highly structured learning environments intended for enhancing singing that range from the private studio to the singing classrooms and choral learning in choirs.

In this introductory chapter we have considered (1) the many ways we learn to sing, (2) the variety of social contexts of singing, and (3) some of the powerful effects of singing on human learning and being. We close as we began – by returning to the opening vignette, the story of Helga’s grandmother’s lifelong loss of singing at only 9 years of age and the enduring, permanent shame she felt in being a failure in singing. Education should enlighten and transform personal meaning and individual identity. For their part, educators must be enlightened in principles of learning, which is precisely what the authors in this volume, although varied in discipline, explain through their studies. Most importantly, while her grandmother’s story portrays one aspect of negative learning, it also shows how indomitable the learning spirit is within us and can be seen as a lifelong endeavor. Even at the end of life and in late-stage dementia, this strong woman proved the benefits of learning to sing and used this as the vehicle to communicate even when her illness had robbed her of the ability to communicate.

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Endnotes

1. For further information, see https://www.ancient.eu/Greek_Music/ and see D'Angour, 2013 about Plato and play: <https://eric.ed.gov/?id=EJ1016076>
2. Bass & Good (2004). <https://eric.ed.gov/?id=EJ724880>
3. For a definition and detailed descriptions of the terms multidisciplinary and interdisciplinary as used in the *Routledge Companion to Interdisciplinary Studies in Singing*, please refer to the Series's Editor's Preface to this volume, and introductory chapters of Volumes 1 and 3.
4. We define interdependent as an open system of relationships where learning singing, either informally or formally, requires interactions with others in varied environments. On the other hand, intradependent reflects a closed system of learning between the individual and a teacher or choir.